



## cnBNG CP Commands

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This guide describes the CLI commands that are used to configure a control plane in cnBNG.

Some keywords and commands are common across multiple commands and configuration modes respectively. Use the information in the Command Modes section only as a reference to navigate to the command in the applicable configuration modes.

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## aaa

Configures AAA-based user management parameters.

---

### Command Modes

Exec

---

### Syntax Description

```
aaa { authentication { users list_of_local_users admin change-password
old-password user_password new-password user_password confirm-password
user_password } }
```

#### **users *list\_of\_local\_users***

Specify the user name.

Must be a string.

#### **old-password *user\_password***

Specify the user's current password.

Must be a string.

#### **new-password *user\_password***

Specify the user's new password.

Must be a string.

#### **confirm-password *user\_password***

Reenter the user's new password.

Must be a string.

---

### Usage Guidelines

Use this command to configure the AAA based user management parameters.

# cd

Configures the change directory command.

---

## Command Modes

Exec

---

## Syntax Description

**cd** *directory*.**ssh**

### **directory**

Specify the directory path.

Must be an alphanumeric string.

---

## Usage Guidelines

Use this command to configure the change directory command.

# cdl clear

Configures the Cisco Common Data Layer (CDL) parameters to delete the database sessions.

---

## Command Modes

Exec

---

## Syntax Description

**cdl clear sessions** [ **db-name** *db\_name* | **filter** { **condition** { **ends-with** | **match** | **starts-with** } **key** *key\_value* } | **map-id** *map\_id* ]

### **db-name** *db\_name*

Specifies the database name to be queried for deleting the data.

Must be a string of 1 to 16 characters.

### **key** *key\_value*

Specifies the query value.

Must be a string of 0 to 512 characters.

### **map-id** *map\_id*

Specifies the map ID to delete the data for a map.

Must be an integer in the range of 0-1024.

### **filter condition** { **ends-with** | **match** | **starts-with** }

Specify the query expression to filter the results of query.

---

## Usage Guidelines

Use this command to delete the CDL database sessions.

# cdl show sessions

Configures the CDL parameters to display the session details.

---

## Command Modes

Exec

---

## Syntax Description

```
cdl show sessions count { detailed { db-name db_name | filter { condition
{ ends-with | match | starts-with } | key key_value } | limit limit | map-id
map_id } | summary { db-name db_name | filter { condition { ends-with |
match | starts-with } | key key_value } | limit limit | map-id map_id }
```

### count

Display the session count information.

### detailed

Display the session details with data.

### summary

Display the session details without data.

### db-name *db\_name*

Specifies the database name to be queried for displaying the session details.

Must be a string of 1 to 16 characters.

### key *key\_value*

Specifies the query value.

Must be a string of 0 to 512 characters.

### map-id *map\_id*

Specifies the map ID to display the data for a map.

Must be an integer in the range of 0-1024.

### limit *limit*

Specifies the maximum number of records to display.

Must be an integer in the range of 1 to 500 characters.

### filter condition { ends-with | match | starts-with }

Specify the query expression to filter the results of query.

---

## Usage Guidelines

Use this command to display the session details.



## cdl show status

Configures the CDL parameters to display the status of the database.

**Command Modes** Exec

**Syntax Description** `cdl status db-name db_name`

**db-name db\_name**

Specifies the database name for displaying the corresponding status.

Must be a string of 1 to 16 characters.

**Usage Guidelines** Use this command to display the status of the queried database.

## clear l2tp-tunnel

Clears l2tp tunnel.

**Command Modes** Exec

**Syntax Description** `clear l2tp tunnel { upf upf_name } [ tunnel-type tunnel_type | tunnel-id tunnel_id | force ]`

**force**

Specify to force tunnel deletion, even if UP is down.

**tunnel-id tunnel\_id**

Specify the tunnel ID.

Must be an integer in the range of 1-65535.

**tunnel-type tunnel\_type**

Specify the tunnel type.

Must be one of the following:

- lac
- lns

**upf upf\_name**

Specify name of the User Plane Function.

Must be a string of 1-64 characters.

**Usage Guidelines** Use this command to clear l2tp tunnel.

# clear subscriber

Clears BNG subscriber data.

## Command Modes

Exec

## Syntax Description

```
clear subscriber type [ upf upf_name | port-id upf_port_id | mac mac_address |
sublabel subscriber_label | up-subs-id up_subscriber_id | ipv4-pool ipv4_pool_name
| ipv6-addr-pool ipv6_address_pool_name | ipv6-pfx-pool ipv6_prefix_pool_name |
ipv4-range ipv4_address_range | ipv6-addr-range ipv6_address_range | ipv6-pfx-range
ipv6_prefix_range | ppp-type ppp_session_type | session-id session_id | tunnel-id
tunnel_id ]
```

### **force**

Specify to force session deletion, even if UP is down.

### **ipv4-pool** *ipv4\_pool\_name*

Specify name of the IPv4 address pool.

Must be a string of 1-64 characters.

### **ipv4-range** *ipv4\_address\_range*

Specify the IPv4 address range in the format "*poolName/start-ip*".

Must be a string of 1-64 characters.

### **ipv6-addr-pool** *ipv6\_address\_pool\_name*

Specify name of the IPv6 address pool.

Must be a string of 1-64 characters.

### **ipv6-addr-range** *ipv6\_address\_range*

Specify the IPv6 address range in the format "*poolName/start-ip*".

Must be a string of 1-64 characters.

### **ipv6-pfx-pool** *ipv6\_prefix\_pool\_name*

Specify name of the IPv6 prefix pool.

Must be a string of 1-64 characters.

### **ipv6-pfx-range** *ipv6\_prefix\_range*

Specify the IPv6 prefix range in the format "*poolName/start-pfx*".

Must be a string of 1-64 characters.

**mac *mac\_address***

Specify the MAC address in the format "aabb.cddd.eeff".

Must be a string of 1-64 characters.

**port-id *upf\_port\_id***

Specify port ID of the user plane function in the "*upf/port-id*" format.

Must be a string of 1-64 characters.

**ppp-type *ppp\_session\_type***

Specify the PPP session type.

Must be one of the following:

- **lac**
- **pta**

**session-id *session\_id***

Specify the session ID information.

Must be a string of 1-64 characters.

**sublabel *subscriber\_label***

Specify the subscriber label.

Must be a string of 1-64 characters.

**tunnel-id *tunnel\_id***

Specify the tunnel ID information.

Must be a string of 1-64 characters.

**upf *upf\_name***

Specify name of the user plane function.

Must be a string of 1-64 characters.

***type***

Specify the type.

Must be one of the following:

- **dhcp**
- **lns**
- **pppoe**
- **sessmgr**

**Usage Guidelines** Use this command to clear BNG subscriber data.

## clear subscriber

Clears subscriber data.

**Command Modes** Exec

**Syntax Description** `clear subscriber { all | gr-instance gr_instance | imei imei_id | namespace namespace | nf-service nf_service | supi supi_id | config_specific_options }`

### **all**

Specify to remove all subscriber data.

### **gr-instance *gr\_instance***

Specify the subscribers from the GR instance.

### **imei *imei\_id***

Specify the International Mobile Equipment Identity.

Must be a string of 15-16 characters.

### **namespace *namespace***

NOTE: This keyword is deprecated, use nf-service instead. Specifies the product namespace under which to search.

Default Value: cisco-mobile-infra:none.

### **nf-service *nf\_service***

Specify the network function service under which to search.

Default Value: cisco-mobile-infra:none.

### **supi *supi\_id***

Specify to remove subscriber data associated with the SUPI ID.

Must be a string of 1-63 characters.

**Usage Guidelines** Use this command to clear subscriber data.

## client http header

Configures HTTP header parameters.

**Command Modes** Exec > Global Configuration (config)

**Syntax Description** `client http header user-agent user_agent_header`

**user-agent *user\_agent\_header***

Specify the user agent header.

Must be one of the following:

- **app-name**
- **cluster-name**
- **disable**

Default Value: app-name.

**Usage Guidelines** Use this command to configure HTTP header parameters.

## client http ping

Configures HTTP ping parameters.

**Command Modes** Exec > Global Configuration (config)

**Syntax Description** `client http ping { [ interval ping_interval ] [ timeout ping_timeout ] }`

**interval *ping\_interval***

Specify, in milliseconds, the time interval between two HTTP pings.

Must be an integer in the range of 0-30000.

Default Value: 10000.

**timeout *ping\_timeout***

Specify, in milliseconds, the ping timeout duration to detect if remote host is down.

Must be an integer in the range of 0-15000.

Default Value: 5000.

**Usage Guidelines** Use this command to configure HTTP ping parameters.

## client inbound interface

Configures inbound client interface parameters.

**Command Modes** Exec > Global Configuration (config)

**Syntax Description** `client inbound interface interface_name`

**interface *interface\_name***

Specify name of the interface. Must be one of the following: bfd, bgp, coa-nas, geo-external, geo-internal, gtpu, n4.

**Usage Guidelines** Use this command to configure inbound client interface parameters. The CLI prompt changes to the Interface Configuration mode (config-interface-<interface\_name>).

## client inbound interface limit overload

Configures Overload configuration parameters.

**Command Modes** Exec > Global Configuration (config)

**Syntax Description** `client inbound limit overload reject-code response_code`

**reject-code *response\_code***

Specify the response code to be used when pending limit exceeds.

Must be an integer.

**Usage Guidelines** Use this command to configure Overload configuration parameters.

## client inbound interface limit pending

Configures pending request limit parameter.

**Command Modes** Exec > Global Configuration (config)

**Syntax Description** `client inbound limit pending request max_pending_request_limit`

**request *max\_pending\_request\_limit***

Specify the maximum pending request limit to allow.

Must be an integer.

Default Value: 10240.

**Usage Guidelines** Use this command to configure the pending request limit parameter.

## client inbound limit overload

Configures Overload configuration parameters.

**Command Modes** Exec > Global Configuration (config)

**Syntax Description** `client inbound limit overload reject-code response_code`

**reject-code *response\_code***

Specify the response code to be used when pending limit exceeds.

Must be an integer.

**Usage Guidelines**

Use this command to configure Overload configuration parameters.

## client inbound limit pending

Configures pending request limit parameter.

**Command Modes**

Exec > Global Configuration (config)

**Syntax Description**

**client inbound limit pending request** *max\_pending\_request\_limit*

**request *max\_pending\_request\_limit***

Specify the maximum pending request limit to allow.

Must be an integer.

Default Value: 10240.

**Usage Guidelines**

Use this command to configure the pending request limit parameter.

## client outbound host ping

Configures outbound host ping parameter.

**Command Modes**

Exec > Global Configuration (config)

**Syntax Description**

**client outbound host ping** { [ **backoff** *backoff\_interval* ] [ **interval** *ping\_interval* ] [ **timeout** *ping\_timeout* ] }

**backoff *backoff\_interval***

Specify, in milliseconds, the backoff time interval to wait when remote host is detected down before pinging again.

Must be an integer in the range of 0-3600000.

Default Value: 0.

**interval *ping\_interval***

Specify, in milliseconds, the time interval between two pings.

Must be an integer in the range of 0-30000.

Default Value: 0.

**timeout *ping\_timeout***

Specify the ping timeout duration, in milliseconds, to detect remote host down.

Must be an integer in the range of 0-15000.

Default Value: 0.

**Usage Guidelines**

Use this command to configure outbound host ping parameter.

## client outbound interface

Configures outbound client interface parameters.

**Command Modes**

Exec > Global Configuration (config)

**Syntax Description**

**client outbound interface** *interface\_name*

**interface *interface\_name***

Specify the interface.

**Usage Guidelines**

Use this command to configure outbound client interface parameters. The CLI prompt changes to the Interface Configuration mode (config-interface-<interface\_name>).

## client outbound interface host ping

Configures outbound host ping parameter.

**Command Modes**

Exec > Global Configuration (config)

**Syntax Description**

**client outbound host ping** { [ **backoff** *backoff\_interval* ] [ **interval** *ping\_interval* ] [ **timeout** *ping\_timeout* ] }

**backoff *backoff\_interval***

Specify, in milliseconds, the backoff time interval to wait when remote host is detected down before pinging again.

Must be an integer in the range of 0-3600000.

Default Value: 0.

**interval *ping\_interval***

Specify, in milliseconds, the time interval between two pings.

Must be an integer in the range of 0-30000.

Default Value: 0.



**timeout *ping\_timeout***

Specify the ping timeout duration, in milliseconds, to detect remote host down.

Must be an integer in the range of 0-15000.

Default Value: 0.

**Usage Guidelines**

Use this command to configure outbound host ping parameter.

## client outbound interface limit consecutive failure

Configures consecutive failure configuration parameters.

**Command Modes**

Exec > Global Configuration

**Syntax Description**

**consecutive failure count** *failure\_limit\_count* **codes** *failure\_codes*

**codes *failure\_codes***

Specify the list of failure codes to be considered, such as timeout, 503, etc.

Must be a string.

You can configure a maximum of 10 elements with this keyword.

**count *consecutive\_failure\_count***

Specify the consecutive failure limit count to detect remote host as down.

Must be an integer.

Default Value: 0.

**Usage Guidelines**

Use this command to configure consecutive failure configuration parameters.

## client outbound interface limit pending

Configures pending limit configuration.

**Command Modes**

Exec > Global Configuration (config)

**Syntax Description**

**client outbound limit pending response** *response\_message\_limit*

**Command Modes**

Exec > Global Configuration (config) > Interface Configuration (config-interface-*interface\_name*)

**Syntax Description**

**pending response** *response\_message\_limit*

**response *response\_message\_limit***

Specify the pending response message limit to detect remote host as down.

Must be an integer.

Default Value: 1024.

**Usage Guidelines** Use this command to configure pending limit configuration.

## client outbound limit consecutive failure

Configures consecutive failure configuration parameters.

**Command Modes** Exec > Global Configuration

**Syntax Description** `consecutive failure count failure_limit_count codes failure_codes`

**codes *failure\_codes***

Specify the list of failure codes to be considered, such as timeout, 503, etc.

Must be a string.

You can configure a maximum of 10 elements with this keyword.

**count *consecutive\_failure\_count***

Specify the consecutive failure limit count to detect remote host as down.

Must be an integer.

Default Value: 0.

**Usage Guidelines** Use this command to configure consecutive failure configuration parameters.

## client outbound limit pending

Configures pending limit configuration.

**Command Modes** Exec > Global Configuration (config)

**Syntax Description** `client outbound limit pending response response_message_limit`

**Command Modes** Exec > Global Configuration (config) > Interface Configuration (config-interface-*interface\_name*)

**Syntax Description** `pending response response_message_limit`

**response *response\_message\_limit***

Specify the pending response message limit to detect remote host as down.

Must be an integer.

Default Value: 1024.

**Usage Guidelines** Use this command to configure pending limit configuration.

# commit

Configures the commit parameters.

---

**Command Modes**

Exec

---

**Syntax Description**

```
commit [ abort { persist-id persist_id } | confirm { persist-id persist_id } | persist-id persist_id ]
```

**abort** *persist-id* *persist\_id*

Specify to abort commit. Specify the persistence ID for the commit operation.

Must be an integer.

**confirm** *persist-id* *persist\_id*

Specify to confirm commit. Specify the persistence ID for the commit operation.

Must be an integer.

**persist-id** *persist\_id*

Specify the persistence ID for the commit operation.

Must be an integer.

---

**Usage Guidelines**

Use this command to configure the commit parameters.

# compare

Compares the running configuration to another configuration or a file.

---

**Command Modes**

Exec

---

**Syntax Description**

```
compare file { filename[.kube | .ssh/] | configuration }
```

***filename***[**.kube** | **.ssh/**]

Specify the file name or the directory path of the file to be compared.

Must be a string.

***configuration***

Specify the desired configuration to be compared against.

Must be a string.

---

**Usage Guidelines**

Use this command to compare the files.

# config

Manipulates the software configuration information.

---

## Command Modes

Exec

---

## Syntax Description

**config** [ **exclusive** | **no-confirm** | **shared** | **terminal** ]

### **exclusive**

Specify to enter the exclusive configuration mode.

### **no-confirm**

Specify to apply the command without asking for confirmation.

### **shared**

Specify to enter the shared configuration mode.

### **terminal**

Specify to enter the terminal configuration mode.

---

## Usage Guidelines

Use this command to manipulate the software configuration information.

# datastore dbs

Configures DBS parameters.

---

## Command Modes

Exec > Global Configuration (config)

---

## Syntax Description

**datastore dbs** *db\_name* **endpoints** *endpoint\_name* **port** *port\_number*

### **db\_name**

Specify name of the DBS.

Must be a string.

---

## Usage Guidelines

Use this command to configure the DBS parameters. The CLI prompt changes to the DBS Configuration mode (config-dbs-<db\_name>).

# datastore dbs endpoints

Configures endpoint parameters.

---

## Command Modes

Exec > Global Configuration (config)

<b>Syntax Description</b>	<b>datastore session-db endpoints</b> <i>host_name</i> <b>port</b> <i>port_number</i>
<b>Command Modes</b>	Exec > Global Configuration (config) > DBS Configuration (config-dbs- <i>db_name</i> )
<b>Syntax Description</b>	<p><b>endpoints</b> <i>endpoint_name</i> <b>port</b> <i>port_number</i></p> <p><b>endpoints</b> <i>endpoint_name</i></p> <p>Specify name of the endpoint host. Must be a string.</p> <p><b>port</b> <i>port_number</i></p> <p>Specify the port number. Must be an integer.</p>
<b>Usage Guidelines</b>	Use this command to configure endpoint parameters.

## datastore notification-ep

Configures notification endpoint parameters.

<b>Command Modes</b>	Exec > Global Configuration (config)
<b>Syntax Description</b>	<p><b>datastore notification-ep</b> { [ <b>host</b> <i>host_name</i> ] [ <b>port</b> <i>port_number</i> ] }</p> <p><b>host</b> <i>host_name</i></p> <p>Specify name of the host. Must be a string.</p> <p><b>port</b> <i>port_number</i></p> <p>Specify the port number. Must be an integer.</p>
<b>Usage Guidelines</b>	Use this command to configure notification endpoint parameters.

