



# I Commands

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## icam monitor entries acl

[no] icam monitor entries acl [ module <module> [ inst <inst> ] ]

### Syntax Description

no	(Optional) Negate a command or set its defaults
icam	intelligent CAM
monitor	icam monitor
entries	icam monitor entries stats
acl	icam monitor entries type ACL
module	(Optional) Module Number
<i>module</i>	(Optional) Enter Module Number
inst	(Optional) ASIC/Forwarding Engine Instance Number
<i>inst</i>	(Optional) Enter Instance Number

### Command Mode

- /exec/configure

# icam monitor scale

[no] icam monitor scale

## Syntax Description

no	(Optional) Negate a command or set its defaults
icam	intelligent CAM
monitor	icam monitor
scale	icam monitor scale

## Command Mode

- /exec/configure

# icam monitor system

[no] icam monitor system

## Syntax Description

no	(Optional) Negate a command or set its defaults
icam	ICAM
monitor	icam monitor
system	icam monitor system

## Command Mode

- /exec/configure

# icam monitor system

```
[no] icam monitor system { { threshold info <ithres> warning <wthres> critical <cthres> } }
```

## Syntax Description

no	(Optional) Negate a command or set its defaults
icam	ICAM
monitor	icam monitor
system	icam monitor system
threshold	Threshold percentage
info	Info threshold percentage
<i>ithres</i>	Info threshold percentage
warning	Warning threshold percentage
<i>wthres</i>	Warning threshold percentage
critical	Critical threshold percentage
<i>cthres</i>	Critical threshold percentage

## Command Mode

- /exec/configure

# icmp-echo

```
[no] icmp-echo { <hostname> | <ip-address> | <ipv6-address> } { [ source-ip { <source-ip-hostname> | <source-ip-address> | <source-ipv6-address> } ] | [ source-interface <interface> ] }
```

## Syntax Description

<i>source-ip</i>	(Optional) <source-ip-hostname>
<i>source-interface</i>	(Optional) <interface>
no	(Optional)
icmp-echo	ICMP Echo Operation
<i>hostname</i>	Destination hostname, broadcast disallowed
<i>ip-address</i>	Destination IP address, broadcast disallowed
<i>interface</i>	(Optional) Source Interface
<i>source-ip-hostname</i>	(Optional) source IP hostname, broadcast disallowed
<i>source-ip-address</i>	(Optional) source IP address, broadcast disallowed

## Command Mode

- /exec/configure/ip-sla

# id

[no] id <id>

## Syntax Description

no	(Optional) Negate a command or set its defaults
id	Candidate path association group identifier
<i>id</i>	Association group Identifier id

## Command Mode

- /exec/configure/sr/te/pol/cndpaths/pref/constraint/assoc/type-disj

# id

[no] id <id>

## Syntax Description

no	(Optional) Negate a command or set its defaults
id	Candidate path association group identifier
<i>id</i>	Association group Identifier id

## Command Mode

- /exec/configure/sr/te/color/cndpaths/pref/constraint/assoc/type-disj



# ignore routable

[no] ignore routable

## Syntax Description

no	(Optional) Negate a command or set its defaults
----	---

## Command Mode

- /exec/configure/ipacl /exec/configure/ipv6acl

# import

import

## Syntax Description

import	import
--------	--------

## Command Mode

- /exec/configure

# import interface

import interface <if0>

## Syntax Description

import	import
interface	Interface configuration
<i>if0</i>	interface type and number in module/slot format

## Command Mode

- /exec/configure

# import l2vpn evpn

[ no | default ] import l2vpn evpn [ route-map <import-map> ] [ reoriginate ]

## Syntax Description

no	(Optional) Negate a command or set its defaults
default	(Optional) Inherit values from a peer template
import	Import the routes into another AF
l2vpn	L2VPN
evpn	EVPN
reoriginate	(Optional) Reoriginate the route with new RT
route-map	(Optional) Apply route-map to specify import criteria
<i>import-map</i>	(Optional) Route-map name

## Command Mode

- /exec/configure/router-bgp/router-bgp-neighbor/router-bgp-neighbor-af-vpnv4
- /exec/configure/router-bgp/router-bgp-neighbor/router-bgp-neighbor-af-vpnv6
- /exec/configure/router-bgp/router-bgp-neighbor-ptmp

# import map

[no] import map <rmap-name> [ evpn ]

## Syntax Description

no	(Optional) Negate a command or set its defaults
import	VRF import
map	Route-map based VRF import
<i>rmap-name</i>	Route-map name
evpn	(Optional) EVPN

## Command Mode

- /exec/configure/vrf-af-ipv4 /exec/configure/vrf-af-ipv6

# import running-config

import running-config [ exclude interface ethernet ]

## Syntax Description

import	import
running-config	running-config
exclude	(Optional) Exclude
interface	(Optional) Exclude all interfaces of this type
ethernet	(Optional) running-config excluding physical interfaces

## Command Mode

- /exec/configure

# import vpn unicast

[ no | default ] import vpn unicast [ route-map <import-map> ] [ reoriginate ]

## Syntax Description

no	(Optional) Negate a command or set its defaults
default	(Optional) Inherit values from a peer template
import	Import the routes into another AF
vpn	L3VPN
unicast	unicast
reoriginate	(Optional) Reoriginate the route with new RT
route-map	(Optional) Apply route-map to specify import criteria
<i>import-map</i>	(Optional) Route-map name

## Command Mode

- /exec/configure/router-bgp/router-bgp-neighbor/router-bgp-neighbor-af-l2vpn-evpn  
/exec/configure/router-bgp/router-bgp-neighbor-ptmp

# import vrf advertise-vpn

[no] import vrf advertise-vpn

## Syntax Description

no	(Optional) Negate a command or set its defaults
import	VRF import
vrf	Virtual Router Context
advertise-vpn	Allow leaked routes to be advertised to VPN

## Command Mode

- /exec/configure/vrf-af-ipv4 /exec/configure/vrf-af-ipv6



# import vrf default map

[no] import vrf default [ <prefix-limit> ] map <rmap-name> [ advertise-vpn ]

## Syntax Description

no	(Optional) Negate a command or set its defaults
import	VRF import
vrf	Virtual Router Context
default	VRF name (default)
<i>prefix-limit</i>	(Optional) Maximum prefix limit (Default value is 1000)
map	Route-map based VRF import
<i>rmap-name</i>	Route-map name
advertise-vpn	(Optional) Allow leaked routes to be advertised to VPN

## Command Mode

- /exec/configure/vrf-af-ipv4 /exec/configure/vrf-af-ipv6

## in-label allocate

[no] in-label <static-inlabel> allocate [ policy { <prefix> <mask> | <prefix-mask> } ]

### Syntax Description

no	(Optional) Negate a command or set its defaults
in-label	Configure local label assignment and forwarding for the LSP
allocate	Allocate this label
policy	(Optional) Allocate policy-based IP prefix
<i>static-inlabel</i>	Label Value
<i>prefix</i>	(Optional) Destination prefix
<i>mask</i>	(Optional) Destination prefix mask
<i>prefix-mask</i>	(Optional) Destination prefix/mask

### Command Mode

- /exec/configure/mpls\_static/ipv4/lsp

# inband-telemetry exporter

[no] inband-telemetry exporter <exportername>

## Syntax Description

inband-telemetry	Enable/Disable inband telemetry configuration
exporter	Define a events Exporter
<i>exportername</i>	Name of event Exporter

## Command Mode

- /exec/configure/config-int

# inband-telemetry flow-profile

[no] inband-telemetry flow-profile

## Syntax Description

inband-telemetry	Enable/Disable inband telemetry configuration
flow-profile	Define a INT flow-profile

## Command Mode

- /exec/configure/config-int

# inband-telemetry monitor

[no] inband-telemetry monitor <monitorname>

## Syntax Description

inband-telemetry	Enable/Disable inband telemetry configuration
monitor	Define a INT Monitor
<i>monitorname</i>	Name of INT Monitor

## Command Mode

- /exec/configure/config-int

## inband-telemetry queue-profile

[no] inband-telemetry queue-profile [ <queue\_profilename> | queue-profile-default ]

### Syntax Description

inband-telemetry	Enable/Disable inband telemetry configuration
queue-profile	Define a INT queue_profile
<i>queue_profilename</i>	(Optional) Name of INT queue_profile
queue-profile-default	(Optional) Queue Profile Default Configuration

### Command Mode

- /exec/configure/config-int

# inband-telemetry record

[no] inband-telemetry record <recordname>

## Syntax Description

inband-telemetry	Enable/Disable inband telemetry configuration
record	Define a INT Record
<i>recordname</i>	Record name

## Command Mode

- /exec/configure/config-int

# inband-telemetry system monitor

[no] inband-telemetry system monitor <monitorname>

## Syntax Description

system	global config
inband-telemetry	int global settings
monitor	int Monitor to be applied
<i>monitorname</i>	int Monitor to be applied

## Command Mode

- /exec/configure/config-int



# inband-telemetry watchlist ip

[no] inband-telemetry watchlist ip <watchlistname>

## Syntax Description

inband-telemetry	Enable/Disable inband telemetry configuration
watchlist	Define a INT watchlist
ip	Configure INT IP watchlist
<i>watchlistname</i>	Name of INT watchlist

## Command Mode

- /exec/configure/config-int

# include-all

[no] include-all

## Syntax Description

no	(Optional) Negate a command or set its defaults
include-all	Configure include-all Affinity Constraints

## Command Mode

- /exec/configure/sr/te/pol/cndpaths/pref/constraint/aff

# include-all

[no] include-all

## Syntax Description

no	(Optional) Negate a command or set its defaults
include-all	Configure include-all Affinity Constraints

## Command Mode

- /exec/configure/sr/te/color/cndpaths/pref/constraint/aff

# include-any

[no] include-any

## Syntax Description

no	(Optional) Negate a command or set its defaults
include-any	Configure include-any Affinity Constraints

## Command Mode

- /exec/configure/sr/te/pol/cndpaths/pref/constraint/aff

# include-any

[no] include-any

## Syntax Description

no	(Optional) Negate a command or set its defaults
include-any	Configure include-any Affinity Constraints

## Command Mode

- /exec/configure/sr/te/color/cndpaths/pref/constraint/aff

# include-icv-indicator

[no] include-icv-indicator

## Syntax Description

include-icv-indicator	Include ICV Indicator paramset in MKPDU
-----------------------	---

## Command Mode

- /exec/configure/macsec-policy

# include-sci

[no] include-sci

## Syntax Description

include-sci	include SCI in sectag
-------------	-----------------------

## Command Mode

- /exec/configure/macsec-policy

# include profile

[no] include profile { <all\_conf\_profile\_name> }

## Syntax Description

no	(Optional) Negate a command or set its defaults
include	Include a port-profile
profile	config-profile
<i>all_conf_profile_name</i>	Enter the name of the profile

## Command Mode

- /exec/configure



# include profile any

[no] include profile any

## Syntax Description

no	(Optional) Negate a command or set its defaults
include	Include a port-profile
profile	config-profile
any	dynamically include profile during apply

## Command Mode

- /exec/configure

# index-limit

[no] index-limit <index>

## Syntax Description

no	(Optional) Negate a command or set its defaults
index-limit	index limit configuration for sid list
<i>index</i>	index limit

## Command Mode

- /exec/configure/sr/te/pol/live-det

# index-limit

[no] index-limit <index>

## Syntax Description

no	(Optional) Negate a command or set its defaults
index-limit	index limit configuration for sid list
<i>index</i>	index limit

## Command Mode

- /exec/configure/sr/te/color/live-det

# index

{ no index <idx> | index <idx> { mpls label <lbl> | segment-routing srv6 <end-sid> | policy-endpoint } }

## Syntax Description

no	Negate a command or set its defaults
index	Next entry index
<i>idx</i>	Index number
mpls	MPLS Label
label	Label Configuration
<i>lbl</i>	MPLS Label value
segment-routing	Segment routing
srv6	SRv6 SID IPv6 address
policy-endpoint	Enable resolvment of path in SRTE based on policy endpoint

## Command Mode

- /exec/configure/sr/te/exp\_seg\_list

# ingress-client query-reply

[no] ingress-client query-reply <count>

## Syntax Description

no	(Optional) Negate a command or set its defaults
ingress-client	Ingress Client Packet Tuners
query-reply	query reply count
<i>count</i>	Specify Service Count

## Command Mode

- /exec/configure/mdns-sd

# ingress-client query-suppression

[no] ingress-client query-suppression

## Syntax Description

no	(Optional) Negate a command or set its defaults
ingress-client	Ingress Client Packet Tuners
query-suppression	Ingress Query Suppression

## Command Mode

- /exec/configure/mdns-sd

# ingress-client query-suppression packet-gap

[no] ingress-client query-suppression packet-gap <count>

## Syntax Description

no	(Optional) Negate a command or set its defaults
ingress-client	Ingress Client Packet Tuners
query-suppression	Ingress Query Suppression
packet-gap	Response frequency for a query
<i>count</i>	Specify Packet gap

## Command Mode

- /exec/configure/mdns-sd

# ingress-mtu

ingress-mtu <mtu\_value> | no ingress-mtu

## Syntax Description

no	Negate the command
ingress-mtu	set/reset ingress port mtu value
<i>mtu_value</i>	mtu value

## Command Mode

- /exec/configure/if-eth-base /exec/configure/if-ethernet handle auto 424



# ingress-replication protocol bgp

[no] ingress-replication protocol bgp

## Syntax Description

no	(Optional) Negate a command or set its defaults
ingress-replication	Configure ingress replication
protocol	Control protocol to use
bgp	Border Gateway Protocol

## Command Mode

- /exec/configure/if-nve/vni

# ingress-replication protocol static

[no] ingress-replication protocol static

## Syntax Description

no	(Optional) Negate a command or set its defaults
ingress-replication	Configure ingress replication
protocol	Control protocol to use
static	Static End-point Configuration

## Command Mode

- /exec/configure/if-nve/vni

# ingress interface

[no] ingress interface <interface-ref> [ next-hop <ip-addr> ]

## Syntax Description

no	(Optional) Negate a command or set its defaults
ingress	ITD ingress interface
interface	ITD ingress interface
<i>interface-ref</i>	
next-hop	THIS KEYWORD OR VARIABLE IS NOT SUPPORTED
<i>ip-addr</i>	(Optional) Next hop IPv4 address connected to ingress interface

## Command Mode

- /exec/configure/itd /exec/configure/itd-inout

# inherit peer-policy

[no] inherit peer-policy <peer-policy-template-name> <policy-preference>

## Syntax Description

no	(Optional) Negate a command or set its defaults
inherit	Inherit a template
peer-policy	Inherit a peer-policy template
<i>peer-policy-template-name</i>	Template name
<i>policy-preference</i>	Sequence number

## Command Mode

- /exec/configure/router-bgp/router-bgp-neighbor/router-bgp-neighbor-af  
/exec/configure/router-bgp/router-bgp-neighbor/router-bgp-neighbor-af-l2vpn-evpn  
/exec/configure/router-bgp/router-bgp-neighbor/router-bgp-neighbor-af-vpnv4  
/exec/configure/router-bgp/router-bgp-neighbor/router-bgp-neighbor-af-vpnv6  
/exec/configure/router-bgp/router-bgp-neighbor/router-bgp-neighbor-af-ipv4-mvpn  
/exec/configure/router-bgp/router-bgp-neighbor/router-bgp-neighbor-af-ipv6-mvpn  
/exec/configure/router-bgp/router-bgp-neighbor/router-bgp-neighbor-af-link-state  
/exec/configure/router-bgp/router-bgp-neighbor/router-bgp-neighbor-af-ipv4-label  
/exec/configure/router-bgp/router-bgp-neighbor/router-bgp-neighbor-af-ipv6-label  
/exec/configure/router-bgp/router-bgp-neighbor/router-bgp-neighbor-af-ipv4-mdt

# inherit peer-policy

[no] inherit peer-policy <peer-policy-template-name> <policy-preference>

## Syntax Description

no	(Optional) Negate a command or set its defaults
inherit	Inherit a template
peer-policy	Inherit a peer-policy template
<i>peer-policy-template-name</i>	Template name
<i>policy-preference</i>	Sequence number

## Command Mode

- /exec/configure/router-bgp/router-bgp-neighbor/router-bgp-neighbor-af-l2vpn-vpls

# inherit peer-session

[no] inherit peer-session <peer-session-template-name>

## Syntax Description

no	(Optional) Negate a command or set its defaults
inherit	Inherit a template
peer-session	Inherit a peer-session template
<i>peer-session-template-name</i>	Template name

## Command Mode

- /exec/configure/router-bgp/router-bgp-neighbor-sess

# inherit peer

[no] inherit peer <peer-template-name>

## Syntax Description

no	(Optional) Negate a command or set its defaults
inherit	Inherit a template
peer	Inherit a peer template
<i>peer-template-name</i>	Peer template name

## Command Mode

- /exec/configure/router-bgp/router-bgp-neighbor /exec/configure/router-bgp/router-bgp-vrf-neighbor  
/exec/configure/router-bgp/router-bgp-prefixneighbor  
/exec/configure/router-bgp/router-bgp-vrf-prefixneighbor

# inherit port-profile

[no] inherit port-profile { <s0> | <s1> }

## Syntax Description

no	(Optional) Negate a command or set its defaults
inherit	Inherit a port-profile
port-profile	Inherit a port-profile
<i>s0</i>	Enter the name of the profile
<i>s1</i>	Enter the name of the profile

## Command Mode

- /exec/configure/if-any /exec/configure/if-port-channel exec/configure/if-port-channel-range /exec/configure/if-ethernet-m /exec/configure/if-ethernet-switch-m /exec/configure/if-te /exec/configure/if-pseudowire



# initial-delay

[no] initial-delay <time-in-sec>

## Syntax Description

no	(Optional) Negate a command or set its defaults
initial-delay	Configure delay interval to connect to the BMP server
<i>time-in-sec</i>	Delay value

## Command Mode

- /exec/configure/router-bgp/router-bgp-bmp-server

# initial-refresh skip

[no] initial-refresh { skip | delay <time-in-sec> }

## Syntax Description

no	(Optional) Negate a command or set its defaults
initial-refresh	Configure initial-refresh for the BMP server
skip	Skip sending the initial route update to the BMP server
delay	Delay after which the initial route update is sent to the BMP server
<i>time-in-sec</i>	Delay value

## Command Mode

- /exec/configure/router-bgp/router-bgp-bmp-server

# inject-map exist-map

[no] inject-map <inject-map-name> exist-map <exist-map-name> [ copy-attributes ]

## Syntax Description

no	(Optional) Negate a command or set its defaults
inject-map	Routemap which specifies prefixes to inject
<i>inject-map-name</i>	Route-map name
exist-map	Routemap which specifies exist condition
<i>exist-map-name</i>	Route-map name
copy-attributes	(Optional) Copy attributes from aggregate

## Command Mode

- /exec/configure/router-bgp/router-bgp-af

# innoshell

innoshell

## Syntax Description

innoshell	innoshell
-----------	-----------

## Command Mode

- /exec

# innoshell cmd

innoshell cmd <cmd>

## Syntax Description

innoshell	innoshell
cmd	Specify command
<i>cmd</i>	Quoted commands to be exec

## Command Mode

- /exec

# innoshell module

innoshell module <module>

## Syntax Description

innoshell	innoshell
module	Select module
<i>module</i>	Module number

## Command Mode

- /exec

# innoshell module cmd

innoshell module <module> cmd <cmd>

## Syntax Description

innoshell	innoshell
module	Select module
cmd	Specify command
<i>module</i>	Module number
<i>cmd</i>	Quoted commands to be exec

## Command Mode

- /exec

# install

```
install { all [ nxos <uri> | kickstart <uri1> | system <uri3> | package <uri4> | serial | ignore-script-errors ] +
[ force ] [ non-disruptive | no-reload | noswitchover | maintenance-mode ] [ bios | no-save ] [ bios-force ] [
non-interruptive ] [ compact ] [ override ] [ skip-kernel-upgrade ] | force-all [ nxos <uri> | serial |
ignore-script-errors ] + [ non-disruptive ] [ force ] | all [ epld <uri5> nxos <uri> | nxos <uri> epld <uri5> |
package <uri4> | serial | ignore-script-errors ] + [ force ] [ noswitchover | maintenance-mode ] [ bios | no-save
] [ bios-force ] [ non-interruptive ] [ compact ] [ override ] }
```

## Syntax Description

install	upgrade software
all	Upgrade the system
ignore-script-errors	THIS KEYWORD OR VARIABLE IS NOT SUPPORTED
kickstart	(Optional) boot-variable name
<i>uri1</i>	(Optional) Enter image uri
system	(Optional) boot-variable name
<i>uri3</i>	(Optional) Enter image uri
no-reload	(Optional) Exit right before reload during install.
noswitchover	THIS KEYWORD OR VARIABLE IS NOT SUPPORTED
non-interruptive	(Optional) Upgrades the software without any prompts. This option skips all error and sanity checks.
no-save	(Optional) Config not saved. Manually save config before starting install all
bios	(Optional) BIOS Only
bios-force	(Optional) Forcefully upgrade bios.
force	THIS KEYWORD OR VARIABLE IS NOT SUPPORTED
non-disruptive	(Optional) Performs an in-service software upgrade (ISSU) to prevent the disruption of data traffic.
compact	(Optional) Compact image offline
override	(Optional) Override the files in bootflash if they exist if TAR image is used
maintenance-mode	(Optional) Enter maintenance-mode before starting disruptive upgrade
skip-kernel-upgrade	(Optional) Kernel will not be upgraded
nxos	(Optional) boot-variable name



<i>uri</i>	(Optional) Enter image uri
serial	(Optional) Upgrade linecards in serial
package	(Optional) SMU package filename
<i>uri4</i>	(Optional) Enter package uri
epld	(Optional) epld image name
<i>uri5</i>	(Optional) Enter epld image name uri
force-all	Force upgrade the system

**Command Mode**

- /exec

# install activate

install activate <patch> + [ no-immediate-reload ] [ forced ]

## Syntax Description

install	Install package
activate	Activate package
<i>patch</i>	Package Name
no-immediate-reload	(Optional) Skip immediate reload for reload type patches.
forced	(Optional) non-interactive

## Command Mode

- /exec

# install add

```
install add { <package-name> | <uri> } [ vrf <vrf-known-name> ] [ { gpg-key | [ activate [ upgrade | downgrade
| no-immediate-reload ] ] [ forced ] } ]
```

## Syntax Description

install	Install package
add	Add package
<i>package-name</i>	Package name
<i>uri</i>	Enter package uri
vrf	(Optional) Display per-VRF information
<i>vrf-known-name</i>	(Optional) Known VRF name
gpg-key	(Optional) GPG-KEY
activate	(Optional) Activate package
no-immediate-reload	(Optional) Skip immediate reload for reload type patches.
forced	(Optional) non-interactive
upgrade	(Optional) Upgrade package
downgrade	(Optional) Downgrade package

## Command Mode

- /exec

# install all network-os

install all network-os <uri>

## Syntax Description

install	upgrade software
all	Upgrade the system
network-os	non-cisco OS
<i>uri</i>	Enter image uri

## Command Mode

- /exec

# install commit

install commit [ <patch> ]

## Syntax Description

install	Install package
commit	Commit software patch
<i>patch</i>	(Optional) Package Name

## Command Mode

- /exec

# install deactivate

install deactivate <patch> + [ no-immediate-reload ] [ forced ]

## Syntax Description

install	Install package
deactivate	Deactivate package
<i>patch</i>	Package Name[Note: startup configuration may get affected]
no-immediate-reload	(Optional) Skip immediate reload for reload type patches.
forced	(Optional) non-interactive

## Command Mode

- /exec

# install epld

```
install epld <uri1> { { module { <module> | all } [ force ] } }
```

## Syntax Description

install	upgrade software
epld	Install EPLD from EPLD image
<i>uri1</i>	Local URI containing EPLD Image
module	Enter the module number or module range
<i>module</i>	x or x-y
all	Install all the modules
force	THIS KEYWORD OR VARIABLE IS NOT SUPPORTED

## Command Mode

- /exec

# install feature-set fcoe-npv

[no] install feature-set fcoe-npv

## Syntax Description

no	(Optional) Negate a command or set its defaults
install	install a feature-set
feature-set	install feature-set
fcoe-npv	FCOE-NPV

## Command Mode

- /exec/configure



# install feature-set fcoe

[no] install feature-set fcoe

## Syntax Description

no	(Optional) Negate a command or set its defaults
install	install a feature-set
feature-set	install feature-set
fcoe	FCOE

## Command Mode

- /exec/configure

# install feature-set mpls

[no] install feature-set mpls

## Syntax Description

no	(Optional) Negate a command or set its defaults
install	install a feature-set
feature-set	install feature-set
mpls	MPLS

## Command Mode

- /exec/configure

# install feature-set virtualization

[no] install feature-set virtualization

## Syntax Description

no	(Optional) Negate a command or set its defaults
install	install a feature-set
feature-set	install feature-set
virtualization	VIRTUALIZATION

## Command Mode

- /exec/configure

# install license

install license <uri0> [ <s0> ] [ format ]

## Syntax Description

install	upgrade software
license	install license
<i>uri0</i>	Specify URL for license file
<i>s0</i>	(Optional) Specify a target name for the license file
format	(Optional) Reformat the license file to remove invalid characters and formatting

## Command Mode

- /exec

# install remove

install remove { <patch> | inactive } [ forced ]

## Syntax Description

install	Install package
remove	Remove package
<i>patch</i>	Package Name
inactive	All inactive except non-committed packages
forced	(Optional) Remove package

## Command Mode

- /exec

# install reset

```
install reset [ nxos { base | full } ]
```

## Syntax Description

install	Install package
reset	Reload nxos with default packages
nxos	(Optional) Reloading with basenxos from fullnxos and vice-versa
base	(Optional) Reload with basenxos after resetting
full	(Optional) Reload with fullnxos after resetting

## Command Mode

- /exec

# install verify

```
install verify { <uri1> | package <patch> }
```

## Syntax Description

install	Install package
verify	Verify package for signature
<i>uri1</i>	Enter package uri
package	Enter active/inactive package
<i>patch</i>	Package Name

## Command Mode

- /exec

# instance-id

[no] instance-id <iid>

## Syntax Description

no	(Optional) Negate a command or set its defaults
instance-id	Configures Instance-ID for global data-mappings
<i>iid</i>	24-bit instance-ID value

## Command Mode

- /exec/configure/lisp-dynamic-eid /exec/configure/vrf/lisp-dynamic-eid



# instance

[no] instance <instance-id> [ vlan <vlan-list> ]

## Syntax Description

no	Negate a command or set its defaults
instance	Map vlans to an MST instance
<i>instance-id</i>	MST instance id
vlan	(Optional) Range of vlans to add to the instance mapping
<i>vlan-list</i>	(Optional) vlan range ex: 1-65, 72, 200 - 300

## Command Mode

- /exec/configure/spanning-tree/mst/configuration

# instance

[no] instance <plistinst> [ cross-check ] | instance <plistinst>

## Syntax Description

no	Negate a command or set its defaults
instance	Configure a parameter list instance
<i>plistinst</i>	Enter the name of the parameter list instance
cross-check	THIS KEYWORD OR VARIABLE IS NOT SUPPORTED

## Command Mode

- /exec/configure/param-list

# instance vlan

instance <instance-id> vlan <vlan-list>

## Syntax Description

instance	Map vlans to an MST instance
<i>instance-id</i>	MST instance id
vlan	Range of vlans to add to the instance mapping
<i>vlan-list</i>	vlan range ex: 1-65, 72, 200 - 300

## Command Mode

- /exec/configure/spanning-tree/mst/configuration

# int-clone-md probe-marker

[no] int-clone-md probe-marker <marker>

## Syntax Description

int-clone-md	Enable/Disable INT Clone MD configuration
probe-marker	Give a probe-marker value

## Command Mode

- /exec/configure/config-int-clone-md

# int-clone-md sink collector

[no] int-clone-md sink collector <collectorname>

## Syntax Description

int-clone-md	Enable/Disable INT Clone MD configuration
sink	Sink configuration
collector	Define a collector
<i>collectorname</i>	Name of collector

## Command Mode

- /exec/configure/config-int-clone-md

# int-clone-md sink monitor

[no] int-clone-md sink monitor <monitorname>

## Syntax Description

int-clone-md	Enable/Disable INT Clone MD configuration
sink	Sink configuration
monitor	Define a sink Monitor
<i>monitorname</i>	Name of sink Monitor

## Command Mode

- /exec/configure/config-int-clone-md

# int-clone-md sink record

[no] int-clone-md sink record <recordname>

## Syntax Description

int-clone-md	Enable/Disable INT Clone MD configuration
sink	Sink configuration
record	Define sink record
<i>recordname</i>	Name of sink record

## Command Mode

- /exec/configure/config-int-clone-md

## int-clone-md source monitor

[no] int-clone-md source monitor <monitorname>

### Syntax Description

int-clone-md	Enable/Disable INT Clone MD configuration
source	Source configuration
monitor	Define a source Monitor
<i>monitorname</i>	Name of source Monitor

### Command Mode

- /exec/configure/config-int-clone-md



# int-clone-md source record

[no] int-clone-md source record <recordname>

## Syntax Description

int-clone-md	Enable/Disable INT Clone MD configuration
source	Source configuration
record	Define Source record
<i>recordname</i>	Name of source record

## Command Mode

- /exec/configure/config-int-clone-md

# int-clone-md system sink monitor

[no] int-clone-md system sink monitor <monitorname>

## Syntax Description

int-clone-md	Enable/Disable INT Clone MD configuration
system	global config
sink	Sink configuration
monitor	Sink Monitor to be applied
<i>monitorname</i>	Sink Monitor to be applied

## Command Mode

- /exec/configure/config-int-clone-md

# int-clone-md system source monitor

[no] int-clone-md system source monitor <monitorname>

## Syntax Description

int-clone-md	Enable/Disable INT Clone MD configuration
system	global config
source	Source configuration
monitor	Source Monitor to be applied
<i>monitorname</i>	Source Monitor to be applied

## Command Mode

- /exec/configure/config-int-clone-md

# interface

[no] interface <interface>

## Syntax Description

no	(Optional) Negate a command or set its defaults
interface	Configure interfaces
<i>interface</i>	Interface Name

## Command Mode

- /exec/configure

# interface

{ interface <eid> } | { no interface }

## Syntax Description

no	Negate a command or set its defaults
interface	Configure ngoam egress interface
<i>eid</i>	Configure ngoam egress interface

## Command Mode

- /exec/configure/configngoamprofile

# interface

```
[no] interface <if_list> { [ qos-group <ucastqos-grp> ] }
```

## Syntax Description

no	(Optional) Negate the command
interface	Configure capture-scope parameters
<i>if_list</i>	List of interfaces
qos-group	(Optional) Specify qos-group to be associated
<i>ucastqos-grp</i>	(Optional) Value 0-7

## Command Mode

- /exec/configure/pkt-drop/profile

# interface

[no] interface <interface-id>

## Syntax Description

no	(Optional) Negate a command or set its defaults
interface	Applied interface
<i>interface-id</i>	Name of interface

## Command Mode

- /exec/configure/static-host/dot1q /exec/configure/static-host/vni

# interface

[no] interface <interface>

## Syntax Description

no	(Optional) Negate a command or set its defaults
interface	Configure interfaces
<i>interface</i>	Interface Name

## Command Mode

- /exec/configure



# interface

[no] interface <interface>

## Syntax Description

no	(Optional) Negate a command or set its defaults
interface	Configure interfaces
<i>interface</i>	Interface Name

## Command Mode

- /exec/configure

# interface

[no] interface <interface>

## Syntax Description

no	(Optional) Negate a command or set its defaults
interface	Configure interfaces
<i>interface</i>	Interface Name

## Command Mode

- /exec/configure

# interface

[no] interface <interface>

## Syntax Description

no	(Optional) Negate a command or set its defaults
interface	Configure interfaces
<i>interface</i>	Interface Name

## Command Mode

- /exec/configure

# interface

[no] interface <interface>

## Syntax Description

no	(Optional) Negate a command or set its defaults
interface	Configure interfaces
<i>interface</i>	Interface Name

## Command Mode

- /exec/configure

# interface

[no] interface <interface>

## Syntax Description

no	(Optional) Negate a command or set its defaults
interface	Configure interfaces
<i>interface</i>	Interface Name

## Command Mode

- /exec/configure

# interface

[no] interface <interface>

## Syntax Description

no	(Optional) Negate a command or set its defaults
interface	Configure interfaces
<i>interface</i>	Interface Name

## Command Mode

- /exec/configure

# interface

[no] interface <interface>

## Syntax Description

no	(Optional) Negate a command or set its defaults
interface	Configure interfaces
<i>interface</i>	Interface Name

## Command Mode

- /exec/configure

# interface

interface <interface>

## Syntax Description

interface	Configure interfaces
<i>interface</i>	Interface Name

## Command Mode

- /exec/configure



# interface

[no] interface <interface>

## Syntax Description

no	Negate a command or set its defaults
interface	Configure interfaces
<i>interface</i>	Interface Name

## Command Mode

- /exec/configure

# interface

[no] interface <interface>

## Syntax Description

no	(Optional) Negate a command or set its defaults
interface	Configure interfaces
<i>interface</i>	Interface Name

## Command Mode

- /exec/configure

# interface

[no] interface <interface>

## Syntax Description

no	(Optional) Negate a command or set its defaults
interface	Configure interfaces
<i>interface</i>	Interface Name

## Command Mode

- /exec/configure

# interface

[no] interface <interface\_range>

## Syntax Description

interface	Configure interfaces
<i>interface_range</i>	

## Command Mode

- /exec/configure/config-int-clone-md-source-record

# interface

[no] interface <interface\_range>

## Syntax Description

interface	Configure interfaces
<i>interface_range</i>	

## Command Mode

- /exec/configure/config-int-clone-md-sink-record

# interface

[no] interface <interface-ref>

## Syntax Description

no	(Optional) Negate a command or set its defaults
interface	egress interface
<i>interface-ref</i>	

