
Global Services Command Reference

Command Hierarchies

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Note: For information on egress multicast group commands, refer to the *Layer 2 Services Guide*.

Customer Commands

```

config
  — service
    — [no] customer customer-id [create]
      — contact contact-information
      — no contact
      — description description-string
      — no description
      — multi-service-site customer-site-name
      — no multi-service-site customer-site-name
        — assignment {port port-id | card slot-number}
        — no assignment
        — description description-string
        — no description
        — egress
          — [no] agg-rate
            — rate {max | rate}
            — no rate
            — [no] limit-unused-bandwidth
            — [no] queue-frame-based-accounting
          — policer-control-policy policy-name [create]
          — policer-control-policy

```

Command Hierarchies

- [no] **scheduler-override**
 - [no] **scheduler** *scheduler-name*
 - **parent** [weight *weight*] [cir-weight *cir-weight*]
 - **no parent**
 - **rate** *pir-rate* [cir *cir-rate*]
 - **no rate**
 - **scheduler-policy** *scheduler-policy-name*
 - **no scheduler-policy**
- **ingress**
 - **policer-control-policy** *policy-name* [create]
 - **policer-control-policy**
 - [no] **scheduler-override**
 - [no] **scheduler** *scheduler-name*
 - **parent** [weight *weight*] [cir-weight *cir-weight*]
 - **no parent**
 - **rate** *pir-rate* [cir *cir-rate*]
 - **no rate**
 - **scheduler-policy** *scheduler-policy-name*
 - **no scheduler-policy**
 - **tod-suite** *tod-suite-name*
 - **no tod-suite**
- [no] **phone** *phone-number*

MRP Commands

- config
 - service
 - **mrp**
 - [no] **mrp-policy** *policy-name*
 - **description** *description-string*
 - **no description**
 - **scope** {exclusive | template}
 - **no scope**
 - **default-action** {block | allow}
 - [no] **entry** *entry-id*
 - **description** *description-string*
 - **no description**
 - [no] **match**
 - [no] **isid** *value* | **from** *value* **to** *higher-value*
 - **action** {block | allow | end-station}
 - **no action**
 - **copy** **mrp-policy** *source-name* **to** *dest-name*
 - **renum** *old-entry-id* **to** *new-entry-id*

Service System Commands

- config
 - service
 - system
 - **bgp-auto-rd-range** *ip-addr* **comm-val** *1-65535* **to** *1-65535*
 - **no bgp-auto-rd-range**

Oper Group Commands

```

config
— service
— oper-group group-name [create]
— no oper-group group-name
— bfd-enable interface interface-name dst-ip ip-address [service service-id]
— no bfd-enable
— hold-time
— group up time | no group up
— group down time | no group down

config
— service
— ies service-id (See the Layer 3 Services Guide)
— [no] interface ip-int-name
— monitor-oper-group name
— no monitor-oper-group name

config
— service
— vpls service-id (See the Layer 2 Services Guide)
— [no] interface ip-int-name
— monitor-oper-group name
— no monitor-oper-group

config
— service
— vprn service-id (See the Layer 3 Services Guide)
— site name [create]
— monitor-oper-group name
— no monitor-oper-group name

```

Pseudowire (PW) Commands

```

config
— service
— pw-routing
— [no] block-on-peer-fault
— boot-timer secs
— no boot-timer
— local-prefix local-prefix [create]
— no local-prefix local-prefix
— advertise-bgp route-distinguisher rd [community community]
— no advertise-bgp route-distinguisher rd
— path name [create]
— no path name
— hop hop-index ip-address
— no hop hop-index
— [no] shutdown
— retry-count [10..10000]
— no retry-count