## datastore session-db

Configures Session DB parameters.

<b>Command Modes</b>	Exec > Global Configuration (config)
<b>Syntax Description</b>	<b>datastore session-db endpoints</b> <i>endpoint_name</i> <b>port</b> <i>port_number</i>
<b>Usage Guidelines</b>	Use this command to configure Session DB parameters.

## datastore session-db endpoints

Configures endpoint parameters.

---

### Command Modes

Exec > Global Configuration (config)

---

### Syntax Description

**datastore session-db endpoints** *host\_name* **port** *port\_number*

---

### Command Modes

Exec > Global Configuration (config) > DBS Configuration (config-dbs-*dbs\_name*)

---

### Syntax Description

**endpoints** *endpoint\_name* **port** *port\_number*

#### **endpoints** *endpoint\_name*

Specify name of the endpoint host.

Must be a string.

#### **port** *port\_number*

Specify the port number.

Must be an integer.

---

### Usage Guidelines

Use this command to configure endpoint parameters.

## deployment

Configures the product deployment parameters.

---

### Command Modes

Exec > Global Configuration (config)

---

### Syntax Description

**deployment** { **app-name** *application\_name* | **cluster-name** *cluster\_name* | **dc-name** *datacenter\_name* | **logical-nf-instance-id** *logical\_nf\_instance\_id* | **model** *deployment\_model* }

#### **app-name** *application\_name*

Specify name of the application.

Must be a string.

#### **cluster-name** *cluster\_name*

Specify name of the cluster.

Must be a string.

#### **dc-name** *datacenter\_name*

Specify name of the datacenter.

Must be a string.

**logical-nf-instance-id** *logical\_nf\_instance\_id*

Specify the logical NF instance ID.

Must be an integer.

Default Value: 0.

**model** *deployment\_model*

Specify the deployment model. Default: Large.

Must be one of the following:

- **small**

---

**Usage Guidelines**

Use this command to configure product deployment parameters.

## deployment resource

Configures the deployment CPU resource parameter.

---

**Command Modes**

Exec > Global Configuration (config) > Deployment Configuration (config-deployment)

---

**Syntax Description**

**resource** **cpu** *cpu\_size*

**cpu** *cpu\_size*

Specify the CPU size in millicores.

Must be an integer in the range of 2000-1000000.

Default Value: 18000.

---

**Usage Guidelines**

Use this command to configure the deployment CPU resource parameter.

## describe

Displays the command information.

---

**Command Modes**

Exec

---

**Syntax Description**

**describe** *command*

**command**

Specify the command name to display detailed information about the command.

The command must be one of the following:

- **aaa**

- **cd**
- **cdl**
- **commit**
- **compare**
- **config**
- **describe**
- **dump**
- **exit**
- **help**
- **history**
- **id**
- **idle-timeout**
- **ignore-leading-space**
- **job**
- **leaf-prompting**
- **license**
- **logout**
- **monitor**
- **no**
- **paginate**
- **quit**
- **rcm**
- **screen-length**
- **screen-width**
- **send**
- **show**
- **show-defaults**
- **smiuser**
- **system**
- **terminal**
- **timestamp**
- **who**



**Usage Guidelines** Use this command to display the command specific information.

## dump transactionhistory

Creates dump of transaction history.

**Command Modes** Exec

**Syntax Description** `dump transactionhistory`

**Usage Guidelines** Use this command to create dump of transaction history.

## edr

Configures EDR reporting parameters.

**Command Modes** Exec > Global Configuration (config)

**Syntax Description** `edr { [ reporting reporting_status ] [ subscribers subscribers_edr_reporting ] }`

### **reporting *reporting\_status***

Specify to enable or disable EDR reporting.

Must be one of the following:

- **disable**
- **enable**

Default Value: disable.

**Usage Guidelines** Use this command to configure EDR parameters.

## edr edrsubscribers

Configures subscriber EDR reporting.

**Command Modes** Exec > Global Configuration (config)

**Syntax Description** `edr subscribers subscribers_for_edr_reporting`

**Syntax Description** `edr reporting { enable | disable } subscribers subscribers_for_edr_reporting`

### **subscribers *subscribers\_for\_edr\_reporting***

Specify the subscribers to enable EDR reporting. For example, imsi-123456789012345.

Must be a string.

You can configure a maximum of 10 elements with this keyword.

**Usage Guidelines** Use this command to configure subscriber EDR reporting.

## edr file files

Configures EDR file parameters.

**Command Modes** Exec > Global Configuration (config)

**Syntax Description** `edr file { transaction | transaction-collision } [ reporting reporting_status ] [ verbose verbosity_status ]`

**file { transaction | transaction-collision }**

Specify name of the EDR file.

**reporting *reporting\_status***

Specify to enable or disable reporting of this file.

Must be one of the following:

- **disable**
- **enable**

Default Value: disable.

**verbose *verbosity\_status***

Specify to enable or disable field description or long names in the file.

Must be one of the following:

- **disable**
- **enable**

Default Value: disable.

**Usage Guidelines** Use this command to configure EDR file parameters.

## edr file files disable

Disables procedure IDs.

**Command Modes** Exec > Global Configuration (config) > EDR File Configuration (config-file-*edr\_file*)

**Syntax Description** `disable procedure-id procedure_ids`

**procedure-id *procedure\_ids***

Specify the procedure ID value(s)/name(s).

Must be a string.

**Usage Guidelines** Use this command to disable specific procedure IDs.

## edr file files flush

Configures EDR file flush parameters.

**Command Modes** Exec > Global Configuration (config) > EDR File Configuration (config-file-*edr\_file*)

**Syntax Description** **flush interval** *file\_flush\_interval*

**interval *file\_flush\_interval***

Specify, in milliseconds, the file flush interval.

Must be an integer.

Default Value: 1000.

**Usage Guidelines** Use this command to configure the EDR file flush parameters.

## edr file files limit

Configures EDR file limit parameters.

**Command Modes** Exec > Global Configuration (config) > EDR File Configuration (config-file-*edr\_file*)

**Syntax Description** **limit** { [ **count** *max\_files\_to\_preserve* ] [ **size** *max\_single\_file\_size* ] }

**count *max\_files\_to\_preserve***

Specify the maximum number of files to be preserved.

Must be an integer.

Default Value: 10.

**size *max\_single\_file\_size***

Specify the maximum single file size limit in MB.

Must be an integer.

Default Value: 100.

**Usage Guidelines** Use this command to configure the EDR file limit parameters.

## edr file files procedure-id disable-event-id

Disables transaction-level procedure ID configuration.

**Command Modes** Exec > Global Configuration (config) > EDR File Configuration (config-file-*edr\_file*)

**Syntax Description** **procedure-id** *procedure\_id*

**procedure** *procedure\_id*

Specify the procedure ID value/name.

Must be a string.

**Usage Guidelines** Use this command to disable transaction-level procedure ID configuration.

## edr file files procedure-id disable-event-id disable-inner disable

Disables event IDs.

**Command Modes** Exec > Global Configuration (config) > EDR File Configuration (config-file-*edr\_file*) > Procedure ID Configuration (config-procedure-id-*procedure\_id*)

**Syntax Description** **disable event-id** *event\_ids*

**event-id** *event\_ids*

Specify the event ID value(s)/name(s).

Must be a string.

**Usage Guidelines** Use this command to disable event IDs.

## edr file files procedure-id disable-event-id disable-inner event-id disable-field-id

Disables procedure-level event ID configuration.

**Command Modes** Exec > Global Configuration (config) > EDR File Configuration (config-file-*edr\_file*) > Procedure ID Configuration (config-procedure-id-*procedure\_id*)

**Syntax Description** **event-id** *event\_id*

**event** *event\_id*

Specify the event ID value/name.

Must be a string.

**Usage Guidelines** Use this command to disable procedure-level event ID configuration.

## edr file files procedure-id disable-event-id disable-inner event-id disable-field-id disable

Disables field IDs.

**Command Modes** Exec > Global Configuration (config) > EDR File Configuration (config-file-*edr\_file*) > Procedure ID Configuration (config-procedure-id-*procedure\_id*)

**Syntax Description** `disable field-id field_ids`

**field-id *field\_ids***

Specify the field ID value(s)/name(s).

Must be a string.

**Usage Guidelines** Use this command to disable field IDs.

## exit

Exits the current configuration mode and returns to the previous configuration mode.

**Command Modes** Exec

**Syntax Description** `exit`

**Usage Guidelines** Use this command to exit the current configuration mode and return to the previous configuration mode. When used in the Exec mode, exits the management session.

## geo maintenance

Configures Geo Admin Controller to enable or disable maintenance mode.

**Command Modes** Exec

**Syntax Description** `geo maintenance mode { false | true }`

**mode { false | true }**

Specify whether to enable or disable maintenance mode. To enable, set to true.

Must be one of the following:

- false
- true

Default Value: false.

**Usage Guidelines** Use this command to configure Geo Admin Controller to enable or disable maintenance mode.

## geo reset-role

Configures Geo Admin Controller for reset role.

**Command Modes** Exec

**Syntax Description** `geo reset-role { [ instance-id instance_id ] [ role new_role ] }`

**instance-id *instance\_id***

Specify the instance ID for geo command.

**role *new\_role***

Specify the new role for the specified site.

**Usage Guidelines** Use this command to configure Geo Admin Controller for reset role.

## geo switch-role

Configures Geo Admin Controller for trigger failover.

**Command Modes** Exec

**Syntax Description** `geo switch-role { [ failback-interval failback_interval ] [ instance-id instance_id ] [ role new_role ] }`

**failback-interval *failback\_interval***

Specify, in seconds, the interval between notify failover and actual failover.

Must be a string.

**instance-id *instance\_id***

Specify the instance ID for geo command.

**role *new\_role***

Specify the new role for the specified site.

**Usage Guidelines** Performs instance role manipulation. Use this command to configure Geo Admin Controller for trigger failover.

## geomonitor podmonitor pods

Configures configuration of pods to be monitored.

**Command Modes** Exec > Global Configuration (config)

**Syntax Description** `geomonitor podmonitor pods pod_name [ [ failedReplicaPercent failed_replica_precentage ] [ retryCount retry_count ] [ retryFailOverInterval retry_interval ] [ retryInterval retry_interval ] ]`

**failedReplicaPercent failed\_replica\_precentage**

Specify the percentage of failed replica after which GR failover will get triggered.

Must be an integer in the range of 10-100.

**pods pod\_name**

Specify the name of the pod to be monitored.

Must be a string.

**retryCount retry\_count**

Specify the counter value to retry if pod failed to ping after which pod is marked as down.

Must be an integer in the range of 1-10.

**retryFailOverInterval retry\_interval**

Specify, in milliseconds, the retry interval if pod ping fails.

Must be an integer in the range of 200-10000.

**retryInterval retry\_interval**

Specify, in milliseconds, the retry interval if pod ping is successful.

Must be an integer in the range of 200-10000.

**Usage Guidelines** Use this command to configure configuration of pods to be monitored.

## geomonitor remotecclustermonitor

Configures remote cluster monitoring parameters.

**Command Modes** Exec > Global Configuration (config)

**Syntax Description** `geomonitor remotecclustermonitor retryCount retry_count retryInterval retry_interval`

**retryCount *retry\_count***

Specify the retry count if remote cluster is not reachable. To disable, set to 0.

Must be an integer in the range of 0-10.

Default Value: 3.

**retryInterval *retry\_interval***

Specify, in milliseconds, the retry interval after which status of the remote site will be fetched.

Must be an integer in the range of 200-50000.

Default Value: 3000.

**Usage Guidelines** Use this command to configure remote cluster monitoring parameters.

## geomonitor trafficMonitor

Configures traffic monitoring configuration.

**Command Modes** Exec > Global Configuration (config)

**Syntax Description** `geomonitor trafficMonitor thresholdCount threshold_count thresholdInterval threshold_interval`

**thresholdCount *threshold\_count***

Specify the number of calls received for standby instance. To disable, set to 0.

Must be an integer in the range of 0-10000.

Default Value: 0.

**thresholdInterval *threshold\_interval***

Specify, in milliseconds, the maximum duration window to hit the threshold count value.

Must be an integer in the range of 100-10000.

Default Value: 3000.

**Usage Guidelines** Use this command to configure traffic monitoring configuration.

## geomonitor vipmonitor

Configures VIP monitoring configuration.

**Command Modes** Exec > Global Configuration (config)

**Syntax Description** `geomonitor vipmonitor instance-id instance_id`

**Usage Guidelines** Use this command to configure VIP monitoring configuration.



## geomonitor vipmonitor instance

Configures VIP monitoring parameters.

**Command Modes** Exec > Global Configuration (config)

**Syntax Description** `vipmonitor instance instance-id instance_id`

**instance-id *instance\_id***

Specify the instance ID.

Must be an integer in the range of 1-8.

**Usage Guidelines** Configuration of VIPs to be monitored. Use this command to configure the instance ID.

## geomonitor vipmonitor instance vips

Configures VIP interface monitoring parameters.

**Command Modes** Exec > Global Configuration (config)

**Syntax Description** `geomonitor vipmonitor instance instance_id vips vip_interface_name [ retryCount retry_count | retryFailOverInterval retry_interval | retryInterval retry_interval | vipIp vip_ip | vipPort vip_port_number ]`

**retryCount *retry\_count***

Specify the counter value to retry if VIP failed to ping after which VIP is marked as down.

Must be an integer in the range of 1-10.

**retryFailOverInterval *retry\_interval***

Specify, in milliseconds, the retry interval if VIP failed to ping.

Must be an integer in the range of 200-10000.

**retryInterval *retry\_interval***

Specify, in milliseconds, the retry interval if VIP pinged successfully.

Must be an integer in the range of 200-10000.

**vipIp *vip\_ip***

Specify the IPv4 address.

Must be a string.

***vipPort vip\_port\_number***

Specify the diagnostic port number.

Must be an integer.

***vip\_interface\_name***

Specify name of the interface to monitor.

Must be a string.

---

**Usage Guidelines** Use this command to configure VIP monitoring configuration.

## helm

Configures Helm configuration parameters.

---

**Command Modes** Exec > Global Configuration (config)

---

**Syntax Description** **helm default-repository** *default\_repository\_name*

***default-repository default\_repository\_name***

Specify the name of the default Helm repository.

---

**Usage Guidelines** Use this command to configure Helm configuration parameters.

## helm charts

Displays Helm release details.

---

**Command Modes** Exec > Global Configuration (config)

---

**Syntax Description** **charts**

---

**Usage Guidelines** Use this command to view Helm release details.

## helm repository

Configures Helm repository parameters.

---

**Command Modes** Exec > Global Configuration (config)

---

**Syntax Description** **helm repository** *helm\_repo\_name* [ [ **access-token** *access\_token* ] [ **password** *helm\_repo\_password* ] [ **url** *helm\_repo\_url* ] [ **username** *helm\_repo\_username* ] ]

**access-token *helm\_repo\_access\_token***

Specify the access token for the Helm repository.

Must be a string.

**helm repository *helm\_repo\_name***

Specify the name of the Helm repository.

Must be a string.

**password *helm\_repo\_password***

Specify the password for the Helm repository.

**url *helm\_repo\_url***

Specify the URL for the Helm repository.

Must be a string.

**username *helm\_repo\_username***

Specify the username for the Helm repository.

Must be a string.

---

**Usage Guidelines**

Use this command to configure the Helm repository parameters.

## help

Displays help information for a specified command.

---

**Command Modes**

Exec

---

**Syntax Description**

**help** *command*

***command***

Specify the command name to display the corresponding help information.

The command must be one of the following:

- **aaa**
- **cd**
- **cdl**
- **commit**
- **compare**
- **config**
- **describe**

- **dump**
- **exit**
- **help**
- **history**
- **id**
- **idle-timeout**
- **ignore-leading-space**
- **job**
- **leaf-prompting**
- **license**
- **logout**
- **monitor**
- **no**
- **paginate**
- **quit**
- **rcm**
- **screen-length**
- **screen-width**
- **send**
- **show**
- **show-defaults**
- **smiuser**
- **system**
- **terminal**
- **timestamp**
- **who**

---

**Usage Guidelines**

Use this command to view help information for a specified command.

## history

Configures the command history cache size.

<b>Command Modes</b>	Exec
<b>Syntax Description</b>	<p><b>history</b> <i>history_size</i></p> <p><b>history_size</b></p> <p>Specify the command history cache size.</p> <p>Must be an integer in the range of 0-1000.</p>
<b>Usage Guidelines</b>	Use this command to configure the command history cache size.

## id

Displays user ID information.

<b>Command Modes</b>	Exec
<b>Syntax Description</b>	<b>id</b>
<b>Usage Guidelines</b>	Use this command to view the user ID information.

## idle-timeout

Configures the maximum duration a command can remain idle in seconds after which the system automatically terminates the connection.

<b>Command Modes</b>	Exec
<b>Syntax Description</b>	<p><b>idle-timeout</b> <i>duration</i></p> <p><b>duration</b></p> <p>Specify the idle timeout duration in seconds.</p> <p>Must be an integer in the range of 1-8192.</p>
<b>Usage Guidelines</b>	Use this command to configure the maximum duration a command can remain idle.

## ignore-leading-space

Configures whether to ignore or consider the leading whitespace at the beginning of a command.

<b>Command Modes</b>	Exec
<b>Syntax Description</b>	<b>ignore-leading-space</b> { <b>false</b>   <b>true</b> }

**{ false | true }**

Specify false to ignore the leading whitespace, and true to consider it.

Must be either "false" or "true".

---

**Usage Guidelines**

Use this command to configure whether to ignore or consider leading whitespace at the beginning of a command.

## infra metrics experimental

Configures the experimental metrics version to be enabled.

---

**Command Modes**

Exec > Global Configuration (config)

---

**Syntax Description**

**infra metrics experimental version** *experimental\_metrics\_version*

**version** *experimental\_metrics\_version*

Specify the experimental metrics version to be enabled.

Must be an integer in the range of 0-4.

Default Value: 0.

---

**Usage Guidelines**

Use this command to configure the experimental metrics version to be enabled.