## Command Mode

- /exec/configure/itd-port-grp

# interface

[no] interface <intf>

## Syntax Description

no	(Optional) Negate a command or set its defaults
interface	Specify the srte interface
<i>intf</i>	Interface name

## Command Mode

- /exec/configure/sr/te

# interface breakout-profile

interface breakout-profile <profile> | no interface breakout-profile [ <profile> ]

## Syntax Description

no	Negate a command or set its defaults
interface	Configure interfaces
breakout-profile	Configure breakout-profile
<i>profile</i>	Breakout Profile

## Command Mode

- /exec/configure



# interface breakout module

```
interface breakout module <lem-aware-module> [ map <breakout_map> ]
```

## Syntax Description

interface	Configure interfaces
breakout	Configuring the breakout for a module
module	High Bandwidth Module
<i>lem-aware-module</i>	High Bandwidth Module number
map	(Optional) Breakout Map
<i>breakout_map</i>	(Optional) Breakout Map to be applied to all the ports in this module

## Command Mode

- /exec/configure

# interface breakout module

[no] interface breakout module <lem-aware-module> [ map <breakout\_map> ]

## Syntax Description

no	Negate a command or set its defaults
interface	Configure interfaces
breakout	Configuring the breakout for a module
module	High Bandwidth Module
<i>lem-aware-module</i>	High Bandwidth Module number
map	(Optional) Breakout Map
<i>breakout_map</i>	(Optional) Breakout Map to be applied to all the ports in this module

## Command Mode

- /exec/configure

# interface breakout module port

[no] interface breakout module <lem-aware-module> port <port\_num> [ map <breakout\_map> ]

## Syntax Description

no	Negate a command or set its defaults
interface	Configure interfaces
breakout	Configuring the breakout for an interface
module	High Bandwidth Module
<i>lem-aware-module</i>	High Bandwidth Module number
port	High Bandwidth Port(HBP)
<i>port_num</i>	Parent(HBP / Front-panel) port to be broken out
map	(Optional) Breakout Map
<i>breakout_map</i>	(Optional) Breakout Map to be applied to the parent port

## Command Mode

- /exec/configure

# interface breakout module port map

```
interface breakout module <lem-aware-module> port <port_num> map <breakout_map>
```

## Syntax Description

interface	Configure interfaces
breakout	ConfigurinG the breakout for an interface
module	High Bandwidth Module
<i>lem-aware-module</i>	High Bandwidth Module number
port	High Bandwidth Port(HBP)
<i>port_num</i>	Parent(HBP / Front-panel) port to be broken out
map	Breakout Map
<i>breakout_map</i>	Breakout Map to be applied to the parent port

## Command Mode

- /exec/configure

# interop-enable

[no] interop-enable

## Syntax Description

no	(Optional) Negate a command or set its defaults
interop-enable	Enable interoperability with IOS XR boxes in the network

## Command Mode

- /exec/configure/otv-isis

# intersight cnmi

```
intersight cnmi { { patch | post | put } <path_str> data <data_str> | { get | delete } <path_str> }
```

## Syntax Description

intersight	intersight feature exec command
cnmi	cnmi endpoint
patch	patch
post	post
put	put
get	get
delete	delete
data	Payload in json format
<i>path_str</i>	URI of cnmi API, starting with slash(/)
<i>data_str</i>	Payload in json format

## Command Mode

- /exec

# intersight device-connector unclaim

intersight device-connector unclaim

## Syntax Description

intersight	intersight feature exec command
device-connector	device-connector
unclaim	Force Unclaim

## Command Mode

- /exec

# intersight inventory

[no] intersight inventory

## Syntax Description

no	(Optional) Negate a command or set its defaults
intersight	intersight feature configuration
inventory	Inventory Model enable/disable

## Command Mode

- /exec/configure



# intersight proxy

[no] intersight proxy <proxy-server> [ port <proxy-port> ] | no intersight proxy

## Syntax Description

no	(Optional) Negate a command or set its defaults
intersight	intersight feature configuration
proxy	Set proxy server, ipv4/ipv6/hostname
port	(Optional) Set proxy server port
<i>proxy-server</i>	IPv4 or IPv6 address or DNS name of proxy server
<i>proxy-port</i>	(Optional) Proxy port number

## Command Mode

- /exec/configure

# intersight source-interface

[no] intersight source-interface <ifName> | no intersight source-interface

## Syntax Description

no	(Optional) Negate a command or set its defaults
intersight	intersight feature configuration
source-interface	Source interface for communication
<i>ifName</i>	Source interface name

## Command Mode

- /exec/configure

# intersight trustpoint

[no] intersight trustpoint <trustpoint-label> [ <host-name> ] | no intersight trustpoint

## Syntax Description

no	(Optional) Negate a command or set its defaults
intersight	intersight feature configuration
trustpoint	certificate trustpoint
<i>trustpoint-label</i>	trustpoint label name
<i>host-name</i>	(Optional) hostname associated with certificate

## Command Mode

- /exec/configure

# intersight use-vrf

[no] intersight use-vrf { default | <vrf-cfg-name> } | no intersight use-vrf

## Syntax Description

no	(Optional) Negate a command or set its defaults
intersight	intersight feature configuration
use-vrf	Specify the destination vrf
default	Known VRF name
<i>vrf-cfg-name</i>	Configurable VRF name

## Command Mode

- /exec/configure

# interval

```
{ interval <interval> }
```

## Syntax Description

interval	Wait
<i>interval</i>	Interval

## Command Mode

- /exec/configure/configngoamconnectcheck

# interval

[no] interval <timeinterval>

## Syntax Description

interval	Time interval to be configured
<i>timeinterval</i>	time interval in increments of 100ms

## Command Mode

- /exec/configure/config-ssx-record

# interval interval

{ [ no ] interval | interval <interval> }

## Syntax Description

no	(Optional) Negate a command or set its defaults
interval	Configure interval for liveness detection
<i>interval</i>	interval in ms

## Command Mode

- /exec/configure/sr/te/live-det

# ip

```
[no] ip { { group <gaddr> } | { group-range <gaddr_start> to <gaddr_end> } }
```

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	IP Address
group	Multicast group
<i>gaddr</i>	IPv4 group address
group-range	Multicast Group address range
<i>gaddr_start</i>	First Group address
to	Range
<i>gaddr_end</i>	Last Group address

## Command Mode

- /exec/configure/nbm-flow-policy/attr



# ip

```
{ [ no ] <seqnum> <permitdeny> { ip { <src_prefix> | <src_any> } { <dst_prefix> | <dst_any> } } } | { no <seqnum> }
```

## Syntax Description

<code>no</code>	(Optional) Negate a command or set its defaults
<code>seqnum</code>	Sequence number
<code>ip</code>	ip
<code>permitdeny</code>	permitdeny
<code>src_prefix</code>	A.B.C.D/nn Source network prefix
<code>src_any</code>	Any source address
<code>dst_prefix</code>	A.B.C.D/nn Destination network prefix
<code>dst_any</code>	Any destination address

## Command Mode

- /exec/configure/config-int-watchlist

# ip

```
{ { ip <dstip> <srcip> | ipv6 <dstipv6> <srcipv6> } }
```

## Syntax Description

ip	ip address
<i>dstip</i>	Destination ipv4 address
<i>srcip</i>	source ipv4 address
ipv6	ipv6 address

## Command Mode

- /exec/configure/configngoamccpayload

# ip

[no] ip <ipaddr>

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	ip address of redundancy group member
<i>ipaddr</i>	Redundancy-group node IP address

## Command Mode

- /exec/configure/if-nve/rgrp

# ip

ip [ <ipaddress> | <ipprefix> ] | no ip [ <ipaddress> | <ipprefix> ]

## Syntax Description

no	Negate a command or set its defaults
ip	Enable HSRP IPv4 and set the virtual IP address
<i>ipaddress</i>	(Optional) Virtual IP address
<i>ipprefix</i>	(Optional) Virtual IP address and mask length

## Command Mode

- /exec/configure/if-eth-any/hsrp\_ipv4

# ip

ip { <ipv6address> | autoconfig } | no ip [ { <ipv6address> | autoconfig } ]

## Syntax Description

no	Negate a command or set its defaults
ip	Enable HSRP IPv6 and set the virtual IP address
autoconfig	Obtain address using autoconfiguration

## Command Mode

- /exec/configure/if-eth-any/hsrp\_ipv6

# ip

```
{ [ no ] <seqnum> <permitdeny> { ip { <src_prefix> | <src_any> } { <dst_prefix> | <dst_any> } } } | { no <seqnum> }
```

## Syntax Description

<code>no</code>	(Optional) Negate a command or set its defaults
<code>seqnum</code>	Sequence number
<code>ip</code>	ip
<code>permitdeny</code>	permitdeny
<code>src_prefix</code>	A.B.C.D/nn Source network prefix
<code>src_any</code>	Any source address
<code>dst_prefix</code>	A.B.C.D/nn Destination network prefix
<code>dst_any</code>	Any destination address

## Command Mode

- /exec/configure/config-postcard-watchlist

# ip

```
[no] ip { { group <gaddr> } | { group-range <gaddr_start> to <gaddr_end> } }
```

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	IP Address
group	Multicast group
<i>gaddr</i>	IPv4 group address
group-range	Multicast Group address range
<i>gaddr_start</i>	First Group address
to	Range
<i>gaddr_end</i>	Last Group address

## Command Mode

- /exec/configure/nbm-vrf/nbm-flow-policy/attr

## ip access-class

[no] ip access-class <acl-ip-name> <inout>

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
access-class	Specify IPv4 access control for packets
<i>acl-ip-name</i>	List name
<i>inout</i>	Traffic direction

### Command Mode

- /exec/configure/line



# ip access-group

[no] ip access-group <acl-ip-name> <inout>

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
access-group	Specify access control for packets
<i>acl-ip-name</i>	List name
<i>inout</i>	Traffic direction

## Command Mode

- /exec/configure/if-set-acl-l3

## ip access-list

[no] ip access-list <acl-ip-name> [ client <clienttype> <clientID> ]

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
access-list	Configure access list
<i>acl-ip-name</i>	List name
client	THIS KEYWORD OR VARIABLE IS NOT SUPPORTED
<i>clienttype</i>	THIS KEYWORD OR VARIABLE IS NOT SUPPORTED
<i>clientID</i>	THIS KEYWORD OR VARIABLE IS NOT SUPPORTED

### Command Mode

- /exec/configure

# ip access-list match-local-traffic

[no] ip access-list match-local-traffic | ip access-list match-local-traffic

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
access-list	Configure access list
match-local-traffic	Enable access-list matching for locally generated traffic

## Command Mode

- /exec/configure

# ip address

{ ip address <ip-prefix> | no ip address [ <ip-prefix> ] }

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
address	Configure IP address on bridge
<i>ip-prefix</i>	IP prefix and network mask length in format x.x.x.x/m

## Command Mode

- /exec/configure/app-hosting-bridge

# ip address

[no] ip address <ip0>

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IPv4 address
address	Configure IPv4 address
<i>ip0</i>	IPv4 address

## Command Mode

- /exec/configure/cfs-static

# ip address

```
[no] ip address [ { <ip-addr> <ip-mask> | <ip-prefix> } [ route-preference <pref> ] [ tag <tag> ] ] | ip address
{ <ip-addr> <ip-mask> | <ip-prefix> } [ route-preference <pref> ] [ tag <tag> ]
```

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
address	Configure IP address on interface
<i>ip-addr</i>	(Optional) IP address in format i.i.i.i
<i>ip-mask</i>	(Optional) IP network mask in format m.m.m.m
<i>ip-prefix</i>	(Optional) IP prefix and network mask length in format x.x.x.x/m
route-preference	(Optional) URIB route preference for local/direct routes
<i>pref</i>	(Optional) Local/direct route preference
tag	(Optional) URIB route tag value for local/direct routes
<i>tag</i>	(Optional) Local/direct tag value

## Command Mode

- /exec/configure/if-igp /exec/configure/if-mgmt-config /exec/configure/if-mpls-tunnel  
/exec/configure/if-gre-tunnel /exec/configure/if-vsan /exec/configure/if-cpp

# ip address dhcp

[no] ip address dhcp

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
address	Configure IP address on interface
dhcp	Configure IP address from a dhcp server

## Command Mode

- /exec/configure/if-vlan /exec/configure/if-ethernet /exec/configure/if-mgmt-config /exec/configure/if-ethernet-all /exec/configure/if-sub

## ip address ipv6 address port

[no] { ip address <ip4> | ipv6 address <ip6> } port <portnum> [ protocol <proto> encoding <encoder> ]

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Set destination IPv4 address
ipv6	Set destination IPv6 address
address	IP address
port	Set destination port
protocol	(Optional) Set transport protocol
encoding	(Optional) Set encoding format
<i>ip4</i>	Destination IPv4 Address
<i>portnum</i>	Destination port
<i>proto</i>	(Optional)
<i>encoder</i>	(Optional) Set encoding type for this destination

### Command Mode

- /exec/configure/telemetry/destination-group



# ip address secondary

```
[no] ip address { <ip-addr> <ip-mask> | <ip-prefix> } secondary [ use-bia ] [ route-preference <pref> ] [ tag <tag> ] | ip address { <ip-addr> <ip-mask> | <ip-prefix> } secondary [ use-bia ] [ route-preference <pref> ] [ tag <tag> ]
```

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
address	Configure IP address on interface
<i>ip-addr</i>	IP address in format i.i.i.i
<i>ip-mask</i>	IP network mask in format m.m.m.m
<i>ip-prefix</i>	IP prefix and network mask length in format x.x.x.x/m
secondary	Configure additional IP addresses on interface
use-bia	(Optional) Use BIA
route-preference	THIS KEYWORD OR VARIABLE IS NOT SUPPORTED
<i>pref</i>	(Optional) Local/direct route preference
tag	(Optional) URIB route tag value for local/direct routes
<i>tag</i>	(Optional) Local/direct tag value

## Command Mode

- /exec/configure/if-igp /exec/configure/if-mpls-tunnel /exec/configure/if-mgmt-config /exec/configure/if-gre-tunnel /exec/configure/if-6to4-tunnel /exec/configure/if-vsant /exec/configure/if-cpp

## ip adjacency route distance

{ ip adjacency route distance <pref> } | { no ip adjacency route distance }

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
adjacency	Configure Adjmgr
route	route
distance	admin-distance
<i>pref</i>	preference

### Command Mode

- /exec/configure

## ip amt anycast-relay-prefix

{ { ip amt anycast-relay-prefix <prefix> } | { no ip amt anycast-relay-prefix [ <prefix> ] } } | { { ipv6 amt anycast-relay-prefix <prefix6> } | { no ipv6 amt anycast-relay-prefix [ <prefix6> ] } }

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
ipv6	Configure IPv6 features
amt	AMT global configuration commands
anycast-relay-prefix	Configure anycast prefix for AMT relay
<i>prefix</i>	IP anycast prefix for AMT relay

### Command Mode

- /exec/configure /exec/configure/vrf

# ip amt gateway

[no] ip amt gateway

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
amt	AMT global configuration commands
gateway	Configures IPv4 AMT gateway functionality

## Command Mode

- /exec/configure /exec/configure/vrf

## ip amt join-policy

```
{ [ no ] { ip | ipv6 } amt join-policy <jroute-map> [ gateway <groute-map> ] }
```

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
ipv6	Configure IPv6 features
amt	AMT global configuration commands
join-policy	Configures what (S,G) are allowed to be joined
<i>jroute-map</i>	Route-map describing (S,G) entries allowed
gateway	(Optional) Configure join-policy per gateway
<i>groute-map</i>	(Optional) Route-map describing gateway or sets of gateways

### Command Mode

- /exec/configure /exec/configure/vrf

## ip amt qqic

[no] { ip | ipv6 } amt qqic <qqic-value>

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
ipv6	Configure IPv6 features
amt	AMT global configuration commands
qqic	Configure Querier's Query Interval Code
<i>qqic-value</i>	QQIC value

### Command Mode

- /exec/configure /exec/configure/vrf

## ip amt relay-advertisement-address

```
{ { ip amt relay-advertisement-address <address> } | { no ip amt relay-advertisement-address [ <address> ] } | { ipv6 amt relay-advertisement-address <address6> } | { no ipv6 amt relay-advertisement-address [ <address6> ] } }
```

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
ipv6	Configure IPv6 features
amt	AMT global configuration commands
relay-advertisement-address	Address to use by AMT relay
<i>address</i>	IP unicast address for AMT relay to use

### Command Mode

- /exec/configure /exec/configure/vrf

# ip amt relay

[no] ip amt relay

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
amt	AMT global configuration commands
relay	Configures IPv4 AMT relay functionality

## Command Mode

- /exec/configure /exec/configure/vrf



## ip amt state-limit

```
{ [ no ] { ip | ipv6 } amt state-limit <limit> [ gateway <route-map> ] }
```

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
ipv6	Configure IPv6 features
amt	AMT global configuration commands
state-limit	Configure the maximum number of (S,G) entries allowed
<i>limit</i>	Number of entries total or per AMT gateway
gateway	(Optional) Configure state limit per gateway
<i>route-map</i>	(Optional) Route-map describing gateway or sets of gateways

### Command Mode

- /exec/configure /exec/configure/vrf

## ip amt tunnel-limit

```
{ { { ip | ipv6 } amt tunnel-limit <limit> } | { no { ip | ipv6 } amt tunnel-limit [ <limit> ] } }
```

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
ipv6	Configure IPv6 features
amt	AMT global configuration commands
tunnel-limit	Configure the maximum tunnels allowed
<i>limit</i>	Number of tunnels

### Command Mode

- /exec/configure /exec/configure/vrf

# ip arp

```
{ ip arp <ip-address> <mac-address> | no ip arp <ip-address> [ <mac-address> ] }
```

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
arp	Configure ARP parameters
<i>ip-address</i>	IP address
<i>mac-address</i>	MAC address

## Command Mode

- /exec/configure/if-igp /exec/configure/if-mgmt-config /exec/configure/if-vlan-common

# ip arp allow-static-arp-outside-subnet

[no] ip arp allow-static-arp-outside-subnet

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
arp	Configure ARP parameters
allow-static-arp-outside-subnet	Allow static ARP outside interface subnet

## Command Mode

- /exec/configure

# ip arp cache limit

{ { ip arp cache limit <max> } | { no ip arp cache limit } } [ syslog <rate> ]

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
arp	Configure ARP parameters
cache	ARP cache parameters
limit	Limit size of ARP adjacencies cache
<i>max</i>	Maximum number of ARP entries
syslog	(Optional) Syslog messages
<i>rate</i>	(Optional) Syslogs per second

## Command Mode

- /exec/configure

# ip arp cos

{ ip arp cos <cosval> } | { no ip arp cos }

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
arp	Configure ARP parameters
cos	COS for ARP packet
<i>cosval</i>	COS value

## Command Mode

- /exec/configure

# ip arp delete

```
{ ip arp { delete-adj-on-mac-delete | refresh-adj-on-mac-delete <time-out> } | no ip arp {  
delete-adj-on-mac-delete | refresh-adj-on-mac-delete } }
```

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
arp	Configure ARP parameters
delete-adj-on-mac-delete	Delete the adjacency on MAC delete
refresh-adj-on-mac-delete	Set refresh timer for mac delete trigger
<i>time-out</i>	Refresh value in milliseconds

## Command Mode

- /exec/configure/if-vlan-common

## ip arp evpn timeout

{ ip arp evpn timeout <time-out> } | { no ip arp evpn timeout }

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
arp	Configure ARP parameters
evpn	In EVPN topology
timeout	ARP timeout
<i>time-out</i>	Refresh in EVPN on host moves. supported range is (2000-30000) ms

### Command Mode

- /exec/configure



# ip arp gratuitous hsrp duplicate

{ ip arp gratuitous hsrp duplicate | no ip arp gratuitous hsrp duplicate }

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
arp	Configure ARP parameters
gratuitous	gratuitous
hsrp	hsrp
duplicate	duplicate address detection

## Command Mode

- /exec/configure/if-igp /exec/configure/if-mgmt-config /exec/configure/if-vlan-common

# ip arp gratuitous request

{ ip arp gratuitous request | no ip arp gratuitous request }

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
arp	Configure ARP parameters
gratuitous	gratuitous
request	Enable/Disable sending grat. arp request when duplicate address detected

## Command Mode

- /exec/configure/if-igp /exec/configure/if-mgmt-config /exec/configure/if-vlan

# ip arp gratuitous update

{ ip arp gratuitous update | no ip arp gratuitous update }

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
arp	Configure ARP parameters
gratuitous	gratuitous
update	Enable/Disable arp cache updates for gratuitous arp

## Command Mode

- /exec/configure/if-igp /exec/configure/if-mgmt-config /exec/configure/if-vlan-common

## ip arp inspection filter vlan

[no] ip arp inspection filter <arp-acl-name> vlan <vlan-range>

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
arp	Configure ARP parameters
inspection	Arp Inspection configuration
filter	Filter
<i>arp-acl-name</i>	Access list name
vlan	Vlan range
<i>vlan-range</i>	VLAN ID 1-4094 or range(s): 1-5, 10 or 2-5,7-19

### Command Mode

- /exec/configure

## ip arp inspection log-buffer entries

[no] ip arp inspection log-buffer { entries <number1> }

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
arp	Configure ARP parameters
inspection	Arp Inspection configuration
log-buffer	Log Buffer Configuration
entries	Number of entries for log buffer
<i>number1</i>	Number of entries for log buffer

### Command Mode

- /exec/configure

# ip arp inspection trust

[no] ip arp inspection trust

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
arp	Configure ARP parameters
inspection	Arp Inspection configuration
trust	Configure trust state

## Command Mode

- /exec/configure/if-switching

# ip arp inspection validate

[no] ip arp inspection validate { src-mac | dst-mac | ip1 } +

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
arp	Configure ARP parameters
inspection	Arp Inspection configuration
validate	Validate addresses
src-mac	Validate source MAC address
dst-mac	Validate destination MAC address
ip1	Validate IP addresses

## Command Mode

- /exec/configure

## ip arp inspection vlan

```
[no] ip arp inspection vlan <vlan-id> [ logging { dhcp-bindings { permit | all | inone } } ]
```

### Syntax Description

<i>logging</i>	(Optional) dhcp-bindings
no	(Optional) Negate a command or set its defaults
ip	Configure IP features
arp	Configure ARP parameters
inspection	Arp Inspection configuration
vlan	Enable/Disable ARP Inspection on vlans
<i>vlan-id</i>	VLAN ID 1-4094 or range(s): 1-5, 10 or 2-5,7-19
dhcp-bindings	(Optional) Logging of packet that match DHCP bindings
permit	(Optional) Log DHCP Binding Permitted packets
all	(Optional) Log all packets that match DHCP bindings
inone	(Optional) Do not log packets

### Command Mode

- /exec/configure



## ip arp off-list timeout

{ ip arp off-list timeout <time> } | { no ip arp off-list timeout }

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
arp	Configure ARP parameters
off-list	off-list
timeout	Expire time
<i>time</i>	Expire time value in seconds

### Command Mode

- /exec/configure

## ip arp outside-subnet

{ ip arp outside-subnet } | { no ip arp outside-subnet }

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
arp	Configure ARP parameters
outside-subnet	Enable outside subnet ARP resolutions

### Command Mode

- /exec/configure

# ip arp outside-subnet

{ ip arp outside-subnet } | { no ip arp outside-subnet }

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
arp	Configure ARP parameters
outside-subnet	Enable outside subnet ARP resolutions

## Command Mode

- /exec/configure/if-ethernet /exec/configure/if-ethernet-switch /exec/configure/if-port-channel /exec/configure/if-ether-sub /exec/configure/if-p2p /exec/configure/if-port-channel-sub

## ip arp rarp fabric-forwarding

[no] ip arp rarp fabric-forwarding

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
arp	Configure ARP parameters
rarp	Enable/Disable forwarding of RARP messages on fabric
fabric-forwarding	Forward RARP requests to the fabric

### Command Mode

- /exec/configure

# ip arp rarp fabric-forwarding rate-limit

[no] ip arp rarp fabric-forwarding rate-limit <rate>

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
arp	Configure ARP parameters
rarp	Enable/Disable forwarding of RARP messages on fabric
fabric-forwarding	Forward RARP requests to the fabric
rate-limit	Forwarding rate of the RARP frames
<i>rate</i>	RARP frames-per-second

## Command Mode

- /exec/configure

## ip arp suppression-cache

```
ip arp suppression-cache { [ clear { local | remote } vlan <vlan-id> [ <ip-address> ] ] | [ download remote
vlan <vlan-id> [ <ip-address> ] ] }
```

### Syntax Description

clear	(Optional) Clear ARP suppression cache entries
ip	Clear IP commands
download	(Optional) download local entries from ARP cache, remote from l2rib
arp	Clear ARP table and statistics
suppression-cache	ARP-suppression cache
local	(Optional) Local entries
remote	(Optional) Remote entries
vlan	(Optional) Vlan id
<i>vlan-id</i>	(Optional) Vlan
<i>ip-address</i>	(Optional) IP address

### Command Mode

- /exec

# ip arp suppression timeout

{ ip arp suppression timeout <time-out> } | { no ip arp suppression timeout }

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
arp	Configure ARP parameters
suppression	ARP-suppression based event
timeout	ARP timeout
<i>time-out</i>	Time-out value in seconds. Time-out = 0 indicates disabled

## Command Mode

- /exec/configure

# ip arp synchronize

[no] ip arp synchronize

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
arp	ARP
synchronize	CFS synchronize

## Command Mode

- /exec/configure/vpc-domain



# ip arp timeout

{ ip arp timeout <time-out> } | { no ip arp timeout }

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
arp	Configure ARP parameters
timeout	ARP timeout
<i>time-out</i>	Time-out value in seconds

## Command Mode

- /exec/configure/config-mgmt /exec/configure/if-igp

# ip arp timeout

{ ip arp timeout <time-out> } | { no ip arp timeout }

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
arp	Configure ARP parameters
timeout	ARP timeout
<i>time-out</i>	Time-out value in seconds

## Command Mode

- /exec/configure

# ip arp unnum-svi-dup-ip-detection

[no] ip arp unnum-svi-dup-ip-detection

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
arp	Configure ARP parameters
unnum-svi-dup-ip-detection	Enable duplicate IP detection across VLANs for IP unnumbered SVIs.

## Command Mode

- /exec/configure/if-vlan-common

# ip arp unnum-svi-sw-replication

[no] ip arp unnum-svi-sw-replication

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
arp	Configure ARP parameters
unnum-svi-sw-replication	ARP packets replication in software for unnumbered SVI

## Command Mode

- /exec/configure

## ip as-path access-list deny

```
{ ip as-path access-list <aspl-name> [ timeout <sec> ] { { deny | permit } <line> } } | { no ip as-path access-list <aspl-name> [ timeout <sec> ] [ { deny | permit } <line> ] }
```

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
as-path	BGP autonomous system path filter
access-list	Specify an access list name
<i>aspl-name</i>	AS path access list name
<i>aspl-name</i>	Known as-path access-list name
timeout	THIS KEYWORD OR VARIABLE IS NOT SUPPORTED
<i>sec</i>	THIS KEYWORD OR VARIABLE IS NOT SUPPORTED
deny	Specify packets to reject
permit	Specify packets to forward
<i>line</i>	A

### Command Mode

- /exec/configure

## ip as-path access-list seq deny

```
{ ip as-path access-list <aspl-name> seq <seq> [ timeout <sec> ] { { deny | permit } <line> } } | { no ip as-path
access-list <aspl-name> seq <seq> [ timeout <sec> ] [ { deny | permit } <line> ] }
```

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
as-path	BGP autonomous system path filter
access-list	Specify an access list name
<i>aspl-name</i>	AS path access list name
<i>aspl-name</i>	Known as-path access-list name
seq	Sequence number of an entry
<i>seq</i>	Sequence number
timeout	THIS KEYWORD OR VARIABLE IS NOT SUPPORTED
<i>sec</i>	THIS KEYWORD OR VARIABLE IS NOT SUPPORTED
deny	Specify packets to reject
permit	Specify packets to forward
<i>line</i>	A

### Command Mode

- /exec/configure

# ip authentication key-chain eigrp

[no] { ip | ipv6 } authentication key-chain eigrp <eigrp-ptag> <chain>

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
ipv6	Configure IPv6 features
authentication	Configures EIGRP authentication subcommands
key-chain	key-chain
<i>eigrp-ptag</i>	Process tag
<i>chain</i>	name of key-chain
eigrp	EIGRP interface configuration commands

## Command Mode

- /exec/configure/if-igp

## ip authentication mode eigrp md5

[no] { ip | ipv6 } authentication mode eigrp <eigrp-ptag> md5

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
ipv6	Configure IPv6 features
authentication	Configures EIGRP authentication subcommands
mode	mode
eigrp	EIGRP interface configuration commands
<i>eigrp-ptag</i>	Process tag
md5	Keyed message digest

### Command Mode

- /exec/configure/if-igp



# ip auto-discard

[no] ip auto-discard

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
auto-discard	Auto 0.0.0.0/0 discard route

## Command Mode

- /exec/configure /exec/configure/vrf

# ip bandwidth-percent eigrp

```
{ { { ip | ipv6 } bandwidth-percent eigrp <eigrp-ptag> <percent> } | { no { ip | ipv6 } bandwidth-percent eigrp <eigrp-ptag> [ <percent> ] } }
```

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
ipv6	Configure IPv6 features
bandwidth-percent	Configures IP-EIGRP bandwidth limit
eigrp	EIGRP interface configuration commands
<i>eigrp-ptag</i>	Process tag
<i>percent</i>	Maximum bandwidth percentage that EIGRP may use
<i>eigrp-ptag</i>	

## Command Mode

- /exec/configure/if-igp

## ip bandwidth eigrp

```
{ { { ip | ipv6 } bandwidth eigrp <eigrp-ptag> <bw> } | { no { ip | ipv6 } bandwidth eigrp <eigrp-ptag> [ <bw> ] } }
```

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
ipv6	Configure IPv6 features
bandwidth	Set bandwidth for interface used in EIGRP metric calculation
eigrp	EIGRP interface configuration commands
<i>eigrp-ptag</i>	Process tag
<i>bw</i>	Bandwidth in kilobits
<i>eigrp-ptag</i>	

### Command Mode

- /exec/configure/if-igp

## ip community-list expanded deny

```
{ ip community-list expanded <name> [ timeout <sec> ] { deny | permit } <line> } | { no ip community-list
expanded <name> [ timeout <sec> ] [ { deny | permit } <line> ] }
```

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
community-list	Add a community list entry
expanded	Add an expanded community list entry
<i>name</i>	Name of expanded community list
timeout	THIS KEYWORD OR VARIABLE IS NOT SUPPORTED
<i>sec</i>	THIS KEYWORD OR VARIABLE IS NOT SUPPORTED
deny	Specify community to reject
permit	Specify community to accept
<i>line</i>	Regular-expression(must

### Command Mode

- /exec/configure

## ip community-list expanded seq deny

```
{ ip community-list expanded <name> seq <seq> [ timeout <sec> ] { deny | permit } <line> } | { no ip
community-list expanded <name> seq <seq> [ timeout <sec> ] [ { deny | permit } <line> ] }
```

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
community-list	Add a community list entry
expanded	Add an expanded community list entry
<i>name</i>	Name of expanded community list
seq	Sequence number of an entry
<i>seq</i>	Sequence number
timeout	THIS KEYWORD OR VARIABLE IS NOT SUPPORTED
<i>sec</i>	THIS KEYWORD OR VARIABLE IS NOT SUPPORTED
deny	Specify community to reject
permit	Specify community to accept
<i>line</i>	Regular-expression(must

### Command Mode

- /exec/configure

## ip delay eigrp

```
{ { { ip | ipv6 } delay eigrp <eigrp-ptag> <delay> [ picoseconds ] } | { no { ip | ipv6 } delay eigrp <eigrp-ptag> [ <delay> ] [ picoseconds ] } }
```

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
ipv6	Configure IPv6 features
delay	Set delay for interface used in EIGRP metric calculation
eigrp	EIGRP interface configuration commands
<i>eigrp-ptag</i>	Process tag
<i>delay</i>	Throughput delay
picoseconds	(Optional) Delay units in picoseconds
<i>eigrp-ptag</i>	

### Command Mode

- /exec/configure/if-igp

# ip destination

{ ip { destination | source } <addr> } | { no ip { destination | source } }

## Syntax Description

no	Negate a command or set its defaults
ip	specify flow ipv4 address
source	specify flow source ipv4 address
destination	specify flow destination ip address
<i>addr</i>	ipv4 address

## Command Mode

- /exec/configure/configngoamprofileflow

## ip dhcp option82 suboption circuit-id

[no] ip dhcp option82 suboption circuit-id <format-string>

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
dhcp	Configure DHCP snooping or relay
option82	DHCP option82
suboption	DHCP option82 suboption information
circuit-id	DHCP option82 suboption circuit-id string configuration
<i>format-string</i>	Format string

### Command Mode

- /exec/configure/if-eth-phy /exec/configure/if-eth-port-channel



# ip dhcp packet strict-validation

[no] ip dhcp packet strict-validation

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
dhcp	Configure DHCP snooping or relay
packet	DHCP packet
strict-validation	DHCP packet strict validation

## Command Mode

- /exec/configure/

# ip dhcp relay

[no] ip dhcp relay

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
dhcp	Configure DHCP snooping or relay
relay	Configure relay agent

## Command Mode

- /exec/configure

# ip dhcp relay address

[no] ip dhcp relay address [ <ip-addr-val> [ use-vrf <vrf-name> ] ]

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
dhcp	Configure DHCP snooping or relay
relay	Configure relay agent
address	Configure DHCP server to refer to
<i>ip-addr-val</i>	(Optional) IP address
use-vrf	(Optional) helper address VRF membership
<i>vrf-name</i>	(Optional) VRF name

## Command Mode

- /exec/configure/if-igp /exec/configure/ppm-ethernet-switch /exec/configure/ppm-port-channel-switch

# ip dhcp relay dai

[no] ip dhcp relay dai

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
dhcp	Configure DHCP snooping or relay
relay	Configure relay agent
dai	Create database on relay agent for DAI

