Cflowd Configuration Commands

Global Commands

cflowd

Syntax **[no] cflowd**

Context **config>cflowd**

Description This command creates the context to configure cflowd.

The **no** form of this command removes all configuration under cflowd including the deletion of all configured collectors. This can only be executed if cflowd is in a shutdown state.

Default no cflowd

active-timeout

Syntax **active-timeout** *minutes*
no active-timeout

Context config>cflowd

Description This command configures the maximum amount of time before an active flow is aged out of the active cache. If an individual flow is active for this amount of time, the flow is aged out and a new flow will be created on the next packet sampled for that flow.

Note: Existing flows do not inherit the new active-timeout value if this parameter is changed while cflowd is active. The active-timeout value for a flow is set when the flow is first created in the active cache table and does not change dynamically.

The **no** form of this command resets the inactive timeout back to the default value.

Default **30**

Parameters *minutes* — The value expressed in minutes before an active flow is exported.

Values 1 — 600

cache-size

Syntax **cache-size** *num-entries*
no cache-size

Context config>cflowd

Description This command specifies the maximum number of active flows to maintain in the flow cache table.

The **no** form of this command resets the number of active entries back to the default value.

Default **65536** (64K)

Parameters *num-entries* — The number of entries maintained in the cflowd cache.

Values 1000 — 250000 (SF/CPM3 and 7750 SR-c12/4
1000 - 128k (all other platforms)

collector

Syntax **collector** *ip-address*[:*port*] {**version** [**5** | **8** | **9** | **10**]}
no collector

Context config>cflowd

Description This command defines a flow data collector for cflowd data. The IP address of the flow collector must be specified. The UDP port number is an optional parameter. If it is not set, the default of 2055 is used for all collector versions. To connect to a IPFIX (version 10) collector using the IPFIX default port, specify port 4739 when configuring the collector. The version must be specified. A maximum of 5 collectors can be configured.

The **no** form of this command removes the flow collector definition from the config and stops the export of data to the collector. The collector needs to be shutdown to be deleted.

Default none

Parameters *ip-address* — Specifies the address of a remote Cflowd collector host to receive the exported Cflowd data.

Values <ip-address[:port]> : ip-address - a.b.c.d[:port] (IPv4)
x:x:x:x:x:x:x:x (IPv6)
[x:x:x:x:x:x:x:x]:port (IPv6)
x - [0..FFFF]H

port — Specifies the UDP port number on the remote Cflowd collector host to receive the exported Cflowd data.

Values 1— 65535

Default 2055

version — Specifies the version of the flow data collector.

Values Netflow v5, v8, v9, v10 (IPFIX) format

Default 5

aggregation

Syntax [**no**] **aggregation**

Context config>cflowd>collector

Description This command configures the type of aggregation scheme to be exported.

Specifies the type of data to be aggregated and to the collector.

To configure aggregation, you must decide which type of aggregation scheme to configure: autonomous system, destination prefix, protocol port, raw, source destination, or source prefix.

This can only be configured if the collector version is configured as V8.

The **no** form of this command removes all aggregation types from the collector configuration.

Default **no aggregation**

as-matrix

Syntax [**no**] **as-matrix**

Context config>cflowd>collector>aggregation

Description This command specifies that the aggregation data should be based on autonomous system (AS) information. An AS matrix contains packet and byte counters for traffic from either source-destination autonomous systems or last-peer to next-peer autonomous systems.

The **no** form of this command removes this type of aggregation from the collector configuration.

Default no as-matrix

destination-prefix

Syntax [**no**] **destination-prefix**

Context config>cflowd>collector>aggregation

Description This command specifies that the aggregation data is based on destination prefix information.

The **no** form removes this type of aggregation from the collector configuration.

Default none

protocol-port

Syntax [**no**] **protocol-port**

Context config>cflowd>collector>aggregation

Description This command specifies that flows be aggregated based on the IP protocol, source port number, and destination port number.

The **no** form of this command removes this type of aggregation from the collector configuration.

Default none

raw

Syntax [**no**] **raw**

Context config>cflowd>collector>aggregation

Description This command configures raw (unaggregated) flow data to be sent in Version 5.

The **no** form of this command removes this type of aggregation from the collector configuration.