## infra metrics verbose verboseLevels

Configures verbose configuration parameters.

---

**Command Modes**

Exec > Global Configuration (config)

---

**Syntax Description**

**infra metrics verbose** *pod\_type* **level** *verbose\_level*

**level** *verbose\_level*

Specify the default verbosity level.

Must be one of the following:

- **debug**
- **off**
- **production**
- **trace**

Default Value: trace.

**pod\_type**

Specify the pod type.

Must be one of the following:

- **application**
- **load-balancer**
- **protocol**
- **service**

**Usage Guidelines**

Use this command to configure verbose configuration parameters.

## infra metrics verbose verboseLevels metrics metricsList

Configures metrics verbose level parameters.

**Command Modes**

Exec > Global Configuration (config)

**Syntax Description**

**infra metrics verbose** *pod\_type* **metrics** *metrics\_name* **granular-labels** *granular\_labels*  
**level** *metrics\_verbose\_level*

**granular-labels granular\_labels**

Specify the granular labels.

Must be a string.

**level metrics\_verbose\_level**

Specify the metrics verbosity level.

Must be one of the following:

- **debug**
- **off**
- **production**
- **trace**

Default Value: trace.

**metrics metrics\_name**

Specify the name of the metrics.

Must be a string.

**Usage Guidelines**

Use this command to configure metrics verbose level parameters.

## infra transaction limit

Configures the maximum stage limit per transaction.

**Command Modes** Exec > Global Configuration (config)

**Syntax Description** `infra transaction limit stage max_stage_limit`

**stage *max\_stage\_limit***

Specify the maximum stage limit per transaction.

Must be an integer.

Default Value: 100.

**Usage Guidelines** Use this command to configure the maximum stage limit per transaction.

## infra transaction limit consecutive same

Configures the maximum consecutive stage limit per transaction.

**Command Modes** Exec > Global Configuration (config)

**Syntax Description** `infra transaction limit consecutive same stage max_consecutive_stage_limit`

**stage *max\_consecutive\_stage\_limit***

Specify the maximum consecutive stage limit per transaction.

Must be an integer.

Default Value: 10.

**Usage Guidelines** Use this command to configure the maximum consecutive stage limit per transaction.

## infra transaction loop

Configures the transaction loop detection parameters.

**Command Modes** Exec > Global Configuration (config)

**Syntax Description** `infra transaction loop detection detection_status`

**detection *detection\_status***

Specify to enable or disable loop detection.

Must be one of the following:



- **disable**
- **enable**

Default Value: disable.

**Usage Guidelines** Use this command to configure the transaction loop detection parameter.

## infra transaction loop category

Configures the loop category.

**Command Modes** Exec > Global Configuration (config)

**Syntax Description** **infra transaction loop category** *loop\_category*

**category** *loop\_category*

Specify the category.

**Usage Guidelines** Use this command to configure the loop category. The CLI prompt changes to the Loop Category Configuration mode(config-category-<category>).

## infra transaction loop category threshold

Configures the loop detection interval parameter.

**Command Modes** Exec > Global Configuration (config) > Loop Category Configuration (config-category-category)

**Syntax Description** **threshold interval** *loop\_detect\_interval*

**interval** *loop\_detect\_interval*

Specify, in seconds, the loop detection interval.

Must be an integer.

Default Value: 5.

**Usage Guidelines** Use this command to configure the loop detection interval parameter.

## infra transaction loop category threshold thresholds

Configures thresholds.

**Command Modes** Exec > Global Configuration (config) > Loop Category Configuration (config-category-category)

**Syntax Description** **thresholds** *threshold\_level* [ [ **action** *threshold\_action* ] [ **count** *max\_transactions* ] ]

**action *threshold\_action***

Specify the action to take on threshold breach.

Must be one of the following:

- **kill-session**
- **log-event**
- **noop**

Default Value: noop.

**count *max\_transactions***

Specify the maximum number of transactions for the threshold interval.

Must be an integer.

Default Value: 100.

**thresholds *threshold\_level***

Specify the threshold level.

Must be one of the following:

- **high**
- **low**

**Usage Guidelines**

Use this command to configure thresholds.

## instance instance-id

Configures instance ID of GR instance.

**Command Modes**

Exec > Global Configuration (config)

**Syntax Description**

**instance instance-id** *instance\_id*

**instance-id** *instance\_id*

Specify the instance ID.

**Usage Guidelines**

GR instance-specific parameters. Use this command to configure the instance ID of GR instance. The CLI prompt changes to the Instance ID Configuration mode (config-instance-id-<instance\_id>).

## instance instance-id endpoint ep

Configures endpoint parameters.

**Command Modes**

Exec > Global Configuration (config) > Instance ID Configuration (config-instance-id-*instance\_id*)

**Syntax Description**

**endpoint** *endpoint\_type* [ [ **instancetype** *ep\_local\_interface\_type* ] [ **loopbackEth** *loopbackEth* ] [ **loopbackPort** *loopbackPort* ] [ **nodes** *node\_replicas\_for\_resiliency* ] [ **replicas** *replicas\_per\_node* ] [ **uri-scheme** *uri\_scheme* ] ]

**certificate-name** *certificate\_alias\_name*

Specify the alias name for the certificate.

**endpoint** *endpoint\_type*

Specify the endpoint type. Must be one of the following: bgpspeaker, dhcp, geo, l2tp-tunnel, n4-protocol, nodemgr, pppoe, radius, sbi, sm, udp-proxy.

**instancetype** *ep\_local\_interface\_type*

Specify the endpoint local interface type.

Must be one of the following:

- **Dual**
- **IPv4**
- **IPv6**

Default Value: IPv4.

**internal-vip**

Specify the internal VIP.

Must be a string of 1-128 characters.

**loopbackEth** *loopbackEth*

Specify the endpoint local interface name or host IP.

Must be a string.

**loopbackPort** *loopbackPort*

Specify the endpoint local port.

Must be an integer.

**nodes** *node\_replicas\_for\_resiliency*

Specify the number of node replicas for resiliency.

Must be an integer.

Default Value: 1.

**replicas** *replicas\_per\_node*

Specify the number of replicas per node.

Must be an integer.

Default Value: 1.

**uri-scheme *uri\_scheme***

Specify the URI scheme.

Must be one of the following:

- **http**
- **https**

Default Value: http.

**Usage Guidelines** Use this command to configure endpoint parameters.

## instance instance-id endpoint ep cpu

Configures K8 pod CPU configuration.

**Command Modes** Exec > Global Configuration (config) > Instance Configuration (config-instance-id-*instance\_id*) > Endpoint Configuration (config-endpoint-*endpoint\_name*)

**Syntax Description** `cpu { [ max-process max_parallel_os_threads ] [ request cpu_resource_request ] }`

**max-process *max\_parallel\_os\_threads***

Specify the maximum parallel OS threads to use.

Must be an integer in the range of 1-32.

**request *cpu\_resource\_request***

Specify the CPU resource request in millicores.

Must be an integer in the range of 100-1000000.

**Usage Guidelines** Use this command to configure K8 pod CPU configuration.

## instance instance-id endpoint ep interface

Configures endpoint interfaces.

**Command Modes** Exec > Global Configuration (config) > Instance Configuration (config-instance-id-*instance\_id*) > Endpoint Configuration (config-endpoint-*endpoint\_name*)

**Command Modes** Exec > Global Configuration (config) > Instance Configuration (config-instance-id-*instance\_id*) > Endpoint Configuration (config-endpoint-*endpoint\_name*) > Service Configuration (config-service-*service*)

**Syntax Description**

```
interface interface_type [ [ instancetype ep_local_interface_type ] [ loopbackEth
loopback_eth ] [ loopbackPort loopback_port_number ] [ uri-scheme uri_scheme ] ]
```

**certificate-name** *certificate\_alias\_name*

Specify the alias name for certificate.

**instancetype** *ep\_local\_interface\_type*

Specify the endpoint local interface type.

Must be one of the following:

- **Dual**
- **IPv4**
- **IPv6**

Default Value: IPv4.

**interface** *interface\_type*

Specify the interface type.

**loopbackEth** *loopback\_eth*

Specify the Loopback Eth pod interface.

Must be a string.

**loopbackPort** *loopback\_port\_number*

Specify the loopback port number.

Must be an integer.

**uri-scheme** *uri\_scheme*

Specify the URI scheme.

Must be one of the following:

- **http**
- **https**

Default Value: http.

**Usage Guidelines**

Use this command to configure endpoint interfaces.

## instance instance-id endpoint ep interface dispatcher

Configures dispatcher queue support for the interface.

**Command Modes** Exec > Global Configuration (config) > Instance Configuration (config-instance-id-*instance\_id*) > Endpoint Configuration (config-endpoint-*endpoint\_name*) > Interface Configuration (config-interface-*interface\_name*)

**Command Modes** Exec > Global Configuration (config) > Instance Configuration (config-instance-id-*instance\_id*) > Endpoint Configuration (config-endpoint-*endpoint\_name*) > Service Configuration (config-service-*service\_name*) > Interface Configuration (config-interface-*interface\_name*)

**Syntax Description** **dispatcher** [ [ **cache** { **false** | **true** } ] [ **capacity** *queue\_capacity* ] [ **count** *dispatcher\_queue\_count* ] [ **expiry** *cache\_entry\_expiry\_duration* ] [ **flowctrl-group** *group\_name* { **capacity** *inbound\_queue\_size* | **outbound-capacity** *outbound\_queue\_size* | **outbound-rate-limit** *outbound\_rate\_limit* | **rate-limit** *inbound\_rate\_limit* } ] [ **nonresponsive** *cache\_entry\_expiry\_duration* ] [ **outbound** { **false** | **true** } ] [ **rate-limit** *queue\_rate\_limit* ] [ **threshold** *outstanding\_requests* ]

#### **cache** { **false** | **true** }

Specify whether to disable or enable retransmission cache support. To enable, set to false.

Must be one of the following:

- **false**
- **true**

Default Value: false.

#### **capacity** *queue\_capacity*

Specify the capacity of each queue.

Must be an integer.

Default Value: 5000.

#### **count** *dispatcher\_queues\_count*

Specify the count of dispatcher queues.

Must be an integer.

Default Value: 0.

#### **expiry** *expiry\_duration*

Specify the responded cache entry expiry duration in milliseconds.

Must be an integer.

Default Value: 60000.

#### **flowctrl-group** *group\_name* { **capacity** *inbound\_queue\_size* | **outbound-capacity** *outbound\_queue\_size* | **outbound-rate-limit** *outbound\_rate\_limit* | **rate-limit** *inbound\_rate\_limit* }

Specify the queue size and rate limit for the specified flow control group.



**Note** The flow control group name must be the same for N4 and GTPu interfaces for a given group.

- **capacity** *inbound\_queue\_size*: Specify the capacity for inbound queue.
- **outbound-capacity** *outbound\_queue\_size*: Specify the capacity for outbound queue.
- **outbound-rate-limit** *outbound\_rate\_limit*: Specify the rate limit for outbound queue.
- **rate-limit** *inbound\_rate\_limit*: Specify the rate limit for inbound queue.

#### **nonresponsive** *nonresponsive\_duration*

Specify the not responded cache entry expiry duration in milliseconds.

Must be an integer.

Default Value: 30000.

#### **outbound** { **false** | **true** }

Specify whether to disable or enable queue support for outbound messages. To enable, set to false.

Must be one of the following:

- **false**
- **true**

Default Value: true.

#### **rate-limit** *rate\_limit*

Specify the rate limit for each queue.

Must be an integer.

Default Value: 0.

#### **threshold** *outstanding\_requests*

Specify the outstanding requests per queue cache.

Must be an integer.

Default Value: 30000.

#### **Usage Guidelines**

Use this command to configure dispatcher queue support for the interface.

## **instance instance-id endpoint ep interface internal base-port**

Configures base-port to start endpoint parameter.

**Command Modes** Exec > Global Configuration (config) > Instance Configuration (config-instance-id-*instance\_id*) > Endpoint Configuration (config-endpoint-*endpoint\_name*) > Interface Configuration (config-interface-*interface\_name*)

**Command Modes** Exec > Global Configuration (config) > Instance Configuration (config-instance-id-*instance\_id*) > Endpoint Configuration (config-endpoint-*endpoint\_name*) > Service Configuration (config-service-*service\_name*) > Interface Configuration (config-interface-*interface\_name*)

**Syntax Description** **internal base-port start** *base\_port\_to\_start\_ep*

**start** *base\_port\_to\_start\_ep*

Specify the base-port to start endpoint.

Must be an integer in the range of 1024-65535.

**Usage Guidelines** Use this command to configure the base-port to start endpoint parameter.

## instance instance-id endpoint ep interface sla

Configures SLA parameters.

**Command Modes** Exec > Global Configuration (config) > Instance Configuration (config-instance-id-*instance\_id*) > Endpoint Configuration (config-endpoint-*endpoint\_name*) > Interface Configuration (config-interface-*interface\_name*)

**Syntax Description** **sla** { [ **response** *response\_time* ] [ **procedure** *procedure\_time* ] }

**procedure** *procedure\_time*

Specify, in milliseconds, the procedure time.

Must be an integer in the range of 1000-120000.

**response** *response\_time*

Specify, in milliseconds, the response time.

Must be an integer in the range of 1000-180000.

**Usage Guidelines** Use this command to configure SLA parameters.

## instance instance-id endpoint ep interface vip

Configures Virtual IP parameters.

**Command Modes** Exec > Global Configuration (config) > Instance Configuration (config-instance-id-*instance\_id*) > Endpoint Configuration (config-endpoint-*endpoint\_name*) > Interface Configuration (config-interface-*interface\_name*)

**Syntax Description** **vip-ip** *vip\_ip\_address* [ [ **offline** ] [ **vip-interface** *interface\_name* ] [ **vip-port** *vip\_port\_number* ] ]



**offline**

Specify to mark the vip-ip as offline.

**vip-interface *interface\_name***

Specify the interface name to advertise BGP router.

Must be a string.

**vip-ip *vip\_ip\_address***

Specify the IP address of the host.

Must be a string.

**vip-port *vip\_port\_number***

Specify the port number.

Must be an integer.

**Usage Guidelines**

Use this command to configure Virtual IP parameters.

## instance instance-id endpoint ep interface vip6

Configures VIP IP6 parameters.

**Command Modes**

Exec > Global Configuration (config) > Instance Configuration (config-instance-id-*instance\_id*) > Endpoint Configuration (config-endpoint-*endpoint\_name*) > Interface Configuration (config-interface-*interface\_name*)

**Syntax Description**

```
vip6 vip-ip6 vip_ip6 [ [ offline ] [ vip-ipv6-port port_number ] ]
```

**offline**

Specify the VIP IP as offline.

**vip-ip6 *vip\_ip6***

Specify the host detail.

Must be a string.

**vip-ipv6-port *port\_number***

Specify the port number.

Must be an integer.

**Usage Guidelines**

Use this command to configure VIP IP6 parameters.

## instance instance-id endpoint ep memory

Configures K8 pod memory configuration.

**Command Modes** Exec > Global Configuration (config) > Instance Configuration (config-instance-id-*instance\_id*) > Endpoint Configuration (config-endpoint-*endpoint\_name*)

**Syntax Description** **memory** { [ **limit** *max\_memory\_resource* ] [ **request** *memory\_resource\_request* ] }

### **limit** *max\_memory\_resource*

Specify the maximum memory resource in use in megabytes.

Must be an integer in the range of 100-200000.

### **request** *memory\_resource\_request*

Specify the memory resource request in megabytes.

Must be an integer in the range of 100-200000.

**Usage Guidelines** Use this command to configure K8 pod memory configuration.

## instance instance-id endpoint ep retransmission

Configures PFCP retransmission configuration.

**Command Modes** Exec > Global Configuration

**Syntax Description** **retransmission max-retry** *max\_retry* **timeout** *pfcp\_retransmission\_interval*

### **max-retry** *max\_retry*

Specify the maximum number of times PFCP request retry attempts. To disable retransmission, set to 0.

Must be an integer in the range of 0-1.

Default Value: 1.

### **timeout** *pfcp\_retransmission\_interval*

Specify the PFCP retransmission interval in seconds.

Must be an integer in the range of 0-15.

Default Value: 15.

**Usage Guidelines** Use this command to configure PFCP retransmission configuration.

## instance instance-id endpoint ep service

Configures VIP IPv6 parameters.

**Command Modes** Exec > Global Configuration (config) > Instance ID Configuration (config-instance-id-*instance\_id*) > Endpoint *endpoint\_type* Configuration (config-endpoint-*endpoint\_type*)

**Syntax Description** **service service-name** *service\_name*

**service-name** *service\_name*

Specify the service name.

Must be a string in the pattern [A-Za-z0-9-].\*[0-9].\*

**Usage Guidelines** Use this command to configure VIP IPv6 parameters.

## instance instance-id endpoint ep service interface

Configures endpoint interfaces.

**Command Modes** Exec > Global Configuration (config) > Instance Configuration (config-instance-id-*instance\_id*) > Endpoint Configuration (config-endpoint-*endpoint\_name*)

**Command Modes** Exec > Global Configuration (config) > Instance Configuration (config-instance-id-*instance\_id*) > Endpoint Configuration (config-endpoint-*endpoint\_name*) > Service Configuration (config-service-*service*)

**Syntax Description** **interface** *interface\_type* [ [ **instancetype** *ep\_local\_interface\_type* ] [ **loopbackEth** *loopback\_eth* ] [ **loopbackPort** *loopback\_port\_number* ] [ **uri-scheme** *uri\_scheme* ] ]

**certificate-name** *certificate\_alias\_name*

Specify the alias name for certificate.

**instancetype** *ep\_local\_interface\_type*

Specify the endpoint local interface type.

Must be one of the following:

- **Dual**
- **IPv4**
- **IPv6**

Default Value: IPv4.

**interface** *interface\_type*

Specify the interface type.

**loopbackEth *loopback\_eth***

Specify the Loopback Eth pod interface.

Must be a string.

**loopbackPort *loopback\_port\_number***

Specify the loopback port number.