## Command Mode

- /exec/configure

# ip dhcp relay information option

[no] ip dhcp relay information option

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
dhcp	Configure DHCP snooping or relay
relay	DHCP relay agent parameters
information	Relay agent information option
option	Insert relay information in BOOTREQUEST

## Command Mode

- /exec/configure

# ip dhcp relay information option server-id-override-disable

[no] ip dhcp relay information option server-id-override-disable

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
dhcp	Configure DHCP snooping or relay
relay	DHCP relay agent parameters
information	Relay agent information option
option	Insert relay information in BOOTREQUEST
server-id-override-disable	Disable the override of the server-id

## Command Mode

- /exec/configure

# ip dhcp relay information option trust

[no] ip dhcp relay information option trust

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
dhcp	Configure DHCP snooping or relay
relay	DHCP relay agent parameters
information	Relay agent information option
option	Relay agent option
trust	Enable relay trust functionality on the system

## Command Mode

- /exec/configure

## ip dhcp relay information option vpn

[no] ip dhcp relay information option vpn

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
dhcp	Configure DHCP snooping or relay
relay	DHCP relay agent parameters
information	Relay agent information option
option	Insert relay information in BOOTREQUEST
vpn	Enable relay support across VRFs

### Command Mode

- /exec/configure



# ip dhcp relay information trust-all

[no] ip dhcp relay information trust-all

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
dhcp	Configure DHCP snooping or relay
relay	DHCP relay agent parameters
information	Relay agent information option
trust-all	Enable relay trust on all the interfaces

## Command Mode

- /exec/configure

## ip dhcp relay information trusted

[no] ip dhcp relay information trusted

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
dhcp	Configure DHCP snooping or relay
relay	DHCP relay agent parameters
information	Relay agent information option
trusted	Enable relay trust on this interface

### Command Mode

- /exec/configure/if-igp

## ip dhcp relay source

```
ip dhcp relay { source-interface <interface-name> } | no ip dhcp relay { source-interface [ <interface-name> ] }
```

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
dhcp	Configure DHCP snooping or relay
relay	Configure relay agent
source-interface	Configure source interface for DHCP relay
<i>interface-name</i>	Source interface

### Command Mode

- /exec/configure /exec/configure/if-igp

## ip dhcp relay sub-option circuit-id customized

[no] ip dhcp relay sub-option circuit-id customized

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
dhcp	Configure DHCP snooping or relay
relay	DHCP relay agent parameters
sub-option	Relay agent information option sub-option
circuit-id	sub-option of option82
customized	circuit id customized to include vlan id, slot and port info

### Command Mode

- /exec/configure

## ip dhcp relay sub-option circuit-id format-type string

[no] ip dhcp relay sub-option circuit-id format-type string [ format <format-string> ]

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
dhcp	Configure DHCP snooping or relay
relay	DHCP relay agent parameters
sub-option	Relay agent suboption
circuit-id	Relay agent circuit-id suboption
format-type	Specify suboption format type
string	Use string format for suboption
format	(Optional) Specify format string
<i>format-string</i>	(Optional) Format string

### Command Mode

- /exec/configure

# ip dhcp relay sub-option format non-tlv

[no] ip dhcp relay sub-option format non-tlv

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
dhcp	Configure DHCP snooping or relay
relay	DHCP relay agent parameters
sub-option	Option82 sub-option parameters
format	Sub-option format type
non-tlv	Remove TLV format in circuit-ID and remote-ID sub-options

## Command Mode

- /exec/configure

# ip dhcp relay sub-option type cisco

[no] ip dhcp relay sub-option type cisco

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
dhcp	Configure DHCP snooping or relay
relay	DHCP relay agent parameters
sub-option	Relay agent suboption
type	Relay agent suboption type
cisco	Use Cisco proprietary suboptions

## Command Mode

- /exec/configure

# ip dhcp relay subnet-selection

{ ip dhcp relay subnet-selection <ip-addr> } | { no ip dhcp relay subnet-selection }

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
dhcp	Configure DHCP snooping or relay
relay	Configure relay agent
subnet-selection	Configure gateway address for DHCP relay
<i>ip-addr</i>	IP address

## Command Mode

- /exec/configure/if-igp



# ip dhcp smart-relay

[no] ip dhcp smart-relay

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
dhcp	Configure DHCP snooping or relay
smart-relay	Configure DHCP smart relay on interface

## Command Mode

- /exec/configure/if-igp

# ip dhcp smart-relay global

[no] ip dhcp smart-relay global

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
dhcp	Configure DHCP snooping or relay
smart-relay	Configure DHCP smart relay
global	Configure DHCP smart relay globally

## Command Mode

- /exec/configure

# ip dhcp snooping

[no] ip dhcp snooping

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
dhcp	Configure DHCP snooping or relay
snooping	DHCP Snooping

## Command Mode

- /exec/configure/

# ip dhcp snooping information option

[no] ip dhcp snooping information option

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
dhcp	Configure DHCP snooping or relay
snooping	DHCP Snooping
information	DHCP Snooping information
option	DHCP Snooping information option

## Command Mode

- /exec/configure/

## ip dhcp snooping ipsg-excluded vlan

[no] ip dhcp snooping ipsg-excluded vlan <vlan-id10>

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
dhcp	Configure DHCP snooping or relay
snooping	DHCP Snooping
ipsg-excluded	exclude ipsg
vlan	DHCP Snooping ipsg excluded vlan
<i>vlan-id10</i>	VLAN ID 1-4094 or range(s): 1-5, 10 or 2-5,7-19

### Command Mode

- /exec/configure

## ip dhcp snooping sub-option circuit-id format-type string

[no] ip dhcp snooping sub-option circuit-id format-type string [ format <format-string> ]

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
dhcp	Configure DHCP snooping or relay
snooping	DHCP snooping parameters
sub-option	suboption
circuit-id	circuit-id suboption
format-type	Specify suboption format type
string	Use string format for suboption
format	(Optional) Specify format string
<i>format-string</i>	(Optional) Format string

### Command Mode

- /exec/configure

## ip dhcp snooping sub-option format non-tlv

[no] ip dhcp snooping sub-option format non-tlv

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
dhcp	Configure DHCP snooping or relay
snooping	DHCP snooping parameters
sub-option	Option82 sub-option parameters
format	Sub-option format type
non-tlv	Remove TLV format in circuit-ID and remote-ID sub-options

### Command Mode

- /exec/configure

# ip dhcp snooping trust

[no] ip dhcp snooping trust

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
dhcp	Configure DHCP snooping or relay
snooping	DHCP Snooping
trust	DHCP Snooping trust config

## Command Mode

- /exec/configure/if-switching



# ip dhcp snooping verify mac-address

[no] ip dhcp snooping verify mac-address

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
dhcp	Configure DHCP snooping or relay
snooping	DHCP Snooping
verify	DHCP snooping verify
mac-address	DHCP snooping verify mac-address

## Command Mode

- /exec/configure/

## ip dhcp snooping vlan

```
[no] ip dhcp snooping vlan <vlan-id10> [ evpn ]
```

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
dhcp	Configure DHCP snooping or relay
snooping	DHCP Snooping
vlan	DHCP Snooping vlan
<i>vlan-id10</i>	VLAN ID 1-4094 or range(s): 1-5, 10 or 2-5,7-19
evpn	(Optional) FHS extended to evpn

### Command Mode

- /exec/configure

# ip directed-broadcast

[no] ip directed-broadcast [ <acl-name> ]

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
directed-broadcast	IP directed-broadcast
<i>acl-name</i>	(Optional) ACL policy name

## Command Mode

- /exec/configure/if-igp /exec/configure/if-mgmt-config

## ip distribute-list eigrp

```
[no] { ip | ipv6 } distribute-list eigrp <eigrp-ptag> { { route-map <map> } | { prefix-list <list> } } { in | out }
}
```

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
ipv6	Configure IPv6 features
distribute-list	Filter networks in routing updates
eigrp	EIGRP interface configuration commands
<i>eigrp-ptag</i>	Process tag
route-map	Use a route-map for route filtering
<i>map</i>	Route-map name
prefix-list	Use a prefix-list for route filtering
<i>list</i>	Reference to prefix-list name
in	Filter incoming routing updates
out	Filter outgoing routing updates

### Command Mode

- /exec/configure/if-igp

# ip dns source-interface

[no] ip dns source-interface <ifnum> [ vrf { <vrf-name> | <vrf-known-name> } ]

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
dns	Configure dns client
source-interface	Configure source interface feature for domain-lookup
<i>ifnum</i>	Source interface
vrf	(Optional) Configure VRF
<i>vrf-name</i>	(Optional) VRF name
<i>vrf-known-name</i>	(Optional) Known VRF name

## Command Mode

- /exec/configure

# ip domain-list

```
[no] ip domain-list { <s0> | <s1> [ use-vrf { <vrf-name> | <vrf-known-name> } ] }
```

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
domain-list	Add additional domain names
<i>s0</i>	Enter a domain
<i>s1</i>	Enter a domain
use-vrf	THIS KEYWORD OR VARIABLE IS NOT SUPPORTED
<i>vrf-name</i>	(Optional) VRF name
<i>vrf-known-name</i>	(Optional) Known VRF name

## Command Mode

- /exec/configure /exec/configure/vrf

# ip domain-lookup

[no] ip domain-lookup

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
domain-lookup	Enable/Disable DNS

## Command Mode

- /exec/configure

# ip domain-name

```
[no] ip domain-name { <s0> | <s1> [ use-vrf { <vrf-name> | <vrf-known-name> } ] }
```

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
domain-name	Specify default domain name
<i>s0</i>	Enter the default domain
<i>s1</i>	Enter the default domain
use-vrf	THIS KEYWORD OR VARIABLE IS NOT SUPPORTED
<i>vrf-name</i>	(Optional) VRF name
<i>vrf-known-name</i>	(Optional) Known VRF name

## Command Mode

- /exec/configure /exec/configure/vrf



# ip drop-glean

[no] ip drop-glean

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
drop-glean	Installs the secondary subnet routes as Drop routes

## Command Mode

- /exec/configure/if-vlan-common

## ip dscp-lop

[no] ip dscp-lop | ip dscp-lop { <dscp-val> | <dscp-enum> }

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
dscp-lop	Set DSCP to be used for locally originated packets for IPv4 and IPv6. Cos will not be set.
<i>dscp-val</i>	Specify DSCP value for Locally Originated packets for IPv4 and IPv6
<i>dscp-enum</i>	

### Command Mode

- /exec/configure

# ip dscp

[no] ip dscp <dscp\_value>

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Set ERSPAN IP options
dscp	Set the IP DSCP value
<i>dscp_value</i>	

## Command Mode

- /exec/configure/config-monitor-erspan-src

## ip eigrp bfd

```
[no] ip eigrp <eigrp-ptag> bfd [ disable ]
```

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
eigrp	EIGRP interface configuration commands
<i>eigrp-ptag</i>	Process tag
bfd	Enable BFD on this interface
disable	(Optional) Disable BFD on this interface

### Command Mode

- /exec/configure/if-igp

# ip eigrp shutdown

[no] { ip | ipv6 } eigrp <eigrp-ptag> shutdown

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
ipv6	Configure IPv6 features
eigrp	EIGRP interface configuration commands
<i>eigrp-ptag</i>	Process tag
shutdown	Shutdown EIGRP on this interface

## Command Mode

- /exec/configure/if-igp

## ip extcommunity-list expanded seq deny

```
{ ip extcommunity-list expanded <name> seq <seq> { deny | permit } <line> } | { no ip extcommunity-list
expanded <name> seq <seq> [ { deny | permit } <line> ] }
```

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
extcommunity-list	Add a extcommunity list entry
expanded	Add an expanded extcommunity list entry
<i>name</i>	Name of expanded extcommunity list
seq	Sequence number of an entry
<i>seq</i>	Sequence number
deny	Specify extcommunity to reject
permit	Specify extcommunity to accept
<i>line</i>	Regular-expression(must

### Command Mode

- /exec/configure

# ip extcommunity-list standard seq permit 4byteas-generic transitive

```
{ { ip extcommunity-list standard <name> seq <seq> { permit | deny } { { 4byteas-generic { transitive
<ext-comm-gen-trans> | non-transitive <ext-comm-gen-nontrans> } } | { rmac <mac-addr> } | { rt {
<ext-comm-rt-aa2nn4> | <ext-comm-rt-aa4nn2> } } | { soo { <ext-comm-soo-aa2nn4> |
<ext-comm-soo-aa4nn2> } } } + } | { no ip extcommunity-list standard <name> seq <seq> [ permit | deny ]
[ { 4byteas-generic { transitive <ext-comm-gen-trans> | non-transitive <ext-comm-gen-nontrans> } } | { rmac
<mac-addr> } | { rt { <ext-comm-rt-aa2nn4> | <ext-comm-rt-aa4nn2> } } | { soo { <ext-comm-soo-aa2nn4>
| <ext-comm-soo-aa4nn2> } } ] + } }
```

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
extcommunity-list	Add a extcommunity list entry
standard	Add a standard Extcommunity list entry
<i>name</i>	Standard extcommunity list name
seq	Sequence number of an entry
<i>seq</i>	Sequence number
permit	Specify extcommunity to accept
deny	Specify extcommunity to reject
4byteas-generic	Generic extended community
transitive	Transitive extcommunity
non-transitive	Non-Transitive extcommunity
rmac	Router MAC
rt	Router-Target
soo	Site-Of-Origin
<i>mac-addr</i>	MAC address
<i>ext-comm-gen-trans</i>	Extcommunity number aa4:nn format
<i>ext-comm-gen-nontrans</i>	Extcommunity number aa4:nn format
<i>ext-comm-rt-aa2nn4</i>	Extcommunity number
<i>ext-comm-rt-aa4nn2</i>	Extcommunity number

<i>ext-comm-soo-aa2nn4</i>	Extcommunity number
<i>ext-comm-soo-aa4nn2</i>	Extcommunity number

**Command Mode**

- /exec/configure



## ip filter add

```
ip filter add <seqno> { src-ip <src-ip> dst-ip <dst-ip> [ protocol <prot> [ l4-src-port { any | <l4-src-port> } l4-dst-port { any | <l4-dst-port> } ] ] } +
```

### Syntax Description

ip	Configure IPv4 Filter
filter	Define a 5-tuple filter
add	Add a 5-tuple
<i>seqno</i>	Sequence number
src-ip	Source IPv4 address
<i>src-ip</i>	Source IPv4 address with prefix
dst-ip	Destination IPv4 address
<i>dst-ip</i>	Destination IPv4 address with prefix
protocol	(Optional) Protocol
<i>prot</i>	(Optional)
l4-src-port	(Optional) Source L4 port
any	(Optional) Any L4 source port between 0 - 65535
<i>l4-src-port</i>	(Optional) Enter Source L4 port number
l4-dst-port	(Optional) Destination L4 port
any	(Optional) Any L4 destination port between 0 - 65535
<i>l4-dst-port</i>	(Optional) Enter Destination L4 port number

### Command Mode

- /exec/flow-path-tracer

# ip flow monitor input

[no] ip flow monitor <monitorname> { input | output }

## Syntax Description

ip	Configure IP features
flow	NetFlow related commands
monitor	Apply a Flow Monitor to this interface
<i>monitorname</i>	Name of Flow Monitor
input	Apply Flow Monitor on input traffic
output	Apply Flow Monitor on output traffic

## Command Mode

- /exec/configure/if-routing /exec/configure/if-switching /exec/configure/if-eth-port-channel /exec/configure/if-eth-port-channel-p2p

# ip flow monitor input

[no] ip flow monitor <monitorname> { input | output }

## Syntax Description

ip	Configure IP features
flow	NetFlow related commands
monitor	Apply a Flow Monitor to this interface
<i>monitorname</i>	Name of Flow Monitor
input	Apply Flow Monitor on input traffic
output	Apply Flow Monitor on output traffic

## Command Mode

- /exec/configure/if-vethernet /exec/configure/if-veth /exec/configure/if-veth-all /exec/configure/if-veth-any

# ip flow monitor input

[no] ip flow monitor <monitorname> { input | output }

## Syntax Description

ip	Configure IP features
flow	NetFlow related commands
monitor	Apply a Flow Monitor to this interface
<i>monitorname</i>	Name of Flow Monitor
input	Apply Flow Monitor on input traffic
output	Apply Flow Monitor on output traffic

## Command Mode

- /exec/configure/vlan-config

# ip flow monitor input

[no] ip flow monitor <monitorname> { input | output }

## Syntax Description

ip	Configure IP features
flow	NetFlow related commands
monitor	Apply a Flow Monitor to this interface
<i>monitorname</i>	Name of Flow Monitor
input	Apply Flow Monitor on input traffic
output	Apply Flow Monitor on output traffic

## Command Mode

- /exec/configure/if-vlan-common

# ip flow rtp

[no] ip flow rtp [ <ipv4-acl> ]

## Syntax Description

ip	ipv4 configuration
flow	Enable/Disable NetFlow configuration
rtp	configure rtp flows for packet loss monitoring
<i>ipv4-acl</i>	(Optional) ipv4 ACL name

## Command Mode

- /exec/configure

# ip forward

ip forward | no ip forward

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
forward	Enable ip forwarding on interface

## Command Mode

- /exec/configure/if-vlan /exec/configure/if-vlan-range /exec/configure/if-igp

# ip ftp source-interface

```
[no] ip ftp source-interface <ifnum> [ vrf { <vrf-name> | <vrf-known-name> } ]
```

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
ftp	Configure FTP client
source-interface	Configure source interface feature for FTP client
<i>ifnum</i>	Source interface
vrf	(Optional) Configure VRF
<i>vrf-name</i>	(Optional) VRF name
<i>vrf-known-name</i>	(Optional) Known VRF name

## Command Mode

- /exec/configure



# ip hello-interval eigrp

```
{ { { ip | ipv6 } hello-interval eigrp <eigrp-ptag> <hello-interval> } | { no { ip | ipv6 } hello-interval eigrp <eigrp-ptag> [ <hello-interval> ] } }
```

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
ipv6	Configure IPv6 features
hello-interval	Configures IP-EIGRP hello interval
eigrp	EIGRP interface configuration commands
<i>eigrp-ptag</i>	Process tag
<i>hello-interval</i>	Seconds between hello transmissions
<i>eigrp-ptag</i>	

## Command Mode

- /exec/configure/if-igp

## ip hold-time eigrp

```
{ { { ip | ipv6 } hold-time eigrp <eigrp-ptag> <holdtime> } | { no { ip | ipv6 } hold-time eigrp <eigrp-ptag>
[ <holdtime> ] } }
```

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
ipv6	Configure IPv6 features
hold-time	Configures IP-EIGRP hold time
eigrp	EIGRP interface configuration commands
<i>eigrp-ptag</i>	Process tag
<i>holdtime</i>	Seconds before neighbor is considered down
<i>eigrp-ptag</i>	

### Command Mode

- /exec/configure/if-igp

# ip host

[no] ip host <s0> [ <ipv4\_0> ] | ip host <s0> <ipv4\_0>

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
host	Add an entry to the ip hostname table
<i>s0</i>	Name of Host
<i>ipv4_0</i>	(Optional) Enter an IP address

## Command Mode

- /exec/configure

## ip http source-interface

```
[no] ip http source-interface <ifnum> [ vrf { <vrf-name> | <vrf-known-name> } ]
```

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
http	Configure HTTP client
source-interface	Configure source interface feature for HTTP client
<i>ifnum</i>	Source interface
vrf	(Optional) Configure VRF
<i>vrf-name</i>	(Optional) VRF name
<i>vrf-known-name</i>	(Optional) Known VRF name

### Command Mode

- /exec/configure

## ip icmp-errors source-interface

ip icmp-errors source-interface <interface> [ <icmp\_type> ] | no ip icmp-errors source-interface [ <interface> <icmp\_type> ]

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
icmp-errors	ICMP unreachable/TTL-exceeded/param-prob messages
source-interface	Configure source-address for applications
<i>interface</i>	Interface to pick source-address from
<i>icmp_type</i>	THIS KEYWORD OR VARIABLE IS NOT SUPPORTED

### Command Mode

- /exec/configure /exec/configure/vrf

# ip igmp any-query-destination

[no] ip igmp any-query-destination

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
igmp	IGMP global configuration commands
any-query-destination	Allow any destination-IP for General Queries

## Command Mode

- /exec/configure

# ip igmp enforce-router-alert

[no] ip igmp enforce-router-alert

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
igmp	IGMP global configuration commands
enforce-router-alert	Enforce Router Alert option check for IGMPv2 and IGMPv3 packets

## Command Mode

- /exec/configure

# ip igmp flush-routes

[no] ip igmp flush-routes

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
igmp	IGMP global configuration commands
flush-routes	Remove routes when restarting IGMP

## Command Mode

- /exec/configure



## ip igmp group-timeout

```
{ { no ip igmp group-timeout [ <time> ] } | { ip igmp group-timeout <time> } }
```

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
igmp	IGMP interface configuration commands
group-timeout	Configures group membership timeout for IGMPv2
<i>time</i>	(Optional) Time in seconds

### Command Mode

- /exec/configure/if-igp

# ip igmp heavy-template

[no] ip igmp heavy-template

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
igmp	IGMP global configuration commands
heavy-template	IGMP heavy for IGMP scale

## Command Mode

- /exec/configure

## ip igmp host-proxy

```
[no] ip igmp host-proxy [ sg-proxy ] [ unsolicited <time> | route-map <route-map-name> [ unsolicited <time> ] | prefix-list <prefix-list-name> [ unsolicited <time> ] ]
```

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
igmp	IGMP interface configuration commands
host-proxy	Configures igmp host proxy for this interface
sg-proxy	(Optional) source-group proxy
route-map	(Optional) host proxy route-map policy
prefix-list	(Optional) host proxy prefix-list policy
unsolicited	(Optional) unsolicited joins
<i>time</i>	(Optional) Time in seconds.
<i>route-map-name</i>	(Optional) Route-map name
<i>prefix-list-name</i>	(Optional) Name of prefix-list

### Command Mode

- /exec/configure/if-igp

# ip igmp immediate-leave

[no] ip igmp immediate-leave

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
igmp	IGMP interface configuration commands
immediate-leave	Enable/Disable immediate leave

## Command Mode

- /exec/configure/if-igp

## ip igmp join-group

```
[no] ip igmp join-group { { <group> [ source <source> ] } | { route-map <route-map-name> } }
```

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
igmp	IGMP interface configuration commands
join-group	Configures local group membership for router
<i>group</i>	Multicast group IP address
source	(Optional) Configures source address for IGMPv3 (S,G) Channel
<i>source</i>	(Optional) Source IP address
route-map	Join group policy
<i>route-map-name</i>	Route-map name

### Command Mode

- /exec/configure/if-igp

## ip igmp last-member-query-count

```
{ { no ip igmp last-member-query-count [ <count> ] } | { ip igmp last-member-query-count <count> } }
```

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
igmp	IGMP interface configuration commands
last-member-query-count	Configures number of group-specific Queries sent
<i>count</i>	(Optional) Count value

### Command Mode

- /exec/configure/if-igmp

## ip igmp last-member-query-response-time

```
{ { no ip igmp last-member-query-response-time [ <interval> ] } | { ip igmp last-member-query-response-time <interval> } }
```

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
igmp	IGMP interface configuration commands
last-member-query-response-time	Configures last member query response time
<i>interval</i>	(Optional) Interval in seconds

### Command Mode

- /exec/configure/if-igp

## ip igmp querier-elect strict

[no] ip igmp querier-elect strict

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
igmp	IGMP global configuration commands
querier-elect	Querier election
strict	Consider subnet check for L3 igmp querier election

### Command Mode

- /exec/configure



# ip igmp querier

```
{ { no ip igmp { querier-timeout | query-timeout } [ <time> ] } | { ip igmp { querier-timeout | query-timeout } <time> } }
```

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
igmp	IGMP interface configuration commands
querier-timeout	Configures querier timeout for IGMPv2
query-timeout	Configures querier timeout for IGMPv2
<i>time</i>	(Optional) Time in seconds

## Command Mode

- /exec/configure/if-igp

# ip igmp query-interval

```
{ { no ip igmp query-interval [ <interval> ] } | { ip igmp query-interval <interval> } }
```

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
igmp	IGMP interface configuration commands
query-interval	Configures interval between Query transmission
<i>interval</i>	(Optional) Interval in seconds

## Command Mode

- /exec/configure/if-igp

## ip igmp query-max-response-time

```
{ { no ip igmp query-max-response-time [ <time> ] } | { ip igmp query-max-response-time <time> } }
```

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
igmp	IGMP interface configuration commands
query-max-response-time	Configures MRT for query messages
<i>time</i>	(Optional) Time in seconds

### Command Mode

- /exec/configure/if-igp

# ip igmp report-link-local-groups

[no] ip igmp report-link-local-groups

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
igmp	IGMP global configuration commands
report-link-local-groups	Send Reports for groups in 224.0.0.0/24

## Command Mode

- /exec/configure/if-igp

## ip igmp report prefix-list

```
{ { ip igmp { report-policy | access-group } { <route-map-name> | prefix-list <prefix-list-name> } } | { no ip igmp { report-policy | access-group } [ <route-map-name> | prefix-list <prefix-list-name> ] } }
```

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
igmp	IGMP interface configuration commands
report-policy	IGMP Report Policy
access-group	IGMP access-group
<i>route-map-name</i>	Route-map name
prefix-list	Prefix list policy
<i>prefix-list-name</i>	Name of prefix-list

### Command Mode

- /exec/configure/if-igp

## ip igmp robustness-variable

{ { no ip igmp robustness-variable [ <value> ] } | { ip igmp robustness-variable <value> } }

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
igmp	IGMP interface configuration commands
robustness-variable	Configures RFC defined Robustness Variable
<i>value</i>	(Optional) Count value

### Command Mode

- /exec/configure/if-igmp

# ip igmp snooping

```
{ { no ip igmp snooping } | { ip igmp snooping } }
```

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
igmp	IGMP configuration commands
snooping	Configures IGMP Snooping

## Command Mode

- /exec/configure/vlan-config /exec/configure/bdomain

# ip igmp snooping

{ { no ip igmp snooping } | { ip igmp snooping } }

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
igmp	IGMP global configuration commands
snooping	Configures IGMP Snooping

## Command Mode

- /exec/configure



## ip igmp snooping access-group

[no] ip igmp snooping access-group <route-map-name>

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
igmp	IGMP configuration commands
snooping	Configures IGMP Snooping
access-group	Filter or report policy for specified groups
<i>route-map-name</i>	Filter route-map name

### Command Mode

- /exec/configure/vlan-config

# ip igmp snooping disable-nve-static-router-port

[no] ip igmp snooping disable-nve-static-router-port

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
igmp	IGMP global configuration commands
snooping	Configures IGMP Snooping
disable-nve-static-router-port	Disable NVE as a static router port

## Command Mode

- /exec/configure

# ip igmp snooping disable-nve-static-router-port

[no] ip igmp snooping disable-nve-static-router-port

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
igmp	IGMP global configuration commands
snooping	Configures IGMP Snooping
disable-nve-static-router-port	Disable NVE as a static router port

## Command Mode

- /exec/configure

## ip igmp snooping explicit-tracking

```
{ { no ip igmp snooping explicit-tracking } | { ip igmp snooping explicit-tracking } }
```

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
igmp	IGMP configuration commands
snooping	Configures IGMP Snooping
explicit-tracking	Configures Explicit Host tracking for VLAN/BD

### Command Mode

- /exec/configure/vlan-config /exec/configure/bdomain

## ip igmp snooping fast-leave

{ { no ip igmp snooping fast-leave } | { ip igmp snooping fast-leave } }

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
igmp	IGMP configuration commands
snooping	Configures IGMP Snooping
fast-leave	Configures Fast leave for the VLAN/BD

### Command Mode

- /exec/configure/vlan-config /exec/configure/bdomain

## ip igmp snooping group-timeout

[no] ip igmp snooping group-timeout { <timeout> | never }

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
igmp	IGMP configuration commands
snooping	Configures IGMP Snooping
group-timeout	Configures group membership timeout in VLAN/BD
<i>timeout</i>	Timeout in minutes
never	Never expire ports from group membership

### Command Mode

- /exec/configure/vlan-config /exec/configure/bdomain

## ip igmp snooping group-timeout

[no] ip igmp snooping group-timeout { <timeout> | never }

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
igmp	IGMP configuration commands
snooping	Configures IGMP Snooping
group-timeout	Configures group membership timeout in all VLAN/BDs
<i>timeout</i>	Timeout in minutes
never	Never expire ports from group membership

### Command Mode

- /exec/configure

# ip igmp snooping last-member-query-interval

```
{ { no ip igmp snooping last-member-query-interval [ <interval> ] } | { ip igmp snooping
last-member-query-interval <interval> } }
```

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
igmp	IGMP configuration commands
snooping	Configures IGMP Snooping
last-member-query-interval	Configures interval between group-specific Query transmissions
<i>interval</i>	(Optional) Interval in seconds

## Command Mode

- /exec/configure/vlan-config /exec/configure/bdomain



# ip igmp snooping link-local-groups-suppression

[no] ip igmp snooping link-local-groups-suppression

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
igmp	IGMP global configuration commands
snooping	Configures IGMP Snooping
link-local-groups-suppression	Configures Global link-local groups suppression

## Command Mode

- /exec/configure

## ip igmp snooping link-local-groups-suppression

[no] ip igmp snooping link-local-groups-suppression

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
igmp	IGMP configuration commands
snooping	Configures IGMP Snooping
link-local-groups-suppression	Configures VLAN/BD link-local groups suppression

### Command Mode

- /exec/configure/vlan-config /exec/configure/bdomain

# ip igmp snooping many-to-one-enhance

[no] ip igmp snooping many-to-one-enhance

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
igmp	IGMP global configuration commands
snooping	Configures IGMP Snooping
many-to-one-enhance	Enable many to one optimization for n3500 platform

## Command Mode

- /exec/configure

## ip igmp snooping max-gq-miss

```
{ { no ip igmp snooping max-gq-miss } | { ip igmp snooping max-gq-miss <count> } }
```

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
igmp	IGMP global configuration commands
snooping	Configures IGMP Snooping
max-gq-miss	Configure general query miss count
<i>count</i>	Max number of GQ misses allowed

### Command Mode

- /exec/configure

## ip igmp snooping mrouter interface

```
{ [ no ] ip igmp snooping mrouter interface [ vsi ] <interface> }
```

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
igmp	IGMP configuration commands
snooping	Configures IGMP Snooping
mrouter	Configures static multicast router interface
interface	Specify interface for static-mrouter
vsi	(Optional) Specify if this interface is a VSI
<i>interface</i>	Interface name

### Command Mode

- /exec/configure/vlan-config /exec/configure/bdomain

# ip igmp snooping mrouter vpc-peer-link

[no] ip igmp snooping mrouter vpc-peer-link

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
igmp	IGMP global configuration commands
snooping	Configures IGMP Snooping
mrouter	Configures static multicast router interface
vpc-peer-link	Specify vpc-peer-link as static mrouter for all VLAN/BDS

## Command Mode

- /exec/configure

# ip igmp snooping optimise-multicast-flood

[no] ip igmp snooping optimise-multicast-flood

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
igmp	IGMP global configuration commands
snooping	Configures IGMP Snooping
optimise-multicast-flood	Configures Optimized Multicast Flood (OMF) on all VLAN/BDs

## Command Mode

- /exec/configure

## ip igmp snooping proxy-leave use-group-address

```
{ { ip igmp snooping proxy-leave use-group-address } | { no ip igmp snooping proxy-leave use-group-address } }
```

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
igmp	IGMP configuration commands
snooping	Configures IGMP Snooping
proxy-leave	Proxy Leave
use-group-address	Use group address for proxy leave

### Command Mode

- /exec/configure/vlan-config /exec/configure/bdomain



# ip igmp snooping proxy general-queries

[no] ip igmp snooping proxy general-queries [ mrt <mrt> ]

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
igmp	IGMP configuration commands
snooping	Configures IGMP Snooping
proxy	Configures IGMP snooping proxy
general-queries	Configures proxy for general-queries
mrt	(Optional) Configure max-response-time for the switch's proxy general-queries
<i>mrt</i>	(Optional) MRT in seconds

## Command Mode

- /exec/configure

# ip igmp snooping proxy general-queries

[no] ip igmp snooping proxy general-queries [ mrt <mrt> ]

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
igmp	IGMP configuration commands
snooping	Configures IGMP Snooping
proxy	Configures IGMP snooping proxy
general-queries	Configures proxy for general-queries
mrt	(Optional) Configure max-response-time for the switch's proxy general-queries
<i>mrt</i>	(Optional) MRT in seconds

## Command Mode

- /exec/configure/vlan-config /exec/configure/bdomain

## ip igmp snooping querier-timeout

```
{ { no ip igmp snooping querier-timeout [ <time> ] } | { ip igmp snooping querier-timeout <time> } }
```

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
igmp	IGMP configuration commands
snooping	Configures IGMP Snooping
querier-timeout	Configures querier timeout for IGMPv2
<i>time</i>	(Optional) Time in seconds

### Command Mode

- /exec/configure/vlan-config /exec/configure/bdomain

## ip igmp snooping querier

```
{ { no ip igmp snooping querier [ <querier> ] } | { ip igmp snooping querier <querier> } }
```

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
igmp	IGMP configuration commands
snooping	Configures IGMP Snooping
querier	Enables snooping querier
<i>querier</i>	(Optional) Querier IP address

### Command Mode

- /exec/configure/vlan-config /exec/configure/bdomain

## ip igmp snooping query-interval

{ { no ip igmp snooping query-interval [ <interval> ] } | { ip igmp snooping query-interval <interval> } }

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
igmp	IGMP configuration commands
snooping	Configures IGMP Snooping
query-interval	Configures interval between query transmission
<i>interval</i>	(Optional) Interval in seconds

### Command Mode

- /exec/configure/vlan-config /exec/configure/bdomain

## ip igmp snooping query-max-response-time

```
{ { no ip igmp snooping query-max-response-time [ <time> ] } | { ip igmp snooping query-max-response-time <time> } }
```