Default none

source-destination-prefix

Syntax [**no**] **source-destination-prefix**

Context config>cflowd>collector>aggregation

Description This command configures cflowd aggregation based on source and destination prefixes.

The **no** form of this command removes this type of aggregation from the collector configuration.

Default none

source-prefix

Syntax [**no**] **source-prefix**

Context config>cflowd>collector>aggregation

Description This command configures cflowd aggregation based on source prefix information.

The **no** form of this command removes this type of aggregation from the collector configuration.

Default none

autonomous-system-type

Syntax **autonomous-system-type** {**origin** | **peer**}
no autonomous-system-type

Context config>cflowd>collector

Description This command defines whether the autonomous system (AS) information included in the flow data is based on the originating AS or external peer AS of the routes.

This option is only allowed if the collector is configured as Version 5 or Version 8.

The **no** form of this command resets the AS type to the default value.

Default **autonomous-system-type origin**

Parameters **origin —** Specifies that the AS information included in the flow data is based on the originating AS.

peer — Specifies that the AS information included in the flow data is based on the peer AS.

description

Syntax **description** *description-string*
no description

Context config>cflowd>collector

Description This command creates a text description stored in the configuration file for a configuration context.

The **no** form of this command removes the description string from the context.

Default No description is associated with the configuration context.

Parameters *description-string* — The description character string. Allowed values are any string up to 80 characters long composed of printable, 7-bit ASCII characters. If the string contains special characters (#, $, spaces, etc.), the entire string must be enclosed within double quotes.

shutdown

Syntax [**no**] **shutdown**

Context config>cflowd
config>cflowd>collector

Description This command administratively disables an entity. When disabled, an entity does not change, reset, or remove any configuration settings or statistics.

The operational state of the entity is disabled as well as the operational state of any entities contained within. Many objects must be shut down before they may be deleted.

The **no** form of this command administratively enables an entity.

Unlike other commands and parameters where the default state is not indicated in the configuration file. The **shutdown** and **no shutdown** states are always indicated in system generated configuration files.

template-set

Syntax **template-set** {**basic** | **mpls-ip**}

Context config>cflowd>collector

Description This command specifies the set of templates sent to the collector when using cflowd Version 9 or Version 10.

Default **basic**

Parameters **basic —** Basic flow data is sent.

mpls-ip — Extended flow data is sent that includes IP and MPLS information.

inactive-timeout

Syntax **inactive-timeout** *seconds*
no inactive-timeout

Context config>cflowd

Description This command specifies the amount of time, in seconds, that must elapse without a packet matching a flow in order for the flow to be considered inactive.

The **no** form of this command resets the inactive timeout back to the default of 15 seconds.

Note: Existing flows will not inherit the new inactive-timeout value if this parameter is changed while cflowd is active. The inactive-timeout value for a flow is set when the flow is first created in the active cache table and does not change dynamically.

Default **15**

Parameters *seconds* — Specifies the amount of time, in seconds, that must elapse without a packet matching a flow in order for the flow to be considered inactive.

Values 10 — 600

overflow

Syntax **overflow** *percent*
no overflow

Context config>cflowd

Description This command specifies the percentage of the flow cache entries removed when the maximum number of entries is exceeded. The entries removed are the entries that have not been updated for the longest amount of time.

The **no** form of this command resets the number of entries cleared from the flow cache on overflow to the default value.

Default **1 %**

Parameters *percent* — Specifies the percentage of the flow cache entries removed when the maximum number of entries is exceeded.

Values 1 — 50 percent

rate

Syntax **rate** *sample-rate*
no rate

Context config>cflowd

Description This command specifies the rate (N) at which traffic is sampled and sent for flow analysis. A packet is sampled every N packets; for example, when *sample-rate* is configured as 1, then all packets are sent to the cache. When *sample-rate* is configured as 100, then every 100th packet is sent to the cache.

The **no** form of this command resets the sample rate to the default value.

Default 1000

Parameters *sample-rate* — Specifies the rate at which traffic is sampled.

Values 1 — 10000

template-retransmit

Syntax **template-retransmit** *seconds*
no template-retransmit

Context config>cflowd

Description This command specifies the interval for sending template definitions.

Default 600

Parameters *seconds* — The value expressed in seconds before sending template definitions.

Values 10 — 600