Must be an integer.

**uri-scheme *uri\_scheme***

Specify the URI scheme.

Must be one of the following:

- **http**
- **https**

Default Value: http.

**Usage Guidelines**

Use this command to configure endpoint interfaces.

## instance instance-id endpoint ep service interface dispatcher

Configures dispatcher queue support for the interface.

**Command Modes**

Exec > Global Configuration (config) > Instance Configuration (config-instance-id-*instance\_id*) > Endpoint Configuration (config-endpoint-*endpoint\_name*) > Interface Configuration (config-interface-*interface\_name*)

**Command Modes**

Exec > Global Configuration (config) > Instance Configuration (config-instance-id-*instance\_id*) > Endpoint Configuration (config-endpoint-*endpoint\_name*) > Service Configuration (config-service-*service\_name*) > Interface Configuration (config-interface-*interface\_name*)

**Syntax Description**

```
dispatcher [ [ cache { false | true } ] [ capacity queue_capacity ] [ count
  dispatcher_queue_count ] [ expiry cache_entry_expiry_duration ] [ flowctrl-group
  group_name { capacity inbound_queue_size | outbound-capacity outbound_queue_size |
```

```
  outbound-rate-limit outbound_rate_limit | rate-limit inbound_rate_limit } ] [
  nonresponsive cache_entry_expiry_duration ] [ outbound { false | true } ] [
  rate-limit queue_rate_limit ] [ threshold outstanding_requests ]
```

**cache { false | true }**

Specify whether to disable or enable retransmission cache support. To enable, set to false.

Must be one of the following:

- **false**
- **true**

Default Value: false.

**capacity *queue\_capacity***

Specify the capacity of each queue.

Must be an integer.

Default Value: 5000.

**count *dispatcher\_queues\_count***

Specify the count of dispatcher queues.

Must be an integer.

Default Value: 0.

**expiry *expiry\_duration***

Specify the responded cache entry expiry duration in milliseconds.

Must be an integer.

Default Value: 60000.

**flowctrl-group *group\_name* { *capacity inbound\_queue\_size* | *outbound-capacity outbound\_queue\_size* | *outbound-rate-limit outbound\_rate\_limit* | *rate-limit inbound\_rate\_limit* }**

Specify the queue size and rate limit for the specified flow control group.




---

**Note** The flow control group name must be the same for N4 and GTPu interfaces for a given group.

---

- **capacity *inbound\_queue\_size***: Specify the capacity for inbound queue.
- **outbound-capacity *outbound\_queue\_size***: Specify the capacity for outbound queue.
- **outbound-rate-limit *outbound\_rate\_limit***: Specify the rate limit for outbound queue.
- **rate-limit *inbound\_rate\_limit***: Specify the rate limit for inbound queue.

**nonresponsive *nonresponsive\_duration***

Specify the not responded cache entry expiry duration in milliseconds.

Must be an integer.

Default Value: 30000.

**outbound { *false* | *true* }**

Specify whether to disable or enable queue support for outbound messages. To enable, set to false.

Must be one of the following:

- **false**
- **true**

Default Value: true.

**rate-limit *rate\_limit***

Specify the rate limit for each queue.

Must be an integer.

Default Value: 0.

**threshold *outstanding\_requests***

Specify the outstanding requests per queue cache.

Must be an integer.

Default Value: 30000.

**Usage Guidelines**

Use this command to configure dispatcher queue support for the interface.

## instance instance-id endpoint ep service interface internal base-port

Configures base-port to start endpoint parameter.

**Command Modes**

Exec > Global Configuration (config) > Instance Configuration (config-instance-id-*instance\_id*) > Endpoint Configuration (config-endpoint-*endpoint\_name*) > Interface Configuration (config-interface-*interface\_name*)

**Command Modes**

Exec > Global Configuration (config) > Instance Configuration (config-instance-id-*instance\_id*) > Endpoint Configuration (config-endpoint-*endpoint\_name*) > Service Configuration (config-service-*service\_name*) > Interface Configuration (config-interface-*interface\_name*)

**Syntax Description**

**internal base-port start** *base\_port\_to\_start\_ep*

**start *base\_port\_to\_start\_ep***

Specify the base-port to start endpoint.

Must be an integer in the range of 1024-65535.

**Usage Guidelines**

Use this command to configure the base-port to start endpoint parameter.

## instance instance-id endpoint ep service interface overload-control client threshold critical

Configures the Overload Control Protection critical threshold parameter.

**Command Modes**

Exec > Global Configuration (config) > Instance Configuration (config-instance-id-*instance\_id*) > Endpoint Configuration (config-endpoint-*endpoint\_name*) > Interface Configuration (config-interface-*interface\_name*)

**Syntax Description** `overload-control threshold critical critical_threshold_limit action critical_threshold_action`

**Syntax Description** `overload-control client threshold critical critical_threshold_limit action critical_threshold_action`

**action** *critical\_threshold\_action*

Specify the action to be taken if the critical threshold is hit.

**critical** *critical\_threshold\_limit*

Specify the critical threshold limit for outstanding requests.

Must be an integer in the range of 10-100000.

**Usage Guidelines** Use this command to configure the Overload Control protection's critical threshold parameter. To configure threshold configuration per client, use the "overload-control client threshold ..." command.

## instance instance-id endpoint ep service interface overload-control client threshold high

Configures the Overload Control Protection high threshold parameter.

**Command Modes** Exec > Global Configuration (config) > Instance Configuration (config-instance-id-*instance\_id*) > Endpoint Configuration (config-endpoint-*endpoint\_name*) > Interface Configuration (config-interface-*interface\_name*)

**Syntax Description** `overload-control threshold high high_threshold_limit action high_threshold_action`

**Syntax Description** `overload-control client threshold high high_threshold_limit action high_threshold_action`

**action** *high\_threshold\_action*

Specify the action to be taken when high threshold limit is hit.

**high** *high\_threshold\_limit*

Specify the high threshold limit for outstanding requests.

Must be an integer in the range of 10-100000.

**Usage Guidelines** Use this command to configure the Overload Control Protection high threshold parameter. To configure threshold configuration per client, use the "overload-control client threshold ..." command.

## instance instance-id endpoint ep service interface overload-control client threshold low

Configures the Overload Control Protection low threshold parameter.

**Command Modes** Exec > Global Configuration (config) > Instance Configuration (config-instance-id-*instance\_id*) > Endpoint Configuration (config-endpoint-*endpoint\_name*) > Interface Configuration (config-interface-*interface\_name*)

**Syntax Description** `overload-control threshold low low_threshold_limit action low_threshold_action`

**Syntax Description** `overload-control client threshold low low_threshold_limit action low_threshold_action`

**action *low\_threshold\_action***

Specify the action to be taken when low threshold limit is hit.

**low *low\_threshold\_limit***

Specify the low threshold limit for outstanding requests.

Must be an integer in the range of 10-100000.

**Usage Guidelines** Use this command to configure the Overload Control Protection low threshold parameter. To configure threshold configuration per client, use the "overload-control client threshold ..." command.

## instance instance-id endpoint ep service interface overload-control endpoint threshold critical

Configures the Overload Control Protection critical threshold parameter.

**Command Modes** Exec > Global Configuration (config) > Instance Configuration (config-instance-id-*instance\_id*) > Endpoint Configuration (config-endpoint-*endpoint\_name*) > Interface Configuration (config-interface-*interface\_name*)

**Syntax Description** `overload-control threshold critical critical_threshold_limit action critical_threshold_action`

**Syntax Description** `overload-control client threshold critical critical_threshold_limit action critical_threshold_action`

**action *critical\_threshold\_action***

Specify the action to be taken if the critical threshold is hit.

**critical *critical\_threshold\_limit***

Specify the critical threshold limit for outstanding requests.

Must be an integer in the range of 10-100000.

**Usage Guidelines** Use this command to configure the Overload Control protection's critical threshold parameter. To configure threshold configuration per client, use the "overload-control client threshold ..." command.



## instance instance-id endpoint ep service interface overload-control endpoint threshold high

Configures the Overload Control Protection high threshold parameter.

**Command Modes** Exec > Global Configuration (config) > Instance Configuration (config-instance-id-*instance\_id*) > Endpoint Configuration (config-endpoint-*endpoint\_name*) > Interface Configuration (config-interface-*interface\_name*)

**Syntax Description** `overload-control threshold high high_threshold_limit action high_threshold_action`

**Syntax Description** `overload-control client threshold high high_threshold_limit action high_threshold_action`

**action *high\_threshold\_action***

Specify the action to be taken when high threshold limit is hit.

**high *high\_threshold\_limit***

Specify the high threshold limit for outstanding requests.

Must be an integer in the range of 10-100000.

**Usage Guidelines** Use this command to configure the Overload Control Protection high threshold parameter. To configure threshold configuration per client, use the "overload-control client threshold ..." command.

## instance instance-id endpoint ep service interface overload-control endpoint threshold low

Configures the Overload Control Protection low threshold parameter.

**Command Modes** Exec > Global Configuration (config) > Instance Configuration (config-instance-id-*instance\_id*) > Endpoint Configuration (config-endpoint-*endpoint\_name*) > Interface Configuration (config-interface-*interface\_name*)

**Syntax Description** `overload-control threshold low low_threshold_limit action low_threshold_action`

**Syntax Description** `overload-control client threshold low low_threshold_limit action low_threshold_action`

**action *low\_threshold\_action***

Specify the action to be taken when low threshold limit is hit.

**low *low\_threshold\_limit***

Specify the low threshold limit for outstanding requests.

Must be an integer in the range of 10-100000.

**Usage Guidelines**

Use this command to configure the Overload Control Protection low threshold parameter. To configure threshold configuration per client, use the "overload-control client threshold ..." command.

## instance instance-id endpoint ep service interface overload-control msg-type messageConfigs

Configures the message configuration parameters.

**Command Modes**

Global Configuration (config) > Instance Configuration (config-instance-id-*instance\_id*) > Endpoint Configuration (config-endpoint-*endpoint\_name*) > Interface Configuration (config-interface-*interface\_name*)

**Syntax Description**

**overload-control msg-type** *message\_type* **pending-request** *pending\_requests*  
**queue-size** *queue\_size* **rate-limit** *rate\_limit* **reject-threshold** *reject\_threshold*

**msg-type** *message\_type*

Specify the message type.

**pending-request** *pending\_requests*

Specify the pending requests count in virtual queue.

Must be an integer.

**queue-size** *queue\_size*

Specify the packet count or capacity of each virtual queue.

Must be an integer.

**rate-limit** *rate\_limit*

Specify the rate limit for virtual queue.

Must be an integer.

**reject-threshold** *reject\_threshold*

Specify the limit to reject incoming messages if this threshold percentage of pending requests are present.

Must be an integer.

**Usage Guidelines**

Use this command to configure the message configuration parameters.

## instance instance-id endpoint ep service interface sla

Configures SLA parameters.

**Command Modes**

Exec > Global Configuration (config) > Instance Configuration (config-instance-id-*instance\_id*) > Endpoint Configuration (config-endpoint-*endpoint\_name*) > Interface Configuration (config-interface-*interface\_name*)

**Syntax Description**     **sla** { [ **response** *response\_time* ] [ **procedure** *procedure\_time* ] }

**procedure** *procedure\_time*

Specify, in milliseconds, the procedure time.

Must be an integer in the range of 1000-120000.

**response** *response\_time*

Specify, in milliseconds, the response time.

Must be an integer in the range of 1000-180000.

**Usage Guidelines**     Use this command to configure SLA parameters.

## instance instance-id endpoint ep service interface vip

Configures Virtual IP parameters.

**Command Modes**     Exec > Global Configuration (config) > Instance Configuration (config-instance-id-*instance\_id*) > Endpoint Configuration (config-endpoint-*endpoint\_name*) > Interface Configuration (config-interface-*interface\_name*)

**Syntax Description**     **vip-ip** *vip\_ip\_address* [ [ **offline** ] [ **vip-interface** *interface\_name* ] [ **vip-port** *vip\_port\_number* ] ]

**offline**

Specify to mark the vip-ip as offline.

**vip-interface** *interface\_name*

Specify the interface name to advertise BGP router.

Must be a string.

**vip-ip** *vip\_ip\_address*

Specify the IP address of the host.

Must be a string.

**vip-port** *vip\_port\_number*

Specify the port number.

Must be an integer.

**Usage Guidelines**     Use this command to configure Virtual IP parameters.

## instance instance-id endpoint ep service interface vip6

Configures VIP IP6 parameters.

**Command Modes** Exec > Global Configuration (config) > Instance Configuration (config-instance-id-*instance\_id*) > Endpoint Configuration (config-endpoint-*endpoint\_name*) > Interface Configuration (config-interface-*interface\_name*)

**Syntax Description** **vip6 vip-ip6** *vip\_ip6* [ [ **offline** ] [ **vip-ipv6-port** *port\_number* ] ]

### **offline**

Specify the VIP IP as offline.

### **vip-ip6 vip\_ip6**

Specify the host detail.

Must be a string.

### **vip-ipv6-port port\_number**

Specify the port number.

Must be an integer.

**Usage Guidelines** Use this command to configure VIP IP6 parameters.

## instance instance-id endpoint ep system-health-level crash

Configures system health crash parameters.

**Command Modes** Exec > Global Configuration (config) > Instance Configuration (config-instance-id-*instance\_id*) > Endpoint Configuration (config-endpoint-*endpoint\_type*)

**Syntax Description** **system-health-level crash** { [ **cpu-percent** *cpu\_percentage* ] [ **memory-in-mbs** *memory* ] [ **num-of-goroutine** *goroutine\_per\_core* ] }

### **cpu-percent cpu\_percentage**

Specify the CPU percentage.

Must be an integer.

Default Value: 80.

### **memory-in-mbs memory**

Specify the memory in MB.

Must be an integer.

Default Value: 2048.

**num-of-goroutine *goroutine\_per\_core***

Specify the number of goroutine per core.

Must be an integer.

Default Value: 45000.

**Usage Guidelines**

Use this command to configure system health crash parameters.

## instance instance-id endpoint ep system-health-level critical

Configures system health critical parameters.

**Command Modes**

Exec > Global Configuration (config) > Instance Configuration (config-instance-id-*instance\_id*) > Endpoint Configuration (config-endpoint-*endpoint\_type*)

**Syntax Description**

```
critical { [ cpu-percent cpu_percent ] [ memory-in-mbs memory ] [ num-of-goroutine number_of_goroutine ] }
```

**cpu-percent *cpu\_percentage***

Specify the CPU percentage.

Must be an integer.

Default Value: 60.

**memory-in-mbs *memory***

Specify the memory in MB.

Must be an integer.

Default Value: 1024.

**num-of-goroutine *number\_of\_goroutine***

Specify the number of goroutine per core.

Must be an integer.

Default Value: 35000.

**Usage Guidelines**

Use this command to configure system health critical parameters.

## instance instance-id endpoint ep system-health-level warn

Configures system health warn parameters.

**Command Modes**

Exec > Global Configuration (config) > Instance Configuration (config-instance-id-*instance\_id*) > Endpoint Configuration (config-endpoint-*endpoint\_type*)

**Syntax Description**

```
system-health-level warn { [ cpu-percent cpu_percentage ] [ memory-in-mbs
memory ] [ num-of-goroutine number_of_goroutine ] }
```

**cpu-percent** *cpu\_percentage*

Specify the CPU percentage.

Must be an integer.

Default Value: 50.

**memory-in-mbs** *memory*

Specify the memory in MBs.

Must be an integer.

Default Value: 512.

**num-of-goroutine** *goroutine\_per\_core*

Specify the number of goroutine per core.

Must be an integer.

Default Value: 25000.

**Usage Guidelines**

Use this command to configure system health warn parameters.

## instance instance-id endpoint ep vip

Configures VIP parameters.

**Command Modes**

Exec > Global Configuration (config) > Instance Configuration (config-instance-id-*instance\_id*) > Endpoint Configuration (config-endpoint-*endpoint\_type*)

**Syntax Description**

```
vip-ip vip_ipv4_address [ [ offline ] [ vip-interface vip_interface_name ] [
vip-port port_number ] ]
```

**offline**

Specify the VIP-IP as offline.

**vip-interface** *vip\_interface\_name*

Specify the interface name to advertise BGP router.

Must be a string.

**vip-ip** *vip\_ipv4\_address*

Specify the VIP IPv4 address.

Must be a string.

***vip-port port\_number***

Specify the port number.

Must be an integer.

**Usage Guidelines**

Use this command to configure VIP parameters.

## instance instance-id endpoint ep vip6

Configures VIP IPv6 parameters.

**Command Modes**

Exec > Global Configuration (config) > Instance ID Configuration (config-instance-id-*instance\_id*) > Endpoint *endpoint\_type* Configuration (config-endpoint-*endpoint\_type*)

**Syntax Description**

**vip-ipv6** *vip\_ipv6\_detail* [ [ **offline** ] [ **vip-ipv6-port** *vip\_ipv6\_port\_number* ] ]

**offline**

Specify the VIP-IP as offline.

**vip-ipv6-port** *vip\_ipv6\_port\_number*

Specify the port number.

Must be an integer.

**vip-ipv6** *vip\_ipv6\_detail*

Specify the IPv6 detail.

Must be a string.

**Usage Guidelines**

Use this command to configure VIP IPv6 parameters.

## instances instance

Configures instance configuration parameters.

**Command Modes**

Exec > Global Configuration (config)

**Syntax Description**

**instances instance** *instance\_id* [ [ **cluster-id** *cluster\_id* ] [ **system-id** *system\_id* ] [ **slice-name** *slice\_name* ] ]

**cluster-id** *cluster\_id*

Specify the instance cluster ID.

Must be a string.

**instance-id *instance\_id***

Specify the instance ID.

Must be an integer in the range of 1-8.

**slice-name *slice\_name***

Specify the CDL slice name associated with instance ID.

Must be a string.

**system-id *system\_id***

Specify the instance system ID.

Must be a string.

**Usage Guidelines**

Use this command to configure instance configuration parameters.

## ipam instance

Configures IPAM instance parameters.