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
igmp	IGMP configuration commands
snooping	Configures IGMP Snooping
query-max-response-time	Configures MRT for query messages
<i>time</i>	(Optional) Time in seconds

### Command Mode

- /exec/configure/vlan-config /exec/configure/bdomain

# ip igmp snooping report-flood all

```
{ { ip igmp snooping report-flood { all | interface <interface> } } | { no ip igmp snooping report-flood { all | interface <interface> } } }
```

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
igmp	IGMP configuration commands
snooping	Configures IGMP Snooping
report-flood	Configures Report flooding on a VLAN
interface	Specify interface for report flooding
all	Flood on ALL active ports of VLAN
<i>interface</i>	Interface name

## Command Mode

- /exec/configure/vlan-config /exec/configure/bdomain

## ip igmp snooping report-suppression

{ { no ip igmp snooping report-suppression } | { ip igmp snooping report-suppression } }

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
igmp	IGMP configuration commands
snooping	Configures IGMP Snooping
report-suppression	Configures IGMPv1/IGMPv2 Report Suppression for the VLAN/BD

### Command Mode

- /exec/configure/vlan-config /exec/configure/bdomain



# ip igmp snooping report-suppression

{ { no ip igmp snooping report-suppression } | { ip igmp snooping report-suppression } }

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
igmp	IGMP global configuration commands
snooping	Configures IGMP Snooping
report-suppression	Configures Global IGMPv1/IGMPv2 Report Suppression

## Command Mode

- /exec/configure

## ip igmp snooping report prefix interface

```
{ [ no ] ip igmp snooping { report-policy | access-group } { prefix-list | route-map } <pname> interface
<interface> }
```

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
igmp	IGMP configuration commands
snooping	Configures IGMP Snooping
report-policy	IGMP Report Policy
access-group	Filter or report policy for specified groups
prefix-list	IPv4 Prefix-List report policy
route-map	Route-Map report policy
<i>pname</i>	Policy Name
interface	Specify interface for filtering
<i>interface</i>	Interface name

### Command Mode

- /exec/configure/vlan-config /exec/configure/bdomain

## ip igmp snooping robustness-variable

```
{ { no ip igmp snooping robustness-variable [ <value> ] } | { ip igmp snooping robustness-variable <value> } }
```

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
igmp	IGMP configuration commands
snooping	Configures IGMP Snooping
robustness-variable	Configures RFC defined Robustness Variable
<i>value</i>	(Optional) Count value

### Command Mode

- /exec/configure/vlan-config /exec/configure/bdomain

## ip igmp snooping startup-query-count

```
{ { no ip igmp snooping startup-query-count [ <count> ] } | { ip igmp snooping startup-query-count <count> } }
```

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
igmp	IGMP configuration commands
snooping	Configures IGMP Snooping
startup-query-count	Configures number of queries sent at startup
<i>count</i>	(Optional) Count value

### Command Mode

- /exec/configure/vlan-config /exec/configure/bdomain

# ip igmp snooping startup-query-interval

```
{ { no ip igmp snooping startup-query-interval [ <interval> ] } | { ip igmp snooping startup-query-interval <interval> } }
```

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
igmp	IGMP configuration commands
snooping	Configures IGMP Snooping
startup-query-interval	Configures query interval at startup
<i>interval</i>	(Optional) Interval in seconds

## Command Mode

- /exec/configure/vlan-config /exec/configure/bdomain

## ip igmp snooping static-group interface

```
{ [ no ] ip igmp snooping static-group <group> [ source <source> ] interface [ vsi ] <interface> }
```

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
igmp	IGMP configuration commands
snooping	Configures IGMP Snooping
static-group	Configures static group membership
<i>group</i>	Group IP Address
source	(Optional) Configures static (S,G) channel
<i>source</i>	(Optional) Source IP Address
interface	Specify interface for static-group
vsi	(Optional) Specify if this interface is a VSI
<i>interface</i>	Interface name

### Command Mode

- /exec/configure/vlan-config /exec/configure/bdomain

# ip igmp snooping syslog-threshold

{ ip igmp snooping syslog-threshold <percentage> } | { no ip igmp snooping syslog-threshold }

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
igmp	IGMP configuration commands
snooping	Configures IGMP Snooping
syslog-threshold	IGMP SNOOPING table syslog threshold
<i>percentage</i>	Percentage

## Command Mode

- /exec/configure

## ip igmp snooping v3-report-suppression

```
{ { no ip igmp snooping v3-report-suppression } | { ip igmp snooping v3-report-suppression } }
```

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
igmp	IGMP configuration commands
snooping	Configures IGMP Snooping
v3-report-suppression	Configures IGMPv3 Report Suppression and Proxy Reporting for the VLAN/BD

### Command Mode

- /exec/configure/vlan-config /exec/configure/bdomain



# ip igmp snooping v3-report-suppression

```
{ { no ip igmp snooping v3-report-suppression } | { ip igmp snooping v3-report-suppression } }
```

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
igmp	IGMP global configuration commands
snooping	Configures IGMP Snooping
v3-report-suppression	Configures Global IGMPv3 Report Suppression and Proxy Reporting

## Command Mode

- /exec/configure

## ip igmp snooping version

```
{ { no ip igmp snooping version [ <version> ] } | { ip igmp snooping version <version> } }
```

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
igmp	IGMP configuration commands
snooping	Configures IGMP Snooping
version	Configures IGMP version number for VLAN/BD
<i>version</i>	(Optional) Version number value

### Command Mode

- /exec/configure/vlan-config /exec/configure/bdomain

# ip igmp snooping vxlan-umc drop

[no] ip igmp snooping vxlan-umc drop [ vlan <vlans-range> ]

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
igmp	IGMP global configuration commands
snooping	Configures IGMP Snooping
vxlan-umc	Turn off flooding on VLANs
drop	Drop unknown multicast traffic on all VLANs
vlan	(Optional) VLAN list to drop the unknown multicast traffic
<i>vlans-range</i>	(Optional) VLAN IDs for which unknown multicast traffic is dropped

## Command Mode

- /exec/configure

# ip igmp snooping vxlan

{ { no ip igmp snooping vxlan } | { ip igmp snooping vxlan } }

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
igmp	IGMP global configuration commands
snooping	Configures IGMP Snooping
vxlan	Configures Snooping for vxlan vlans

## Command Mode

- /exec/configure

# ip igmp spoof-check

[no] ip igmp spoof-check

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
igmp	IGMP global configuration commands
spoof-check	Enable spoof check for IGMP

## Command Mode

- /exec/configure

## ip igmp ssm-translate

[no] ip igmp ssm-translate <group> <source>

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
igmp	IGMP global configuration commands
ssm-translate	Translate IGMPv1/v2 reports to (S,G) route entries
<i>group</i>	IP Multicast group range
<i>source</i>	IP Multicast address source

### Command Mode

- /exec/configure /exec/configure/vrf

## ip igmp startup-query-count

```
{ { no ip igmp startup-query-count [ <count> ] } | { ip igmp startup-query-count <count> } }
```

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
igmp	IGMP interface configuration commands
startup-query-count	Configures number of queries sent at startup
<i>count</i>	(Optional) Count value

### Command Mode

- /exec/configure/if-igp

# ip igmp startup-query-interval

```
{ { no ip igmp startup-query-interval [ <interval> ] } | { ip igmp startup-query-interval <interval> } }
```

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
igmp	IGMP interface configuration commands
startup-query-interval	Configures query interval at startup
<i>interval</i>	(Optional) Interval in seconds

## Command Mode

- /exec/configure/if-igp



## ip igmp state-limit

```
{ { ip igmp state-limit <max-states> [ reserved <route-map-name> <max-reserved> ] } | { no ip igmp state-limit [ <max-states> [ reserved <route-map-name> <max-reserved> ] ] } }
```

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
igmp	IGMP interface configuration commands
state-limit	Configures State limit
<i>max-states</i>	Maximum states allowed
reserved	(Optional) Reserve the states using route-map
<i>route-map-name</i>	(Optional) Route-map name
<i>max-reserved</i>	(Optional) Maximum (*,G)/(S,G) entires allowed on the interface

### Command Mode

- /exec/configure/if-igp

## ip igmp suppress v3-gsq

[no] ip igmp suppress v3-gsq

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
igmp	IGMP interface configuration commands
suppress	Suppress
v3-gsq	v3 GSQ

### Command Mode

- /exec/configure/if-igp

# ip igmp syslog-threshold

{ ip igmp syslog-threshold <percentage> } | { no ip igmp syslog-threshold }

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
igmp	IGMP related events
syslog-threshold	IGMP table syslog threshold
<i>percentage</i>	Percentage

## Command Mode

- /exec/configure

# ip igmp version

```
{ { no ip igmp version [ <version> ] } | { ip igmp version <version> } }
```

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
igmp	IGMP interface configuration commands
version	Configures IGMP version number for interface
<i>version</i>	(Optional) Version number value

## Command Mode

- /exec/configure/if-igp

## ip large-community-list expanded seq deny

```
{ ip large-community-list expanded <name> seq <seq> { deny | permit } <line> } | { no ip large-community-list
expanded <name> [ seq <seq> [ { deny | permit } <line> ] ] }
```

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
large-community-list	Add a large community list entry
expanded	Add an expanded large community list entry
<i>name</i>	Name of expanded large community list
seq	Sequence number of an entry
<i>seq</i>	Sequence number
deny	Specify large community to reject
permit	Specify large community to accept
<i>line</i>	Regular-expression(must

### Command Mode

- /exec/configure

## ip large-community-list standard seq permit

```
{ { ip large-community-list standard <name> seq <seq> { permit | deny } <large-comm-xyyzz> + } | { no ip large-community-list standard <name> [ seq <seq> [ { permit | deny } <large-comm-xyyzz> + ] ] } }
```

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
large-community-list	Add a large community list entry
standard	Add a standard large community list entry
<i>name</i>	Standard large community list name
seq	Sequence number of an entry
<i>seq</i>	Sequence number
permit	Specify large community to accept
deny	Specify large community to reject
<i>large-comm-xyyzz</i>	Large Community number in xx:yy:zz format
<i>large-comm-xyyzz</i>	(Optional)

### Command Mode

- /exec/configure

## ip lisp alt-vrf

```
{ { [ no ] ip lisp alt-vrf { <vrf-name> | <vrf-known-name> } } | { [ no ] ipv6 lisp alt-vrf { <vrf-name> | <vrf-known-name> } } }
```

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
ipv6	Configure IPv6 features
lisp	LISP global configuration commands
alt-vrf	Activate LISP-ALT functionality in VRF
<i>vrf-name</i>	VRF name
<i>vrf-known-name</i>	Known VRF name

### Command Mode

- /exec/configure /exec/configure/vrf

## ip lisp database-mapping dynamic priority weight

```
{ [ no ] ip lisp database-mapping <eid-prefix> { <locator> | <locator6> | { dynamic <interface> } } priority
<priority> weight <weight> } | { no ip lisp database-mapping <eid-prefix> { <locator> | <locator6> | { dynamic
<interface> } } } | { [ no ] ipv6 lisp database-mapping <eid-prefix6> { <locator> | <locator6> | { dynamic
<interface> } } } priority <priority> weight <weight> } | { no ipv6 lisp database-mapping <eid-prefix6> {
<locator> | <locator6> | { dynamic <interface> } } }
```

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
ipv6	Configure IPv6 features
lisp	LISP global configuration commands
database-mapping	Configures Locator addresses for an ETR
<i>eid-prefix</i>	IP EID-prefix to advertise locators for
<i>locator</i>	IP address of loopback or other ETR loopback interface
dynamic	Get locator dynamically
<i>interface</i>	Interface to learn dynamic locator
priority	Configures which Locators from a set are preferred
<i>priority</i>	Lower priority Locator takes preference
weight	Traffic load-spreading among Locators
<i>weight</i>	Specified in a percentage from 0 to 100

### Command Mode

- /exec/configure /exec/configure/vrf



# ip lisp etr

[no] { ip | ipv6 } lisp etr

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
ipv6	Configure IPv6 features
lisp	LISP global configuration commands
etr	Configures LISP Egress Tunnel Router (ETR) parameters

## Command Mode

- /exec/configure /exec/configure/vrf

## ip lisp etr accept-map-request-mapping

```
{ { [ no ] ip lisp etr accept-map-request-mapping [ verify ] } | { [ no ] ipv6 lisp etr accept-map-request-mapping [ verify ] } }
```

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
ipv6	Configure IPv6 features
etr	Configures LISP Egress Tunnel Router (ETR) parameters
lisp	LISP global configuration commands
accept-map-request-mapping	Configures an ETR to cache mappings received from Map-Request messages
verify	(Optional) Send Map-Request back to Map-Request originator of a Mapping Data Record

### Command Mode

- /exec/configure /exec/configure/vrf

# ip lisp etr glean-mapping

```
{ { [ no ] ip lisp etr glean-mapping [ verify ] } | { [ no ] ipv6 lisp etr glean-mapping } }
```

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
ipv6	Configure IPv6 features
etr	Configures LISP Egress Tunnel Router (ETR) parameters
lisp	LISP global configuration commands
glean-mapping	Glean locator mapping from outer DA for inner DA EID
verify	(Optional) Send Map-Request to ITR to verify data gleaning

## Command Mode

- /exec/configure /exec/configure/vrf

## ip lisp etr map-cache-ttl

{ [ no ] ip lisp etr map-cache-ttl <minutes> } | { no ip lisp etr map-cache-ttl } | { [ no ] ipv6 lisp etr map-cache-ttl <minutes> } | { no ipv6 lisp etr map-cache-ttl }

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
ipv6	Configure IPv6 features
etr	Configures LISP Egress Tunnel Router (ETR) parameters
lisp	LISP global configuration commands
map-cache-ttl	Configures TTL for Map-Reply messages
<i>minutes</i>	Time-to-Live in units of minutes

### Command Mode

- /exec/configure /exec/configure/vrf

## ip lisp etr map-register-ttl

{ [ no ] ip lisp etr map-register-ttl <minutes> } | { no ip lisp etr map-register-ttl } | { [ no ] ipv6 lisp etr map-register-ttl <minutes> } | { no ipv6 lisp etr map-register-ttl }

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
ipv6	Configure IPv6 features
etr	Configures LISP Egress Tunnel Router (ETR) parameters
lisp	LISP global configuration commands
map-register-ttl	Configures TTL for Map-Register messages
<i>minutes</i>	Time-to-Live in units of minutes

### Command Mode

- /exec/configure /exec/configure/vrf

## ip lisp etr map-server key

```
{ { [ no ] ip lisp etr map-server { <ms> | <ms6> } [ key-type { sha1 | sha2 } ] key <key> } | { [ no ] ipv6 lisp
etr map-server { <ms> | <ms6> } [ key-type { sha1 | sha2 } ] key <key> } | { [ no ] ip lisp etr map-server {
<ms> | <ms6> } proxy-reply } | { [ no ] ipv6 lisp etr map-server { <ms> | <ms6> } proxy-reply } }
```

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
ipv6	Configure IPv6 features
lisp	LISP global configuration commands
etr	Configures LISP Egress Tunnel Router (ETR) parameters
map-server	To interact with Map-Server
<i>ms</i>	Address of IPv4 map-server
key-type	(Optional) Authentication key type, either sha1 or sha2
sha1	(Optional) Use sha1 authentication in Map-Register messages
sha2	(Optional) Use sha2 authentication in Map-Register messages
key	Authentication key used with Map-Server
<i>key</i>	SHA-1 password key
proxy-reply	Request Map-Server to send Map-Replies on behalf of site

### Command Mode

- /exec/configure /exec/configure/vrf

# ip lisp hardware-forwarding

[no] { ip | ipv6 } lisp hardware-forwarding

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
ipv6	Configure IPv6 features
lisp	LISP global configuration commands
hardware-forwarding	Enable/disable Nexus 7K hardware forwarding

## Command Mode

- /exec/configure /exec/configure/vrf

# ip lisp itr-etr

[no] { ip | ipv6 } lisp itr-etr

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
ipv6	Configure IPv6 features
lisp	LISP global configuration commands
itr-etr	Configures both LISP ITR and ETR functionality

## Command Mode

- /exec/configure /exec/configure/vrf



# ip lisp itr

[no] { ip | ipv6 } lisp itr

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
ipv6	Configure IPv6 features
lisp	LISP global configuration commands
itr	Configures LISP Ingress Tunnel Router (ITR) parameters

## Command Mode

- /exec/configure /exec/configure/vrf

## ip lisp itr map-resolver

```
{ [ no ] { ip | ipv6 } lisp itr map-resolver { <mr> | <mr6> } }
```

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
ipv6	Configure IPv6 features
lisp	LISP global configuration commands
itr	Configures LISP Ingress Tunnel Router (ITR) parameters
map-resolver	To interact with Map-Resolver
<i>mr</i>	Address of IPv4 map-server

### Command Mode

- /exec/configure /exec/configure/vrf

## ip lisp itr send-data-probe

```
{ { [ no ] ip lisp itr send-data-probe } | { [ no ] ipv6 lisp itr send-data-probe } }
```

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
ipv6	Configure IPv6 features
lisp	LISP global configuration commands
itr	Configures LISP Ingress Tunnel Router (ITR) parameters
send-data-probe	Send a Data-Probe instead of Map-Request on the LISP-ALT topology

### Command Mode

- /exec/configure /exec/configure/vrf

## ip lisp locator-vrf

```
{ { [ no ] ip lisp locator-vrf { <vrf-name> | <vrf-known-name> } } | { [ no ] ipv6 lisp locator-vrf { <vrf-name> | <vrf-known-name> } } }
```

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
ipv6	Configure IPv6 features
lisp	LISP global configuration commands
locator-vrf	Configure what VRF to use for locator command references
<i>vrf-name</i>	VRF name
<i>vrf-known-name</i>	Known VRF name

### Command Mode

- /exec/configure /exec/configure/vrf

# ip lisp map-cache-limit

[no] { ip | ipv6 } lisp map-cache-limit <limit> [ reserve-list <prefix-list> ]

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
ipv6	Configure IPv6 features
lisp	LISP global configuration commands
map-cache-limit	Configures maximum size of map-cache
<i>limit</i>	Maximum number of map-cache entries
reserve-list	(Optional) EID-prefixes guaranteed to be stored in map-cache
<i>prefix-list</i>	(Optional) Reference to prefix-list name

## Command Mode

- /exec/configure /exec/configure/vrf

# ip lisp map-cache drop native-forward map-request priority weight

```
{ { [ no ] ip lisp map-cache <eid-prefix> { drop | native-forward | map-request | { { <locator> | <locator6> }
priority <priority> weight <weight> [ down ] } } } | { [ no ] ipv6 lisp map-cache <eid-prefix6> { drop |
native-forward | map-request | { { <locator6> | <locator> } priority <priority> weight <weight> [ down ] } }
} }
```

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
ipv6	Configure IPv6 features
lisp	LISP global configuration commands
map-cache	Configures static EID-to-RLOC mappings for an ITR
<i>eid-prefix</i>	IP EID-prefix for RLOC static mapping
<i>locator</i>	IP address of loopback or other ETR loopback interface
priority	Configures which Locators from a set are preferred
<i>priority</i>	Lower priority Locator takes preference
weight	Traffic load-spreading among Locators
<i>weight</i>	Specified in a percentage from 0 to 100
down	THIS KEYWORD OR VARIABLE IS NOT SUPPORTED
drop	Drop packets that match this map-cache entry
native-forward	Natively forward packets that match his map-cache entry
map-request	Send Map-Request for LISP destination EID

## Command Mode

- /exec/configure /exec/configure/vrf

## ip lisp map-request-source

{ [ no ] ip lisp map-request-source <source> } | { no ip lisp map-request-source } | { [ no ] ipv6 lisp map-request-source <source6> } | { no ipv6 lisp map-request-source }

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
ipv6	Configure IPv6 features
lisp	LISP global configuration commands
map-request-source	Configures source address for Map-Request message
<i>source</i>	Source address for IPv4 Map-Request message

### Command Mode

- /exec/configure /exec/configure/vrf

# ip lisp map-resolver

```
{ [ no ] { ip | ipv6 } lisp map-resolver }
```

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
ipv6	Configure IPv6 features
lisp	LISP global configuration commands
map-resolver	Configures LISP Map Resolver functionality

## Command Mode

- /exec/configure /exec/configure/vrf



## ip lisp map-server

{ [ no ] { ip | ipv6 } lisp map-server }

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
ipv6	Configure IPv6 features
lisp	LISP global configuration commands
map-server	Configures LISP Map Server functionality

### Command Mode

- /exec/configure /exec/configure/vrf

# ip lisp multicast

[no] ip lisp multicast

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
lisp	LISP global configuration commands
multicast	Configures LISP to carry multicast traffic, when ITR or ETR function is enabled

## Command Mode

- /exec/configure /exec/configure/vrf

# ip lisp nat-traversal

[no] { ip | ipv6 } lisp nat-traversal

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
ipv6	Configure IPv6 features
lisp	LISP interface configuration commands
nat-traversal	Send Echo messages to Map-Server to get global locator

## Command Mode

- /exec/configure/if-igp

# ip lisp ntr

[no] ip lisp ntr <locator>

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
lisp	LISP global configuration commands
ntr	Configures LISP NAT Tunnel Router (NTR)
<i>locator</i>	Local IP address in locator namespace

## Command Mode

- /exec/configure /exec/configure/vrf

# ip lisp proxy-etr

{ { [ no ] ip lisp proxy-etr } | { [ no ] ipv6 lisp proxy-etr } }

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
ipv6	Configure IPv6 features
lisp	LISP global configuration commands
proxy-etr	Configures a Proxy ETR (PETR)
<i>lisp</i>	

## Command Mode

- /exec/configure /exec/configure/vrf

# ip lisp proxy-itr

```
{ { [ no ] ip lisp proxy-itr { <local-rloc> | <local-rloc6> } + } | { [ no ] ipv6 lisp proxy-itr { <local-rloc> | <local-rloc6> } + } }
```

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
ipv6	Configure IPv6 features
lisp	LISP global configuration commands
proxy-itr	Configures a Proxy ITR (PTR)
<i>local-rloc</i>	Local IP address in locator namespace
<i>lisp</i>	

## Command Mode

- /exec/configure /exec/configure/vrf

## ip lisp shortest-eid-prefix-length

```
{ { [ no ] ip lisp shortest-eid-prefix-length <pl> } | { [ no ] ipv6 lisp shortest-eid-prefix-length <pl6> } }
```

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
ipv6	Configure IPv6 features
lisp	LISP global configuration commands
shortest-eid-prefix-length	Do not accept EID-prefixes shorter than configured value
<i>pl</i>	IPv4 EID-prefix length
<i>pl6</i>	IPv6 EID-prefix length

### Command Mode

- /exec/configure /exec/configure/vrf

## ip lisp source-locator

```
{ [ no ] { ip | ipv6 } lisp source-locator <interface> [ secondary ] }
```

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
ipv6	Configure IPv6 features
lisp	LISP interface configuration commands
source-locator	Select source locator when destination locator uses this interface
<i>interface</i>	Use primary address from interface as source locator
secondary	(Optional) Use secondary address on interface as source locator

### Command Mode

- /exec/configure/if-igp



## ip lisp translate inside outside

```
{ { [ no ] ip lisp translate inside <nrEID> outside <rEID> } | { [ no ] ipv6 lisp translate inside <nrEID6>
outside <rEID6> } }
```

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
ipv6	Configure IPv6 features
lisp	LISP global configuration commands
translate	Translate source address on ITR or destination address on ETR
inside	Site-based non-routable EID
<i>nrEID</i>	IPv4 inside address
outside	External-based routable EID
<i>rEID</i>	IPv4 outside address

### Command Mode

- /exec/configure /exec/configure/vrf

## ip lisp use-bgp-locators

[no] { ip | ipv6 } lisp use-bgp-locators [ route-map <map-name> ]

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
ipv6	Configure IPv6 features
lisp	LISP global configuration commands
use-bgp-locators	Use next-hops from BGP as locators for map-cache entries
route-map	(Optional) Route-map applied to on-demand routes.
<i>map-name</i>	(Optional) Route-map name

### Command Mode

- /exec/configure /exec/configure/vrf

## ip lisp use-petr priority weight

[no] { ip | ipv6 } lisp use-petr { <petr> | <petr6> } priority <priority> weight <weight>

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
ipv6	Configure IPv6 features
lisp	LISP global configuration commands
use-petr	Encapsulate to Proxy ETR for matching forward-native entry
<i>petr</i>	IPv4 locator address of PETR
priority	Configures which Locators from a set are preferred
<i>priority</i>	Lower priority Locator takes preference
weight	Traffic load-spreading among Locators
<i>weight</i>	Specified in a percentage from 0 to 100

### Command Mode

- /exec/configure /exec/configure/vrf

## ip load-sharing address

```
[no] ip load-sharing address { source-destination [ port source-destination2 [ symmetric | inner { all [ infra-mode ] | greheader [ symmetric ] } ] | gre | gre-outer | gtpu | ipv6-flowlabel | ttl | { [ udf offset <offset> length <length> ] } ] | destination port2 destination2 | source } { [ rotate <rotate> ] | [ concatenation ] } + [ universal-id <random-seed> ] [ hardware { lb-keyshift <value1> | lb-2nd-hier-keyshift <value2> } + ] | no ip load-sharing address
```

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
load-sharing	ECMP load-sharing
address	Configure source/destination addresses, port numbers and hash
source-destination	Use both source and destination values for address
port	(Optional) Use source-destination value for port
gre	(Optional) Use source-destination value for gre-key
symmetric	(Optional) Use Symmetric load balance
inner	(Optional) Use inner header to load balance
all	(Optional) Use inner header for hashing for all the traffic
infra-mode	(Optional) Use inner header for hashing for all traffic,change mode to infra
greheader	(Optional) Use GRE header fields for hashing
gre-outer	(Optional) Use outer IPv4 header fields for GRE tunnel hashing
gtpu	(Optional) Use GTPU TEID value for port source-destination
ipv6-flowlabel	(Optional) Use IPV6 Flow Label value for port source-destination
ttl	(Optional) Use ttl value to be used in hash for source port
udf	(Optional) Use udf value to be used in hash for source port
offset	(Optional) Offset in bytes for UDF (from offset base - L3 header)
<i>offset</i>	(Optional) Enter Offset value in bytes for UDF (from offset base - L3 header)
length	(Optional) Length in bits from udf offset
<i>length</i>	(Optional) Enter Length in bits from udf offset
source-destination2	(Optional) Use both source and destination values for port

destination	Use destination address
port2	Use destination value for port
destination2	Use destination port
source	Use source address
hardware	(Optional) Enter hardware key to change
lb-keyshift	(Optional) Enter the value for ECMP LB KEY SHIFT
<i>value1</i>	(Optional) Enter the value for lb-keyshift, default value is 7
lb-2nd-hier-keyshift	(Optional) Enter the value for ECMP 2ND HIER LB KEY SHIFT
<i>value2</i>	(Optional) Enter the value for lb-2nd-hier-keyshift, default value is 3
rotate	(Optional) Offset to be used in the hash
<i>rotate</i>	(Optional) Value used for offset, default value is 32
concatenation	(Optional) Enable/Disable concatenation
universal-id	(Optional) Universal-id to randomize hash functions for load-balance
<i>random-seed</i>	(Optional) Value used to randomize hash

### Command Mode

- /exec/configure

# ip local-proxy-arp

{ ip local-proxy-arp [ no-hw-flooding ] | no ip local-proxy-arp [ no-hw-flooding ] }

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
local-proxy-arp	Configure local proxy ARP
no-hw-flooding	(Optional) Configure local proxy ARP without hardware flooding

## Command Mode

- /exec/configure/if-igp /exec/configure/if-vlan-common

# ip local policy route-map

ip local policy route-map <route-map-name> | no ip local policy route-map [ <route-map-name> | <route-map-name> ]

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
local	Configure local PBR feature
policy	Configure PBR feature
route-map	Route-map for PBR
<i>route-map-name</i>	Route-map name
<i>route-map-name</i>	(Optional) Route-map name
<i>route-map-name</i>	(Optional) Known route-map name

## Command Mode

- /exec/configure /exec/configure/vrf

# ip mfw mstatic register

[no] ip mfw mstatic register

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
mfw	Configures Global IP Multicast Forwarding
mstatic	Static Multicast Route
register	Register

## Command Mode

- /exec/configure



# ip mroute

```
[no] ip mroute { <ip-addr> <ip-mask> | <ip-prefix> } { { <next-hop> | <nh-prefix> } | <interface> } [ <pref> ] [ vrf { <vrf-name> | <vrf-known-name> } ]
```

## Syntax Description

<code>no</code>	(Optional) Negate a command or set its defaults
<code>ip</code>	Configure IP features
<code>mroute</code>	Configure multicast RPF static route
<i>ip-addr</i>	IP prefix in format i.i.i.i
<i>ip-mask</i>	IP network mask in format m.m.m.m
<i>ip-prefix</i>	IP prefix and network mask length in format x.x.x.x/m
<i>next-hop</i>	IP next-hop address in format i.i.i.i
<i>nh-prefix</i>	IP next-hop prefix in format i.i.i.i/m
<i>interface</i>	Interface for interface static multicast routes
<i>pref</i>	(Optional) Route preference
<code>vrf</code>	(Optional) Display per-VRF information
<i>vrf-name</i>	(Optional) VRF name
<i>vrf-known-name</i>	(Optional) Known VRF name

## Command Mode

- /exec/configure /exec/configure/vrf

## ip msdp description

ip msdp description <peer-address> <text> | no ip msdp description <peer-address> [ <text> ]

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
msdp	MSDP global configuration commands
description	Configure MSDP description for peer
<i>peer-address</i>	IP address of MSDP peer
<i>text</i>	Text description

### Command Mode

- /exec/configure /exec/configure/vrf

# ip msdp flush-routes

[no] ip msdp flush-routes

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
msdp	MSDP global configuration commands
flush-routes	Remove routes when restarting MSDP

## Command Mode

- /exec/configure /exec/configure/vrf

## ip msdp group-limit source

[no] ip msdp group-limit <limit> source <sprefix>

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
msdp	MSDP global configuration commands
group-limit	Limit the number of groups per source
<i>limit</i>	Limit on number of groups
source	Sources to limit groups to
<i>sprefix</i>	Prefix to match sources against

### Command Mode

- /exec/configure /exec/configure/vrf

# ip msdp keepalive

ip msdp keepalive <peer-address> <interval> <timeout> | no ip msdp keepalive <peer-address> [ <interval> <timeout> ]

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
msdp	MSDP global configuration commands
keepalive	Configure MSDP keepalive parameters for peer
<i>peer-address</i>	IP address of MSDP peer
<i>interval</i>	Keepalive interval in seconds
<i>timeout</i>	Keepalive timeout in seconds

## Command Mode

- /exec/configure /exec/configure/vrf

# ip msdp keychain

ip msdp keychain <peer-address> <name> | no ip msdp keychain <peer-address> [ <name> ]

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
msdp	MSDP global configuration commands
keychain	Configure MD5 authentication keychain
<i>peer-address</i>	IP address of MSDP peer
<i>name</i>	Keychain name

## Command Mode

- /exec/configure /exec/configure/vrf

## ip msdp mesh-group

ip msdp mesh-group <peer-address> <name> | no ip msdp mesh-group <peer-address> [ <name> ]

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
msdp	MSDP global configuration commands
mesh-group	Configure member of mesh-group
<i>name</i>	Name of mesh-group
<i>peer-address</i>	IP address of MSDP peer in mesh-group

### Command Mode

- /exec/configure /exec/configure/vrf

## ip msdp originator-id

ip msdp originator-id <interface> | no ip msdp originator-id [ <interface> ]

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
msdp	MSDP global configuration commands
originator-id	Configure alternative router-id for MSDP
<i>interface</i>	Use IP address of interface for originator-id

### Command Mode

- /exec/configure /exec/configure/vrf



# ip msdp password

ip msdp password <peer-address> <password> | no ip msdp password <peer-address> [ <password> ]

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
msdp	MSDP global configuration commands
password	Configure MD5 authentication password
<i>peer-address</i>	IP address of MSDP peer
<i>password</i>	MD5 password

## Command Mode

- /exec/configure /exec/configure/vrf

## ip msdp peer connect-source

```
{ { ip msdp peer <peer-address> connect-source <interface> [ remote-as <asn> ] } | { no ip msdp peer
<peer-address> [ connect-source <interface> ] [ remote-as <asn> ] } }
```

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
msdp	MSDP global configuration commands
peer	Configure MSDP peer
<i>peer-address</i>	IP address of MSDP peer
connect-source	Configure local IP address for TCP connection
<i>interface</i>	Use IP address of interface for peer address
remote-as	(Optional) Configure remote Autonomous System Number
<i>asn</i>	(Optional) AS number

### Command Mode

- /exec/configure /exec/configure/vrf

# ip msdp reconnect-interval

ip msdp reconnect-interval <interval> | no ip msdp reconnect-interval [ <interval> ]

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
msdp	MSDP global configuration commands
reconnect-interval	Configure connection reconnect interval
<i>interval</i>	Interval in seconds

## Command Mode

- /exec/configure /exec/configure/vrf

# ip msdp redistribute

[no] ip msdp redistribute [ route-map <route-map-name> | prefix-list <prefix-list-name> ]

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
msdp	MSDP global configuration commands
redistribute	Configure SA policy for all MSDP peer
route-map	(Optional) route-map policy
<i>route-map-name</i>	(Optional) Route-map name
prefix-list	(Optional) Prefix list policy
<i>prefix-list-name</i>	(Optional) Name of prefix-list

## Command Mode

- /exec/configure /exec/configure/vrf

# ip msdp sa-interval

ip msdp sa-interval <interval> | no ip msdp sa-interval [ <interval> ]

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
msdp	MSDP global configuration commands
sa-interval	Configure Source-Active message transmission interval
<i>interval</i>	Interval in seconds

## Command Mode

- /exec/configure /exec/configure/vrf

## ip msdp sa-limit

ip msdp sa-limit <peer-address> <limit> | no ip msdp sa-limit <peer-address> [ <limit> ]