```

```

— retry-timer secs
— no retry-timer
— spe-address global-id:prefix
— no spe-address
— [no] static-route route-name

config
— service
— [no] pw-template policy-id [use-provisioned-sdp] [create]
— accounting-policy acct-policy-id
— no accounting-policy
— [no] auto-learn-mac-protect
— [no] block-on-peer-fault
— [no] collect-stats
— [no] controlword
— [no] disable-aging
— [no] disable-learning
— [no] discard-unknown-source
— egress
— filter ipv6 ipv6-filter-id
— filter ip ip-filter-id
— filter mac mac-filter-id
— no filter [ip ip-filter-id] [mac mac-filter-id] [ipv6 ipv6-filter-id]
— mfib-allowed-mda-destinations
— [no] mda mda-id
— qos network-policy-id port-redirect-group queue-group-name [instance
instance-id]
— no qos
— [no] force-qinq-vc-forwarding
— [no] force-vlan-vc-forwarding
— hash-label [signal-capability]
— no hash-label
— igmp-snooping
— [no] fast-leave
— import policy-name
— no import
— last-member-query-interval 1/10 seconds
— no last-member-query-interval
— max-num-groups max-num-groups
— no max-num-groups
— query-interval seconds
— no query-interval
— query-response-interval seconds
— no query-response-interval
— robust-count robust-count
— no robust-count
— [no] send-queries
— version version
— no version
— ingress
— filter ipv6 ipv6-filter-id
— filter ip ip-filter-id
— filter mac mac-filter-id
— no filter [ip ip-filter-id] [mac mac-filter-id] [ipv6 ipv6-filter-id]
— qos network-policy-id fp-redirect-group queue-group-name instance
instance-id

```

- **no qos**
- **l2pt-termination** [cdp] [dtp] [pagp] [stp] [udld] [vtp]
- **no l2pt-termination**
- **limit-mac-move** {blockable | non-blockable}
- **no limit-mac-move**
- [no] **mac-pinning**
- **max-nbr-mac-addr** *table-size*
- **no max-nbr-mac-addr**
- **restrict-protected-src** alarm-only
- **restrict-protected-src** [discard-frame]
- **no restrict-protected-src**
- [no] **sdp-exclude** *group-name*
- [no] **sdp-include** *group-name*
- **split-horizon-group** *group-name* [residential-group]
- **no split-horizon-group**
 - [no] **auto-learn-mac-protect**
 - **description** *description-string*
 - **no description**
 - **restrict-protected-src** alarm-only
 - **restrict-protected-src** [discard-frame]
 - **no restrict-protected-src**
 - [no] **restrict-unprotected-dst**
- **stp**
 - [no] **auto-edge**
 - [no] **edge-port**
 - **link-type** {pt-pt | shared}
 - **no link-type** [pt-pt | shared]
 - **path-cost** *sap-path-cost*
 - **no path-cost**
 - **priority** *stp-priority*
 - **no priority**
 - [no] **root-guard**
 - [no] **shutdown**
- **vc-type** {ether | vlan}
- **vlan-vc-tag** *0..4094*
- **no vlan-vc-tag**

SDP Commands

```

config
  — service
    — sdp sdp-id [gre | mpls | l2tpv3] [create]
    — no sdp sdp-id
      — accounting-policy acct-policy-id
      — no accounting-policy
      — [no] adv-mtu-override
      — [no] allow-fragmentation
      — [no] bgp-tunnel
      — binding
        — port [port-id | lag-id]
        — no port
        — pw-port pw-port-id [vc-id vc-id] [create]
          — description description-string
          — no description
          — egress
            — [no] shaper int-dest-id int-dest-id
              — pw-sap-secondary-shaper secondary-shaper-name
              — no pw-sap-secondary-shaper
              — vport vport-name
              — no vport
            — monitor-oper-group group name
            — no monitor-oper-group
          — encap-type {dot1q | qinq}
          — no encap-type
          — [no] shutdown
          — vc-type {ether | vlan}
          — no vc-type
          — vlan-vc-tag vlan-id
        — no vlan-vc-tag
        — no pw-port pw-port-id
      — booking-factor percentage
      — no booking-factor
      — class-forwarding [default-lsp lsp-name]
      — no class-forwarding
        — [no] enforce-diffserv-lsp-fc
        — fc {be | l2 | af | l1 | h2 | ef | h1 | nc} lsp lsp-name
        — no fc {be | l2 | af | l1 | h2 | ef | h1 | nc}
        — multicast-lsp lsp-name
        — no multicast-lsp
        — [no] shutdown
      — [no] collect-stats
      — description description-string
      — no description
      — far-end ip-address | ipv6-address {node-id node-id} [global-id global-id]
      — no far-end
      — keep-alive
        — hello-time seconds
        — no hello-time
        — hold-down-time seconds
        — no hold-down-time
        — max-drop-count count