**Command Modes**

Exec > Global Configuration (config)

**Syntax Description**

**ipam instance** *instance\_id*

**instance *instance\_id***

Specify the instance ID.

Must be an integer in the range of 1-8.

**Usage Guidelines**

Use this command to configure IPAM instance parameters. The CLI prompt changes to the Instance Configuration mode (config-instance-<instance\_id>).

## ipam instance address-pool

Configures IPAM address pools.

**Command Modes**

Exec > Global Configuration (config) > Instance Configuration (config-instance-*instance\_id*)

**Syntax Description**

**address-pool** *pool\_name* [ **address-quarantine-qsize** *address\_quarantine\_queue\_size*  
| **address-quarantine-timer** *address\_quarantine\_timer\_interval* | **offline** | **static**  
| **vrf-name** *vrf\_name* ]

**address-pool *pool\_name***

Specify name of the address pool.



Must be a string of 1-128 characters in the ipam-str pattern. For information on the ipam-str pattern, see the *Input Pattern Types* chapter.

**address-quarantine-qsize** *address\_quarantine\_queue\_size*

Specify the maximum number of IPs to be held in quarantine queue per-dp, per-af, per-instance. By default, it is set to 0 (no limit).

Must be an integer.

**address-quarantine-timer** *address\_quarantine\_timer\_interval*

Specify the address quarantine timer interval in seconds.

Must be an integer in the range of 4-3600.

Default Value: 4.

**offline**

Specify the pool as an offline pool.

**vrf-name** *vrf\_name*

Specify name of the VRF.

Must be a string of 1-128 characters in the ipam-str pattern. For information on the ipam-str pattern, see the *Input Pattern Types* chapter.

**Usage Guidelines**

Use this command to configure IPAM address pools. The CLI prompt changes to the Address Pool Configuration mode (config-address-pool-<address\_pool\_name>).

## ipam instance address-pool ipv4 address-range

Configures IPv4 address ranges.

**Command Modes**

Exec > Global Configuration (config) > IPAM Configuration (config-ipam) > Instance Configuration (config-instance-*instance\_id*) > Address Pool Configuration (config-address-pool-*address\_pool\_name*) > IPv4 Configuration (config-ipv4)

**Syntax Description**

**address-range** *start\_ipv4\_address end\_ipv4\_address* [ **offline** ] [ **default-gateway** *ip\_address* ]

**default-gateway** *ip\_address*

Specify the default gateway IP address for static pool.

Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the *Input Pattern Types* chapter.

**offline**

Specify the IPv4 address range as offline.

**end\_ipv4\_address**

Specify the end address of the IPv4 address range.

Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the *Input Pattern Types* chapter.

**start\_ipv4\_address**

Specify the start address of the IPv4 address range.

Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the *Input Pattern Types* chapter.

**Usage Guidelines**

Use this command to configure IPv4 address ranges.

## ipam instance address-pool ipv4 prefix-range

Configures IPv4 prefix range.

**Command Modes**

Exec > Global Configuration (config) > Instance Configuration (config-instance-id-*instance\_id*) > Address Pool Configuration (config-address-pool-*address\_pool\_name*)

**Syntax Description**

**ipv4 prefix-range range** *prefix\_value* *prefix\_length* [ **offline** ] [ **default-gateway** *ip\_address* ]

**default-gateway ip\_address**

Specify the default gateway IP address for static pool.

Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the *Input Pattern Types* chapter.

**length prefix\_length**

Specify the IPv4 prefix length.

Must be an integer in the range of 1-31.

**offline**

Specify the IPv4 prefix range as offline.

**prefix\_value**

Specify the IPv4 prefix.

Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the *Input Pattern Types* chapter.

**Usage Guidelines**

Use this command to configure IPv4 prefix range.

## ipam instance address-pool ipv4 split-size

Configures chunk split size parameters.

**Command Modes** Exec > Global Configuration (config) > IPAM Configuration (config-ipam) > Instance Configuration (config-instance-*instance\_id*) > Address Pool Configuration (config-address-pool-*address\_pool\_name*) > IPv4 Configuration (config-ipv4)

**Command Modes** Exec > Global Configuration (config) > IPAM Configuration (config-ipam) > Instance Configuration (config-instance-*instance\_id*) > Address Pool Configuration (config-address-pool-*address\_pool\_name*) > IPv6 Configuration (config-ipv6) > Address Ranges Configuration (config-address-ranges)

**Command Modes** Exec > Global Configuration (config) > IPAM Configuration (config-ipam) > Instance Configuration (config-instance-*instance\_id*) > Address Pool Configuration (config-address-pool-*address\_pool\_name*) > IPv6 Configuration (config-ipv6) > Prefix Ranges Configuration (config-prefix-ranges)

**Syntax Description** **split-size** [ [ **no-split** ] [ **per-cache** *number\_of\_addresses* ] [ **per-dp** *number\_of\_addresses* ] ]

### **no-split**

Specify not to split the address range into smaller chunks.

### **per-cache *number\_of\_addresses***

Specify the number of addresses per chunk for IPAM cache allocation. Specify in power of 2.

Must be an integer in the range of 2-262144.

### **per-dp *number\_of\_addresses***

Specify the number of addresses per chunk for data-plane allocation. Specify in power of 2.

Must be an integer in the range of 2-262144.

**Usage Guidelines** Use this command to configure chunk split size parameters. The CLI prompt changes to the Split Size Configuration mode (config-split-size).

## ipam instance address-pool ipv4 threshold

Configures pool thresholds.

**Command Modes** Exec > Global Configuration (config) > IPAM Configuration (config-ipam) > Instance Configuration (config-instance-*instance\_id*) > Address Pool Configuration (config-address-pool-*address\_pool\_name*) > IPv4 Configuration (config-ipv4)

**Command Modes** Exec > Global Configuration (config) > IPAM Configuration (config-ipam) > Instance Configuration (config-instance-*instance\_id*) > Address Pool Configuration (config-address-pool-*address\_pool\_name*) > IPv6 Configuration (config-ipv6) > Address Ranges Configuration (config-address-ranges)

**Command Modes** Exec > Global Configuration (config) > IPAM Configuration (config-ipam) > Instance Configuration (config-instance-*instance\_id*) > Address Pool Configuration (config-address-pool-address-*pool\_name*) > IPv6 Configuration (config-ipv6) > Prefix Ranges Configuration (config-prefix-ranges)

**Syntax Description** **threshold upper-threshold** *upper\_threshold*

**upper-threshold** *upper\_threshold*

Specify the upper threshold value in percentage.

Must be an integer in the range of 1-100.

**Usage Guidelines** Use this command to configure pool thresholds.

## ipam instance address-pool ipv6 address-ranges address-range

Configures IPv6 address ranges.

**Command Modes** Exec > Global Configuration (config) > IPAM Configuration (config-ipam) > Instance Configuration (config-instance-*instance\_id*) > Address Pool Configuration (config-address-pool-address-*pool\_name*) > IPv6 Configuration (config-ipv6) > Address Ranges Configuration (config-address-ranges)

**Syntax Description** **address-range** *start\_ipv6\_address end\_ipv6\_address* [ **offline** ]

**offline**

Specify the IPv6 address range as offline.

**end\_ipv6\_address**

Specify the end address of the IPv6 address range.

Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the *Input Pattern Types* chapter.

**start\_ipv6\_address**

Specify the start address of the IPv6 address range.

Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the *Input Pattern Types* chapter.

**Usage Guidelines** Use this command to configure IPv6 address ranges.

## ipam instance address-pool ipv6 address-ranges prefix-range

Configures IPv6 prefix range.

**Command Modes** Exec > Global Configuration (config) > IPAM Configuration (config-ipam) > Instance Configuration (config-instance-*instance\_id*) > Address Pool Configuration (config-address-pool-address-*pool\_name*) > IPv6 Configuration (config-ipv6) > Address Ranges Configuration (config-address-ranges)

**Syntax Description** `prefix-range range prefix_value prefix_length [ offline ]`

**length prefix\_length**

Specify the IPv6 prefix length.

Must be an integer in the range of 96-127.

**prefix\_value**

Specify the IPv6 prefix.

Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the *Input Pattern Types* chapter.

**Usage Guidelines** Use this command to configure IPv6 prefix range.

## ipam instance address-pool ipv6 address-ranges split-size

Configures chunk split size parameters.

**Command Modes** Exec > Global Configuration (config) > IPAM Configuration (config-ipam) > Instance Configuration (config-instance-instance\_id) > Address Pool Configuration (config-address-pool-address\_pool\_name) > IPv4 Configuration (config-ipv4)

**Command Modes** Exec > Global Configuration (config) > IPAM Configuration (config-ipam) > Instance Configuration (config-instance-instance\_id) > Address Pool Configuration (config-address-pool-address\_pool\_name) > IPv6 Configuration (config-ipv6) > Address Ranges Configuration (config-address-ranges)

**Command Modes** Exec > Global Configuration (config) > IPAM Configuration (config-ipam) > Instance Configuration (config-instance-instance\_id) > Address Pool Configuration (config-address-pool-address\_pool\_name) > IPv6 Configuration (config-ipv6) > Prefix Ranges Configuration (config-prefix-ranges)

**Syntax Description** `split-size [ [ no-split ] [ per-cache number_of_addresses ] [ per-dp number_of_addresses ] ]`

**no-split**

Specify not to split the address range into smaller chunks.

**per-cache number\_of\_addresses**

Specify the number of addresses per chunk for IPAM cache allocation. Specify in power of 2.

Must be an integer in the range of 2-262144.

**per-dp number\_of\_addresses**

Specify the number of addresses per chunk for data-plane allocation. Specify in power of 2.

Must be an integer in the range of 2-262144.

**Usage Guidelines** Use this command to configure chunk split size parameters. The CLI prompt changes to the Split Size Configuration mode (config-split-size).

## ipam instance address-pool ipv6 address-ranges threshold

Configures pool thresholds.

**Command Modes** Exec > Global Configuration (config) > IPAM Configuration (config-ipam) > Instance Configuration (config-instance-*instance\_id*) > Address Pool Configuration (config-address-pool-*address\_pool\_name*) > IPv4 Configuration (config-ipv4)

**Command Modes** Exec > Global Configuration (config) > IPAM Configuration (config-ipam) > Instance Configuration (config-instance-*instance\_id*) > Address Pool Configuration (config-address-pool-*address\_pool\_name*) > IPv6 Configuration (config-ipv6) > Address Ranges Configuration (config-address-ranges)

**Command Modes** Exec > Global Configuration (config) > IPAM Configuration (config-ipam) > Instance Configuration (config-instance-*instance\_id*) > Address Pool Configuration (config-address-pool-*address\_pool\_name*) > IPv6 Configuration (config-ipv6) > Prefix Ranges Configuration (config-prefix-ranges)

**Syntax Description** **threshold** **upper-threshold** *upper\_threshold*

**upper-threshold** *upper\_threshold*

Specify the upper threshold value in percentage.

Must be an integer in the range of 1-100.

**Usage Guidelines** Use this command to configure pool thresholds.

## ipam instance address-pool ipv6 prefix-ranges prefix-range

Configures IPv6 prefix ranges.

**Command Modes** Exec > Global Configuration (config) > IPAM Configuration (config-ipam) > Instance Configuration (config-instance-*instance\_id*) > Address Pool Configuration (config-address-pool-*address\_pool\_name*) > IPv6 Configuration (config-ipv6) > Prefix Ranges Configuration (config-prefix-ranges)

**Syntax Description** **prefix-range** *prefix\_value* **prefix-length** *prefix\_length* [ **offline** ]

**offline**

Specify the IPv6 prefix range as offline.

**prefix-length** *prefix\_length*

Specify the prefix length.

Must be an integer in the range of 1-63.

**prefix-range *prefix\_value***

Specify the IPv6 prefix range.

Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the *Input Pattern Types* chapter.

**Usage Guidelines** Use this command to configure IPv6 prefix ranges.

## ipam instance address-pool ipv6 prefix-ranges split-size

Configures chunk split size parameters.

**Command Modes** Exec > Global Configuration (config) > IPAM Configuration (config-ipam) > Instance Configuration (config-instance-*instance\_id*) > Address Pool Configuration (config-address-pool-*address\_pool\_name*) > IPv4 Configuration (config-ipv4)

**Command Modes** Exec > Global Configuration (config) > IPAM Configuration (config-ipam) > Instance Configuration (config-instance-*instance\_id*) > Address Pool Configuration (config-address-pool-*address\_pool\_name*) > IPv6 Configuration (config-ipv6) > Address Ranges Configuration (config-address-ranges)

**Command Modes** Exec > Global Configuration (config) > IPAM Configuration (config-ipam) > Instance Configuration (config-instance-*instance\_id*) > Address Pool Configuration (config-address-pool-*address\_pool\_name*) > IPv6 Configuration (config-ipv6) > Prefix Ranges Configuration (config-prefix-ranges)

**Syntax Description** **split-size** [ [ **no-split** ] [ **per-cache** *number\_of\_addresses* ] [ **per-dp** *number\_of\_addresses* ] ]

**no-split**

Specify not to split the address range into smaller chunks.

**per-cache *number\_of\_addresses***

Specify the number of addresses per chunk for IPAM cache allocation. Specify in power of 2.

Must be an integer in the range of 2-262144.

**per-dp *number\_of\_addresses***

Specify the number of addresses per chunk for data-plane allocation. Specify in power of 2.

Must be an integer in the range of 2-262144.

**Usage Guidelines** Use this command to configure chunk split size parameters. The CLI prompt changes to the Split Size Configuration mode (config-split-size).

## ipam instance address-pool ipv6 prefix-ranges threshold

Configures pool thresholds.

**Command Modes** Exec > Global Configuration (config) > IPAM Configuration (config-ipam) > Instance Configuration (config-instance-*instance\_id*) > Address Pool Configuration (config-address-pool-*address\_pool\_name*) > IPv4 Configuration (config-ipv4)

**Command Modes** Exec > Global Configuration (config) > IPAM Configuration (config-ipam) > Instance Configuration (config-instance-*instance\_id*) > Address Pool Configuration (config-address-pool-*address\_pool\_name*) > IPv6 Configuration (config-ipv6) > Address Ranges Configuration (config-address-ranges)

**Command Modes** Exec > Global Configuration (config) > IPAM Configuration (config-ipam) > Instance Configuration (config-instance-*instance\_id*) > Address Pool Configuration (config-address-pool-*address\_pool\_name*) > IPv6 Configuration (config-ipv6) > Prefix Ranges Configuration (config-prefix-ranges)

**Syntax Description** **threshold upper-threshold** *upper\_threshold*

**upper-threshold** *upper\_threshold*

Specify the upper threshold value in percentage.

Must be an integer in the range of 1-100.

**Usage Guidelines** Use this command to configure pool thresholds.

## ipam instance address-pool static

Configures IPAM static pool parameters.

**Command Modes** Exec > Global Configuration (config) > IPAM Configuration (config-ipam) > Instance Configuration (config-instance-*instance\_id*) > Address Pool Configuration (config-address-pool-*address\_pool\_name*)

**Syntax Description** **static enable user-plane** *user\_plane*

**enable**

Specify to set pool as static.

**user-plane** *user\_plane*

Specify to associate user plane for this static pool.

Must be a string of 1-128 characters in the ipam-str pattern. For information on the ipam-str pattern, see the *Input Pattern Types* chapter.

**Usage Guidelines** Use this command to configure IPAM static pool parameters.

## ipam instance min-dp-addr-size

Configures the minimum number of addresses to reserve per UPF, per NM, per pool/tag.

**Command Modes** Exec > Global Configuration (config) > IPAM Configuration (config-ipam) > Instance Configuration (config-instance-*instance\_id*)



**Syntax Description** `min-dp-addr-size [ [ ipv4-addr reserve_min_ipv4_address ] | [ ipv6-addr reserve_min_ipv6_address ] | [ ipv6-prefix reserve_min_ipv6_prefix ] ]`

**ipv4-addr *reserve\_min\_ipv4\_address***

Specify the minimum number of IPv4 addresses to reserve.

Must be an integer in the range of 16-262144.

**ipv6-addr *reserve\_min\_ipv6\_address***

Specify the minimum number of IPv6 addresses to reserve.

Must be an integer in the range of 32-262144.

**ipv6-prefix *reserve\_min\_ipv6\_prefix***

Specify the minimum number of IPv6 prefix to reserve.

Must be an integer in the range of 32-262144.

**Usage Guidelines** Use this command to configure the minimum number of addresses to reserve per UPF, per NM, per pool/tag.

## ipam instance source

Configures pool-datastore source selection.

**Command Modes** Exec > Global Configuration (config) > IPAM Configuration (config-ipam) > Instance Configuration (config-instance-*instance\_id*)

**Syntax Description** `source local`

**local**

Specify to use local address pool datastore.

**Usage Guidelines** Use this command to configure pool-datastore source selection.";

## ipam instance source external ipam

Configures external IPAM server for pool information.

**Command Modes** Exec > Global Configuration (config) > IPAM Configuration (config-ipam) > Instance Configuration (config-instance-*instance\_id*)

**Syntax Description** `source external ipam [ host ip_address | port port_number | vendor vendor_id ]`

**host *ip\_address***

Specify the IP address of the IPAM server.

Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the *Input Pattern Types* chapter.

-Or-

Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the *Input Pattern Types* chapter.

**port *port\_number***

Specify the port number of the IPAM server.

Must be an integer in the range of 1-65535.

**vendor *vendor\_id***

Specify the IPAM server's vendor ID. Default: cisco.

Must be one of the following:

- cisco

**Usage Guidelines** Use this command to configure external IPAM server for pool information.

## ipam instance threshold

Configures global upper thresholds.

**Command Modes** Exec > Global Configuration (config) > IPAM Configuration (config-ipam) > Instance Configuration (config-instance-*instance\_id*)

**Syntax Description** **threshold** [ [ **ipv4-addr** *ipv4\_address\_threshold* ] [ **ipv6-addr** *ipv6\_address\_threshold* ] [ **ipv6-prefix** *ipv6\_prefix\_threshold* ] ]

**ipv4-addr *ipv4\_address\_threshold***

Specify the IPv4 address threshold in percentage.