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
msdp	MSDP global configuration commands
sa-limit	Configure maximum (S,G) entries allowed
<i>limit</i>	Number of (S,G) entries
<i>peer-address</i>	IP address of MSDP peer in mesh-group

### Command Mode

- /exec/configure /exec/configure/vrf

## ip msdp sa-policy in

```
[no] ip msdp sa-policy <peer-address> { <route-map-name> | prefix-list <prefix-list-name> | <rtr_pol_name>
} in
```

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
msdp	MSDP global configuration commands
sa-policy	Configure SA policy for MSDP peer
prefix-list	Prefix list policy
in	Input policy
<i>peer-address</i>	IP address of MSDP peer for SA policy
<i>route-map-name</i>	Route-map name
<i>prefix-list-name</i>	Name of prefix-list
<i>rtr_pol_name</i>	An existing routing-rules policy

### Command Mode

- /exec/configure /exec/configure/vrf

## ip msdp sa-policy out

```
[no] ip msdp sa-policy <peer-address> { <route-map-name> | prefix-list <prefix-list-name> | <rtr_pol_name>
} out
```

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
msdp	MSDP global configuration commands
sa-policy	Configure SA policy for MSDP peer
prefix-list	Prefix list policy
out	Output policy
<i>peer-address</i>	IP address of MSDP peer for SA policy
<i>route-map-name</i>	Route-map name
<i>prefix-list-name</i>	Name of prefix-list
<i>rtr_pol_name</i>	An existing routing-rules policy

### Command Mode

- /exec/configure /exec/configure/vrf



# ip msdp shutdown

ip msdp shutdown <peer-address> | no ip msdp shutdown <peer-address>

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
msdp	MSDP global configuration commands
shutdown	Administratively shut down peer
<i>peer-address</i>	IP address of MSDP peer

## Command Mode

- /exec/configure /exec/configure/vrf

## ip mtu eigrp

```
{ { { ip | ipv6 } mtu eigrp <eigrp-ptag> <mtu> } | { no { ip | ipv6 } mtu eigrp <eigrp-ptag> [ <mtu> ] } }
```

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
ipv6	Configure IPv6 features
mtu	Set Max Packet Size to be used by EIGRP
eigrp	EIGRP interface configuration commands
<i>eigrp-ptag</i>	Process tag
<i>mtu</i>	Interface MTU
<i>eigrp-ptag</i>	

### Command Mode

- /exec/configure/if-igp

## ip multicast group-range prefix-list

```
{ ip multicast group-range prefix-list <prefix-list-name> } | { no ip multicast group-range prefix-list [ <prefix-list-name> ] }
```

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
multicast	Display multicast information
group-range	Display group-range prefix
prefix-list	Group range prefix-list policy for multicast boundary
<i>prefix-list-name</i>	Name of prefix-list

### Command Mode

- /exec/configure /exec/configure/vrf

## ip multicast multipath

[no] ip multicast multipath { none | legacy | s-g-hash [ next-hop-based ] | nbm }

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
multicast	Configure IP multicast global parameters
multipath	Configure ECMP multicast load splitting
legacy	Configure hash based on source and group
none	Disable ECMP multicast load splitting
s-g-hash	Configure hash based on source and group address
next-hop-based	(Optional) Configure hash based on source, group, next-hop address
nbm	Configure NBM controlled RPF interface

### Command Mode

- /exec/configure /exec/configure/vrf

# ip multicast multipath resilient

[no] ip multicast multipath resilient

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
multicast	Configure IP multicast global parameters
multipath	Configure ECMP multicast load splitting
resilient	Configure resilient RPF interface

## Command Mode

- /exec/configure /exec/configure/vrf

# ip multicast overlay-distributed-dr

[no] ip multicast overlay-distributed-dr

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
multicast	Configure multicast
overlay-distributed-dr	Configure node as Distributed-DR

## Command Mode

- /exec/configure

# ip multicast overlay-spt-only

[no] ip multicast overlay-spt-only

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
multicast	Configure multicast
overlay-spt-only	Enable L3-Overlay spt(shortest-path-tree) only

## Command Mode

- /exec/configure

## ip multicast rpf select vrf group-list

```
{ { ip multicast rpf select { vrf { <vrf-name> | <vrf-known-name> } group-list <prefix> } } | { no ip multicast rpf select { vrf { <vrf-name> | <vrf-known-name> } group-list <prefix> } } }
```

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
multicast	Configure IP multicast global parameters
rpf	Configure RPF check
select	Configure VRF for RPF check
vrf	VRF for RPF lookup
<i>vrf-name</i>	VRF name
<i>vrf-known-name</i>	Known VRF name
group-list	Group range for RPF select
<i>prefix</i>	Group range prefix

### Command Mode

- /exec/configure /exec/configure/vrf



# ip name-server

```
[no] ip name-server { { <ipv4_0> | <ipv6_1> } [ { <ipv4_2> | <ipv6_3> } [ { <ipv4_4> | <ipv6_5> } [ { <ipv4_6> | <ipv6_7> } [ { <ipv4_8> | <ipv6_9> } [ { <ipv4_10> | <ipv6_11> } ] ] ] ] | { <ipv4_12> | <ipv6_13> } [ source-interface <ifnum> | use-vrf { <vrf-name> | <vrf-known-name> } ] + | { <ipv4_14> | <ipv6_15> } [ { <ipv4_16> | <ipv6_17> } [ source-interface <ifnum> | use-vrf { <vrf-name> | <vrf-known-name> } ] + ] | { <ipv4_18> | <ipv6_19> } [ { <ipv4_20> | <ipv6_21> } [ { <ipv4_22> | <ipv6_23> } [ source-interface <ifnum> | use-vrf { <vrf-name> | <vrf-known-name> } ] + ] ] | { <ipv4_24> | <ipv6_25> } [ { <ipv4_26> | <ipv6_27> } [ { <ipv4_28> | <ipv6_29> } [ { <ipv4_30> | <ipv6_31> } [ source-interface <ifnum> | use-vrf { <vrf-name> | <vrf-known-name> } ] + ] ] ] | { <ipv4_32> | <ipv6_33> } [ { <ipv4_34> | <ipv6_35> } [ { <ipv4_36> | <ipv6_37> } [ { <ipv4_38> | <ipv6_39> } [ { <ipv4_40> | <ipv6_41> } [ source-interface <ifnum> | use-vrf { <vrf-name> | <vrf-known-name> } ] + ] ] ] ] | { <ipv4_42> | <ipv6_43> } [ { <ipv4_44> | <ipv6_45> } [ { <ipv4_46> | <ipv6_47> } [ { <ipv4_48> | <ipv6_49> } [ { <ipv4_50> | <ipv6_51> } [ { <ipv4_52> | <ipv6_53> } [ source-interface <ifnum> | use-vrf { <vrf-name> | <vrf-known-name> } ] + ] ] ] ] ] }
```

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
name-server	Specify nameserver address
<i>ipv4_0</i>	Enter an IPv4 address
<i>ipv4_2</i>	(Optional) Enter an IPv4 address
<i>ipv4_4</i>	(Optional) Enter an IPv4 address
<i>ipv4_6</i>	(Optional) Enter an IPv4 address
<i>ipv4_8</i>	(Optional) Enter an IPv4 address
<i>ipv4_10</i>	(Optional) Enter an IPv4 address
<i>ipv4_12</i>	Enter an IPv4 address
source-interface	(Optional) Configure source interface
<i>ifnum</i>	(Optional) Source interface
use-vrf	(Optional) Display per-VRF information
<i>vrf-name</i>	(Optional) VRF name
<i>vrf-known-name</i>	(Optional) Known VRF name
<i>ipv4_14</i>	Enter an IPv4 address
<i>ipv4_16</i>	(Optional) Enter an IPv4 address
<i>ipv4_18</i>	Enter an IPv4 address

<i>ipv4_20</i>	(Optional) Enter an IPv4 address
<i>ipv4_22</i>	(Optional) Enter an IPv4 address
<i>ipv4_24</i>	Enter an IPv4 address
<i>ipv4_26</i>	(Optional) Enter an IPv4 address
<i>ipv4_28</i>	(Optional) Enter an IPv4 address
<i>ipv4_30</i>	(Optional) Enter an IPv4 address
<i>ipv4_32</i>	Enter an IPv4 address
<i>ipv4_34</i>	(Optional) Enter an IPv4 address
<i>ipv4_36</i>	(Optional) Enter an IPv4 address
<i>ipv4_38</i>	(Optional) Enter an IPv4 address
<i>ipv4_40</i>	(Optional) Enter an IPv4 address
<i>ipv4_42</i>	Enter an IPv4 address
<i>ipv4_44</i>	(Optional) Enter an IPv4 address
<i>ipv4_46</i>	(Optional) Enter an IPv4 address
<i>ipv4_48</i>	(Optional) Enter an IPv4 address
<i>ipv4_50</i>	(Optional) Enter an IPv4 address
<i>ipv4_52</i>	(Optional) Enter an IPv4 address

**Command Mode**

- /exec/configure /exec/configure/vrf

# ip nat inside

[no] ip nat { inside | outside }

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
nat	NAT interface commands
inside	Inside interface for address translation
outside	Outside interface for address translation

## Command Mode

- /exec/configure/if-vni/ /exec/configure/if-port-channel /exec/configure/if-vlan  
/exec/configure/if-remote-ethernet /exec/configure/if-igp /exec/configure/if-routing

## ip nat inside source

```
[no] ip nat inside source { { static <insideLocalIP> <insideGlobalIP> [ vrf <vrf-name> [ match-in-vrf ] ] [
group <group-id> [ dynamic ] ] [ no-alias ] [ add-route ] } | { static { tcp | udp } <insideLocalIP>
<insideLocalPort> <insideGlobalIP> <insideGlobalPort> [ vrf <vrf-name> [ match-in-vrf ] ] [ group <group-id>
[ dynamic ] ] [ no-alias ] [ add-route ] } | { list <acl-name> } { pool <pool-name> [ vrf <vrf-name> [
match-in-vrf ] ] [ overload ] | interface <globalAddrInterface> [ vrf <vrf-name> [ match-in-vrf ] ] overload }
[ group <group-id> dynamic ] [ add-route ] }
```

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
nat	NAT configuration commands
inside	Inside address translation
source	Source address translation
static	Specify static local->global mapping
tcp	Transmission Control Protocol
udp	User Datagram Protocol
list	Specify access list describing local addresses
pool	Name pool of global addresses
interface	Specify interface for global address
vrf	(Optional) Specify vrf
match-in-vrf	(Optional) Match incoming vrf
no-alias	(Optional) Do not create alias for this NAT-address
dynamic	(Optional) Dynamic twice NAT group
<i>insideLocalIP</i>	Inside local IP address
<i>insideLocalPort</i>	Local UDP/TCP port
<i>insideGlobalIP</i>	Inside global IP address
<i>insideGlobalPort</i>	Global UDP/TCP port
group	(Optional) Specify group for the twice NAT
<i>group-id</i>	(Optional) Group ID for the twice NAT
<i>acl-name</i>	Access-list-name

<i>pool-name</i>	Pool name for global addresses
add-route	(Optional) Add a static route for outside local address
<i>vrf-name</i>	(Optional) vrf name
<i>globalAddrInterface</i>	interface type and number in module/slot format
overload	(Optional) Overload an address translation

**Command Mode**

- /exec/configure

## ip nat outside source

```
[no] ip nat outside source { static <outsideGlobalIP> <outsideLocalIP> [ vrf <vrf-name> [ match-in-vrf ] ] [
group <group-id> [ dynamic ] ] [ no-alias ] [ add-route ] | static { tcp | udp } <outsideGlobalIP>
<outsideGlobalPort> <outsideLocalIP> <outsideLocalPort> [ vrf <vrf-name> [ match-in-vrf ] ] [ group
<group-id> [ dynamic ] ] [ no-alias ] [ add-route ] | list <acl-name> pool <pool-name> [ vrf <vrf-name> [
match-in-vrf ] ] [ group <group-id> dynamic ] } [ add-route ]
```

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
nat	NAT configuration commands
outside	Outside address translation
source	Source address translation
static	Specify static global->local mapping
tcp	Transmission Control Protocol
udp	User Datagram Protocol
list	Specify access list describing local addresses
pool	Name pool of global addresses
vrf	(Optional) Specify vrf
match-in-vrf	(Optional) Match incoming vrf
no-alias	(Optional) Do not create alias for this NAT-address
<i>outsideGlobalIP</i>	Outside global IP address
<i>outsideGlobalPort</i>	Outside Global UDP/TCP port
<i>outsideLocalIP</i>	Outside local IP address
<i>outsideLocalPort</i>	Outside Local UDP/TCP port
group	(Optional) Specify group for the twice NAT
dynamic	(Optional) Dynamic twice NAT group
<i>group-id</i>	(Optional) Group ID for the twice NAT
<i>acl-name</i>	Access-list-name
<i>vrf-name</i>	(Optional) vrf name
<i>pool-name</i>	Pool name for global addresses

add-route	(Optional) Add a static route for outside local address
-----------	---

**Command Mode**

- /exec/configure

## ip nat pool netmask

```
ip nat pool <pool-name> { netmask <netmask> | prefix-length <prefix-length> } [ no-alias ]
```

### Syntax Description

ip	Configure IP features
nat	NAT configuration commands
pool	Define pool of addresses
netmask	Specify the network mask
prefix-length	Specify the prefix length
no-alias	(Optional) Do not create alias for these pool addresses
<i>pool-name</i>	Pool name
<i>netmask</i>	Network mask
<i>prefix-length</i>	Prefix length

### Command Mode

- /exec/configure



## ip nat pool netmask

```
ip nat pool <pool-name> <start-ip> <end-ip> { netmask <netmask> | prefix-length <prefix-length> } [ no-alias ] | no ip nat pool <pool-name> [ <start-ip> <end-ip> { netmask <netmask> | prefix-length <prefix-length> } ]
```

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
nat	NAT configuration commands
pool	Define pool of addresses
netmask	Specify the network mask
prefix-length	Specify the prefix length
no-alias	(Optional) Do not create alias for these pool addresses
<i>pool-name</i>	Pool name
<i>start-ip</i>	Start IP address
<i>end-ip</i>	End IP address
<i>netmask</i>	Network mask
<i>prefix-length</i>	Prefix length

### Command Mode

- /exec/configure

# ip nat translation

```
ip nat translation { { { tcp-timeout | udp-timeout | icmp-timeout | timeout } <timeout> } | { finrst-timeout { <fin_timeout> | never } | syn-timeout { <syn_timeout> | never } | timeout <timeout> } } | no ip nat translation { { { tcp-timeout | udp-timeout | icmp-timeout | timeout } <timeout> } | { finrst-timeout { <fin_timeout> | never } | syn-timeout { <syn_timeout> | never } | timeout } }
```

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
nat	NAT configuration commands
translation	NAT translation entry configuration
tcp-timeout	Specify timeout for NAT TCP flows
udp-timeout	Specify timeout for NAT UDP flows
icmp-timeout	Specify timeout for NAT ICMP flows
finrst-timeout	Specify timeout for NAT TCP flows after a FIN or RST
syn-timeout	Specify timeout for NAT TCP flows after a SYN and no further data
timeout	Specify timeout for dynamic NAT flows
never	Never timeout
<i>timeout</i>	Timeout in seconds
<i>fin_timeout</i>	Timeout in seconds
<i>syn_timeout</i>	Timeout in seconds

## Command Mode

- /exec/configure

## ip nat translation creation-delay

{ ip nat translation creation-delay <batch-timeout> } | { no ip nat translation creation-delay }

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
nat	NAT configuration commands
translation	NAT translation entry configuration
creation-delay	Translation entries creation delay due to batching before program to team
<i>batch-timeout</i>	0/250/500/750/1000

### Command Mode

- /exec/configure

## ip nat translation max-entries

ip nat translation max-entries [ all-host ] <max> | no ip nat translation max-entries [ all-host ]

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
nat	NAT configuration commands
translation	NAT translation entry configuration
max-entries	Specify maximum number of NAT dynamic entries
all-host	(Optional) Specify maximum number of NAT entries for each host
<i>max</i>	Number of entries

### Command Mode

- /exec/configure

# ip nat translation sampling-timeout

[no] ip nat translation sampling-timeout <timeout>

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
nat	NAT configuration commands
translation	NAT translation entry configuration
sampling-timeout	Specify timeout after which the checking for activity is done
<i>timeout</i>	Timeout in seconds (max: 2days, recommended 900s)

## Command Mode

- /exec/configure

## ip next-hop-self eigrp

[no] { ip | ipv6 } next-hop-self eigrp <eigrp-ptag>

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
ipv6	Configure IPv6 features
next-hop-self	Configures IP-EIGRP next-hop-self
eigrp	EIGRP interface configuration commands
<i>eigrp-ptag</i>	Process tag

### Command Mode

- /exec/configure/if-igp

## ip offset-list eigrp

```
[no] { ip | ipv6 } offset-list eigrp <eigrp-ptag> { { route-map <map> } | { prefix-list <list> } } { in | out } <offset>
```

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
ipv6	Configure IPv6 features
offset-list	Add or subtract offset from EIGRP metrics
eigrp	EIGRP interface configuration commands
<i>eigrp-ptag</i>	Process tag
route-map	Use a route-map for offset-list selection
<i>map</i>	Route-map name
prefix-list	Use a prefix-list for offset-list selection
<i>list</i>	Reference to prefix-list name
in	Perform offset on incoming updates
out	Perform offset on outgoing updates
<i>offset</i>	Offset

### Command Mode

- /exec/configure/if-igp

# ip ospf advertise-subnet

[no] ip ospf advertise-subnet

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
ospf	OSPF configuration commands
advertise-subnet	Advertise loopback interface IP subnet in router LSA

## Command Mode

- /exec/configure/if-loopback



# ip ospf authentication-key

```
{ { ip ospf authentication-key <key> } | { no ip ospf authentication-key [ <key> ] } }
```

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
ospf	OSPF configuration commands
authentication-key	Configure the authentication key for the interface
<i>key</i>	Authentication key

## Command Mode

- /exec/configure/if-igp /exec/configure/if-gre-tunnel /exec/configure/if-mpls-tunnel /exec/configure/if-mgmt-config

# ip ospf authentication

[no] ip ospf authentication [ message-digest | null ]

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
ospf	OSPF configuration commands
authentication	Authentication on the interface
message-digest	(Optional) Use message-digest authentication
null	(Optional) Use null(disable) authentication

## Command Mode

- /exec/configure/if-igp /exec/configure/if-gre-tunnel /exec/configure/if-mpls-tunnel /exec/configure/if-mgmt-config

# ip ospf authentication key-chain

```
{ ip ospf authentication key-chain <keychain> } | { no ip ospf authentication key-chain [ <keychain> ] }
```

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
ospf	OSPF configuration commands
authentication	Authentication on the interface
key-chain	Authentication password key-chain
<i>keychain</i>	Key-chain name

## Command Mode

- /exec/configure/if-igmp /exec/configure/if-gre-tunnel /exec/configure/if-mpls-tunnel /exec/configure/if-mgmt-config

# ip ospf bfd

[no] ip ospf bfd [ disable ]

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
ospf	OSPF configuration commands
bfd	Enable BFD on this interface
disable	(Optional) Disable BFD on this interface

## Command Mode

- /exec/configure/if-igp /exec/configure/if-gre-tunnel /exec/configure/if-mgmt-config

# ip ospf cost

```
{ ip ospf cost <cost> } | { no ip ospf cost [ <cost> ] }
```

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
ospf	OSPF configuration commands
cost	Cost associated with interface
<i>cost</i>	Cost value

## Command Mode

- /exec/configure/if-igp /exec/configure/if-gre-tunnel /exec/configure/if-mpls-tunnel /exec/configure/if-mgmt-config

# ip ospf dead-interval

{ ip ospf dead-interval <interval> } | { no ip ospf dead-interval [ <interval> ] }

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
ospf	OSPF configuration commands
dead-interval	Dead interval
<i>interval</i>	(seconds)

## Command Mode

- /exec/configure/if-igp /exec/configure/if-gre-tunnel /exec/configure/if-mpls-tunnel /exec/configure/if-mgmt-config

# ip ospf hello-interval

{ ip ospf hello-interval <interval> } | { no ip ospf hello-interval [ <interval> ] }

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
ospf	OSPF configuration commands
hello-interval	Hello interval
<i>interval</i>	(seconds)

## Command Mode

- /exec/configure/if-igp /exec/configure/if-gre-tunnel /exec/configure/if-mpls-tunnel /exec/configure/if-mgmt-config

## ip ospf message-digest-key md5

```
{ { ip ospf message-digest-key <keyid> md5 <key> } | { no ip ospf message-digest-key <keyid> [ md5 <key> ] } }
```

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
ospf	OSPF configuration commands
message-digest-key	Message digest authentication password (key)
<i>keyid</i>	Key ID
md5	Use MD5 algorithm
<i>key</i>	The OSPF password (key)

### Command Mode

- /exec/configure/if-igp /exec/configure/if-gre-tunnel /exec/configure/if-mpls-tunnel /exec/configure/if-mgmt-config



# ip ospf mtu-ignore

[no] ip ospf mtu-ignore

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
ospf	OSPF configuration commands
mtu-ignore	Disable OSPF MTU mismatch detection

## Command Mode

- /exec/configure/if-igp /exec/configure/if-gre-tunnel /exec/configure/if-mpls-tunnel /exec/configure/if-mgmt-config

# ip ospf network broadcast

```
{ ip ospf network { broadcast | point-to-point } } | { no ip ospf network [ { broadcast | point-to-point } ] }
```

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
ospf	OSPF configuration commands
network	Network type
broadcast	Specify OSPF broadcast multi-access network
point-to-point	Specify OSPF point-to-point network

## Command Mode

- /exec/configure/if-broadcast /exec/configure/if-p2p /exec/configure/if-mgmt-config

# ip ospf network point-to-point

{ ip ospf network point-to-point } | { no ip ospf network [ point-to-point ] }

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
ospf	OSPF configuration commands
network	Network type
point-to-point	Specify OSPF point-to-point network

## Command Mode

- /exec/configure/if-loopback

# ip ospf passive-interface

[ default | no ] ip ospf passive-interface

## Syntax Description

default	(Optional) Undo a command
no	(Optional) Negate a command or set its defaults
ip	Configure IP features
ospf	OSPF configuration commands
passive-interface	Suppress routing updates on the interface

## Command Mode

- /exec/configure/if-broadcast /exec/configure/if-p2p /exec/configure/if-mgmt-config

# ip ospf prefix-attributes n-flag-clear

[no] ip ospf prefix-attributes n-flag-clear

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
ospf	OSPF configuration commands
prefix-attributes	Prefix attributes
n-flag-clear	Clear N-Flag for the interface prefixes

## Command Mode

- /exec/configure/if-loopback

# ip ospf priority

{ ip ospf priority <prio> } | { no ip ospf priority [ <prio> ] }

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
ospf	OSPF configuration commands
priority	Router priority
<i>prio</i>	Router priority

## Command Mode

- /exec/configure/if-igp /exec/configure/if-gre-tunnel /exec/configure/if-mpls-tunnel /exec/configure/if-mgmt-config

# ip ospf retransmit-interval

{ ip ospf retransmit-interval <interval> } | { no ip ospf retransmit-interval [ <interval> ] }

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
ospf	OSPF configuration commands
retransmit-interval	Packet retransmission interval
<i>interval</i>	(seconds)

## Command Mode

- /exec/configure/if-igp /exec/configure/if-gre-tunnel /exec/configure/if-mpls-tunnel /exec/configure/if-mgmt-config

# ip ospf shutdown

[no] ip ospf shutdown

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
ospf	OSPF configuration commands
shutdown	shutdown ospf on this interface

## Command Mode

- /exec/configure/if-igp /exec/configure/if-gre-tunnel /exec/configure/if-mgmt-config



# ip ospf transmit-delay

{ ip ospf transmit-delay <delay> } | { no ip ospf transmit-delay [ <delay> ] }

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
ospf	OSPF configuration commands
transmit-delay	Packet transmission delay
<i>delay</i>	(seconds)

## Command Mode

- /exec/configure/if-igp /exec/configure/if-gre-tunnel /exec/configure/if-mpls-tunnel /exec/configure/if-mgmt-config

## ip passive-interface eigrp

[ default | no ] { ip | ipv6 } passive-interface eigrp <eigrp-ptag>

### Syntax Description

default	(Optional) Undo a command
no	(Optional) Negate a command or set its defaults
ip	Configure IP features
ipv6	Configure IPv6 features
passive-interface	Suppress routing updates on an interface
eigrp	EIGRP interface configuration commands
<i>eigrp-ptag</i>	Process tag

### Command Mode

- /exec/configure/if-igp

# ip pim allow-rp

```
{ ip pim allow-rp { <route-map-name> } | no ip pim allow-rp [ <route-map-name> ] }
```

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
pim	PIM global configuration commands
allow-rp	Sparse-Mode RP addresses to be allowed
<i>route-map-name</i>	Route-map name

## Command Mode

- /exec/configure /exec/configure/vrf

## ip pim anycast-rp

[no] ip pim anycast-rp <anycast-rp> <rp-addr>

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
pim	PIM global configuration commands
anycast-rp	Configure an RP in an Anycast-RP set (using PIM)
<i>anycast-rp</i>	Address for the Anycast-RP address
<i>rp-addr</i>	Address of RP in the Anycast-RP set

### Command Mode

- /exec/configure /exec/configure/vrf

## ip pim assert-rate-limit

```
{ { ip pim assert-rate-limit <rate> } | { no ip pim assert-rate-limit [ <rate> ] } }
```

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
pim	PIM global configuration commands
assert-rate-limit	Rate limit for PIM Asserts
<i>rate</i>	Packets per second

### Command Mode

- /exec/configure /exec/configure/vrf

# ip pim auto-enable

{ { no ip pim auto-enable } | { ip pim auto-enable } }

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
pim	PIM global configuration commands
auto-enable	Auto-enable configure on the vrf

## Command Mode

- /exec/configure /exec/configure/vrf

# ip pim auto-rp listen

{ ip pim auto-rp { listen | forward } + } | { no ip pim auto-rp [ { listen | forward } + ] }

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
pim	PIM global configuration commands
auto-rp	Auto-RP protocol RP-distribution configuration
listen	Listen to Auto-RP messages
forward	Forward Auto-RP messages

## Command Mode

- /exec/configure /exec/configure/vrf

## ip pim auto-rp mapping-agent-policy

```
{ ip pim auto-rp mapping-agent-policy { <route-map-name> | <rtr_pol_name> } | no ip pim auto-rp
mapping-agent-policy [ <route-map-name> | <rtr_pol_name> ] }
```

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
pim	PIM global configuration commands
auto-rp	Auto-RP protocol RP-distribution configuration
mapping-agent-policy	Specify policy for filtering Mapping Agent messages
<i>route-map-name</i>	Route-map name
<i>rtr_pol_name</i>	An existing routing-rules policy

### Command Mode

- /exec/configure /exec/configure/vrf



## ip pim auto-rp mapping-agent send-rp-discovery

```
{ { ip pim { { auto-rp mapping-agent } | send-rp-discovery } <interface> [ scope <ttl> ] } | { no ip pim { { auto-rp mapping-agent } | send-rp-discovery } [ <interface> ] [ scope <ttl> ] } }
```

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
pim	PIM global configuration commands
auto-rp	Auto-RP protocol RP-distribution configuration
send-rp-discovery	Configures router to send Auto-RP Discovery messages
mapping-agent	Configures router as an Auto-RP RP-mapping agent
<i>interface</i>	Use IP address of interface for Auto-RP Announce messages
scope	(Optional) Configure the scope of Auto-RP Discovery messages
<i>ttl</i>	(Optional) TTL value for scope

### Command Mode

- /exec/configure /exec/configure/vrf

## ip pim auto-rp rp-candidate-policy

```
{ ip pim auto-rp rp-candidate-policy { <route-map-name> | <rtr_pol_name> } | no ip pim auto-rp
rp-candidate-policy [ <route-map-name> | <rtr_pol_name> ] }
```

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
pim	PIM global configuration commands
auto-rp	Auto-RP protocol RP-distribution configuration
rp-candidate-policy	Specify policy for filtering RP candidate messages
<i>route-map-name</i>	Route-map name
<i>rtr_pol_name</i>	An existing routing-rules policy

### Command Mode

- /exec/configure /exec/configure/vrf

# ip pim auto-rp rp-candidate send-rp-announce group-list route-map prefix-list

```
{ { ip pim { auto-rp rp-candidate | send-rp-announce } { <interface> | <ipaddr> } { group-list <prefix> |
route-map <route-map-name> | prefix-list <prefix-list-name> } { [ scope <ttl> ] | [ interval <interval> ] | [
bidir ] } + } | { no ip pim { { auto-rp rp-candidate } | send-rp-announce } [ <interface> | <ipaddr> ] [ group-list
<prefix> | route-map <route-map-name> | prefix-list <prefix-list-name> ] { [ scope <ttl> ] | [ interval <interval>
] | [ bidir ] } + } }
```

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
pim	PIM global configuration commands
auto-rp	Auto-RP protocol RP-distribution configuration
send-rp-announce	Configures router to send Auto-RP Announce messages
rp-candidate	Configures router to be an Auto-RP candidate RP
<i>interface</i>	Use IP address of interface for Auto-RP Announce messages
<i>ipaddr</i>	IP address of RP for group
group-list	Group range list
<i>prefix</i>	Prefix of group range
route-map	Group range policy for Auto-RP Candidate RP
<i>route-map-name</i>	Route-map name
prefix-list	Prefix List policy for Auto-RP Candidate RP
<i>prefix-list-name</i>	Name of prefix-list
scope	(Optional) Configure the scope of Auto-RP Announce messages
<i>ttl</i>	(Optional) TTL value for scope
interval	(Optional) Auto-RP Announce message transmission interval
<i>interval</i>	(Optional) Interval in seconds
bidir	(Optional) Group range advertised in PIM bidirectional mode

## Command Mode

- /exec/configure /exec/configure/vrf

## ip pim bfd-instance

[no] ip pim bfd-instance [ disable ]

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
pim	PIM interface configuration commands
bfd-instance	Configures BFD on interface
disable	(Optional) Disable BFD on interface

### Command Mode

- /exec/configure/if-igp

# ip pim bfd

[no] ip pim bfd

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
pim	PIM global configuration commands
bfd	Enable / Disable BFD for all PIM interfaces in the VRF

## Command Mode

- /exec/configure /exec/configure/vrf

## ip pim bidir-rp-limit

[no] ip pim bidir-rp-limit <limit>

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
pim	PIM global configuration commands
bidir-rp-limit	Configures maximum Bidir RPs for IPv4 PIM in this VRF
<i>limit</i>	Set limit for Bidir RPs permitted in IPv4 PIM

### Command Mode

- /exec/configure /exec/configure/vrf

# ip pim border-router

[no] ip pim border-router

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
pim	PIM interface configuration commands
border-router	Configures the interface to be a boundary of a PIM-SM domain

## Command Mode

- /exec/configure/if-igp

# ip pim border

[no] ip pim border

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
pim	PIM interface configuration commands
border	Configures interface to be a boundary of a PIM domain

## Command Mode

- /exec/configure/if-igp



## ip pim bsr-candidate

```
{ { ip pim [ bsr ] bsr-candidate <interface> [ hash-len <hash-len> ] [ priority <priority> ] [ interval <interval> ] } | { no ip pim [ bsr ] bsr-candidate [ <interface> ] [ hash-len <hash-len> ] [ priority <priority> ] [ interval <interval> ] } }
```

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
pim	PIM global configuration commands
bsr	(Optional) Bootstrap protocol RP-distribution configuration
bsr-candidate	Configure router as a Bootstrap Router candidate
<i>interface</i>	Use IP address of interface for Bootstrap messages
hash-len	(Optional) Hash mask length used in Bootstrap messages
<i>hash-len</i>	(Optional) Hash mask length value
priority	(Optional) BSR priority used in Bootstrap messages
<i>priority</i>	(Optional) BSR priority value
interval	(Optional) Bootstrap message transmission interval
<i>interval</i>	(Optional) Interval in seconds

### Command Mode

- /exec/configure /exec/configure/vrf

## ip pim bsr bsr-policy

```
{ ip pim bsr bsr-policy { <route-map-name> | <rtr_pol_name> } | no ip pim bsr bsr-policy [ <route-map-name> | <rtr_pol_name> ] }
```

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
pim	PIM global configuration commands
bsr	Bootstrap protocol RP-distribution configuration
bsr-policy	Specify policy for filtering BSR messages
<i>route-map-name</i>	Route-map name
<i>rtr_pol_name</i>	An existing routing-rules policy

### Command Mode

- /exec/configure /exec/configure/vrf

# ip pim bsr listen

{ ip pim bsr { listen | forward } + } | { no ip pim bsr [ { listen | forward } + ] }

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
pim	PIM global configuration commands
bsr	Bootstrap protocol RP-distribution configuration
listen	Listen to Bootstrap/Candidate-RP messages
forward	Forward Bootstrap/Candidate-RP messages

## Command Mode

- /exec/configure /exec/configure/vrf

## ip pim bsr rp-candidate-policy

```
{ ip pim bsr rp-candidate-policy { <route-map-name> | <rtr_pol_name> } | no ip pim bsr rp-candidate-policy
[ <route-map-name> | <rtr_pol_name> ] }
```

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
pim	PIM global configuration commands
bsr	Bootstrap protocol RP-distribution configuration
rp-candidate-policy	Specify policy for filtering RP candidate messages
<i>route-map-name</i>	Route-map name
<i>rtr_pol_name</i>	An existing routing-rules policy

### Command Mode

- /exec/configure /exec/configure/vrf

## ip pim dr-delay

```
{ { ip pim dr-delay <delay> } | { no ip pim dr-delay [ <delay> ] } }
```

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
pim	PIM interface configuration commands
dr-delay	Configures delay for PIM DR election on interface
<i>delay</i>	Delay value