```

- **no max-drop-count**
- **message-length** *octets*
- **no message-length**
- **[no] shutdown**
- **timeout** *timeout*
- **no timeout**
- **[no] ldp**
- **local-end** *ip-address|ipv6-address*
- **no local-end**
- **[no] lsp** *lsp-name*
- **metric** *metric*
- **no metric**
- **[no] mixed-lsp-mode**
 - **[no] revert-time** *seconds* | **infinite**
- **network-domain** *network-domain-name*
- **no network-domain**
- **path-mtu** [*bytes*]
- **no path-mtu** *bytes*
- **pbb-etype** [0x0600..0xffff]
- **no pbb-etype**
- **[no] sdp-group** *group-name*
- **[no] shutdown**
- **signaling** [**off** | **tldp**|**bgp**]
- **source-bmac-lsb** *MAC-lsb control-pw-vc-id vc-id*
- **no source-bmac-lsb**
- **[no] sr-isis**
- **[no] sr-ospf**
- **tunnel-far-end** *ip-address*
- **no tunnel-far-end** [*ip-address*]
- **vlan-vc-etype** *0x0600..0xffff*
- **sdp-group**
 - **group-name** *group-name value group-value*
 - **no group-name** *group-name*

SAP Commands

```

config
  — service
    — apipe (See the Layer 2 Services Guide)
      — sap sap-id [create] [no-endpoint]
      — sap sap-id [create] endpoint endpoint-name
      — no sap sap-id
    — epipe (See the Layer 2 Services Guide)
      — sap sap-id [create] [no-endpoint]
      — sap sap-id [create] endpoint endpoint-name
      — no sap sap-id
    — fpipe (See the Layer 2 Services Guide)
      — sap sap-id [create] [no-endpoint]
      — sap sap-id [create] endpoint endpoint-name
      — no sap sap-id
    — ies (See the Layer 3 Services Guide)
      — sap sap-id [create]
      — no sap sap-id
    — ipipe (See the Layer 2 Services Guide)
      — sap sap-id [create] [no-endpoint]
      — sap sap-id [create] endpoint endpoint-name
      — no sap sap-id
    — vpls (See the Layer 2 Services Guide)
      — sap sap-id [split-horizon-group group-name] [create]
      — no sap sap-id
    — vprn (See the Layer 3 Services Guide)
      — sap sap-id [create]
      — no sap sap-id
  — system
    — ethernet
      — [no] new-qinq-untagged-sap
  
```

Ethernet Ring Commands

```

config
  — eth-ring ring-id
  — no eth-ring
    — compatible-version value
    — no compatible-version
    — description long-description-string
    — no description
    — guard-time time
    — revert-time time
    — ccm-hold-time {[down down-timeout] [up up-timeout]}
    — no ccm-hold-time
    — [no] rpl-node {owner | nbr}
    — node-id mac
    — [no] sub-ring {virtual-link | non-virtual-link}
      — [no] interconnect {ring-id ring-id | vpls}
        — [no] propagate-topology-change
    — path {a | b} [{port-id | lag-id} raps-tag qtag1[.qtag2]]
    — no path {a | b}
      — description long-description-string
  
```

- **no description**
- **[no] rpl-end**
- **eth-cfm**
 - **[no] mep** *mep-id* **domain** *md-index* **association** *ma-index*
 - **[no] ccm-enable**
 - **[no] ccm-ltm-priority** *priority*
 - **[no] eth-test-enable**
 - **test-pattern** {**all-zeros** | **all-ones**} [**ccm-enable**]
 - **no test-pattern**
 - **bit-error-threshold** *bit-errors*
 - **mac-address** *mac-address*
 - **mac-address**
 - **one-way-delay-threshold** *time*
 - **[no] shutdown**
 - **[no] shutdown**