Must be an integer in the range of 1-100.

**ipv6-addr *ipv6\_address\_threshold***

Specify the IPv6 address threshold in percentage.

Must be an integer in the range of 1-100.

**ipv6-prefix *ipv6\_prefix\_threshold***

Specify the IPv6 prefix threshold in percentage.

Must be an integer in the range of 1-100.

**Usage Guidelines** Use this command to configure global upper thresholds.

## ipam show dp

Displays IPAM data-plane allocations.

---

**Command Modes** Exec

---

**Syntax Description** `show ipam dp [ dp-name dataplane_name ]`

**dp-name** *dataplane\_name*

Specify name of the dataplane.

Must be a string.

---

**Usage Guidelines** Use this command to view IPAM data-plane allocations.

## ipam show dp-tag

Displays data-plane tag-related allocations.

---

**Command Modes** Exec

---

**Syntax Description** `show ipam dp-tag dp_tag`

**dp-tag** *dp\_tag*

Specify the dataplane name with tag.

Must be a string.

---

**Usage Guidelines** Use this command to view data-plane tag-related allocations. Tag represents DNN or PoolName based on NF.

## ipam show ipam pool

Displays pool allocation information.

---

**Command Modes** Exec

---

**Syntax Description** `show ipam pool pool_name`

**pool-name** *pool\_name*

Specify name of the pool.

Must be a string.

---

**Usage Guidelines** Use this command to view pool allocation information.

## job

Suspends the jobs that are running in the background.

---

### Command Modes

Exec

---

### Syntax Description

**job stop** *job\_id*

#### ***job\_id***

Specify the job ID for suspending the corresponding job.

Must be an integer.

---

### Usage Guidelines

Use this command to suspend the jobs that are running in the background.

## k8 bng

Configures Tracing configuration parameters.

---

### Command Modes

Exec > Global Configuration (config)

---

### Syntax Description

**k8 bng** [ [ **coverage-build** { **false** | **true** } ] [ **datastore-endpoint** *datastore\_endpoint* ] [ **etcd-endpoint** *etcd\_endpoint* ] ]

#### **coverage-build { false | true }**

Specify whether to disable or enable coverage build.

Must be one of the following:

- **false**
- **true**

Default Value: false.

#### **datastore-endpoint *datastore\_endpoint***

Specify the Datastore Endpoint configuration. For example, *hostname:port*.

Must be a string of 1-128 characters.

Default Value: datastore-ep-session:8882.

#### **etcd-endpoint *etcd\_endpoint***

Specify the Etcd Endpoint configuration. For example, *hostname:port*.

Must be a string of 1-128 characters.

Default Value: etcd:2379.

**Usage Guidelines** Use this command to configure Tracing configuration parameters. The CLI prompt changes to the BNG Configuration mode (config-bng).

## k8 bng tracing

Configures Tracing configuration parameters.

**Command Modes** Exec > Global Configuration (config) > BNG Configuration (config-bng)

**Syntax Description** `tracing [ [ append-messages { false | true } ] [ enable ] [ enable-trace-percent tracing_percentage ] [ endpoint tracing_endpoint ] ]`

### **append-messages** { **false** | **true** }

Specify whether to append tracing messages.

Must be one of the following:

- **false**
- **true**

Default Value: true.

### **enable-trace-percent** *tracing\_percentage*

Specify the tracing percentage.

Must be an integer in the range of 0-100.

Default Value: 100.

### **enable**

Specify to enable tracing.

### **endpoint** *tracing\_endpoint*

Specify the Tracing Endpoint configuration. For example, *hostname:port*.

Must be a string of 1-128 characters.

Default Value: jaeger-collector:9411.

**Usage Guidelines** Use this command to configure Tracing configuration parameters. The CLI prompt changes to the Tracing Configuration mode (config-tracing).

## k8 label pod-group-config

Configures K8 node affinity label pod group configuration.

**Command Modes** Exec > Global Configuration (config)

---

**Syntax Description** `k8 label pod_group key label_key value label_value`

**key *label\_key***

Specify the key for the label.

Must be a string.

**value *label\_value***

Specify the value for the label.

Must be a string.

***pod\_group***

Specify the pod group for the VMs.

Must be one of the following:

- **cdl-layer**
- **oam-layer**
- **protocol-layer**
- **service-layer**

---

**Usage Guidelines** Use this command to configure K8 node affinity label pod group configuration.

## kubernetes

Configures Kubernetes parameters.

---

**Command Modes** Exec > Global Configuration (config)

---

**Syntax Description** `k8s name k8s_cluster_name [ [ image-pull-secrets image_pull_secrets ] [ ingress-host-name ingress_host_name ] [ namespace k8s_namespace ] [ nf-name nf_name ] [ registry image_registry ] [ single-node { false | true } ] [ use-volume-claims { false | true } ] ]`

**image-pull-secrets *image\_pull\_secrets***

Specify the image pull secrets stored within K8s.

Must be a string.

**ingress-host-name *ingress\_host\_name***

Specify the generic ingress host name.

Must be a string.

**name** *k8s\_cluster\_name*

Specify name of the K8s cluster.

Must be a string.

**namespace** *k8s\_namespace*

Specify the K8s namespace for the network function.

Must be a string.

**nf-name** *nf\_name*

Specify the NF deployed in this k8s namespace.

Must be a string.

**registry** *image\_registry*

This keyword is deprecated.

Must be a string.

**single-node** { **false** | **true** }

Specify to enable or disable single node deployment.

Must be one of the following:

- **false**
- **true**

Default Value: false.

**use-volume-claims** { **false** | **true** }

Specify to enable or disable using volume claims when deploying.

Must be one of the following:

- **false**
- **true**

Default Value: false.

---

**Usage Guidelines**

Use this command to configure Kubernetes parameters.

## kubernetes nodes

Configures list of k8s nodes.

---

**Command Modes**

Exec > Global Configuration (config)

---

**Syntax Description** `k8s nodes k8s_node_name [ [ node-type node_type ] [ worker-type worker_type ] ]`

**node-type node\_type**

Specify the K8s node type.

Must be a string.

**worker-type worker\_type**

Specify the k8s worker type.

Must be a string.

**k8s\_node\_name**

Specify name of the K8s node.

Must be a string.

---

**Usage Guidelines** Use this command to configure the list of k8s nodes.

## leaf-prompting

Enables or disables automatic querying for leaf values.

---

**Command Modes** Exec

---

**Syntax Description** `leaf-prompting { false | true }`

**{ false | true }**

Specify false to disable leaf prompting, and true to enable.

Must be either "false" or "true".

---

**Usage Guidelines** Use this command to automatically query for leaf values.

## license smart deregister

Configures the license parameters for the VNF deregistration.

---

**Command Modes** Exec

---

**Syntax Description** `license smart deregister`

**deregister**

Specify to deregister the VNF for smart licensing.

---

**Usage Guidelines** Use this command to configure the license parameters for the VNF deregistration.



## license smart register

Configures the license parameters for the VNF registration.

**Command Modes** Exec

**Syntax Description** `license smart register force idtoken token_id`

**register**

Specify to register the VNF for Smart Licensing.

**force**

Specify to enable the force registration of the agent.

**idtoken *token\_id***

Specify the ID token to register the agent with.

Must be an integer.

**Usage Guidelines** Use this command to configure the license parameters for the VNF registration.

## license smart renew

Configures the license parameters for the VNF renewal.

**Command Modes** Exec

**Syntax Description** `license smart renew { ID | auth }`

**renew**

Renew the smart agent IDs and authentication.

**ID**

Specify to renew the smart agent license registration information.

**auth**

Initiate the manual update of the license usage information with Cisco.

**Usage Guidelines** Use this command to configure the license parameters for the VNF renewal.

## local-instance

Configures GR instance for current instance.

<b>Command Modes</b>	Exec > Global Configuration
<b>Syntax Description</b>	<code>local-instance instance gr_instance_id</code>  <code>instance gr_instance_id</code> Specify the GR instance ID of current instance.
<b>Usage Guidelines</b>	Use this command to configure GR instance for current instance.

## logging async application enable

Enables async logging.

<b>Command Modes</b>	Exec > Global Configuration (config)
<b>Syntax Description</b>	<code>logging async application enable buffer-size buffer_size</code>
<b>Syntax Description</b>	<code>logging async monitor-subscriber enable buffer-size buffer_size</code>
<b>Syntax Description</b>	<code>logging async tracing enable buffer-size buffer_size</code>
<b>Syntax Description</b>	<code>logging async transaction enable buffer-size buffer_size</code>  <code>buffer-size buffer_size</code> Specify the buffer size for async logging. Must be an integer.
<b>Usage Guidelines</b>	Use this command to enable async logging.

## logging async monitor-subscriber enable

Enables async logging.

<b>Command Modes</b>	Exec > Global Configuration (config)
<b>Syntax Description</b>	<code>logging async application enable buffer-size buffer_size</code>
<b>Syntax Description</b>	<code>logging async monitor-subscriber enable buffer-size buffer_size</code>
<b>Syntax Description</b>	<code>logging async tracing enable buffer-size buffer_size</code>
<b>Syntax Description</b>	<code>logging async transaction enable buffer-size buffer_size</code>  <code>buffer-size buffer_size</code> Specify the buffer size for async logging.

Must be an integer.

**Usage Guidelines** Use this command to enable async logging.

## logging async tracing enable

Enables async logging.

**Command Modes** Exec > Global Configuration (config)

**Syntax Description** `logging async application enable buffer-size buffer_size`

**Syntax Description** `logging async monitor-subscriber enable buffer-size buffer_size`

**Syntax Description** `logging async tracing enable buffer-size buffer_size`

**Syntax Description** `logging async transaction enable buffer-size buffer_size`

**buffer-size *buffer\_size***

Specify the buffer size for async logging.

Must be an integer.

**Usage Guidelines** Use this command to enable async logging.

## logging async transaction enable

Enables async logging.

**Command Modes** Exec > Global Configuration (config)

**Syntax Description** `logging async application enable buffer-size buffer_size`

**Syntax Description** `logging async monitor-subscriber enable buffer-size buffer_size`

**Syntax Description** `logging async tracing enable buffer-size buffer_size`

**Syntax Description** `logging async transaction enable buffer-size buffer_size`

**buffer-size *buffer\_size***

Specify the buffer size for async logging.

Must be an integer.

**Usage Guidelines** Use this command to enable async logging.

## logging error

Configures error logging parameters.

**Command Modes** Exec > Global Configuration (config)

**Syntax Description** `logging error stack status`

### **stack *status***

Specify to enable or disable error stack.

Must be one of the following:

- **disable**
- **enable**

Default Value: enable.

**Usage Guidelines** Use this command to configure error logging parameters.

## logging level

Configures the logging level.

**Command Modes** Exec > Global Configuration (config)

**Syntax Description** `logging level logging_level { [ application application_log_level ] [ monitor-subscriber monitor_subscriber_log_level ] [ tracing tracing_log_level ] [ transaction transaction_log_level ] }`

### **application *application\_log\_level***

Specify the application logging level.

Must be one of the following:

- **debug**
- **error**
- **info**
- **off**
- **trace**
- **warn**

### **monitor-subscriber *monitor\_subscriber\_log\_level***

Specify the monitor subscriber logging level.

Must be one of the following:

- **debug**
- **error**
- **info**
- **off**
- **trace**
- **warn**

**tracing** *tracing\_log\_level*

Specify the tracing logging level.

Must be one of the following:

- **debug**
- **error**
- **info**
- **off**
- **trace**
- **warn**

**transaction** *transaction\_log\_level*

Specify the transaction logging level.

Must be one of the following:

- **debug**
- **error**
- **info**
- **off**
- **trace**
- **warn**

---

**Usage Guidelines** Use this command to configure the logging level.

## logging logger

Configures the log name.

---

**Command Modes** Exec > Global Configuration (config)

**Syntax Description**    `logging name log_name`

**name** *log\_name*

Specify the log name in "module.component.interface" format.

Must be a string.

**Usage Guidelines**    Use this command to configure the log name.

## logging logger level

Configures the logging level.

**Command Modes**    Exec > Global Configuration (config)

**Syntax Description**    `logging level logging_level { [ application application_log_level ] [ monitor-subscriber monitor_subscriber_log_level ] [ tracing tracing_log_level ] [ transaction transaction_log_level ] }`

**application** *application\_log\_level*

Specify the application logging level.

Must be one of the following:

- debug
- error
- info
- off
- trace
- warn

**monitor-subscriber** *monitor\_subscriber\_log\_level*

Specify the monitor subscriber logging level.

Must be one of the following:

- debug
- error
- info
- off
- trace
- warn

**tracing *tracing\_log\_level***

Specify the tracing logging level.

Must be one of the following:

- **debug**
- **error**
- **info**
- **off**
- **trace**
- **warn**

**transaction *transaction\_log\_level***

Specify the transaction logging level.

Must be one of the following:

- **debug**
- **error**
- **info**
- **off**
- **trace**
- **warn**

**Usage Guidelines**

Use this command to configure the logging level.

## logging transaction

Configures the transaction logging parameters.

**Command Modes**

Exec > Global Configuration (config)

**Syntax Description**

```
logging transaction { duplicate | message | persist } { disable | enable
}
```

**duplicate { enable | disable }**

Specify whether to enable or disable duplicate logs in transaction logging.

Must be one of the following:

- **disable**
- **enable**

Default Value: disable.

**max-file-size *max\_file\_size***

Specify the maximum transaction file size in MB.

Must be an integer in the range of 1-10000.

Default Value: 50.

**max-rotation *max\_rotations***

Specify the maximum number of file rotations.

Must be an integer in the range of 2-1000.

Default Value: 10.

**message { enable | disable }**

Specify whether to enable or disable messages in transaction logging.

Must be one of the following:

- **disable**
- **enable**

Default Value: disable.

**persist { enable | disable }**

Specify whether to enable or disable file-based transaction logging.

Must be one of the following:

- **disable**
- **enable**

Default Value: disable.

---

**Usage Guidelines** Use this command to configure the transaction logging parameters.

## logout

Logout a specific session or a specific user from all sessions.

---

**Command Modes** Exec

---

**Syntax Description** `logout [ session session_id | user user_name ]`

**session *session\_id***

Specify the session ID from the possible completion options.



Must be a string.

**user *user\_name***

Specify the user name or the user process from the possible completion options.

Must be a string.

**Usage Guidelines** Use this command to log out a specific session or a specific user from all sessions.

## monitor protocol

Configures the SMF to monitor the protocol.

**Command Modes** Exec

**Syntax Description** `monitor protocol interface interface_name [ capture-duration duration ]`

**interface *interface\_name***

Specify the name of interface on which PCAP is captured.

Must be a string.

**capture-duration *duration***

Specify the duration, in seconds, during which PCAP is captured. The default value is 300 seconds.

Must be an integer.

**Usage Guidelines** Use this command to monitor the protocol.

## monitor subscriber

Configures the SMF to monitor the subscribers.

**Command Modes** Exec

**Syntax Description** `monitor subscriber supi supi [ capture-duration duration ] | subscriber-dump filename file_name | subscriber-list`

**supi *supi***

Specify the subscriber identifier.

Must be a string.

**capture-duration *duration***

Specify the duration, in seconds, during which PCAP is captured. The default value is 300 seconds.

Must be an integer.

**filename *file\_name***

Specify the path of the file name to be dumped.

Must be a string.

**Usage Guidelines** Use this command to monitor the subscribers.

## nf-tls ca-certificates

Configure CA certificate parameters.

**Command Modes** Exec > Global Configuration (config)

**Syntax Description** `nf-tls ca-certificates cert_alias_name cert-data cert_data`

**ca-certificates *cert\_alias\_name***

Specify the alias name of the certificate.

Must be a string.

**cert-data *cert\_data***

Specify the certificate data in PEM format.

Must be a string.

**Usage Guidelines** Configures TLS keystore configuration for interfaces. Use this command to configure CA certificate parameters.

## nf-tls certificate-status

Displays certificate status information.

**Command Modes** Exec

**Syntax Description** `show nf-tls certificate-status`

**Usage Guidelines** Use this command to view certificate status information.

## nf-tls certificates

Configures certificate parameters.

**Command Modes** Exec > Global Configuration (config)

**Syntax Description** `nf-tls certificates cert_alias_name cert-data cert_data private-key private_key`

**cert-data *cert\_data***

Specify the certificate data in PEM format.

Must be a string.

**certificates *cert\_alias\_name***

Specify the alias name of the certificate.

Must be a string.

**private-key *private\_key***

Specify the certificate private key in PEM format.

Must be a string.

**Usage Guidelines**

Configures TLS keystore configuration for interfaces. Use this command to configure certificate parameters.

## no

Restores the command history cache size to its default setting. See the [history](#) command.

**Command Modes**

Exec

**Syntax Description**

**no history**

**Usage Guidelines**

Use this command to configure the command history cache size to its default setting. For more details, see the [history](#) command.

## paginate

Configures whether or not to paginate CLI command output.

**Command Modes**

Exec

**Syntax Description**

**paginate { false | true }**

**{ false | true }**

Specify false to disable paginating CLI command output, and true to enable.

Must be either "false" or "true".

**Usage Guidelines**

Use this command to paginate the command output.

## quit

Exits the management session.

<b>Command Modes</b>	Exec
<b>Syntax Description</b>	<code>quit</code>
<b>Usage Guidelines</b>	Use this command to exit the management session.

## rcm switchover

Configures Redundancy and Configuration Manager (RCM) switchover operation.

<b>Command Modes</b>	Exec
<b>Syntax Description</b>	<pre><b>rcm switchover source</b> <i>ip_address</i> <b>destination</b> <i>ip_address</i></pre> <p><b>source</b> <i>ip_address</i></p> <p>Specify the source IP address. Must be an IP address.</p> <p><b>destination</b> <i>ip_address</i></p> <p>Specify the destination IP address. Must be an IP address.</p>
<b>Usage Guidelines</b>	Use this command to configure RCM switchover operation.

## reconcile ipam

Reconciles IPAM data with CDL records.