### Command Mode

- /exec/configure/if-igp

# ip pim dr-priority

```
{ { ip pim dr-priority <priority> } | { no ip pim dr-priority [ <priority> ] } }
```

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
pim	PIM interface configuration commands
dr-priority	Configures priority for PIM DR election on interface
<i>priority</i>	Priority value

## Command Mode

- /exec/configure/if-igp

# ip pim evpn-border-leaf

[no] ip pim evpn-border-leaf

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
pim	PIM global configuration commands
evpn-border-leaf	Configure this node as a border leaf

## Command Mode

- /exec/configure

# ip pim extranet

[no] ip pim extranet

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
pim	PIM global configuration commands
extranet	Support for Extranet RPF lookup

## Command Mode

- /exec/configure



# ip pim flush-routes

[no] ip pim flush-routes

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
pim	PIM global configuration commands
flush-routes	Remove routes when restarting PIM

## Command Mode

- /exec/configure /exec/configure/vrf

## ip pim group-list

```
[no] ip pim { use-shared-tree-only | spt-threshold infinity } group-list { <route-map-name> | prefix-list
<prefix-list-name> }
```

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
pim	PIM global configuration commands
use-shared-tree-only	Use (*,G) only state, no source state is created
spt-threshold	Source-tree switching threshold
infinity	Never switch to source-tree
group-list	Specify group ranges through policy
<i>route-map-name</i>	Route-map name
prefix-list	Prefix List policy
<i>prefix-list-name</i>	Name of prefix-list

### Command Mode

- /exec/configure /exec/configure/vrf

## ip pim hello-authentication ah-md5

```
{ ip pim hello-authentication ah-md5 <auth-key> | no ip pim hello-authentication ah-md5 [ <auth-key> ] }
```

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
pim	PIM interface configuration commands
hello-authentication	Add AH header option to Hellos
ah-md5	Use MD5 HMAC
<i>auth-key</i>	MD5 authentication key

### Command Mode

- /exec/configure/if-igp

## ip pim hello-authentication keychain

{ ip pim hello-authentication keychain <name> | no ip pim hello-authentication keychain [ <name> ] }

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
pim	PIM interface configuration commands
hello-authentication	Add AH header option to Hellos
keychain	Use keychain
<i>name</i>	Keychain name

### Command Mode

- /exec/configure/if-igp

# ip pim hello-interval

```
{ { ip pim hello-interval <interval> } | { no ip pim hello-interval [ <interval> ] } }
```

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
pim	PIM interface configuration commands
hello-interval	Configures the Hello interval for interface
<i>interval</i>	Interval in milliseconds

## Command Mode

- /exec/configure/if-igp

# ip pim isolate

[no] ip pim isolate

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
pim	PIM global configuration commands
isolate	Isolate this router from PIM perspective

## Command Mode

- /exec/configure

## ip pim jp-policy

```
{ ip pim jp-policy { <route-map-name> | prefix-list <prefix-list-name> } [ in | out ] | no ip pim jp-policy {
<route-map-name> | prefix-list <prefix-list-name> } [ in | out ] }
```

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
pim	PIM interface configuration commands
jp-policy	Specify policy for receiving Join-Prune messages
<i>route-map-name</i>	Route-map name
prefix-list	Prefix List policy for static RP
<i>prefix-list-name</i>	Name of prefix-list
in	(Optional) Inbound
out	(Optional) Outbound

### Command Mode

- /exec/configure/if-igp

# ip pim log-neighbor-changes

[no] ip pim log-neighbor-changes

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
pim	PIM global configuration commands
log-neighbor-changes	Log up/down PIM neighbor transitions

## Command Mode

- /exec/configure /exec/configure/vrf



# ip pim mtu

[no] ip pim mtu <size>

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
pim	PIM global configuration commands
mtu	MTU for IP PIM packet
<i>size</i>	MTU

## Command Mode

- /exec/configure

## ip pim neighbor-policy prefix-list

```
{ { ip pim neighbor-policy { <route-map-name> | prefix-list <prefix-list-name> } } | { no ip pim neighbor-policy
[ <route-map-name> | prefix-list <prefix-list-name> ] } }
```

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
pim	PIM interface configuration commands
neighbor-policy	Configures a neighbor policy for filtering adjacencies
<i>route-map-name</i>	Route-map name
prefix-list	Prefix List policy for neighbor
<i>prefix-list-name</i>	Name of prefix-list

### Command Mode

- /exec/configure/if-igp

# ip pim passive

{ ip pim passive | no ip pim passive }

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
pim	PIM interface configuration commands
passive	Interface in passive mode. No send/rcv

## Command Mode

- /exec/configure/if-igp

## ip pim pfm-sd announcement gap

```
{ { ip pim pfm-sd announcement gap { <interval> } } | { no ip pim pfm-sd announcement gap [ <interval> ] } }
```

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
pim	PIM global configuration commands
pfm-sd	PIM Flooding Mechanism and Source Discovery
announcement	Pfm-sd message announcement
gap	Minimum gap between each PFM-SD message
<i>interval</i>	gap interval in milliseconds

### Command Mode

- /exec/configure /exec/configure/vrf

## ip pim pfm-sd announcement interval

```
{ { ip pim pfm-sd announcement interval { <interval> } } | { no ip pim pfm-sd announcement interval [ <interval> ] } }
```

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
pim	PIM global configuration commands
pfm-sd	PIM Flooding Mechanism and Source Discovery
announcement	Pfm-sd message announcement
interval	Announcement period for Group Source Holdtime TLV
<i>interval</i>	interval in seconds

### Command Mode

- /exec/configure /exec/configure/vrf

## ip pim pfm-sd announcement rate

```
{ { ip pim pfm-sd announcement rate { <rate> } } | { no ip pim pfm-sd announcement rate [ <rate> ] } }
```

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
pim	PIM global configuration commands
pfm-sd	PIM Flooding Mechanism and Source Discovery
announcement	Pfm-sd message announcement
rate	Maximum number of PFM-SD messages a router originated per minute
<i>rate</i>	rate

### Command Mode

- /exec/configure /exec/configure/vrf

## ip pim pfm-sd boundary

```
{ { ip pim pfm-sd { boundary <direction> } } | { no ip pim pfm-sd { boundary [ <direction> ] } } }
```

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
pim	PIM interface configuration commands
pfm-sd	PIM Flooding Mechanism and Source Discovery
boundary	pfm-sd boundary to restrict pfm-sd messages
<i>direction</i>	pfm-sd boundary direction

### Command Mode

- /exec/configure/if-igp

## ip pim pfm-sd gsh holdtime

```
{ { ip pim pfm-sd gsh holdtime { <holdtime> } } | { no ip pim pfm-sd gsh holdtime [ <holdtime> ] } }
```

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
pim	PIM global configuration commands
pfm-sd	PIM Flooding Mechanism and Source Discovery
gsh	Group source holdtime TLV
holdtime	Holdtime for Group Source Holdtime TLV
<i>holdtime</i>	holdtime in seconds

### Command Mode

- /exec/configure /exec/configure/vrf



## ip pim pfm-sd originator-id

```
{ { ip pim pfm-sd originator-id { <interface> } } | { no ip pim pfm-sd originator-id [ <interface> ] } }
```

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
pim	PIM global configuration commands
pfm-sd	PIM Flooding Mechanism and Source Discovery
originator-id	Configure source address for pfm-sd messages
<i>interface</i>	Loopback interface

### Command Mode

- /exec/configure /exec/configure/vrf

## ip pim pfm-sd range

```
{ [ no ] ip pim pfm-sd range { <prefix> | { route-map <route-map-name> } | { prefix-list <prefix-list-name> } } }
```

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
pim	PIM global configuration commands
pfm-sd	PIM Flooding Mechanism and Source Discovery
range	Configure group ranges for pfm-sd
<i>prefix</i>	List of group range prefixes
route-map	Group range route-map policy for pfm-sd
<i>route-map-name</i>	Route-map name
prefix-list	Group range prefix-list policy for pfm-sd
<i>prefix-list-name</i>	Name of prefix-list

### Command Mode

- /exec/configure /exec/configure/vrf

# ip pim pre-build-spt

```
{ { { ip pim pre-build-spt [ force ] } [ route-map <route-map-name> | prefix-list <prefix-list-name> ] } | { no ip pim pre-build-spt } }
```

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
pim	PIM global configuration commands
pre-build-spt	Pre construct PIM trees for all known (S,G)s
force	(Optional) Enable pre-build-spt irrespective of (*,G) state
route-map	(Optional) Route Map policy for pre-build-spt
<i>route-map-name</i>	(Optional) Route-map name
prefix-list	(Optional) Prefix List policy for pre-build-spt
<i>prefix-list-name</i>	(Optional) Name of prefix-list

## Command Mode

- /exec/configure /exec/configure/vrf

## ip pim register-policy

```
{ ip pim register-policy { <route-map-name> | prefix-list <prefix-list-name> } | no ip pim register-policy [ <route-map-name> | prefix-list <prefix-list-name> ] }
```

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
pim	PIM global configuration commands
register-policy	Specify policy for receiving Register messages
<i>route-map-name</i>	Route-map name
prefix-list	Prefix List policy for Registers
<i>prefix-list-name</i>	Name of prefix-list

### Command Mode

- /exec/configure /exec/configure/vrf

# ip pim register-rate-limit

```
{ { ip pim register-rate-limit <rate> } | { no ip pim register-rate-limit [ <rate> ] } }
```

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
pim	PIM global configuration commands
register-rate-limit	Rate limit for PIM data registers
<i>rate</i>	Packets per second

## Command Mode

- /exec/configure /exec/configure/vrf

## ip pim register-source

```
{ { ip pim register-source { <src-interface> } } | { no ip pim register-source [ <src-interface> ] } }
```

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
pim	PIM global configuration commands
register-source	Configure source address for Register messages
<i>src-interface</i>	Use IP address of this interface for Register messages

### Command Mode

- /exec/configure /exec/configure/vrf

# ip pim register-until-stop

[no] ip pim register-until-stop

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
pim	PIM global configuration commands
register-until-stop	Send Data Registers till Register Stop is received

## Command Mode

- /exec/configure

## ip pim rp-address

```
{ { ip pim rp-address <rp-address> [ group-list <prefix> | route-map <route-map-name> | prefix-list
<prefix-list-name> ] [ bidir ] [ override ] } | { no ip pim rp-address <rp-address> [ group-list <prefix> |
route-map <route-map-name> | prefix-list <prefix-list-name> ] [ bidir ] [ override ] } }
```

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
pim	PIM global configuration commands
rp-address	Configure static RP for group range
<i>rp-address</i>	IP address of router which is RP for group range
group-list	(Optional) Group range for static RP
<i>prefix</i>	(Optional) Group range prefix
route-map	(Optional) Route Map policy for static RP
<i>route-map-name</i>	(Optional) Route-map name
prefix-list	(Optional) Prefix List policy for static RP
<i>prefix-list-name</i>	(Optional) Name of prefix-list
bidir	(Optional) Group range is treated in PIM bidirectional mode
override	(Optional) RP address will override the dynamically learnt RPs

### Command Mode

- /exec/configure /exec/configure/vrf



## ip pim rp-candidate group-list route-map prefix-list

```
{ { ip pim [ bsr ] rp-candidate <interface> { group-list <prefix> | route-map <route-map-name> | prefix-list
<prefix-list-name> } [ priority <priority> ] [ interval <interval> ] [ bidir ] } | { no ip pim [ bsr ] rp-candidate
[ <interface> ] [ group-list <prefix> ] [ route-map <route-map-name> ] [ prefix-list <prefix-list-name> ] [
priority <priority> ] [ interval <interval> ] [ bidir ] } }
```

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
pim	PIM global configuration commands
bsr	(Optional) Bootstrap protocol RP-distribution configuration
rp-candidate	Configure router as a Rendezvous Point (RP) candidate
<i>interface</i>	Use IP address of interface for Candidate-RP messages
group-list	Group range list
<i>prefix</i>	Prefix of group range
route-map	Group range policy for Candidate RP
<i>route-map-name</i>	Route-map name
prefix-list	Prefix List policy for Candidate RP
<i>prefix-list-name</i>	Name of prefix-list
priority	(Optional) RP priority used in Candidate-RP messages
<i>priority</i>	(Optional) RP priority value
interval	(Optional) Bootstrap message transmission interval
<i>interval</i>	(Optional) Interval in seconds
bidir	(Optional) Group range advertised in PIM bidirectional mode

### Command Mode

- /exec/configure /exec/configure/vrf

## ip pim sg-expiry-timer infinity

```
{ { ip pim [ sparse ] sg-expiry-timer { <expiry-time> | infinity } [ sg-list <route-map-name> | prefix-list
<prefix-list-name> ] } | { no ip pim [ sparse ] sg-expiry-timer { <expiry-time> | infinity } [ sg-list
<route-map-name> | prefix-list <prefix-list-name> ] } }
```

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
pim	PIM global configuration commands
sparse	(Optional) PIM ASM
sg-expiry-timer	Adjust expiry time for PIM ASM (S,G) routes
<i>expiry-time</i>	Expiry timer interval in seconds
infinity	Never expire (S,G) route due to data inactivity
sg-list	(Optional) Specifies route-map for (S,G)s to apply the expiry timer
<i>route-map-name</i>	(Optional) Route-map name
prefix-list	(Optional) Specifies prefix-list for (S,G)s to apply the expiry timer
<i>prefix-list-name</i>	(Optional) Name of prefix-list

### Command Mode

- /exec/configure /exec/configure/vrf

# ip pim sparse-mode

ip pim sparse-mode | no ip pim [ sparse-mode ]

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
pim	PIM interface configuration commands
sparse-mode	Configures sparse-mode PIM on interface

## Command Mode

- /exec/configure/if-igp

# ip pim spt-switch-graceful

[no] ip pim spt-switch-graceful

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
pim	PIM global configuration commands
spt-switch-graceful	Graceful switch-over to SPT

## Command Mode

- /exec/configure /exec/configure/vrf

## ip pim ssm

```
{ ip pim ssm { { range { <group> + | none } } | { route-map <route-map-name> } | { prefix-list
<prefix-list-name> } } | no ip pim ssm { { range { <group> + | none } } | { route-map <route-map-name> }
| { prefix-list <prefix-list-name> } } }
```

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
pim	PIM global configuration commands
ssm	Source Specific Multicast (SSM) groups
range	Configure explicit group ranges
<i>group</i>	List of group range prefixes
route-map	Group range route-map policy for SSM range
<i>route-map-name</i>	Route-map name
prefix-list	Group range prefix-list policy for SSM range
<i>prefix-list-name</i>	Name of prefix-list
none	Remove all SSM group ranges

### Command Mode

- /exec/configure /exec/configure/vrf

## ip pim state-limit

```
{ { ip pim state-limit <max-states> [ reserved <route-map-name> <max-reserved> ] } | { no ip pim state-limit
[ <max-states> [ reserved <route-map-name> <max-reserved> ] ] } }
```

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
pim	PIM global configuration commands
state-limit	Configures State limit
<i>max-states</i>	Maximum (*,G)/(S,G) entries allowed in this VRF
reserved	(Optional) Configures Reserved limit
<i>route-map-name</i>	(Optional) Route-map name
<i>max-reserved</i>	(Optional) Maximum reserved (*,G)/(S,G) entries allowed in this VRF

### Command Mode

- /exec/configure /exec/configure/vrf

# ip pim strict-rfc-compliant

{ { ip pim strict-rfc-compliant } | { no ip pim strict-rfc-compliant } }

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
pim	PIM interface configuration commands
strict-rfc-compliant	Dont process joins from unknown neighbors on this interface

## Command Mode

- /exec/configure/if-igp

# ip pim strict-rfc-compliant

{ { ip pim strict-rfc-compliant } | { no ip pim strict-rfc-compliant } }

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
pim	PIM global configuration commands
strict-rfc-compliant	Don't process joins from unknown neighbors

## Command Mode

- /exec/configure /exec/configure/vrf



# ip ping source-interface

[no] ip ping source-interface <ifnum> [ vrf { <vrf-name> | <vrf-known-name> } ]

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
ping	Configure ping client
source-interface	Configure source interface feature for ping client
<i>ifnum</i>	Source interface
vrf	(Optional) Configure VRF
<i>vrf-name</i>	(Optional) VRF name
<i>vrf-known-name</i>	(Optional) Known VRF name

## Command Mode

- /exec/configure

## ip policy route-map

ip policy route-map <route-map-name> | no ip policy route-map [ <route-map-name> | <route-map-name> ]

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
policy	Configure PBR feature
route-map	Route-map for PBR
<i>route-map-name</i>	Route-map name
<i>route-map-name</i>	(Optional) Route-map name
<i>route-map-name</i>	(Optional) Known route-map name

### Command Mode

- /exec/configure/if-igp /exec/configure/if-vni/

# ip port-unreachable

[no] ip port-unreachable

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
port-unreachable	Enable sending ICMP port-unreachable

## Command Mode

- /exec/configure/if-igp /exec/configure/if-mgmt-config

# ip port access-group

[no] ip port access-group <name> <inout>

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
port	Port policy
access-group	Specify access control for packets
<i>name</i>	List name
<i>inout</i>	Traffic direction

## Command Mode

- /exec/configure/system/acl

## ip port access-group

[no] ip port access-group <acl-ip-name> <inout>

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
port	Port policy
access-group	Specify access control for packets
<i>acl-ip-name</i>	List name
<i>inout</i>	Traffic direction

### Command Mode

- /exec/configure/if-set-acl-l2

## ip pps threshold unicast-forward

ip pps threshold unicast-forward <size> [ <logInterval> ] | no ip pps threshold unicast-forward

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
pps	Packets per second configuration
threshold	Threshold value for PPS
unicast-forward	Counter for unicast forward packets
<i>size</i>	PPS threshold value (1-30000)
<i>logInterval</i>	(Optional) Syslog interval in seconds (default=1)

### Command Mode

- /exec/configure

# ip prefix-list description

```
{ ip prefix-list <ipv4-pfl-name> description <line> } | { no ip prefix-list <ipv4-pfl-name> description }
```

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
prefix-list	Build a prefix list
<i>ipv4-pfl-name</i>	Name of prefix-list
<i>ipv4-pfl-name</i>	Known prefix-list name
description	Description of the IP prefix list
<i>line</i>	IP prefix-list description string

## Command Mode

- /exec/configure

# ip prefix-list permit

```
{ ip prefix-list <ipv4-pfl-name> [ seq <seq> ] { permit | deny } <prefix> { [ eq <equal> ] | [ ge <greater> ] | [ le <lesser> ] } [ mask <mask> ] } | { no ip prefix-list { <ipv4-pfl-name> | <ipv4-pfl-name> } [ seq <seq> ] [ { permit | deny } <prefix> { [ eq <equal> ] | [ ge <greater> ] | [ le <lesser> ] } [ mask <mask> ] ] }
```

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
prefix-list	Build a prefix list
<i>ipv4-pfl-name</i>	Name of prefix-list
<i>ipv4-pfl-name</i>	Name of prefix-list
<i>ipv4-pfl-name</i>	Known prefix-list name
seq	(Optional) Sequence number of an entry
<i>seq</i>	(Optional) Sequence number
permit	Specify routes to forward
deny	Specify routes to reject
<i>prefix</i>	IP prefix network/length, e.g., 35.0.0.0/8
eq	(Optional) Exact prefix length to be matched
<i>equal</i>	(Optional) Exact prefix length
ge	(Optional) Minimum prefix length to be matched
<i>greater</i>	(Optional) Minimum prefix length
le	(Optional) Maximum prefix length to be matched
<i>lesser</i>	(Optional) Maximum prefix length
mask	(Optional) Explicit match mask
<i>mask</i>	(Optional) Mask to use with the prefix

## Command Mode

- /exec/configure



# ip proxy-arp

{ ip proxy-arp | no ip proxy-arp }

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
proxy-arp	Configure proxy ARP

## Command Mode

- /exec/configure/if-igp /exec/configure/if-vlan-common

## ip radius source-interface

[no] ip radius source-interface | ip radius source-interface <interface>

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
radius	Radius server
source-interface	Source interface to be used to reach radius server
<i>interface</i>	Interface Description

### Command Mode

- /exec/configure

# ip redirect syslog

ip redirect syslog [ <logInterval> ] | no ip redirect syslog

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
redirect	IP redirect feature
syslog	syslog of IP redirect
<i>logInterval</i>	(Optional) Syslog interval in seconds (default=60)

## Command Mode

- /exec/configure

# ip redirects

ip redirects | no ip redirects

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
redirects	Send ICMP Redirect messages

## Command Mode

- /exec/configure/if-igp /exec/configure/if-mgmt-config

## ip rip authentication key-chain

```
{ ip rip authentication key-chain <keychain> | no ip rip authentication key-chain [ <keychain> ] }
```

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
rip	RIP configuration commands
authentication	Authentication control
key-chain	Set authentication key-chain
<i>keychain</i>	Name of key-chain

### Command Mode

- /exec/configure/if-igp

## ip rip authentication mode text

{ ip rip authentication mode { text | md5 } | no ip rip authentication mode [ { text | md5 } ] }

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
rip	RIP configuration commands
authentication	RIP authentication control
mode	Set authentication mode
text	Clear text authentication
md5	Keyed message digest

### Command Mode

- /exec/configure/if-igp

# ip rip poison-reverse

[no] { ipv6 | ip } rip poison-reverse

## Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
ip	Configure IP features
rip	RIP configuration commands
poison-reverse	RIP poison reverse (default split-horizon)

## Command Mode

- /exec/configure/if-igp

## ip rip route-filter route in

[no] { ipv6 | ip } rip route-filter { route-map <map> | prefix-list <list> } { in | out }

### Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
ip	Configure IP features
rip	RIP configuration commands
route-filter	RIP route filtering
route-map	route-map policy to constrain route filtering
prefix-list	prefix-list policy to constrain route filtering
<i>map</i>	Route-map name
<i>list</i>	prefix-list name
in	inbound
out	outbound

### Command Mode

- /exec/configure/if-igp



# ip route

```
[no] ip route { <ip-addr> <ip-mask> | <ip-prefix> } { <interface> | { { <pin-interface> <next-hop> } | { <next-hop> | <nh-prefix> } } | { <vlan-interface> } } [ vrf { <vrf-name> | <vrf-known-name> } ] [ track <object-num> ] [ name <rt-name> ] [ tag <tag-value> | <pref> ] +
```

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
route	Route information
<i>ip-addr</i>	IP prefix in format i.i.i.i
<i>ip-mask</i>	IP network mask in format m.m.m.m
<i>ip-prefix</i>	IP prefix and network mask length in format x.x.x.x/m
<i>pin-interface</i>	Pin interface
<i>next-hop</i>	IP next-hop address in format i.i.i.i
<i>nh-prefix</i>	IP next-hop prefix in format i.i.i.i/m
<i>interface</i>	Interface for interface static routes
<i>vlan-interface</i>	vlan interface
track	(Optional) Specify the Object to be Tracked
<i>object-num</i>	(Optional) Track Object Number
name	(Optional) Specify name of the next hop
<i>rt-name</i>	(Optional) Name of next hop
<i>pref</i>	(Optional) Route preference
tag	(Optional) Supply tag value with static route
<i>tag-value</i>	(Optional) 32-bit value for tag
vrf	(Optional) VRF for next-hop if different from this vrf
<i>vrf-name</i>	(Optional) VRF name
<i>vrf-known-name</i>	(Optional) Known VRF name

## Command Mode

- /exec/configure /exec/configure/config-mgmt /exec/configure/vrf

## ip route static bfd

[no] ip route static bfd <pin-interface> <next-hop>

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
route	Route information
static	Static route based configuration
bfd	Enable bfd detection on static route
<i>pin-interface</i>	Interface on which bfd has to be enabled
<i>next-hop</i>	IP next-hop address in format i.i.i.i

### Command Mode

- /exec/configure /exec/configure/config-mgmt /exec/configure/vrf

# ip router eigrp

[no] { ip | ipv6 } router eigrp <eigrp-ptag>

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
ipv6	Configure IPv6 features
router	Enable a routing process
eigrp	Configure an EIGRP routing process on interface
<i>eigrp-ptag</i>	Process tag

## Command Mode

- /exec/configure/if-igp

## ip router isis

[no] ip router isis <tag>

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
router	Enable a routing process
isis	Intermediate System to Intermediate System (IS-IS)
<i>tag</i>	Process tag

### Command Mode

- /exec/configure/if-igp

## ip router ospf area

[no] ip router ospf <tag> area { <area-id-ip> | <area-id-int> } [ secondaries none ]

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
router	Enable a routing process
ospf	OSPF configuration commands
<i>tag</i>	Process tag
area	Area associated with interface
<i>area-id-ip</i>	OSPF area ID in IP address format
<i>area-id-int</i>	OSPF area ID as a decimal format
secondaries	(Optional) Do not include secondary IP addresses
none	(Optional) Do not include secondary IP addresses

### Command Mode

- /exec/configure/if-igp /exec/configure/if-gre-tunnel /exec/configure/if-mpls-tunnel /exec/configure/if-mgmt-config

## ip router ospf multi-area

[no] ip router ospf [ <tag> ] multi-area <area-id-ip>

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
router	Enable a routing process
ospf	OSPF configuration commands
<i>tag</i>	(Optional) Process tag
multi-area	Multi area associated with interface
<i>area-id-ip</i>	Area Id as an integer or ip address

### Command Mode

- /exec/configure/if-igp /exec/configure/if-gre-tunnel /exec/configure/if-mpls-tunnel /exec/configure/if-mgmt-config

# ip router rip

[no] { ipv6 | ip } router rip <tag>

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
ipv6	Configure IPv6 features
router	Enable a routing process
rip	Routing Information Protocol (RIP)
<i>tag</i>	Process tag

## Command Mode

- /exec/configure/if-igp

## ip routing multicast holddown

[no] { ip | ipv4 } routing multicast holddown [ <route-holddown-sec> | [ disable-init-phase ] ]

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
ipv4	Configure IP features
routing	Configure routing information
multicast	Configure multicast
holddown	Initial holddown period
<i>route-holddown-sec</i>	(Optional) Delay in seconds [70..3600], 0 to disable holddown
disable-init-phase	THIS KEYWORD OR VARIABLE IS NOT SUPPORTED

### Command Mode

- /exec/configure



## ip routing multicast mfdm-buffer-route-count

{ ip | ipv4 } routing multicast mfdm-buffer-route-count { <size> } | no { ip | ipv4 } routing multicast mfdm-buffer-route-count [ <size> ]

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
ipv4	Configure IP features
routing	Configure routing information
multicast	Configure multicast
mfdm-buffer-route-count	mfdm buffer route size
<i>size</i>	size in numbers

### Command Mode

- /exec/configure

# ip routing multicast software-replicate

[no] ip routing multicast software-replicate [ iif ] [ fabric ]

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
routing	Configure routing information
multicast	Configure multicast
software-replicate	Enable software replication of PIM ASM leak packets
iif	THIS KEYWORD OR VARIABLE IS NOT SUPPORTED
fabric	(Optional) Enable software replication to fabric

## Command Mode

- /exec/configure

# ip secondary

ip { <ipaddress> | <ipprefix> } secondary | no ip { <ipaddress> | <ipprefix> } secondary

## Syntax Description

no	Negate a command or set its defaults
ip	Enable HSRP IPv4 and set the virtual IP address
<i>ipaddress</i>	Virtual IP address
<i>ipprefix</i>	Virtual IP address and mask length
secondary	Make this IP address a secondary virtual IP address

## Command Mode

- /exec/configure/if-eth-any/hsrp\_ipv4

## ip service-reflect destination to mask-len source

[no] ip service-reflect destination <in-grp> to <out-grp> mask-len <g-mlen> source <in-out-src> [ to <out-src> mask-len <s-mlen> ] [ to-udp <udp-to-src-port> <udp-to-dest-port> ] [ to-udp-src-port <udp-to-src-port> ] [ to-udp-dest-port <udp-to-dest-port> ] [ static-oif <out-if> ]

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
service-reflect	Service Reflect config command
destination	Translation information
<i>in-grp</i>	Incoming Group/Source Address
to	
<i>out-grp</i>	Outgoing Group/Destination Address
mask-len	
<i>g-mlen</i>	Group Mask Length
source	
<i>in-out-src</i>	Source Address
to	(Optional)
<i>out-src</i>	(Optional) Outgoing Source Address
mask-len	(Optional)
<i>s-mlen</i>	(Optional) Source Mask Length
to-udp	(Optional)
to-udp-src-port	(Optional) to udp source port
to-udp-dest-port	(Optional) to udp destination port
<i>udp-to-src-port</i>	(Optional) UDP Src Port
<i>udp-to-dest-port</i>	(Optional) UDP Dest Port
static-oif	(Optional) static oif
<i>out-if</i>	(Optional) out interface

### Command Mode

- /exec/configure /exec/configure/vrf

## ip service-reflect mode ingress

[no] ip service-reflect mode { ingress | egress } <prefix>

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
service-reflect	Service Reflect config command
mode	Select NAT rewrite mode
ingress	Ingress NAT
egress	Egress NAT
<i>prefix</i>	List of group range prefixes

### Command Mode

- /exec/configure /exec/configure/vrf

# ip service-reflect mode regular

[no] ip service-reflect mode { regular | fast-pass [ no-rewrite ] }

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
service-reflect	Service Reflect config command
mode	Select one-pass or three-pass mode
regular	Regular mode
fast-pass	Fast Pass Mode
no-rewrite	(Optional) No Mac Rewrite

## Command Mode

- /exec/configure

## ip service-reflect source-interface

{ ip service-reflect source-interface <interface> } | { no ip service-reflect source-interface [ <interface> ] }

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
service-reflect	Service Reflect config command
source-interface	Source Interface
<i>interface</i>	Loopback interface

### Command Mode

- /exec/configure /exec/configure/vrf

# ip sla

[no] ip sla <index>

## Syntax Description

no	
ip	
sla	Service Level Agreement (SLA)
<i>index</i>	Entry Number

## Command Mode

- /exec/configure



# ip sla

ip sla <index>

## Syntax Description

ip	
sla	Service Level Agreement (SLA)
<i>index</i>	Entry Number

## Command Mode

- /exec/configure

## ip sla group schedule

```
{ no ip sla group schedule <group-id> | ip sla group schedule <group-id> { <operation-ids> schedule-period
<schedule-period-seconds> { [ ageout <ageout-seconds> ] [ frequency { <frequency-seconds> | range
<random-frequency-range> } ] [ life { forever | <life-seconds> } ] [ start-time { <hhmm> [ { January | February
| March | April | May | June | July | August | September | October | November | December } <day> | <day> [
January | February | March | April | May | June | July | August | September | October | November | December
] ] | pending | now | after <hhmm> } ] } + } }
```

### Syntax Description

<i>operation-ids</i>	schedule-period
<i>frequency</i>	(Optional) <frequency-seconds>
<i>start-time</i>	(Optional) <hhmm>
<i>October</i>	(Optional) November
<i>life</i>	(Optional) forever
no	
ip	
sla	Service Level Agreement (SLA)
group	Group Configuration or Group Scheduling
schedule	Group scheduling
<i>group-id</i>	Group schedule entry number
schedule-period	Group schedule period range
<i>schedule-period-seconds</i>	seconds
range	(Optional) Group operation frequency-range for random scheduling
<i>frequency-seconds</i>	(Optional) Specify frequency in seconds
<i>random-frequency-range</i>	(Optional) Specify frequency range in seconds
ageout	(Optional) How long to keep this Entry when inactive
<i>ageout-seconds</i>	(Optional) Ageout Seconds
<i>life-seconds</i>	(Optional) Life seconds (default 3600)
forever	(Optional) continue running forever
after	(Optional) Start after a certain amount of time from now
<i>hhmm</i>	(Optional) Start time (hh:mm:ss)

January	(Optional) Month of year
February	(Optional) Month of year
March	(Optional) Month of year
April	(Optional) Month of year
May	(Optional) Month of year
June	(Optional) Month of year
July	(Optional) Month of year
August	(Optional) Month of year
September	(Optional) Month of year
October	(Optional) Month of year
November	(Optional) Month of year
December	(Optional) Month of year
<i>day</i>	(Optional) Day of month
now	(Optional) Start now
pending	(Optional) Start pending

**Command Mode**

- /exec/configure

## ip sla group schedule add

```
ip sla group schedule <add-group-id> add <operation-ids>
```

### Syntax Description

ip	
sla	Service Level Agreement (SLA)
group	Group Configuration or Group Scheduling
schedule	Group scheduling
<i>add-group-id</i>	Group schedule entry number
add	Add probes to existing group
<i>operation-ids</i>	Multiple probe ID's to be group scheduled

### Command Mode

- /exec/configure

# ip sla group schedule delete

ip sla group schedule <del-group-id> delete <operation-ids>

## Syntax Description

ip	
sla	Service Level Agreement (SLA)
group	Group Configuration or Group Scheduling
schedule	Group scheduling
<i>del-group-id</i>	Group schedule entry number
delete	Delete probes from existing group
<i>operation-ids</i>	Multiple probe ID's to be group scheduled

## Command Mode

- /exec/configure

## ip sla group schedule reschedule

ip sla group schedule <reschedule-group-id> reschedule

### Syntax Description

<i>reschedule</i>	
ip	
sla	Service Level Agreement (SLA)
group	Group Configuration or Group Scheduling
schedule	Group scheduling
<i>reschedule-group-id</i>	Group schedule entry number

### Command Mode

- /exec/configure

# ip sla logging traps

[no] ip sla logging traps

## Syntax Description

no	(Optional)
ip	
sla	Service Level Agreement (SLA)
logging	Enable Syslog
traps	Enable syslog traps

## Command Mode

- /exec/configure

## ip sla reaction-configuration react

```
[no] ip sla reaction-configuration <react-cfg-entry-num> react <monitored-element> | ip sla
reaction-configuration <react-cfg-entry-num> react <monitored-element> { [ action-type <action> ] [
threshold-value <rising-value> <falling-value> ] [ threshold-type { <neverImmed> | <consecutive> [
<consecutive-occurrences> ] | <xOfy> [ <x-value> <y-value> ] | <average> [ <n-attempts> ] } ] } +
```