ETH-CFM Configuration Commands

- ```
config
 — eth-cfm
 — domain md-index [format {dns | mac | none | string}] name md-name level level
 — domain md-index
 — no domain md-index
 — association ma-index [format {icc-based| integer | string | vid | vpn-id}] name ma-name
 — association ma-index
 — no association ma-index
 — auto-mep-discovery
 — [no] auto-mep-discovery
 — [no] bridge-identifier bridge-id
 — id-permission {chassis}
 — no id-permission
 — mhf-creation {default | none | explicit | static}
 — no mhf-creation
 — mip-ltr-priority priority
 — no mip-ltr-priority
 — vlan vlan-id
 — no vlan
 — ccm-interval {10ms | 100ms | 1 | 10 | 60 | 600}
 — no ccm-interval
 — [no] ccm-hold-time
 — ccm-hold-time
 — remote-mepid mep-id remote-mac {unicast-da | default}
 — [no] remote-mepid mep-id
 — redundancy
 — mc-lag
 — [no] propagate-hold-time seconds
 — [no] standby-mep-shutdown
 — slm
 — [no] inactivity-timer timeout
 — system
 — grace-tx-enable
```

## ETH Tunnel Commands

```

config
 — eth-tunnel tunnel-index
 — no eth-tunnel tunnel-index
 — ccm-hold-time {down down-timeout | up up-timeout}
 — no ccm-hold-time
 — description long-description-string
 — no description
 — ethernet
 — encap-type {dot1q|qinq}
 — no encap-type
 — mac ieee-address
 — no mac
 — lag-emulation
 — access
 — adapt-qos {distribute | link | port-fair}
 — no adapt-qos
 — [no] per-fp-ing-queuing
 — path-threshold num-paths
 — no path-threshold
 — path
 — control-tag qtag[.qtag]
 — no control-tag
 — description description-string
 — no description
 — eth-cfm
 — [no] mep mep-id domain md-index association ma-index
 — [no] ccm-enable
 — ccm-ltm-priority priority
 — no ccm-ltm-priority
 — ccm-padding-size ccm-padding
 — no ccm-padding-size
 — [no] control-mep
 — description description-string
 — no description
 — [no] eth-test-enable
 — bit-error-threshold bit-errors
 — test-pattern {all-zeros | all-ones} [crc-enable]
 — no test-pattern
 — low-priority-defect {allDef|macRemErrXcon|remErrXcon|errXcon|xcon|noXcon}
 — mac-address mac-address
 — no mac-address
 — one-way-delay-threshold seconds
 — [no] shutdown
 — member port-id
 — no member
 — precedence {primary|secondary}
 — [no] shutdown
 — protection-type {g8031-1to1|loadsharing}
 — revert-time time
 — no revert-time
 — [no] shutdown

```

## Show Commands

```

show
 — service
 — customer [customer-id] [site customer-site-name]
 — l2-route-table [detail] [bgp-ad] [multi-homing] [bgp-vpls] [bgp-vpws] [all-routes]
 — id id base
 — bgp
 — provider-tunnel
 — sdp
 — id sap base
 — id service vpls-group
 — id service vpls-group vpls-group-id non-template-saps
 — id mac-notification
 — id mrp
 — id sap mrp
 — id mvrp vlan
 — id mvrp vlan detailed
 — isid-using [ISID]
 — l2-route-table [detail] [bgp-ad] [multi-homing] [bgp-vpls][bgp-vpws] [all-routes]
 — sap-using
 — sap-using [msap] [dyn-script] [description]
 — sap-using [sap sap-id] [vlan-transaction | anti-spoof]
 — sap-using app-profile app-profile name
 — sap-using authentication-policy policy-name [msap]
 — sap-using encap-type encap-type
 — sap-using eth-cfm collect-lmm-stats [sap sap-id]
 — sap-using eth-ring [ring-id eth-ring-id]
 — sap-using eth-tunnel [tunnel-id eth-tunnel-id]
 — sap-using ingress|egress atm-td-profile id-profile-id
 — sap-using ingress|egress filter filter-id
 — sap-using ingress|egress qos-polify qos-policy-id [msap]
 — sap-using interface ip-address|ip-int-name [msap]
 — sap-using mc-ring peer ip-address ring sync-tag
 — oper-group group-name
 — pw-routing {local-prefix|static-route|paths|all}
 — pw-routing route-table [all-routes]
 — pw-routing route-table summary
 — pw-sap-using
 — pw-template
 — saii-type2-using global-id[:prefix[:ac-id]]
 — sdp sdp-id pw-port [pw-port-id]
 — sdp [consistent|inconsistent|na] egressifs
 — sdp sdp-id keep-alive-history
 — sdp far-end ip-address keep-alive-history
 — sdp [sdp-id] [detail]
 — sdp far-end ip-address [detail]
 — sdp-group group-name
 — sdp-group-using
 — sdp-group [sdp-id[:vc-id] | far-end ip-address]
 — sdp-using [sdp-id[:vc-id] | far-end ip-address]
 — service-using [epipe] [ies] [vpls] [vprn] [mirror] [b-vpls] [i-vpls] [m-vpls] [apipe] [fpipe]
 [ipipe] [sdp sdp-id] [customer customer-id]