<b>Command Modes</b>	Exec
<b>Syntax Description</b>	<code>reconcile ipam</code>
<b>Usage Guidelines</b>	Use this reconcile IPAM data with CDL records.

## resource pod

Configures Pod resource parameter.

<b>Command Modes</b>	Exec > Global Configuration (config)
<b>Syntax Description</b>	<pre><b>resource pod podtype</b> <i>pod_type</i></pre> <p><b>gomaxproc</b> <i>go_max_procedure_cores</i></p> <p>Specify the Go Lang max procedure cores.</p>

Must be an integer in the range of 1-48.

**podtype *pod\_type***

Specify the pod type.

**Usage Guidelines**

Use this command to configure Pod resource parameter. The CLI prompt changes to the Pod Resource Configuration mode (config-resource-<pod\_type>).

## resource pod cpu

Configures CPU resource request parameter.

**Command Modes**

Exec > Global Configuration (config) > Pod Resource Configuration (config-resource-*pod\_type*)

**Syntax Description**

**cpu request** *cpu\_resource\_request* **limit** *cpu\_resource\_limit*

**limit *cpu\_resource\_limit***

Specify the CPU resource limit in milicores.

Must be an integer in the range of 100-1000000.

**request *cpu\_resource\_request***

Specify the CPU resource request in millicores.

Must be an integer in the range of 100-1000000.

**Usage Guidelines**

Use this command to configure CPU resource request parameter.

## resource pod labels

Configures K8 Node Affinity label configuration.

**Command Modes**

Exec > Global Configuration (config) > Pod Resource Configuration (config-resource-*pod\_type*)

**Syntax Description**

**labels key** *label\_key* **value** *label\_value*

**key *label\_key***

Specify the key for the label.

Must be a string.

**value *label\_value***

Specify the value for the label.

Must be a string.

**Usage Guidelines** Use this command to configure K8 Node affinity label configuration.

## resource pod memory

Configures memory resource requests and limit configuration.

**Command Modes** Exec > Global Configuration (config) > Pod Resource Configuration (config-resource-*pod\_type*)

**Syntax Description** **memory request** *memory\_resource\_request* **limit** *memory\_resource\_limit*

**limit** *memory\_resource\_limit*

Specify the memory resource limit in megabytes.

Must be an integer in the range of 100-200000.

**request** *memory\_resource\_request*

Specify the memory resource request in megabytes.

Must be an integer in the range of 100-200000.

**Usage Guidelines** Use this command to configure memory resource requests and limit configuration.

## router bfd instance instance-id

Configures Multi-Hop BFD configuration.

**Command Modes** Exec > Global Configuration (config)

**Syntax Description** **router bfd instance instance-id** *instance\_id*

**instance-id** *instance\_id*

Specify the instance ID.

**Usage Guidelines** Use this command to configure Multi-Hop BFD configuration. The CLI prompt changes to the Instance ID Configuration mode (config-instance-id-<*instance\_id*>).

## router bfd instance instance-id interface-list

Configures monitor interface list configuration.

**Command Modes** Exec > Global Configuration (config) > Instance ID Configuration (config-instance-id-*instance\_id*)

**Syntax Description** **router monitor-interface interface-list interface** *interface\_to\_monitor*

**gateway-ip gateway\_ip\_address**

Specify IP address of the gateway.

Must be a string.

**interface interface\_to\_monitor**

Specify the interface to monitor.

Must be a string.

**Usage Guidelines**

Use this command to configure monitor interface list configuration. The CLI prompt changes to the Instance ID Interface Configuration mode (config-instance-id-<interface\_name>).

## router bfd instance instance-id interface-list neighbors

Configures neighbor details.

**Command Modes**

Exec > Global Configuration (config) > Instance ID Configuration (config-instance-id-*instance\_id*) > Instance ID Interface Configuration (config-instance-id-*interface\_name*)

**Syntax Description**

**neighbor** *neighbor\_ip\_address*

**neighbor neighbor\_ip\_address**

Specify IP address of the neighbor.

Must be a string.

**Usage Guidelines**

Use this command to configure neighbor details.

## router bgplist

Configures BGP speaker configuration.

**Command Modes**

Exec > Global Configuration (config)

**Syntax Description**

**router bgp** *bgp* [ **learnDefaultRoute** { **false** | **true** } | **loopbackBFDPort** *bfd\_local\_port\_number* | **loopbackPort** *bgp\_local\_port\_number* ]

**bgp bgp**

Specify the BGP.

Must be an integer.

**learnDefaultRoute { false | true }**

Specify whether to enable or disable learning default route and adding it in kernel space.

Must be one of the following:

- **false**
- **true**

Default Value: false.

#### **loopbackBFDPort *bfd\_local\_port\_number***

Specify the BFD local port number.

Must be an integer.

Default Value: 3784.

#### **loopbackPort *bgp\_local\_port\_number***

Specify the BGP local port number.

Must be an integer.

Default Value: 179.

#### **Usage Guidelines**

Use this command to configure the BGP speaker configuration.

## router bgplist bfd

Configures BFD configuration.

#### **Command Modes**

Exec > Global Configuration (config) > Router Configuration (config-router-router)

#### **Syntax Description**

```
bfd { interval bfd_interval | min_rx bfd_min_rx | multiplier bfd_interval_multiplier
}
```

#### **interval *bfd\_interval***

Specify, in microseconds, the BFD interval.

Must be an integer.

Default Value: 250000.

#### **min\_rx *bfd\_min\_rx***

Specify, in microseconds, the BFD minimum RX.

Must be an integer.

Default Value: 250000.

#### **multiplier *bfd\_interval\_multiplier***

Specify the BFD interval multiplier.

Must be an integer.

Default Value: 3.



**Usage Guidelines** Use this command to configure the BFD configuration.

## router bgplist interfaceList

Configures bonding interface configuration.

**Command Modes** Exec > Global Configuration (config) > Router Configuration (config-router-router)

**Syntax Description** **interface** *bgp\_local\_interface*

**interface** *bgp\_local\_interface*

Specify the BGP local interface.

Must be a string.

**Usage Guidelines** Use this command to configure the bonding interface configuration.

## router bgplist interfaceList bondingInterfaces

Configures bonding interface configuration.

**Command Modes** Exec > Global Configuration (config) > Router Configuration (config-router-router) > Router Interface Configuration (config-router-interface)

**Syntax Description** **bondingInterface** *linked\_bonding\_interface*

**bondingInterface** *linked\_bonding\_interface*

Specify the linked bonding interface.

Must be a string.

**Usage Guidelines** Use this command to configure the bonding interface configuration.

## router bgplist interfaceList neighbors

Configures neighbor parameters.

**Command Modes** Exec > Global Configuration (config) > Router Configuration (config-router-router) > Router Interface Configuration (config-router-interface)

**Syntax Description** **neighbor** *neighbor\_ip\_address* [ **fail-over** *failover\_type* | **remote-as** *remote\_as\_number* ]

**fail-over** *failover\_type*

Specify the failover type.

Must be one of the following:

- **bfd**

**neighbor *neighbor\_ip\_address***

Specify the IP address of the neighbor.

Must be a string.

**remote-as *remote\_as\_number***

Specify the Autonomous System (AS) number of the BGP neighbor.

Must be an integer.

Default Value: 65000.

**Usage Guidelines** Use this command to configure the neighbor parameters.

## router bgplist policies

Configures policy parameters.

**Command Modes** Exec > Global Configuration (config) > Router Configuration (config-router-router)

**Syntax Description** `policy-name policy_name [ as-path-set as_path_set | gateWay gateway_address | interface interface | ip-prefix ip_prefix | isStaticRoute { false | true } | mask-range mask_range | modifySourceIp { false | true } ]`

**as-path-set *as\_path\_set***

Specify the Autonomous System (AS) path set.

Must be a string.

**gateWay *gateway\_address***

Specify the gateway address.

Must be a string.

**interface *interface***

Specify the interface to set as source ip.

Must be a string.

**ip-prefix *ip\_prefix***

Specify the IP prefix.

Must be a string.

**isStaticRoute { false | true }**

Specify whether to enable or disable adding static route into kernel space.

Must be one of the following:

- **false**
- **true**

Default Value: false.

**mask-range *mask\_range***

Specify the mask range.

Must be a string.

**modifySourceIp { false | true }**

Specify whether to enable or disable modifying source IP of incoming route.

Must be one of the following:

- **false**
- **true**

Default Value: false.

**policy-name *policy\_name***

Specify name of the policy.

Must be a string.

**source-prefix *source\_ip\_prefix***

Specify the source IP prefix.

Must be a string.

**Usage Guidelines**

Use this command to configure the policy parameters.

## router monitor-interface interface-list

Configures monitor interface list configuration.

**Command Modes**

Exec > Global Configuration (config)

**Syntax Description**

```
router monitor-interface interface-list interface interface_to_monitor  
linked-interface linked_interface_to_monitor
```

**interface *interface\_to\_monitor***

Specify the interface to monitor.

Must be a string.

**linked-interface** *linked\_interface\_to\_monitor*

Specify the linked interface to monitor.

Must be a string.

**Usage Guidelines** Use this command to configure monitor interface list configuration.

## screen-length

Configures the number of rows of text that the terminal screen displays.

**Command Modes** Exec

**Syntax Description** **screen-length** *number\_of\_rows*

***number\_of\_rows***

Specify the number of rows that the terminal screen displays.

Must be an integer.

**Usage Guidelines** Use this command to set the number of rows that the terminal screen displays.

## screen-width

Configures the number of columns that the terminal screen displays.

**Command Modes** Exec

**Syntax Description** **screen-width** *number\_of\_columns*

***number\_of\_columns***

Specify the number of columns that the terminal screen displays.

Must be an integer.

**Usage Guidelines** Use this command to set the number of columns that the terminal screen displays.

## send

Sends messages to the terminal of a specific user or all users.

**Command Modes** Exec

**Syntax Description** **send** *user message*

***user***

Specify the user to whom the message must be sent.

Must be a string. Select from the possible completion options.

***message***

Specify the message that must be sent.

Must be a string.

**Usage Guidelines**

Use this command to send messages to the terminal of a specific user or to all users.

## show

Displays the system information.

**Command Modes**

Exec

**Syntax Description**

**show** *system\_component*

***system\_component***

Specify the component to view the information.

Must be a string. Select from the possible completion options.

**Usage Guidelines**

Use this command to view the system information.

## show bfd-neighbor

Displays BFD status of neighbors.

**Command Modes**

Exec

**Syntax Description**

**show bfd-neighbor** [ **ip** *ip\_address* ]

***ip ip\_address***

Specify the IP address of the neighbor.

Must be a string.

**Usage Guidelines**

Use this command to view BFD status of neighbors.

## show bgp-global

Displays BGP global configuration.

<b>Command Modes</b>	Exec
<b>Syntax Description</b>	<code>show bgp-global</code>
<b>Usage Guidelines</b>	Use this command to view BGP global configuration.

## show bgp-kernel-route

Displays BGP kernel-configured routes.

<b>Command Modes</b>	Exec
<b>Syntax Description</b>	<code>show bgp-kernel-route [ application { false   true } ]</code>

**application { false | true }**

Specify whether to display application added routes.

Must be one of the following:

- **false**
- **true**

Default Value: false.

<b>Usage Guidelines</b>	Use this command to view BGP kernel-configured routes.
-------------------------	--

## show bgp-neighbors

Displays BGP neighbor's status.

<b>Command Modes</b>	Exec
<b>Syntax Description</b>	<code>show bgp-neighbors [ ip ip_address ]</code>

**ip ip\_address**

Specify the IP address of the neighbor.

Must be a string.

<b>Usage Guidelines</b>	Use this command to view BGP neighbor's status.
-------------------------	---

## show bgp-route-summary

Displays BGP route summary.

<b>Command Modes</b>	Exec
----------------------	------

---

**Syntax Description**    `show bgp-route-summary`

---

**Usage Guidelines**    Use this command to view BGP route summary.

## show bgp-routes

Displays BGP routes information.

---

**Command Modes**    Exec

---

**Syntax Description**    `show bgp-routes`

---

**Usage Guidelines**    Use this command to view BGP routes information.

## show config-error info

Displays configuration error information.

---

**Command Modes**    Exec

---

**Syntax Description**    `show config-error [ info ]`

---

**Usage Guidelines**    Use this command to view configuration error information.

## show diagnostics info

Displays diagnostics information.

---

**Command Modes**    Exec

---

**Syntax Description**    `show diagnostics [ info ]`

---

**Usage Guidelines**    Use this command to view diagnostics information.

## show edr

Displays EDR Transaction Procedure Event fields.

---

**Command Modes**    Exec

---

**Syntax Description**    `show edr { [ event transaction_procedure_event ] [ transaction-procedure transaction_procedure ] }`

**event *transaction\_procedure\_event***

Specify the transaction procedure event name/id/all.

Must be a string.

**transaction-procedure** *transaction\_procedure*

Specify the transaction procedure's name, ID, or all.

Must be a string.

---

**Usage Guidelines** Use this command to view EDR Transaction Procedure Event fields.

## show endpoint all

Displays endpoint status.

---

**Command Modes** Exec

---

**Syntax Description** `show endpoint [ all ]`

---

**Usage Guidelines** Use this command to view the status of endpoints.

## show endpoint info

Displays endpoint information.

---

**Command Modes** Exec

---

**Syntax Description** `show endpoint info`

---

**Usage Guidelines** Use this command to view endpoint information.

## show geo-maintenance-mode

Indicates whether maintenance mode is enabled or disabled.

---

**Command Modes** Exec

---

**Syntax Description** `show geo-maintenance-mode`

---

**Usage Guidelines** Use this command to view whether maintenance mode is enabled or disabled.

## show georeplication

Displays ETCD/Cache checksum.

---

**Command Modes** Exec



---

**Syntax Description** `show georeplication checksum instance-id instance_id`

**checksum**

Specify checksum.

**instance-id *instance\_id***

Specify the instance ID for which checksum will be displayed.

Must be a string.

---

**Usage Guidelines** Use this command to view ETCD/Cache checksum.

## show l2tp-tunnel

Show L2TP tunnel information.

---

**Command Modes** Exec

---

**Syntax Description** `show l2tp-tunnel [ count tunnels_count | detail ]`

**count *tunnels\_count***

Specify the number of tunnels.

**detail**

Specify to display detailed information.

---

**Usage Guidelines** Use this command to view L2TP tunnel information.

## show l2tp-tunnel filter

Show L2TP tunnel information for additional filters.

---

**Command Modes** Exec

---

**Syntax Description** `show l2tp-tunnel filter { destination-addr destination_address | source-addr source_address | state state_info | tunnel-id l2tp_tunnel_id | tunnel-type tunnel_type | tunnelAssignmentID tunnel_assignment_id | upf upf_info }`

**destination-addr *destination\_address***

Specify the IP address of the tunnel destination.

Must be a string.

**source-addr *source\_address***

Specify the IP address of the tunnel source.

Must be a string.

**state *state\_info***

Specify the state information.

Must be one of the following:

- **complete**
- **incomplete**

**tunnel-id *l2tp\_tunnel\_id***

Specify the L2TP tunnel ID.

Must be an integer in the range of 1-65535.

**tunnel-type *tunnel\_type***

Specify the tunnel type.

Must be one of the following:

- **lac**
- **lns**

**tunnelAssignmentID *tunnel\_assignment\_id***

Specify assignment ID of the tunnel.

Must be a string.

**upf *upf\_info***

Specify the UPF.

Must be a string.

---

**Usage Guidelines**

Use this command to view L2TP tunnel information for additional filters.

## show local-interface-status

Displays status of local interface.

---

**Command Modes**

Exec

---

**Syntax Description**

**show local-interface-status interface** *local\_interface\_name*

**interface** *local\_interface\_name*

Specify name of the local interface.

Must be a string.

---

**Usage Guidelines** Use this command to view status of local interface .

## show peers all

Displays peer information.

---

**Command Modes** Exec

---

**Syntax Description** `show peers [ all ]`

---

**Usage Guidelines** Use this command to view peer information.

## show radius

Displays RADIUS client data.

---

**Command Modes** Exec

---

**Syntax Description** `show radius`

---

**Usage Guidelines** Use this command to view RADIUS client data.

## show radius acct-server

Displays RADIUS accounting server data.

---

**Command Modes** Exec

---

**Syntax Description** `show radius acct-server [ ip_port ]`

*ip\_port*

Specify the ip\_address:port\_number of the RADIUS server.

Must be a string.

---

**Usage Guidelines** Use this command to view RADIUS accounting server data.

## show radius auth-server

Displays RADIUS authentication server data.

---

**Command Modes** Exec

---

**Syntax Description** `show radius auth-server [ ip_port ]`

***ip\_port***

Specify the ip\_address:port\_number of the RADIUS server.

Must be a string.

**Usage Guidelines** Use this command to view RADIUS authentication server data.

## show radius-dyn-auth

Displays RADIUS dynamic-author data.

**Command Modes** Exec

**Syntax Description** `show radius radius-dyn-auth`

**Usage Guidelines** Use this command to view RADIUS dynamic-author data.

## show radius-dyn-auth clients

Displays RADIUS dynamic-author information.

**Command Modes** Exec

**Syntax Description** `show radius dynauth clients`

**Usage Guidelines** Use this command to view RADIUS dynamic-author information.

## show resources info

Displays resource information.

**Command Modes** Exec

**Syntax Description** `show resources [ info ]`

**Usage Guidelines** Use this command to view information about the configured resources.

## show role

Displays current role for the specified instance.

**Command Modes** Exec

**Syntax Description** `show role instance-id instance_id`

**instance-id** *instance\_id*

Specify the instance ID for which role must be displayed.

---

**Usage Guidelines** Use this command to view current role for the specified instance.

## show rpc all

Displays RPC configuration information.

---

**Command Modes** Exec

---

**Syntax Description** `show rpc [ all ]`

---

**Usage Guidelines** Use this command to view RPC configuration information.

## show running-status info

Displays the system's current status information.

---

**Command Modes** Exec

---

**Syntax Description** `show running-status [ info ]`

---

**Usage Guidelines** Use this command to view the system's current status information.

## show sessions

Displays pending session commits in the database.