### Syntax Description

<i>action-type</i>	(Optional) <action>
<i>threshold-type</i>	(Optional) <neverImmed>
no	
ip	
sla	Service Level Agreement (SLA)
reaction-configuration	IP SLAs Reaction-Configuration
<i>react-cfg-entry-num</i>	Entry Number
react	Reaction variable to be configured
<i>monitored-element</i>	monitored element
<i>action</i>	(Optional)
threshold-value	(Optional) Threshold Value
<i>rising-value</i>	(Optional) Upper limit for Threshold
<i>falling-value</i>	(Optional) Lower limit for Threshold
<i>neverImmed</i>	(Optional)
<i>consecutive</i>	(Optional)
<i>xOfy</i>	(Optional)
<i>average</i>	(Optional)
<i>consecutive-occurrences</i>	(Optional) Number of occurrences
<i>x-value</i>	(Optional) X value
<i>y-value</i>	(Optional) Y value
<i>n-attempts</i>	(Optional) N Value

### Command Mode

- /exec/configure



# ip sla reaction-trigger

[no] ip sla reaction-trigger <entry-num> <target-entry>

## Syntax Description

no	(Optional)
ip	
sla	Service Level Agreement (SLA)
reaction-trigger	IP SLAs Trigger Assignment
<i>entry-num</i>	Entry Number
<i>target-entry</i>	Target entry Number

## Command Mode

- /exec/configure

# ip sla reset

ip sla reset

## Syntax Description

ip	
sla	Service Level Agreement (SLA)
reset	IP SLAs Reset

## Command Mode

- /exec/configure

# ip sla responder

```
[no] ip sla responder [ { tcp-connect [ ipaddress <tcp-ip> ] port <tcp-port> } | { udp-echo [ ipaddress <udp-ip> ] port <udp-port> } ]
```

## Syntax Description

<i>tcp-connect</i>	(Optional) ipaddress
no	(Optional)
ip	
sla	
responder	Enable IP SLAs Responder
ipaddress	(Optional) Permanent address
<i>tcp-ip</i>	(Optional) IP Address or IP HostName
port	(Optional) Permanent port
<i>tcp-port</i>	(Optional) Port Number
udp-echo	(Optional) Setup udp-echo responder
<i>udp-ip</i>	(Optional) IP Address or IP HostName
<i>udp-port</i>	(Optional) Port Number

## Command Mode

- /exec/configure

# ip sla responder twamp

[no] ip sla responder twamp

## Syntax Description

no	(Optional)
ip	
sla	
responder	Enable IP SLAs Responder
twamp	Setup TWAMP responder

## Command Mode

- /exec/configure

# ip sla restart

ip sla restart <index>

## Syntax Description

ip	
sla	Service Level Agreement (SLA)
restart	Restart An Active Entry
<i>index</i>	Entry Number

## Command Mode

- /exec/configure

## ip sla schedule

```
{ no ip sla schedule <index> | ip sla schedule <index> { [ life { <life-seconds> | forever } ] [ start-time {
<hhmm> [ { January | February | March | April | May | June | July | August | September | October | November
| December } <day> | <day> [ January | February | March | April | May | June | July | August | September |
October | November | December ] ] | pending | now | { after <hhmm> } } ] [ ageout <ageout-seconds> ] [
recurring ] } + }
```

### Syntax Description

<i>life</i>	(Optional) <life-seconds>
<i>start-time</i>	(Optional) <hhmm>
<i>after</i>	(Optional) <hhmm>
no	
ip	
sla	Service Level Agreement (SLA)
schedule	Entry Scheduling
<i>index</i>	Entry Number
<i>life-seconds</i>	(Optional) Life seconds (default 3600)
forever	(Optional) continue running forever
<i>hhmm</i>	(Optional) Start time (hh:mm:ss)
January	(Optional) Month of year
February	(Optional) Month of year
March	(Optional) Month of year
April	(Optional) Month of year
May	(Optional) Month of year
June	(Optional) Month of year
July	(Optional) Month of year
August	(Optional) Month of year
September	(Optional) Month of year
October	(Optional) Month of year
November	(Optional) Month of year
December	(Optional) Month of year

<i>day</i>	(Optional) Day of month
<i>now</i>	(Optional) Start now
<i>pending</i>	(Optional) Start pending
<i>ageout</i>	(Optional) How long to keep this Entry when inactive
<i>ageout-seconds</i>	(Optional) Ageout Seconds
<i>recurring</i>	(Optional) Probe to be scheduled automatically every day

**Command Mode**

- /exec/configure

# ip sla server twamp

[no] ip sla server twamp

## Syntax Description

no	(Optional)
ip	
sla	
server	IPSLA IPPM server configuration
twamp	IPSLA IPPM TWAMP server configuration

## Command Mode

- /exec/configure



# ip source-route

[no] ip source-route

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
source-route	IP source routing option

## Command Mode

- /exec/configure

## ip source binding vlan interface

[no] ip source binding <ipaddr1> <macaddr> vlan <vlanid> interface <interface1>

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
source	IP source
binding	Static binding
<i>ipaddr1</i>	IP address
<i>macaddr</i>	MAC address
vlan	VLAN
<i>vlanid</i>	VLAN id
interface	interface
<i>interface1</i>	interface

### Command Mode

- /exec/configure

# ip split-horizon eigrp

[no] { ip | ipv6 } split-horizon eigrp <eigrp-ptag>

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
ipv6	Configure IPv6 features
split-horizon	Configures IP-EIGRP split-horizon on interface
eigrp	EIGRP interface configuration commands
<i>eigrp-ptag</i>	Process tag

## Command Mode

- /exec/configure/if-igp

## ip ssh source-interface

[no] ip ssh source-interface <ifnum> [ vrf { <vrf-name> | <vrf-known-name> } ]

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
ssh	Configure ssh
source-interface	Configure source interface feature for domain-lookup
<i>ifnum</i>	Source interface
vrf	(Optional) Configure VRF
<i>vrf-name</i>	(Optional) VRF name
<i>vrf-known-name</i>	(Optional) Known VRF name

### Command Mode

- /exec/configure

## ip summary-address eigrp ipv6 summary-address eigrp

```
{ [ no ] ip summary-address eigrp <eigrp-ptag> { { <address> <mask> } | { <prefix> } } [ <distance> ] [
leak-map <leak-map> ] | [ no ] ipv6 summary-address eigrp <eigrp-ptag> <ipv6-prefix> [ <distance> ] [
leak-map <leak-map> ] }
```

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
ipv6	Configure IPv6 features
summary-address	Configures IP-EIGRP summary address on interface
eigrp	EIGRP interface configuration commands
<i>eigrp-ptag</i>	Process tag
<i>address</i>	IP address
<i>mask</i>	IP network mask
<i>prefix</i>	IP prefix in slash format
<i>distance</i>	(Optional) Administrative distance
leak-map	(Optional) Allow dynamic prefixes based on the leak-map
<i>leak-map</i>	(Optional) leak-map name
<i>eigrp-ptag</i>	

### Command Mode

- /exec/configure/if-igp

# ip tacacs source-interface

[no] ip tacacs source-interface | ip tacacs source-interface <interface>

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
tacacs	Tacacs server
source-interface	Source interface to be used to reach tacacs server
<i>interface</i>	Interface Description

## Command Mode

- /exec/configure

# ip tcp mss

{ { no ip tcp mss } | { ip tcp mss <bytes> } }

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
tcp	Global TCP parameters
mss	Maximum segment size for TCP connections in bytes
<i>bytes</i>	Maximum segment size

## Command Mode

- /exec/configure /exec/configure/config-mgmt

# ip tcp path-mtu-discovery

{ { ip tcp path-mtu-discovery } | { no ip tcp path-mtu-discovery } }

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
tcp	Global TCP parameters
path-mtu-discovery	Enable path-MTU discovery on TCP

## Command Mode

- /exec/configure /exec/configure/config-mgmt



## ip tcp synwait-time

```
{ { no ip tcp synwait-time } | { ip tcp synwait-time <time> } }
```

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
tcp	Global TCP parameters
synwait-time	Set time to wait on new TCP connections
<i>time</i>	Wait time

### Command Mode

- /exec/configure /exec/configure/config-mgmt

## ip telnet source-interface

[no] ip telnet source-interface <ifnum> [ vrf { <vrf-name> | <vrf-known-name> } ]

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
telnet	Configure telnet
source-interface	Configure source interface feature for domain-lookup
<i>ifnum</i>	Source interface
vrf	(Optional) Configure VRF
<i>vrf-name</i>	(Optional) VRF name
<i>vrf-known-name</i>	(Optional) Known VRF name

### Command Mode

- /exec/configure

## ip tftp source-interface

```
[no] ip tftp source-interface <ifnum> [ vrf { <vrf-name> | <vrf-known-name> } ]
```

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
tftp	Configure TFTP client
source-interface	Configure source interface feature for TFTP client
<i>ifnum</i>	Source interface
vrf	(Optional) Configure VRF
<i>vrf-name</i>	(Optional) VRF name
<i>vrf-known-name</i>	(Optional) Known VRF name

### Command Mode

- /exec/configure

## ip traceroute source-interface

[no] ip traceroute source-interface <ifnum> [ vrf { <vrf-name> | <vrf-known-name> } ]

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
traceroute	Configure traceroute client
source-interface	Configure source interface feature for traceroute
<i>ifnum</i>	Source interface
vrf	(Optional) Configure VRF
<i>vrf-name</i>	(Optional) VRF name
<i>vrf-known-name</i>	(Optional) Known VRF name

### Command Mode

- /exec/configure

# ip ttl

[no] ip ttl <ttl\_value>

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Set ERSPAN IP options
ttl	Set the IP time-to-live value
<i>ttl_value</i>	

## Command Mode

- /exec/configure/config-monitor-erspan-src

# ip udp relay addrgroup

[no] ip udp relay addrgroup <obj-grp-name>

## Syntax Description

ip	Configure IP features
no	(Optional) Negate a command or set its defaults
udp	Enable/disable UDP forwarding
relay	UDP relay agent parameters
addrgroup	UDP Relay IP Address group
<i>obj-grp-name</i>	Object grp Name

## Command Mode

- /exec/configure/if-igp

# ip udp relay subnet-broadcast

[no] ip udp relay subnet-broadcast

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
udp	Enable/disable UDP forwarding
relay	UDP relay agent parameters
subnet-broadcast	Enable/disable UDP forwarding for subnet-broadcast

## Command Mode

- /exec/configure/if-igp

# ip unnumbered

ip unnumbered <interface> | no ip unnumbered [ <interface> ]

## Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
unnumbered	Configure interface as unnumbered
<i>interface</i>	Interface with IP address

## Command Mode

- /exec/configure/ppm-ethernet-switch /exec/configure/if-p2p /exec/configure/if-gre-tunnel /exec/configure/if-any-tunnel /exec/configure/if-port-channel-sub /exec/configure/if-vlan



# ip unreachable

[no] ip unreachable

## Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
unreachables	Enable sending ICMP unreachable (other than port-unreachable)

## Command Mode

- /exec/configure/if-igp /exec/configure/if-mgmt-config

## ip verify source dhcp-snooping-vlan

[no] ip verify source dhcp-snooping-vlan

### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
verify	Configure Unicast Reverse Path Forwarding or IP Source Guard
source	IP Source Guard related commands
dhcp-snooping-vlan	Vlans on which snooping is enabled

### Command Mode

- /exec/configure/if-switching

## ip verify unicast source reachable-via rx

```
[no] ip verify unicast source reachable-via [ { rx [ allow vni-hosts ] | any [ allow-default ] } [ policy {
<policy-name> | <acl_pol_name> } ] ] | ip verify unicast source reachable-via { rx [ allow vni-hosts ] | any [
allow-default ] } [ policy { <policy-name> | <acl_pol_name> } ]
```

### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
verify	Configure Unicast Reverse Path Forwarding or IP Source Guard
unicast	Unicast Reverse Path Forwarding
source	Validation of source address
reachable-via	Specify reachability check to apply to the source address
rx	(Optional) Source is reachable via interface on which packet was received
allow	THIS KEYWORD OR VARIABLE IS NOT SUPPORTED
vni-hosts	THIS KEYWORD OR VARIABLE IS NOT SUPPORTED
any	(Optional) Source is reachable via any interface
allow-default	(Optional) Loose Default Route Unicast Reverse Path Forwarding
policy	THIS KEYWORD OR VARIABLE IS NOT SUPPORTED
<i>policy-name</i>	(Optional) An uRPF fail policy name
<i>acl_pol_name</i>	(Optional) An existing access-rules policy

### Command Mode

- /exec/configure/if-igp

# ipv4

[no] ipv4 <aclname>

## Syntax Description

ipv4	Specify the ipv4 acl name
<i>aclname</i>	ACL name to be applied

## Command Mode

- /exec/configure/nfm-filter

# ipv4

[no] ipv4 <aclname>

## Syntax Description

ipv4	Specify the ipv4 acl name
<i>aclname</i>	ACL name to be applied

## Command Mode

- /exec/configure/nfm-filter

# ipv6

[no] ipv6 <aclname>

## Syntax Description

ipv6	Specify the ipv6 acl name
<i>aclname</i>	ACL name to be applied

## Command Mode

- /exec/configure/nfm-filter

# ipv6

[no] ipv6 <aclname>

## Syntax Description

ipv6	Specify the ipv6 acl name
<i>aclname</i>	ACL name to be applied

## Command Mode

- /exec/configure/nfm-filter

# ipv6 access-class

[no] ipv6 access-class <acl-ipv6-name> <inout>

## Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
access-class	Specify IPv6 access control for packets
<i>acl-ipv6-name</i>	List name
<i>inout</i>	Traffic direction

## Command Mode

- /exec/configure/line



# ipv6 access-list

[no] ipv6 access-list <acl-ipv6-name> [ client <clienttype> <clientID> ]

## Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
access-list	Configure access list
<i>acl-ipv6-name</i>	List name
client	THIS KEYWORD OR VARIABLE IS NOT SUPPORTED
<i>clienttype</i>	THIS KEYWORD OR VARIABLE IS NOT SUPPORTED
<i>clientID</i>	THIS KEYWORD OR VARIABLE IS NOT SUPPORTED

## Command Mode

- /exec/configure

## ipv6 access-list match-local-traffic

[no] ipv6 access-list match-local-traffic | ipv6 access-list match-local-traffic

### Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
access-list	Configure access list
match-local-traffic	Enable access-list matching for locally generated traffic

### Command Mode

- /exec/configure

# ipv6 address

```
[no] ipv6 address [ { autoconfig [ default ] | [ <ipv6-prefix> [ eui64 ] [ use-bia ] [ route-preference <pref> ] [ tag <tag> ] [ anycast ] } ] | ipv6 address { autoconfig [ default ] | [ <ipv6-prefix> [ eui64 ] [ use-bia ] [ route-preference <pref> ] [ tag <tag> ] [ anycast ] [ aggregate-prefix-length <prefix-length> ] } }
```

## Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
address	Configure IPv6 address on interface
autoconfig	(Optional) Configure IPv6 Stateless address autoconfig
default	(Optional) For SLAAC, adds default route and the nh would be fetched from RA source address
eui64	(Optional) Configure Extended Unique Identifier for the low-order 64 bits
use-bia	(Optional) use BIA
anycast	(Optional) Configure IPv6 anycast address on interface
route-preference	(Optional) U6RIB route preference for local/direct routes
<i>pref</i>	(Optional) Local/direct route preference
tag	(Optional) U6RIB route tag value for local/direct routes
<i>tag</i>	(Optional) Local/direct tag value
aggregate-prefix-length	(Optional) Prefix-Length for AM Route Aggregation
<i>prefix-length</i>	(Optional) Aggregation Prefix-Length Value

## Command Mode

- /exec/configure/if-igp /exec/configure/if-any-tunnel /exec/configure/if-vsan /exec/configure/if-mgmt-config

# ipv6 address

```
{ ipv6 address <ipv6-prefix> | no ipv6 address [ <ipv6-prefix> ] }
```

## Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
address	Configure IPv6 address on bridge

## Command Mode

- /exec/configure/app-hosting-bridge

# ipv6 address dhcp

[no] ipv6 address dhcp

## Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
address	Configure IPv6 address on interface
dhcp	Configure IPv6 address from a dhcp server

## Command Mode

- /exec/configure/if-vlan /exec/configure/if-ethernet /exec/configure/if-mgmt-config /exec/configure/if-ethernet-all /exec/configure/if-sub

## ipv6 address use-link-local-only

[no] ipv6 address use-link-local-only | ipv6 address use-link-local-only

### Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
address	Configure IPv6 address on interface
use-link-local-only	Enable IPv6 on interface using only a single link-local address

### Command Mode

- /exec/configure/if-igp /exec/configure/if-mgmt-config /exec/configure/if-gre-tunnel /exec/configure/if-6to4-tunnel /exec/configure/if-vsan

# ipv6 adjacency-stale-timer

```
{ { ipv6 [ icmp ] adjacency-stale-timer <stale-time> } | { no ipv6 [ icmp ] adjacency-stale-timer [ <stale-time> ] } }
```

## Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
icmp	(Optional) Configure icmp parameters
adjacency-stale-timer	When probing for an adjacency begins
<i>stale-time</i>	Seconds after adjacency uptime

## Command Mode

- /exec/configure

## ipv6 adjacency route distance

{ ipv6 adjacency route distance <pref> } | { no ipv6 adjacency route distance }

### Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
adjacency	Configure Adjmgr
route	route
distance	admin-distance
<i>pref</i>	preference

### Command Mode

- /exec/configure



# ipv6 amt gateway

[no] ipv6 amt gateway

## Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
amt	AMT global configuration commands
gateway	Configures IPv6 AMT gateway functionality

## Command Mode

- /exec/configure /exec/configure/vrf

# ipv6 amt relay

[no] ipv6 amt relay

## Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
amt	AMT global configuration commands
relay	Configures IPv6 AMT relay functionality

## Command Mode

- /exec/configure /exec/configure/vrf

# ipv6 destination

{ ipv6 { destination | source } <addr> } | { no ipv6 { destination | source } }

## Syntax Description

no	Negate a command or set its defaults
ipv6	specify flow ipv6 address
source	specify flow source ipv6 address
destination	specify flow destination ipv6 address

## Command Mode

- /exec/configure/configngoamprofileflow

# ipv6 dhcp guard

[no] ipv6 dhcp guard [ attach-policy <policy\_name> ]

## Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
<i>policy_name</i>	(Optional) policy name for feature DHCP Guard

## Command Mode

- /exec/configure/if-switching

# ipv6 dhcp guard

[no] ipv6 dhcp guard [ attach-policy <policy\_name> ]

## Syntax Description

no	(Optional) Negate a command or set its defaults
<i>policy_name</i>	(Optional) policy name for feature DHCP Guard

## Command Mode

- /exec/configure/vlan-config

## ipv6 dhcp guard policy

[no] ipv6 dhcp guard policy <policy\_name>

### Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
<i>policy_name</i>	Name of the dhcp guard policy

### Command Mode

- /exec/configure

# ipv6 dhcp relay

[no] ipv6 dhcp relay

## Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
dhcp	Configure DHCPv6 relay
relay	Configure DHCPv6 relay agent

## Command Mode

- /exec/configure

## ipv6 dhcp relay address

[no] ipv6 dhcp relay address [ <ip-addr-val> [ use-vrf <vrf-name> ] [ interface <interface-name> ] ] | no ipv6 dhcp relay address [ <ip-addr-val> [ interface <interface-name> ] [ use-vrf <vrf-name> ] ]

### Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
dhcp	Configure DHCPv6 relay
relay	Configure DHCPv6 relay agent
address	Configure DHCPv6 server relay address
use-vrf	(Optional) server address VRF membership
<i>vrf-name</i>	(Optional) VRF name
interface	(Optional) Destination interface for the relay address
<i>interface-name</i>	(Optional) Destination interface

### Command Mode

- /exec/configure/if-igp



# ipv6 dhcp relay address ipv6 dhcp relay address

ipv6 dhcp relay address <ip-addr-val> [ use-vrf <vrf-name> ] [ interface <interface-name> ] | ipv6 dhcp relay address <ip-addr-val> [ interface <interface-name> ] [ use-vrf <vrf-name> ]

## Syntax Description

ipv6	Configure IPv6 features
dhcp	Configure DHCPv6 relay
relay	Configure DHCPv6 relay agent
address	Configure DHCPv6 server relay address
use-vrf	(Optional) server address VRF membership
<i>vrf-name</i>	(Optional) VRF name
interface	(Optional) Destination interface for the relay address
<i>interface-name</i>	(Optional) Destination interface

## Command Mode

- /exec/configure/if-igp /exec/configure/ppm-ethernet-switch /exec/configure/ppm-port-channel-switch

# ipv6 dhcp relay option79

[no] ipv6 dhcp relay option79

## Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
dhcp	Configure DHCPv6 relay
relay	DHCPv6 relay agent parameters
option79	Relay agent option79

## Command Mode

- /exec/configure

# ipv6 dhcp relay option type cisco

[no] ipv6 dhcp relay option type cisco

## Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
dhcp	Configure DHCPv6 relay
relay	DHCPv6 relay agent parameters
option	Relay agent option
type	Relay agent option type
cisco	Use Cisco proprietary options

## Command Mode

- /exec/configure

# ipv6 dhcp relay option vpn

[no] ipv6 dhcp relay option vpn

## Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
dhcp	Configure DHCPv6 relay
relay	DHCPv6 relay agent parameters
option	Insert DHCPv6 relay information in Relay forward
vpn	Enable DHCPv6 relay support across VRFs

## Command Mode

- /exec/configure

# ipv6 dhcp relay prefix-delegation route

[no] ipv6 dhcp relay prefix-delegation route

## Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
dhcp	Configure DHCPv6 relay
relay	Configure DHCPv6 relay agent
prefix-delegation	Enable Prefix delegation
route	Enable route addition for delegated prefixes

## Command Mode

- /exec/configure

# ipv6 dhcp relay source-interface

[no] ipv6 dhcp relay source-interface

## Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
dhcp	Configure DHCPv6 relay
relay	Configure DHCPv6 relay agent
source-interface	Configure source interface for DHCPv6 relay

## Command Mode

- /exec/configure /exec/configure/if-igp

# ipv6 dhcp relay source-interface

ipv6 dhcp relay source-interface <interface-name>

## Syntax Description

ipv6	Configure IPv6 features
dhcp	Configure DHCPv6 relay
relay	Configure DHCPv6 relay agent
source-interface	Configure source interface for DHCPv6 relay
<i>interface-name</i>	Source interface

## Command Mode

- /exec/configure /exec/configure/if-igp

# ipv6 dhcp smart-relay

[no] ipv6 dhcp smart-relay

## Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
dhcp	Configure DHCP snooping or relay
smart-relay	Configure DHCP smart relay on interface

## Command Mode

- /exec/configure/if-igp



# ipv6 dhcp smart-relay global

[no] ipv6 dhcp smart-relay global

## Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
dhcp	Configure DHCP snooping or relay
smart-relay	Configure DHCP smart relay
global	Configure DHCP smart relay globally

## Command Mode

- /exec/configure

## ipv6 filter add

```
ipv6 filter add <seqno> { src-ipv6 <src-ipv6> dst-ipv6 <dst-ipv6> [ protocol <prot> [ l4-src-port { any | <l4-src-port> } l4-dst-port { any | <l4-dst-port> } ] ] } +
```

### Syntax Description

ipv6	Configure IPv6 Filter
filter	Define a 5-tuple filter
add	Add a 5-tuple
<i>seqno</i>	Sequence number
src-ipv6	Source IPv6 address
dst-ipv6	Destination IPv6 address
protocol	(Optional) Protocol
<i>prot</i>	(Optional)
l4-src-port	(Optional) Source L4 port
any	(Optional) Any L4 source port between 0 - 65535
<i>l4-src-port</i>	(Optional) Source L4 port number
l4-dst-port	(Optional) Destination L4 port
any	(Optional) Any L4 destination port between 0 - 65535
<i>l4-dst-port</i>	(Optional) Destination L4 port number

### Command Mode

- /exec/flow-path-tracer

# ipv6 flow rtp

[no] ipv6 flow rtp [ <ipv6-acl> ]

## Syntax Description

ipv6	ipv6 configuration
flow	Enable/Disable NetFlow configuration
rtp	configure rtp flows for packet loss monitoring
<i>ipv6-acl</i>	(Optional) ipv6 ACL name

## Command Mode

- /exec/configure

# ipv6 forward

ipv6 forward | no ipv6 forward

## Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
forward	Enable ipv6 forwarding on interface

## Command Mode

- /exec/configure/if-vlan /exec/configure/if-vlan-range

# ipv6 host

[no] ipv6 host <s0> [ <ipv6\_0> ] | ipv6 host <s0> <ipv6\_0>

## Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
host	Add an entry to the ip hostname table
<i>s0</i>	Name of Host

## Command Mode

- /exec/configure

## ipv6 link-local

[no] ipv6 link-local [ <ipv6-addr> ] | ipv6 link-local <ipv6-addr>

### Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
link-local	Change format of link-local address

### Command Mode

- /exec/configure/if-vlan /exec/configure/if-mgmt-config /exec/configure/if-gre-tunnel /exec/configure/if-6to4-tunnel /exec/configure/if-igp /exec/configure/if-vsan

# ipv6 link-local use-bia

[no] ipv6 link-local use-bia | ipv6 link-local use-bia

## Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
link-local	Change format of link-local address
use-bia	Use burnt-in-address to generate link-local

## Command Mode

- /exec/configure/if-igp

## ipv6 local policy route-map

ipv6 local policy route-map <route-map-name> | no ipv6 local policy route-map [ <route-map-name> | <route-map-name> ]

### Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
local	Configure local PBR feature
policy	Configure PBR feature
route-map	Route-map for PBR
<i>route-map-name</i>	Route-map name
<i>route-map-name</i>	(Optional) Route-map name
<i>route-map-name</i>	(Optional) Known route-map name

### Command Mode

- /exec/configure /exec/configure/vrf



# ipv6 mld group-timeout

```
{ { no ipv6 [ icmp ] mld group-timeout [ <time> ] } | { ipv6 [ icmp ] mld group-timeout <time> } }
```

## Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
icmp	(Optional) ICMPv6 commands
mld	MLD interface configuration commands
group-timeout	Configures group membership timeout
<i>time</i>	(Optional) Time in seconds

## Command Mode

- /exec/configure/if-igp

# ipv6 mld immediate-leave

[no] ipv6 [ icmp ] mld immediate-leave

## Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
icmp	(Optional) ICMPv6 commands
mld	MLD interface configuration commands
immediate-leave	Enable/Disable immediate leave

## Command Mode

- /exec/configure/if-igp

## ipv6 mld join-group

```
[no] ipv6 [ icmp ] mld join-group { { <group> [ source <source> ] } | { route-map <route-map-name> } }
```

### Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
icmp	(Optional) ICMPv6 commands
mld	MLD interface configuration commands
join-group	Configures local group membership for router
source	(Optional) Configures source address for MLDv2 (S,G) channel
route-map	Join group policy
<i>route-map-name</i>	Route-map name

### Command Mode

- /exec/configure/if-igp

# ipv6 mld last-member-query-count

```
{ { no ipv6 [ icmp ] mld last-member-query-count [ <count> ] } | { ipv6 [ icmp ] mld last-member-query-count <count> } }
```

## Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
icmp	(Optional) ICMPv6 commands
mld	MLD interface configuration commands
last-member-query-count	Configures number of group-specific Queries sent
<i>count</i>	(Optional) Count value

## Command Mode

- /exec/configure/if-igp

## ipv6 mld last-member-query-response-time

```
{ { no ipv6 [ icmp ] mld last-member-query-response-time [ <interval> ] } | { ipv6 [ icmp ] mld  
last-member-query-response-time <interval> } }
```

### Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
icmp	(Optional) ICMPv6 commands
mld	MLD interface configuration commands
last-member-query-response-time	Configures last member query response time
<i>interval</i>	(Optional) Interval in seconds

### Command Mode

- /exec/configure/if-igp

## ipv6 mld querier

```
{ { no ipv6 [ icmp ] mld { querier-timeout | query-timeout } [ <time> ] } | { ipv6 [ icmp ] mld { querier-timeout | query-timeout } <time> } }
```

### Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
icmp	(Optional) ICMPv6 commands
mld	MLD interface configuration commands
query-timeout	Configures querier timeout for MLDv1
querier-timeout	Configures querier timeout for MLDv1
<i>time</i>	(Optional) Time in seconds

### Command Mode

- /exec/configure/if-igp

# ipv6 mld query-interval

```
{ { no ipv6 [ icmp ] mld query-interval [ <interval> ] } | { ipv6 [ icmp ] mld query-interval <interval> } }
```

## Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
icmp	(Optional) ICMPv6 commands
mld	MLD interface configuration commands
query-interval	Configures interval between Query transmission
<i>interval</i>	(Optional) Interval in seconds

## Command Mode

- /exec/configure/if-igp

# ipv6 mld query-max-response-time

```
{ { no ipv6 [ icmp ] mld query-max-response-time [ <time> ] } | { ipv6 [ icmp ] mld query-max-response-time <time> } }
```

## Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
icmp	(Optional) ICMPv6 commands
mld	MLD interface configuration commands
query-max-response-time	Configures MRT for query messages
<i>time</i>	(Optional) Time in seconds

## Command Mode

- /exec/configure/if-igp



# ipv6 mld report-link-local-groups

[no] ipv6 [ icmp ] mld report-link-local-groups

## Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
icmp	(Optional) ICMPv6 commands
mld	MLD interface configuration commands
report-link-local-groups	Send Reports for link-local groups

## Command Mode

- /exec/configure/if-igp

# ipv6 mld report

```
{ { ipv6 [ icmp ] mld { report-policy | access-group } <route-map-name> } | { no ipv6 [ icmp ] mld {
report-policy | access-group } [ <route-map-name> ] } }
```

## Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
icmp	(Optional) ICMPv6 commands
mld	MLD interface configuration commands
report-policy	MLD report policy
access-group	MLD access-group
<i>route-map-name</i>	Route-map name

## Command Mode

- /exec/configure/if-igp

## ipv6 mld robustness-variable

```
{ { no ipv6 [ icmp ] mld robustness-variable [ <value> ] } | { ipv6 [ icmp ] mld robustness-variable <value> } }
```

### Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
icmp	(Optional) ICMPv6 commands
mld	MLD interface configuration commands
robustness-variable	Configures RFC defined Robustness Variable
<i>value</i>	(Optional) Count value

### Command Mode

- /exec/configure/if-igp

# ipv6 mld snooping

{ { no ipv6 mld snooping } | { ipv6 mld snooping } }

## Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
mld	MLD commands
snooping	Configures MLD Snooping

## Command Mode

- /exec/configure/vlan-config /exec/configure/bdomain

# ipv6 mld snooping

{ { no ipv6 mld snooping } | { ipv6 mld snooping } }

## Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
mld	MLD global configuration commands
snooping	Configures MLD Snooping

## Command Mode

- /exec/configure

## ipv6 mld snooping access-group

[no] ipv6 mld snooping access-group <route-map-name>

### Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
mld	MLD commands
snooping	Configures MLD Snooping
access-group	Filter or report policy for specified groups
<i>route-map-name</i>	route-map name

### Command Mode

- /exec/configure/vlan-config

# ipv6 mld snooping disable-nve-static-router-port

[no] ipv6 mld snooping disable-nve-static-router-port

## Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
mld	MLD global configuration commands
snooping	Configures MLD Snooping
disable-nve-static-router-port	Disable NVE as a static router port

## Command Mode

- /exec/configure

# ipv6 mld snooping disable-nve-static-router-port

[no] ipv6 mld snooping disable-nve-static-router-port

## Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
mld	MLD global configuration commands
snooping	Configures MLD Snooping
disable-nve-static-router-port	Disable NVE as a static router port

## Command Mode

- /exec/configure



# ipv6 mld snooping explicit-tracking

{ { no ipv6 mld snooping explicit-tracking } | { ipv6 mld snooping explicit-tracking } }

## Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
mld	MLD commands
snooping	Configures MLD Snooping
explicit-tracking	Configures Explicit Host tracking for VLAN/BD

## Command Mode

- /exec/configure/vlan-config /exec/configure/bdomain

## ipv6 mld snooping fast-leave

{ { no ipv6 mld snooping fast-leave } | { ipv6 mld snooping fast-leave } }

### Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
mld	MLD commands
snooping	Configures MLD Snooping
fast-leave	Configures Fast leave for the VLAN/BD

### Command Mode

- /exec/configure/vlan-config /exec/configure/bdomain

# ipv6 mld snooping group-timeout

[no] ipv6 mld snooping group-timeout { <timeout> | never }

## Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
mld	MLD commands
snooping	Configures MLD Snooping
group-timeout	Configures group membership timeout in all VLAN/BDs
<i>timeout</i>	Timeout in minutes
never	Never expire ports from group membership

## Command Mode

- /exec/configure

## ipv6 mld snooping group-timeout

[no] ipv6 mld snooping group-timeout { <timeout> | never }

### Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
mld	MLD commands
snooping	Configures MLD Snooping
group-timeout	Configures group membership timeout in VLAN/BD
<i>timeout</i>	Timeout in minutes
never	Never expire ports from group membership

### Command Mode

- /exec/configure/vlan-config /exec/configure/bdomain

# ipv6 mld snooping last-member-query-interval

```
{ { no ipv6 mld snooping last-member-query-interval [ <interval> ] } | { ipv6 mld snooping  
last-member-query-interval <interval> } }
```

## Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
mld	MLD commands
snooping	Configures MLD Snooping
last-member-query-interval	Configures interval between group-specific Query transmissions
<i>interval</i>	(Optional) Interval in seconds

## Command Mode

- /exec/configure/vlan-config /exec/configure/bdomain

# ipv6 mld snooping link-local-groups-suppression

[no] ipv6 mld snooping link-local-groups-suppression

## Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
mld	MLD global configuration commands
snooping	Configures MLD Snooping
link-local-groups-suppression	Configures Global link-local groups suppression

## Command Mode

- /exec/configure

# ipv6 mld snooping link-local-groups-suppression

[no] ipv6 mld snooping link-local-groups-suppression

## Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
mld	MLD commands
snooping	Configures MLD Snooping
link-local-groups-suppression	Configures VLAN/BD link-local groups suppression