```

- **system**
  - **bgp-auto-rd**
  - **bgp-route-distinguisher**
- **taii-type2-using** *global-id[:prefix[:ac-id]]*
- **template**
  - **vpls-template**
  - **vpls-template** *template-name*
  - **vpls-template-using** *template-name*
  - **vpls-sap-template**
  - **vpls-sap-template** *template-name*
  - **vpls-sap-template-using** *template-name*
- **eth-tunnel** {**aps**|**status**}
- **eth-tunnel** *tunnel-index* [*path path-index*] [**detail**]
- **eth-tunnel**
- **eth-cfm**
  - **association** [*ma-index*] [**detail**]
  - **cfm-stack-table** [**port** [*port-id* [*vlan vlan-id*]]]**sdp** *sdp-id[:vc-id]*][**level** 0..7] [**direction** **up** | **down**]
  - **cfm-stack-table**
  - **cfm-stack-table** **port** [ {**all-ports** | **all-sdps** | **all-virtuals** }][**level** 0..7][**direction** **up** | **down**]
  - **cfm-stack-table** *port-id* [*vlan qtag[:qtag]*] [**level** 0..7] [**direction** **up** | **down**]
  - **cfm-stack-table** **sdp** *sdp-id[:vc-id]* [**level** 0..7][**direction** **up** | **down**]
  - **cfm-stack-table** **virtual** *service-id* [**level** 0..7]
  - **cfm-stack-table** **facility** [ {**all-ports**|**all-lags**|**all-lag-ports**|**all-tunnel-meps**| **all-router-interfaces** } ] [**level** 0..7] [**direction** **up**|**down**]
  - **cfm-stack-table** **facility** **collect-lmm-stats**
  - **cfm-stack-table** **facility** **lag** *id* [*tunnel 1..4094*] [**level** 0..7] [**direction** **up**|**down**]
  - **cfm-stack-table** **facility** **port** *id* [**level** 0..7] [**direction** **up**|**down**]
  - **cfm-stack-table** **facility** **router-interface** *ip-int-name* [**level** 0..7] [**direction** **up**|**down**]
  - **domain** [*md-index*] [**association** *ma-index* | **all-associations**] [**detail**]
  - **mep** *mep-id* **domain** *md-index* **association** *ma-index* [**loopback**] [**linktrace**]
  - **mep** *mep-id* **domain** *md-index* **association** *ma-index* **remote-mepid** *mep-id* | **all-remote-mepids**
  - **mep** *mep-id* **domain** *md-index* **association** *ma-index* **eth-test-results** [**remote-peer** *mac-address*]
  - **mep** *mep-id* **domain** *md-index* **association** *ma-index* **one-way-delay-test** [**remote-peer** *mac-address*]
  - **mep** *mep-id* **domain** *md-index* **association** *ma-index* **two-way-delay-test** [**remote-peer** *mac-address*]
  - **mep** *mep-id* **domain** *md-index* **association** *ma-index* **two-way-slm-test** [**remote-peer** *mac-address*]
  - **mip**
  - **system-config**

## Tools Perform Commands

```

tools
 — perform
 — service
 — id service-id
 — admin-lock
 — pw
 — sdpsdp-id:vc-id admin-lock [test-svc-id id]
 — loopback
 — eth
 — sap sap-id start mode [mac-swap [mac ieee-address
 [all]]]
 — sap sap-id stop
 — sdp sdp-id:vc-id start mode [mac-swap [mac ieee-
 address [all]]]
 — sdp sdp-id:vc-id stop
 — pw
 — sdpsdp-id:vc-id {start | stop}

```