---

**Command Modes** Exec

---

**Syntax Description** `show sessions`

---

**Usage Guidelines** Use this command to view pending session commits in the database.

## show sessions affinity

Displays the affinity count per instance.

---

**Command Modes** Exec

---

**Syntax Description** `show sessions affinity`

---

**Usage Guidelines** Use this command to view the affinity count per instance.

## show sessions commit-pending

Displays all pending session commits.

**Command Modes** Exec

**Syntax Description** `show sessions commit-pending`

**Usage Guidelines** Use this command to view all pending session commits.

## show subscriber

Displays subscriber information.

**Command Modes** Exec

**Syntax Description** `show subscriber { all | supi supi_id }`

### **all**

Specify all SUPIs or IMEIs.

### **gr-instance *gr\_instance***

Specify the network function service under which to search.

### **imei *imei\_id***

Specify the International Mobile Equipment Identity.

Must be a string of 15-16 characters.

### **namespace *namespace***

NOTE: This keyword is deprecated, use `nf-service` instead. Specify the product namespace under which to search.

Default Value: `cisco-mobile-infra:none`.

### **nf-service *nf\_service***

Specify the network function service under which to search.

Default Value: `cisco-mobile-infra:none`.

### **supi *supi\_id***

Specify the subscriber's SUPI ID.

Must be a string.

**Usage Guidelines** Use this command to view summary and detailed subscriber information for all subscribers or specific subscribers based on SUPI, IMEI, or all.

## show subscriber

Shows BNG subscriber data.

**Command Modes** Exec

**Syntax Description** `show subscriber type [ count | detail | sublabel subscriber_label ]`

**acct-sess-id** *accounting\_session\_id*

Specify the accounting session ID.

Must be a string of 1-64 characters.

**count**

Specify to display the number of sessions.

**debug**

Specify debug information.

**detail**

Specify to display detailed information.

**sublabel** *subscriber\_label*

Specify the subscriber label.

Must be a string of 1-64 characters.

**type**

Specify the type.

Must be one of the following:

- **dhcp**: DHCP information.
- **lns**: Lns information.
- **pppoe**: PPPoE information.
- **session**: SessionManager information.

**Usage Guidelines** Use this command to view BNG subscriber data.

# show subscriber filter

Configures additional filters.

## Command Modes

Exec

## Syntax Description

```
show subscriber type filter [ afi address_family | iana-state-bound
iana_bound_state | iapd-state-bound iapd_bound_state | ipv4-addr ipv4_address |
ipv4-pool ipv4_pool_name | ipv4-range ipv4_address_range | ipv4-state-bound
ipv4_bound_state | ipv6-addr ipv6_address | ipv6-addr-pool ipv6_address_pool_name |
ipv6-addr-range ipv6_address_range | ipv6-pfx ipv6_prefix | ipv6-pfx-pool
ipv6_prefix_pool | ipv6-pfx-range ipv6_prefix_range | mac mac_address | port-id
upf_port_id | state session_state | up-subs-id up_subscriber_id | upf upf_name |
upmgr sm_up_info | username session_user_name | vrf vrf_name ]
```

### **afi** *address\_family*

Specify the address family.

Must be one of the following:

- **dual**: Dual-Stack sessions.
- **ipv4**: IPv4-only sessions.
- **ipv6**: IPv6-only sessions.
- **pending**: Inflight sessions (applicable for SessMgr).

### **feat-template** *feature\_template\_profile\_name*

Specify name of the feature-template profile.

Must be a string.

### **iana-state-bound** *iana\_bound\_state*

Specify the IANA bound state.

Must be one of the following:

- **iana-state-bound**

### **iapd-state-bound** *iapd\_bound\_state*

Specify the IAPD bound state.

Must be one of the following:

- **iapd-state-bound**

### **ipv4-addr** *ipv4\_address*

Specify the IPv4 address in the format "*pool-name/ipv4-addr*".



Must be a string.

**ipv4-pool *ipv4\_pool\_name***

Specify name of the IPv4 pool.

Must be a string.

**ipv4-range *ipv4\_address\_range***

Specify the IPv4 address range in the format "*poolName/start-ip*".

Must be a string.

**ipv4-state-bound *ipv4\_bound\_state***

Specify the IPv4 bound state.

Must be one of the following:

- **ipv4-state-bound**

**ipv6-addr-pool *ipv6\_address\_pool\_name***

Specify name of the IPv6 address pool.

Must be a string.

**ipv6-addr-range *ipv6\_address\_range***

Specify the IPv6 address range in the format "*poolName/start-ip*".

Must be a string.

**ipv6-addr *ipv6\_address***

Specify the IPv6 address in the format "*pool-name/ipv6-addr*".

Must be a string.

**ipv6-pfx-pool *ipv6\_prefix\_pool***

Specify name of the IPv6 prefix pool.

Must be a string.

**ipv6-pfx-range *ipv6\_prefix\_range***

Specify the IPv6 prefix range in the format "*poolName/start-pfx*".

Must be a string.

**ipv6-pfx *ipv6\_prefix***

Specify the IPv6 prefix in the format "*pool-name/ipv6-pfx*".

Must be a string.

**mac *mac\_address***

Specify the MAC address in the "aabb.ccdd.eeff" format.

Must be a string.

**port-id *upf\_port\_id***

Specify the user plane function port ID in the format "*upf/portid*".

Must be a string.

**ppp-type *ppp\_session\_type***

Specify the PPP session type.

Must be one of the following:

- **lac**
- **pta**: PPPoE PTA subscriber.

**session-id *session\_id***

Specify the L2TP session ID.

Must be an integer in the range of 1-65535.

**sesstype *session\_type***

Specify the SM subscriber session type.

Must be one of the following:

- **ipo**: IPOE subscribers.
- **lac**
- **lms**
- **ppp**: PPP subscribers.

**smstate *sm\_session\_state***

Specify the state of the SM session.

Must be one of the following:

- **created**
- **deleted**
- **established**

**smupstate *smup\_session\_state***

Specify the state of the SMUP session.

Must be one of the following:

- **smUpSessionCreated**
- **smUpSessionDeleted**
- **smUpSessionWait4SmCreate**

**state *session\_state***

Specify the session state.

Must be one of the following:

- **complete**: Specify the state is complete.
- **incomplete**: Specify the state is incomplete.

**tunnel-dest-addr *tunnel\_dest\_address***

Specify the L2TP tunnel destination address.

Must be a string.

**tunnel-id *tunnel\_id***

Specify the L2TP tunnel ID.

Must be an integer in the range of 1-65535.

**up-subs-id *up\_subscriber\_id***

Specify the UP subscriber ID.

Must be a string.

**upf *upf\_name***

Specify name of the user plane function.

Must be a string.

**username *session\_user\_name***

Specify the user name of the session.

Must be a string.

**Usage Guidelines** Use this command to configure additional filters.

## show subscriber opts

Configures command output modifiers.

**Command Modes** Exec

**Syntax Description** **detail**

---

**Syntax Description**    `count`

**count**

Displays count of number of sessions.

**detail**

Displays detailed information.

---

**Usage Guidelines**    Use this command to configure output modifiers.

## show subscriber synchronize

Synchronize info.

---

**Command Modes**    Exec

---

**Syntax Description**    `show subscriber synchronize upf upf_info`

---

**Syntax Description**    `show subscriber synchronize-cp upf upf_info`

**synchronise-cp**

Specify to synchronise CP information.

Must be one of the following:

- **synchronize-cp**

**synchronise**

Specify to synchronise UP information.

Must be one of the following:

- **synchronize**

**upf upf\_info**

Specify UPF information.

Must be a string of 1-64 characters.

---

**Usage Guidelines**    Use this command to synchronise info.

## show test-radius accounting

Tests RADIUS accounting server function.

---

**Command Modes**    Exec

**Syntax Description**

```
test-radius accounting { all [ [ client-nas nas_ip_address ] [ username
user_name ] ] | server server_ip_address { [ client-nas nas_ip_address ] port
server_port_number [ username user_name ] } | server-group [ [ client-nas
nas_ip_address ] [ username user_name ] ] }
```

**all**

Specify to test all configured servers.

Must be one of the following:

- all

**client-nas nas\_ip\_address**

Specify the IP address of the client NAS.

Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the *Input Pattern Types* chapter.

-Or-

Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the *Input Pattern Types* chapter.

**port server\_port\_number**

Specify the RADIUS server port number.

Must be an integer in the range of 1-65535.

**server-group server\_group\_name**

Specify name of the sever group.

Must be a string of 1-64 characters.

**server server\_ip\_address**

Specify IP address of the RADIUS server.

Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the *Input Pattern Types* chapter.

-Or-

Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the *Input Pattern Types* chapter.

**username user\_name**

Specify the user name.

Must be a string of 1-64 characters.

Default Value: test.

**Usage Guidelines**

Use this command to test RADIUS accounting server function.

# show test-radius authentication

Tests RADIUS authentication server.

---

**Command Modes**

Exec

---

**Syntax Description**

```
test-radius authentication { all [ [ client-nas nas_ip_address ] [ password user_password ] [ username user_name ] ] | server server_ip_address { [ client-nas nas_ip_address ] [ password user_password ] port server_port_number [ username user_name ] } | server-group [ [ client-nas nas_ip_address ] [ password user_password ] [ username user_name ] ] }
```

**all**

Specify to test all configured servers.

Must be one of the following:

- **all**

**client-nas nas\_ip\_address**

Specify the IP address of the client NAS.

Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the *Input Pattern Types* chapter.

-Or-

Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the *Input Pattern Types* chapter.

**password user\_password**

Specify the password for user with authentication verified.

Must be a string of 1-64 characters.

Default Value: test.

**port server\_port\_number**

Specify the RADIUS server port number.

Must be an integer in the range of 1-65535.

**server-group server\_group\_name**

Specify name of the sever group.

Must be a string of 1-64 characters.

**server server\_ip\_address**

Specify IP address of the RADIUS server.

Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the *Input Pattern Types* chapter.

-Or-

Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the *Input Pattern Types* chapter.

**username** *user\_name*

Specify the user name.

Must be a string of 1-64 characters.

Default Value: test.

**Usage Guidelines** Use this command to test RADIUS authentication server.

## show-defaults

Displays the default configuration.

**Command Modes** Exec

**Syntax Description** `show-defaults { false | true }`

`{ false | true }`

Specify whether to display or hide the default values. To display, select true. Otherwise, select false.

Must be either "false" or "true".

**Usage Guidelines** Use this command to view the default configuration.

## smiuser

Configures the Subscriber Microservices Infrastructure (SMI) user account parameters.

**Command Modes** Exec

**Syntax Description** `smiuser { add-group groupname group_name | add-user { username username | password password } | change-password { username username | current_password current_password | new_password new_password | confirm_password new_password | password_expire_days expire_days } | change-self-password { current_password current_password | new_password new_password | confirm_password new_password | password_expire_days expire_days } | delete-group groupname group_name | delete-user username username | unassign-user-group { groupname groupname_pam | username username_pam } | update-password-length length password_length }`

**username** *username*

Specify the username.

Must be a string.

**password *password***

Specify the user password.

Must be a string.

**confirm\_password *new\_password***

Confirm the new password.

Must be a string.

**current\_password *current\_password***

Specify the current password.

Must be a string.

**new\_password *new\_password***

Specify the new password.

Must be a string.

**password\_expire\_days *expire\_days***

Specify the number of days before the password expires.

Must be an integer.

**groupname *group\_name***

Specify the group name.

Must be a string.

**groupname *groupname\_pam***

Specify the group name in PAM.

Must be a string.

**username *username\_pam***

Specify the user name in PAM.

Must be a string.

**length *password\_length***

Specify the minimum password length.

Must be an integer.

---

**Usage Guidelines**

Use this command to configure the smiuser parameters.



## subscriber

Configures subscriber parameters.

---

### Command Modes

Exec > Global Configuration (config)

---

### Syntax Description

**subscriber { event-trace-disable | event-trace-max-count *event\_trace\_count***

#### **event-trace-disable**

Disable subscriber event tracing. cnBNG uses event traces for session level event history in CDL records.

#### **event-trace-max-count *event\_trace\_count***

Specify the number of entries for event tracing.

Must be an integer in the range of 1-8192.

Default Value: 100.

---

### Usage Guidelines

Use this command to configure subscriber parameters.

## subscriber reset-token

Configure to reset the in-use token for the specified protocol.

---

### Command Modes

Exec

---

### Syntax Description

**subscriber reset-token { dhcp | pppoe }**

#### **subscriber reset-token { dhcp | pppoe }**

Reset the in-use token to zero for DHCP or PPPoE.

---

### Usage Guidelines

Use this command to reset the in-use token to zero.

## subscriber route-synchronize

Synchronizes routes to UPF.

---

### Command Modes

Exec

---

### Syntax Description

**subscriber route-synchronize upf *user\_plane\_name***

#### **upf *user\_plane\_name***

Specify name of the user plane function.

Must be a string of 1-64 characters.

**Usage Guidelines** Use this command to synchronize routes to UPF.

## subscriber session-synchronize

Synchronizes sessions to UPF.

**Command Modes** Exec

**Syntax Description** `subscriber session-synchronize upf user_plane_name [ abort | timeout sla_timeout ]`

**abort**

Specify to abort synchronization.

**timeout *sla\_timeout***

Specify the SLA timeout duration in seconds.

Must be an integer in the range of 10-1800.

**upf *user\_plane\_name***

Specify name of the user plane function.

Must be a string of 1-64 characters.

**Usage Guidelines** Use this command to synchronize sessions to UPF.

## subscriber session-synchronize-cp

Synchronizes sessions on CP.

**Command Modes** Exec

**Syntax Description** `subscriber session-synchronize-cp upf user_plane_name [ abort | timeout timeout_value | tps tps ]`

**abort**

Specify to abort synchronization.

**timeout *timeout\_value***

Specify the timeout duration in minutes.

Must be an integer in the range of 2-100.

**tps *tps***

Specify the TPS.

Must be an integer in the range of 40-4000.

**upf *user\_plane\_name***

Specify name of the user plane function.

Must be a string of 1-64 characters.

**Usage Guidelines** Use this command to synchronize sessions on CP.

## subscriber token

Configures FSOL token mechanism.

**Command Modes** Exec > Global Configuration (config)

**Syntax Description** **subscriber token { dhcp | pppoe } *token\_count***

**subscriber token { dhcp | pppoe } *token\_count***

Set the maximum token available for FSOL pod.

*token\_count* is cumulative across instances. For example, if there are 4 DHCP pods and DHCP token is set as 2000, then 500 tokens will be assigned for each pod

- **dhcp**: Set the DHCP pod token count.
- **pppoe**: Set the PPPoE pod token count.

**Usage Guidelines** Use this command to configure FSOL token mechanism.

## system

Configures the NF's system operations.

**Command Modes** Exec

**Syntax Description** **system { ops-center stop | synch { start | stop } | upgrade | uuid-override new-uuid *uuid\_value* }**

**ops-center stop**

Stop the synching of configuration.

**synch { start | stop }**

Starts or stops the synching of configuration,

**upgrade**

Initiates the upgrade of a product.

**uuid-override new-uuid *uuid\_value***

Change the Universally Unique Identifier (UUID) to a new value.

Must be a string.

**Usage Guidelines** Use this command to display the NF's system operations.

## terminal

Configures the type of terminal.

**Command Modes** Exec

**Syntax Description** **terminal** *terminal\_type*

***terminal\_type***

Specify the terminal type.

Must be one of the following:

- ansi
- generic
- linux
- vt100
- xterm

**Usage Guidelines** Use this command to configure the terminal type.

## timestamp

Configures the timestamp parameters.

**Command Modes** Exec

**Syntax Description** **timestamp** { **disable** | **enable** }

**{ disable | enable }**

Enable or disable the timestamp display.

**Usage Guidelines** Use this command to configure the timestamp.

## user-plane

Configures the userplane configuration.

### Command Modes

Exec > Global Configuration (config)

### Syntax Description

**user-plane** *userplane\_name* [ [ **offline** ] [ **subscriber-profile** *subscriber\_profile* ] ]

#### **offline**

Specify as offline.

#### **subscriber-profile** *subscriber\_profile*

Specify the Subscriber Profile to associate at current level.

#### **user-plane** *userplane\_name*

Specify name of the userplane.

Must be a string of 1-128 characters.

### Usage Guidelines

Use this command to configure the userplane configuration. The CLI prompt changes to the Userplane Configuration mode (config-user-plane-<userplane\_name>).

## user-plane flowctrl-group

Configures the associated flow control group in user plane.

### Command Modes

Exec > Global Configuration > Userplane Configuration (config-user-plane-*userplane\_name*)

### Syntax Description

**flowctrl-group** *group\_name*

#### **flowctrl-group** *group\_name*

Specify the flow control group to be associated.

### Usage Guidelines

Use this command to associate the flow control group in user plane.

## user-plane peer-address

Configures the userplane IP address.

### Command Modes

Exec > Global Configuration > Userplane Configuration (config-user-plane-*userplane\_name*)

### Syntax Description

**peer-address** **ipv4** *ipv4\_address*

**ipv4 *ipv4\_address***

Specify the IPv4 address.

Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the *Input Pattern Types* chapter.

**Usage Guidelines** Use this command to configure the userplane IP address.

## user-plane port-id

Configures Port Identifier parameter.

**Command Modes** Exec > Global Configuration > Userplane Configuration (config-user-plane-*userplane\_name*)

**Syntax Description** **port-id** *port\_id* [ **subscriber-profile** *subscriber\_profile* ]

**port-id *port\_id***

Specify the port identifier.

Must be a string of 1-128 characters.

**subscriber-profile *subscriber\_profile***

Specify the Subscriber Profile to associate to the Port Identifier level.

**Usage Guidelines** Use this command to configure the Port Identifier parameter. The CLI prompt changes to the Port ID Configuration mode (config-port-id-<port\_id>).

## who

Displays information on currently logged on users.

**Command Modes** Exec

**Syntax Description** **who**

**Usage Guidelines** Use this command to view information on currently logged on users. The command output displays the Session, User, Context, From (IP address), Protocol, Date, and Mode information.