## Command Mode

- /exec/configure/vlan-config /exec/configure/bdomain

## ipv6 mld snooping many-to-one-enhance

[no] ipv6 mld snooping many-to-one-enhance

### Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
mld	MLD global configuration commands
snooping	Configures MLD Snooping
many-to-one-enhance	Enable many to one optimization for n3500 platform

### Command Mode

- /exec/configure



## ipv6 mld snooping max-gq-miss

```
{ { no ipv6 mld snooping max-gq-miss } | { ipv6 mld snooping max-gq-miss <count> } }
```

### Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
mld	MLD global configuration commands
snooping	Configures MLD Snooping
max-gq-miss	Configure general query miss count
<i>count</i>	Max number of GQ misses allowed

### Command Mode

- /exec/configure

## ipv6 mld snooping mrouter interface

```
{ [ no ] ipv6 mld snooping mrouter interface [ vsi ] <interface> }
```

### Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
mld	MLD commands
snooping	Configures MLD Snooping
mrouter	Configures static multicast router interface
interface	Specify interface for static-mrouter
vsi	(Optional) Specify if this interface is a VSI
<i>interface</i>	Interface name

### Command Mode

- /exec/configure/vlan-config /exec/configure/bdomain

# ipv6 mld snooping mrouter vpc-peer-link

[no] ipv6 mld snooping mrouter vpc-peer-link

## Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
mld	MLD global configuration commands
snooping	Configures MLD Snooping
mrouter	Configures static multicast router interface
vpc-peer-link	Specify vpc-peer-link as static mrouter for all VLAN/BDs

## Command Mode

- /exec/configure

# ipv6 mld snooping optimise-multicast-flood

[no] ipv6 mld snooping optimise-multicast-flood

## Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
mld	MLD global configuration commands
snooping	Configures MLD Snooping
optimise-multicast-flood	Configures Optimized Multicast Flood (OMF) on all VLAN/BDs

## Command Mode

- /exec/configure

# ipv6 mld snooping proxy-leave use-group-address

```
{ { ipv6 mld snooping proxy-leave use-group-address } | { no ipv6 mld snooping proxy-leave use-group-address } }
```

## Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
mld	MLD commands
snooping	Configures MLD Snooping
proxy-leave	Proxy Leave
use-group-address	Use group address for proxy leave

## Command Mode

- /exec/configure/vlan-config /exec/configure/bdomain

## ipv6 mld snooping proxy general-queries

[no] ipv6 mld snooping proxy general-queries [ mrt <mrt> ]

### Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
mld	MLD commands
snooping	Configures MLD Snooping
proxy	Configures MLD snooping proxy
general-queries	Configures proxy for general-queries
mrt	(Optional) Configure max-response-time for the switch's proxy general-queries
<i>mrt</i>	(Optional) MRT in seconds

### Command Mode

- /exec/configure

## ipv6 mld snooping proxy general-queries

[no] ipv6 mld snooping proxy general-queries [ mrt <mrt> ]

### Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
mld	MLD commands
snooping	Configures MLD Snooping
proxy	Configures MLD snooping proxy
general-queries	Configures proxy for general-queries
mrt	(Optional) Configure max-response-time for the switch's proxy general-queries
<i>mrt</i>	(Optional) MRT in seconds

### Command Mode

- /exec/configure/vlan-config /exec/configure/bdomain

## ipv6 mld snooping querier-timeout

```
{ { no ipv6 mld snooping querier-timeout [ <time> ] } | { ipv6 mld snooping querier-timeout <time> } }
```

### Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
mld	MLD commands
snooping	Configures MLD Snooping
querier-timeout	Configures querier timeout for MLDv2
<i>time</i>	(Optional) Time in seconds

### Command Mode

- /exec/configure/vlan-config /exec/configure/bdomain



# ipv6 mld snooping querier

```
{ { no ipv6 mld snooping querier [ <querier> ] } | { ipv6 mld snooping querier <querier> } }
```

## Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
mld	MLD commands
snooping	Configures MLD Snooping
querier	Enables snooping querier

## Command Mode

- /exec/configure/vlan-config /exec/configure/bdomain

## ipv6 mld snooping query-interval

```
{ { no ipv6 mld snooping query-interval [ <interval> ] } | { ipv6 mld snooping query-interval <interval> } }
```

### Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
mld	MLD commands
snooping	Configures MLD Snooping
query-interval	Configures interval between query transmission
<i>interval</i>	(Optional) Interval in seconds

### Command Mode

- /exec/configure/vlan-config /exec/configure/bdomain

## ipv6 mld snooping query-max-response-time

```
{ { no ipv6 mld snooping query-max-response-time [ <time> ] } | { ipv6 mld snooping query-max-response-time <time> } }
```

### Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
mld	MLD commands
snooping	Configures MLD Snooping
query-max-response-time	Configures MRT for query messages
<i>time</i>	(Optional) Time in seconds

### Command Mode

- /exec/configure/vlan-config /exec/configure/bdomain

## ipv6 mld snooping report-flood all

```
{ { ipv6 mld snooping report-flood { all | interface <interface> } } | { no ipv6 mld snooping report-flood { all | interface <interface> } } }
```

### Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
mld	MLD commands
snooping	Configures MLD Snooping
report-flood	Configures Report flooding on a VLAN
interface	Specify interface for report flooding
all	Flood on ALL active ports of VLAN
<i>interface</i>	Interface name

### Command Mode

- /exec/configure/vlan-config /exec/configure/bdomain

# ipv6 mld snooping report-suppression

{ { no ipv6 mld snooping report-suppression } | { ipv6 mld snooping report-suppression } }

## Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
mld	MLD commands
snooping	Configures MLD Snooping
report-suppression	Configures MLDv1 Report Suppression for the VLAN/BD

## Command Mode

- /exec/configure/vlan-config /exec/configure/bdomain

# ipv6 mld snooping report-suppression

{ { no ipv6 mld snooping report-suppression } | { ipv6 mld snooping report-suppression } }

## Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
mld	MLD global configuration commands
snooping	Configures MLD Snooping
report-suppression	Configures Global MLDv1 Report Suppression

## Command Mode

- /exec/configure

## ipv6 mld snooping report prefix interface

```
{ [ no ] ipv6 mld snooping { report-policy | access-group } { prefix-list | route-map } <pname> interface
<interface> }
```

### Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
mld	MLD commands
snooping	Configures MLD Snooping
report-policy	MLD report policy
access-group	Filter or report policy for specified groups
prefix-list	IPv6 Prefix-List report policy
route-map	Route-Map report policy
<i>pname</i>	Policy Name
interface	Specify interface for filtering
<i>interface</i>	Interface name

### Command Mode

- /exec/configure/vlan-config /exec/configure/bdomain

## ipv6 mld snooping robustness-variable

```
{ { no ipv6 mld snooping robustness-variable [ <value> ] } | { ipv6 mld snooping robustness-variable <value> } }
```

### Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
mld	MLD commands
snooping	Configures MLD Snooping
robustness-variable	Configures RFC defined Robustness Variable
<i>value</i>	(Optional) Count value

### Command Mode

- /exec/configure/vlan-config /exec/configure/bdomain



## ipv6 mld snooping startup-query-count

```
{ { no ipv6 mld snooping startup-query-count [ <count> ] } | { ipv6 mld snooping startup-query-count <count> } }
```

### Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
mld	MLD commands
snooping	Configures MLD Snooping
startup-query-count	Configures number of queries sent at startup
<i>count</i>	(Optional) Count value

### Command Mode

- /exec/configure/vlan-config /exec/configure/bdomain

## ipv6 mld snooping startup-query-interval

```
{ { no ipv6 mld snooping startup-query-interval [ <interval> ] } | { ipv6 mld snooping startup-query-interval <interval> } }
```

### Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
mld	MLD commands
snooping	Configures MLD Snooping
startup-query-interval	Configures query interval at startup
<i>interval</i>	(Optional) Interval in seconds

### Command Mode

- /exec/configure/vlan-config /exec/configure/bdomain

## ipv6 mld snooping static-group interface

```
{ [ no ] ipv6 mld snooping static-group <group> [ source <source> ] interface [ vsi ] <interface> }
```

### Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
mld	MLD commands
snooping	Configures MLD Snooping
static-group	Configures static group membership
source	(Optional) Configures static (S,G) channel
interface	Specify interface for static-group
vsi	(Optional) Specify if this interface is a VSI
<i>interface</i>	Interface name

### Command Mode

- /exec/configure/vlan-config /exec/configure/bdomain

## ipv6 mld snooping syslog-threshold

```
{ ipv6 mld snooping syslog-threshold <percentage> } | { no ipv6 mld snooping syslog-threshold }
```

### Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
mld	MLD global configuration commands
snooping	Configures MLD Snooping
syslog-threshold	MLD SNOOPING table syslog threshold
<i>percentage</i>	Percentage

### Command Mode

- /exec/configure

# ipv6 mld snooping v2-report-suppression

```
{ { no ipv6 mld snooping v2-report-suppression } | { ipv6 mld snooping v2-report-suppression } }
```

## Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
mld	MLD global configuration commands
snooping	Configures MLD Snooping
v2-report-suppression	Configures Global MLDv2 Report Suppression and Proxy Reporting

## Command Mode

- /exec/configure

## ipv6 mld snooping v2-report-suppression

```
{ { no ipv6 mld snooping v2-report-suppression } | { ipv6 mld snooping v2-report-suppression } }
```

### Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
mld	MLD commands
snooping	Configures MLD Snooping
v2-report-suppression	Configures MLDv2 Report Suppression and Proxy Reporting for the VLAN/BD

### Command Mode

- /exec/configure/vlan-config /exec/configure/bdomain

## ipv6 mld snooping version

{ { no ipv6 mld snooping version [ <version> ] } | { ipv6 mld snooping version <version> } }

### Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
mld	MLD commands
snooping	Configures MLD Snooping
version	Configures MLD version number for VLAN/BD
<i>version</i>	(Optional) Version number value

### Command Mode

- /exec/configure/vlan-config /exec/configure/bdomain

## ipv6 mld snooping vxlan-umc drop

[no] ipv6 mld snooping vxlan-umc drop [ vlan <vlans-range> ]

### Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
mld	MLD global configuration commands
snooping	Configures MLD Snooping
vxlan-umc	Turn off flooding on VLANs
drop	Drop unknown multicast traffic on all VLANs
vlan	(Optional) VLAN list to drop the unknown multicast traffic
<i>vlans-range</i>	(Optional) VLAN IDs for which unknown multicast traffic is dropped

### Command Mode

- /exec/configure



# ipv6 mld snooping vxlan

{ { no ipv6 mld snooping vxlan } | { ipv6 mld snooping vxlan } }

## Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
mld	MLD global configuration commands
snooping	Configures MLD Snooping
vxlan	Configures Snooping for vxlan vlans

## Command Mode

- /exec/configure

## ipv6 mld ssm-translate

[no] ipv6 [ icmp ] mld ssm-translate <group> <source>

### Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
icmp	(Optional) Configure icmp parameters
mld	MLD global configuration commands
ssm-translate	Translate MLDv1 reports to (S,G) route entries

### Command Mode

- /exec/configure /exec/configure/vrf

## ipv6 mld startup-query-count

```
{ { no ipv6 [ icmp ] mld startup-query-count [ <count> ] } | { ipv6 [ icmp ] mld startup-query-count <count> } }
```

### Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
icmp	(Optional) ICMPv6 commands
mld	MLD interface configuration commands
startup-query-count	Configures number of queries sent at startup
<i>count</i>	(Optional) Count value

### Command Mode

- /exec/configure/if-igp

# ipv6 mld startup-query-interval

```
{ { no ipv6 [ icmp ] mld startup-query-interval [ <interval> ] } | { ipv6 [ icmp ] mld startup-query-interval <interval> } }
```

## Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
icmp	(Optional) ICMPv6 commands
mld	MLD interface configuration commands
startup-query-interval	Configures query interval at startup
<i>interval</i>	(Optional) Interval in seconds

## Command Mode

- /exec/configure/if-igp

## ipv6 mld state-limit

```
{ { ipv6 [ icmp ] mld state-limit <max-states> [ reserved <route-map-name> <max-reserved> ] } | { no ipv6 [ icmp ] mld state-limit [ <max-states> [ reserved <route-map-name> <max-reserved> ] ] } }
```

### Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
icmp	(Optional) ICMPv6 commands
mld	MLD interface configuration commands
state-limit	Configures State limit
<i>max-states</i>	Maximum states allowed
reserved	(Optional) Reserve the states using route-map
<i>route-map-name</i>	(Optional) Route-map name
<i>max-reserved</i>	(Optional) Maximum (*,G)/(S,G) entires allowed on the interface

### Command Mode

- /exec/configure/if-igp

## ipv6 mld syslog-threshold

```
{ ipv6 [ icmp ] mld syslog-threshold <percentage> } | { no ipv6 [ icmp ] mld syslog-threshold }
```

### Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
icmp	(Optional) ICMPv6 commands
mld	MLD global configuration commands
syslog-threshold	MLD table syslog threshold
<i>percentage</i>	Percentage

### Command Mode

- /exec/configure

# ipv6 mld version

```
{ { no ipv6 mld version [ <version> ] } | { ipv6 mld version <version> } }
```

## Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
mld	MLD interface configuration commands
version	Configures MLD version number for interface
<i>version</i>	(Optional) Version number value

## Command Mode

- /exec/configure/if-igp

# ipv6 multicast group-range prefix-list

```
{ ipv6 multicast group-range prefix-list <prefix-list-name> } | { no ipv6 multicast group-range prefix-list [ <prefix-list-name> ] }
```

## Syntax Description

no	Negate a command or set its defaults
ipv6	Display IP information
multicast	Display multicast information
group-range	Display group-range prefix
prefix-list	Group range prefix-list policy for multicast boundary
<i>prefix-list-name</i>	Name of prefix-list

## Command Mode

- /exec/configure /exec/configure/vrf



# ipv6 multicast multipath

[no] ipv6 multicast multipath { <multipath-type> }

## Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Display IPv6 information
multicast	Configure IP multicast global parameters
multipath	Configure ECMP multicast load splitting
<i>multipath-type</i>	multipath type

## Command Mode

- /exec/configure /exec/configure/vrf

# ipv6 multicast multipath resilient

[no] ipv6 multicast multipath resilient

## Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Display IPv6 information
multicast	Configure IP multicast global parameters
multipath	Configure ECMP multicast load splitting
resilient	Configure resilient RPF interface

## Command Mode

- /exec/configure /exec/configure/vrf

# ipv6 nd cache limit

```
{ { ipv6 nd cache limit <max> } | { no ipv6 nd cache limit } } [ syslog <rate> ]
```

## Syntax Description

<i>no</i>	Negate a command or set its defaults
<i>ipv6</i>	Configure IPv6 features
<i>nd</i>	ICMPv6 Neighbor Discovery commands
<i>cache</i>	ND cache parameters
<i>limit</i>	Limit size of ND adjacencies cache
<i>max</i>	Max no of ND adjacencies configured
<i>syslog</i>	(Optional) Syslog messages
<i>rate</i>	(Optional) Syslogs per second

## Command Mode

- /exec/configure

# ipv6 nd dad attempts

ipv6 nd dad attempts <attempt> | no ipv6 nd dad attempts

## Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
nd	ICMPv6 Neighbor Discovery commands
dad	Duplicate Address Detection
attempts	Set IPv6 Duplicate Address Detection Transmits
<i>attempt</i>	Number of attempts

## Command Mode

- /exec/configure/if-igp

# ipv6 nd dadns-discover

```
{ ipv6 nd dadns-discover <dadns_interval> } | { no ipv6 nd dadns-discover }
```

## Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
nd	ICMPv6 Neighbor Discovery commands
dadns-discover	Discover host from DADNS
<i>dadns_interval</i>	Interval in milliseconds

## Command Mode

- /exec/configure/if-igp

# ipv6 nd delete-adj-on-mac-delete

ipv6 nd delete-adj-on-mac-delete | no ipv6 nd delete-adj-on-mac-delete

## Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
nd	ICMPv6 Neighbor Discovery commands
delete-adj-on-mac-delete	Delete the adjacency on MAC delete

## Command Mode

- /exec/configure/if-vlan-common

# ipv6 nd drop-fragments

ipv6 nd drop-fragments | no ipv6 nd drop-fragments

## Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
nd	ICMPv6 Neighbor Discovery commands
drop-fragments	Drop fragmented ND packets

## Command Mode

- /exec/configure

# ipv6 nd hop-limit

```
{ { ipv6 nd hop-limit <hop-limit> } | { no ipv6 nd hop-limit [ <hop-limit> ] } }
```

## Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
nd	ICMPv6 Neighbor Discovery commands
hop-limit	Sent in RA messages, tells hosts what hop-limit to use when originating IPv6 packets
<i>hop-limit</i>	Hop limit in IPv6 header

## Command Mode

- /exec/configure/if-igp



## ipv6 nd local-proxy no-hw-flooding

```
{ { ipv6 nd local-proxy <prefix> no-hw-flooding } | { no ipv6 nd local-proxy <prefix> no-hw-flooding } }
```

### Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
nd	ICMPv6 Neighbor Discovery commands
local-proxy	enable nd local proxy
no-hw-flooding	disable hardware flooding

### Command Mode

- /exec/configure/if-vlan-common

## ipv6 nd local-proxy no-hw-flooding

```
{ { ipv6 nd local-proxy <prefix> no-hw-flooding } | { no ipv6 nd local-proxy <prefix> no-hw-flooding } }
```

### Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
nd	ICMPv6 Neighbor Discovery commands
local-proxy	enable nd local proxy
no-hw-flooding	disable hardware flooding

### Command Mode

- /exec/configure/if-vlan-common

## ipv6 nd mac-extract

[no] ipv6 nd mac-extract [ exclude nud-phase ]

### Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
nd	ICMPv6 Neighbor Discovery commands
mac-extract	Extract next hop MAC address embedded in IPV6 address
exclude	(Optional) Exclude
nud-phase	(Optional) during NUD phase

### Command Mode

- /exec/configure/if-igp

# ipv6 nd managed-config-flag

[no] ipv6 nd managed-config-flag

## Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
nd	ICMPv6 Neighbor Discovery commands
managed-config-flag	Sent in RA messages, tells hosts to use stateful address auto-configuration to obtain address information

## Command Mode

- /exec/configure/if-igp

# ipv6 nd mtu

```
{ { ipv6 nd mtu <mtu> } | { no ipv6 nd mtu [ <mtu> ] } }
```

## Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
nd	ICMPv6 Neighbor Discovery commands
mtu	Sent in RA messages, tells hosts what MTU to use on this link
<i>mtu</i>	MTU in bytes

## Command Mode

- /exec/configure/if-igp

## ipv6 nd ns-interval

```
{ { ipv6 nd ns-interval <interval> [ <retry-count> ] } | { no ipv6 nd ns-interval [ <interval> ] } }
```

### Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
nd	ICMPv6 Neighbor Discovery commands
ns-interval	Retransmission interval between sending Neighbor-Solicitation messages
<i>interval</i>	Interval in milliseconds
<i>retry-count</i>	THIS KEYWORD OR VARIABLE IS NOT SUPPORTED

### Command Mode

- /exec/configure/if-igp

# ipv6 nd off-list timeout

{ ipv6 nd off-list timeout <time> } | { no ipv6 nd off-list timeout }

## Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
nd	Display Neighbor Discovery interface information
off-list	off-list
timeout	Expire time
<i>time</i>	Expire time value in seconds

## Command Mode

- /exec/configure

# ipv6 nd other-config-flag

[no] ipv6 nd other-config-flag

## Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
nd	ICMPv6 Neighbor Discovery commands
other-config-flag	Sent in RA messages, tells hosts to use stateful auto-configuration to obtain non-address related information

## Command Mode

- /exec/configure/if-igp



## ipv6 nd prefix

```
{ { ipv6 nd prefix <prefix> [ { <val-life> | infinite } { <perf-life> | infinite } [ [ no-autoconfig ] [ no-onlink ] [ no-rtr-address ] [ off-link ] ] | no-advertise ] } | { no ipv6 nd prefix <prefix> } }
```

### Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
nd	ICMPv6 Neighbor Discovery commands
prefix	IPv6 Prefix to advertise in RA
<i>val-life</i>	(Optional) Valid Lifetime (secs)
infinite	(Optional) Infinite Valid Lifetime
no-advertise	(Optional) Do not advertise prefix
<i>perf-life</i>	(Optional) Preferred Lifetime (secs)
infinite	(Optional) Infinite Preferred Lifetime
no-autoconfig	(Optional) Do not use prefix for autoconfiguration
no-onlink	(Optional) Do not use prefix for onlink determination
no-rtr-address	THIS KEYWORD OR VARIABLE IS NOT SUPPORTED
off-link	(Optional) Prefix is offlink

### Command Mode

- /exec/configure/if-igp

## ipv6 nd prefix default

```
{ { ipv6 nd prefix default [ { <val-life> | infinite } { <perf-life> | infinite } [ [ no-autoconfig ] [ no-onlink ] [ no-rtr-address ] [ off-link ] ] | no-advertise ] } | { no ipv6 nd prefix default } }
```

### Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
nd	ICMPv6 Neighbor Discovery commands
prefix	IPv6 Prefix to advertise in RA
default	Specify prefix default parameters
<i>val-life</i>	(Optional) Valid Lifetime (secs)
infinite	(Optional) Infinite Valid Lifetime
no-advertise	(Optional) Do not advertise prefix
<i>perf-life</i>	(Optional) Preferred Lifetime (secs)
infinite	(Optional) Infinite Preferred Lifetime
no-autoconfig	(Optional) Do not use prefix for autoconfiguration
no-onlink	(Optional) Do not use prefix for onlink determination
no-rtr-address	THIS KEYWORD OR VARIABLE IS NOT SUPPORTED
off-link	(Optional) Prefix is offlink

### Command Mode

- /exec/configure/if-igp

# ipv6 nd ra-interval

```
ipv6 nd ra-interval <interval> [ min <min-interval> ] | no ipv6 nd ra-interval [ <interval> ] [ min <min-interval> ]
```

## Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
nd	ICMPv6 Neighbor Discovery commands
ra-interval	Interval between sending Router-Advertisement messages
<i>interval</i>	Interval in seconds
min	(Optional) Minimum interval between sending RA messages
<i>min-interval</i>	(Optional) Interval in seconds

## Command Mode

- /exec/configure/if-igp

## ipv6 nd ra-lifetime

```
{ { ipv6 nd ra-lifetime <lifetime> } | { no ipv6 nd ra-lifetime [ <lifetime> ] } }
```

### Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
nd	ICMPv6 Neighbor Discovery commands
ra-lifetime	Sent in RA messages, Router Lifetime of a default router, 0 means this router will not be the default router
<i>lifetime</i>	Lifetime in seconds

### Command Mode

- /exec/configure/if-igp

# ipv6 nd ra bootfile-url

```
{ { ipv6 nd ra bootfile-url <url> } | { no ipv6 nd ra bootfile-url } }
```

## Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
nd	ICMPv6 Neighbor Discovery commands
ra	Router Advertisement
bootfile-url	Set boot-file-url option
<i>url</i>	url for boot file

## Command Mode

- /exec/configure/if-igp

## ipv6 nd ra dns search-list sequence

[no] ipv6 nd ra dns search-list <dnssl> [ { <dnssl\_life> | infinite } ] sequence <seqno>

### Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
nd	ICMPv6 Neighbor Discovery commands
ra	Router Advertisement
dns	Domain Name System
search-list	DNS Search List
<i>dnssl</i>	Configure DNS Search List to advertise in RA
<i>dnssl_life</i>	(Optional) Configure IPv6 DNS Search list life time
infinite	(Optional) Configure IPv6 DNS Search list life time with infinite
sequence	Sequence of Search List
<i>seqno</i>	Sequence number

### Command Mode

- /exec/configure/if-igp

# ipv6 nd ra dns search-list suppress

[no] ipv6 nd ra dns search-list suppress

## Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
nd	ICMPv6 Neighbor Discovery commands
ra	Router Advertisement
dns	Domain Name System
search-list	DNS Search List
suppress	Disable sending DNSSL in Router-Advertisement messages

## Command Mode

- /exec/configure/if-igp

## ipv6 nd ra dns server sequence

[no] ipv6 nd ra dns server <ipv6\_addr> [ { <rdnss\_life> | infinite } ] sequence <seqno>

### Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
nd	ICMPv6 Neighbor Discovery commands
ra	Router Advertisement
dns	Domain Name System
server	Domain Name System Server
<i>rdnss_life</i>	(Optional) Configure IPv6 DNS Server life time
infinite	(Optional) Configure IPv6 DNS Server life time with infinite
sequence	Sequence of Server
<i>seqno</i>	Sequence number

### Command Mode

- /exec/configure/if-igp



# ipv6 nd ra dns server suppress

[no] ipv6 nd ra dns server suppress

## Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
nd	ICMPv6 Neighbor Discovery commands
ra	Router Advertisement
dns	Domain Name System
server	Domain Name System Server
suppress	Disable sending RDNSS in Router-Advertisement messages

## Command Mode

- /exec/configure/if-igp

# ipv6 nd ra route suppress

[no] ipv6 nd ra route suppress

## Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
nd	ICMPv6 Neighbor Discovery commands
ra	Router Advertisement
route	Route Information Option in RFC 4191
suppress	Disable sending Route Information Options in RA messages

## Command Mode

- /exec/configure/if-igp

# ipv6 nd rguard

[no] ipv6 nd rguard

## Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
nd	Configure IPv6 ND
rguard	Configure RA guard

## Command Mode

- /exec/configure/if-switching

# ipv6 nd rguard

[no] ipv6 nd rguard [ attach-policy <policy\_name> ]

## Syntax Description

no	(Optional) Negate a command or set its defaults
<i>policy_name</i>	(Optional) policy name for ipv6 rguard

## Command Mode

- /exec/configure/vlan-config

## ipv6 nd raguard attach-policy

[no] ipv6 nd raguard attach-policy <policy\_name>

### Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
<i>policy_name</i>	policy name for feature RA guard

### Command Mode

- /exec/configure/if-switching

# ipv6 nd raguard policy

[no] ipv6 nd raguard policy <policy\_name>

## Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
<i>policy_name</i>	Name of the raguard policy

## Command Mode

- /exec/configure

# ipv6 nd reachable-time

```
{ { ipv6 nd reachable-time <time> } | { no ipv6 nd reachable-time [ <time> ] } }
```

## Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
nd	ICMPv6 Neighbor Discovery commands
reachable-time	Sent in RA messages, advertised time when a node considers a neighbor up after receiving a reachability confirmation
<i>time</i>	Time in milliseconds

## Command Mode

- /exec/configure/if-igp

## ipv6 nd retrans-timer

```
{ { ipv6 nd retrans-timer <time> } | { no ipv6 nd retrans-timer [ <time> ] } }
```

### Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
nd	ICMPv6 Neighbor Discovery commands
retrans-timer	Sent in RA messages, advertised time between NS messages
<i>time</i>	Time in milliseconds

### Command Mode

- /exec/configure/if-igp



## ipv6 nd route route-preference High Low Medium infinite

```
{ { ipv6 nd route <prefix> route-preference { High | Low | Medium } { <lifetime> | infinite } [ {
verify-reachability } ] } | { no ipv6 nd route { <prefix> | all } route-preference } }
```

### Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
nd	ICMPv6 Neighbor Discovery commands
route	Route Information Option in RFC 4191
route-preference	Route preference value
High	High router preference
Low	Low router preference
Medium	Medium router preference
<i>lifetime</i>	Lifetime (secs)
infinite	Infinite lifetime of prefix
verify-reachability	(Optional) Verify if route is present in Route table
all	Remove all the Router Preference prefixes

### Command Mode

- /exec/configure/if-igp

## ipv6 nd router-preference High Low Medium

```
{ { ipv6 nd router-preference { High | Low | Medium } } | { no ipv6 nd router-preference } }
```

### Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
nd	ICMPv6 Neighbor Discovery commands
router-preference	Set default router preference value
High	High default router preference
Low	Low default router preference
Medium	Medium default router preference

### Command Mode

- /exec/configure/if-igp

## ipv6 nd solicit-na accept

```
{ ipv6 nd solicit-na { { accept [ no-probe | <interval> ] | [ no-accept ] } | { accept1 [ no-probe1 | <interval1> ] | [ no-accept1 ] } } } | { no ipv6 nd solicit-na }
```

### Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
nd	ICMPv6 Neighbor Discovery commands
solicit-na	Solicited Neighbor Advertisemen
accept	Accept Solicit NA without incomplete entry
no-probe	(Optional) Do not probe, create a Reachable Entry
<i>interval</i>	(Optional) Probe Interval in Seconds
no-accept	(Optional) Do not accept Solicit NA without incomplete entry
accept1	Accept Solicit NA without incomplete entry
no-probe1	(Optional) Do not probe, create a Reachable Entry
<i>interval1</i>	(Optional) Probe Interval in Seconds
no-accept1	(Optional) Do not accept Solicit NA without incomplete entry

### Command Mode

- /exec/configure

# ipv6 nd suppress-ra

[no] ipv6 nd suppress-ra [ mtu ]

## Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
nd	ICMPv6 Neighbor Discovery commands
suppress-ra	Disable sending Router-Advertisement messages
mtu	(Optional) Disable sending MTU in Router-Advertisement messages

## Command Mode

- /exec/configure/if-igp

# ipv6 nd synchronize

[no] ipv6 nd synchronize

## Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
nd	Display Neighbor Discovery interface information
synchronize	CFS synchronize

## Command Mode

- /exec/configure/vpc-domain

# ipv6 neighbor

[no] ipv6 neighbor <ipv6-addr> [ <mac-addr> ] | ipv6 neighbor <ipv6-addr> <mac-addr>

## Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
neighbor	Configure IPv6 address to layer-2 address mapping
<i>mac-addr</i>	(Optional) Layer-2 MAC address

## Command Mode

- /exec/configure/if-igp /exec/configure/if-mgmt-config /exec/configure/if-vlan-common

# ipv6 neighbor allow-static-neighbor-outside-subnet

[no] ipv6 neighbor allow-static-neighbor-outside-subnet

## Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
neighbor	Configure IPv6 address to layer-2 address mapping
allow-static-neighbor-outside-subnet	Allow static neighbor outside interface subnet

## Command Mode

- /exec/configure

## ipv6 neighbor binding

```
[no] ipv6 neighbor binding { { vlan <vlanid> { <ipv6addr1> } } interface <intf> [ <mac-address> [ tracking
{ default | disable | enable [ retry-interval { default | <interval> } ] ] ] [ reachable-lifetime { default | infinite
| <reach-secs> } ] ] }
```

### Syntax Description

<code>no</code>	(Optional) Negate a command or set its defaults
<code>ipv6</code>	Configure IPv6 features
<i>vlanid</i>	Number of entries
<i>intf</i>	Interface
<i>mac-address</i>	(Optional) 48-bit hardware address / <cr> for any mac address
<i>interval</i>	(Optional) seconds
<i>reach-secs</i>	(Optional) seconds

### Command Mode

- /exec/configure



# ipv6 neighbor binding

```
[no] ipv6 neighbor binding { { reachable-lifetime { infinite | <reach-secs> } } | { stale-lifetime { infinite | <stale-secs> } } } | { down-lifetime { infinite | <down-secs> } } } +
```

## Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
<i>reach-secs</i>	Seconds
<i>stale-secs</i>	Seconds
<i>down-secs</i>	Seconds

## Command Mode

- /exec/configure

# ipv6 neighbor binding logging

[no] ipv6 neighbor binding logging

## Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features

## Command Mode

- /exec/configure

## ipv6 neighbor binding max-entries

```
{ ipv6 neighbor binding max-entries <box-lim> { [ vlan-limit <vlan-lim> ] | [ port-limit <port-lim> ] | [ mac-limit <mac-lim> ] } + | no ipv6 neighbor binding max-entries [ <box-lim> { [ vlan-limit <vlan-lim> ] | [ port-limit <port-lim> ] | [ mac-limit <mac-lim> ] } + ] }
```

### Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
<i>box-lim</i>	Number of entries
<i>vlan-lim</i>	(Optional) Number of entries
<i>port-lim</i>	(Optional) Number of entries
<i>mac-lim</i>	(Optional) Number of entries

### Command Mode

- /exec/configure

# ipv6 neighbor tracking

[no] ipv6 neighbor tracking [ retry-interval <interval> ]

## Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
<i>interval</i>	(Optional) Seconds

## Command Mode

- /exec/configure

## ipv6 pim allow-rp

{ ipv6 pim allow-rp { <route-map-name> } | no ipv6 pim allow-rp [ <route-map-name> ] }

### Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
pim	PIM6 global configuration commands
allow-rp	Sparse-Mode RP addresses to be allowed
<i>route-map-name</i>	Route-map name

### Command Mode

- /exec/configure /exec/configure/vrf

## ipv6 pim anycast-rp

[no] ipv6 pim anycast-rp <anycast-rp> <rp-addr>

### Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
pim	PIM6 global configuration commands
anycast-rp	Configure an RP in an Anycast-RP set (using PIM6)

### Command Mode

- /exec/configure /exec/configure/vrf

## ipv6 pim assert-rate-limit

```
{ { ipv6 pim assert-rate-limit <rate> } | { no ipv6 pim assert-rate-limit [ <rate> ] } }
```

### Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
pim	PIM6 global configuration commands
assert-rate-limit	Rate limit for PIM6 Asserts
<i>rate</i>	Packets per second

### Command Mode

- /exec/configure /exec/configure/vrf

# ipv6 pim bidir-rp-limit

[no] ipv6 pim bidir-rp-limit <limit>

## Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
pim	PIM6 global configuration commands
bidir-rp-limit	Configures maximum Bidir RPs for IPv6 PIM in this VRF
<i>limit</i>	Set limit for Bidir RPs permitted in IPv6 PIM

## Command Mode

- /exec/configure /exec/configure/vrf



# ipv6 pim border-router

[no] ipv6 pim border-router

## Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
pim	PIM interface configuration commands
border-router	Configures the interface to be a boundary of a PIM6-SM domain

## Command Mode

- /exec/configure/if-igp

# ipv6 pim border

[no] ipv6 pim border

## Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
pim	PIM interface configuration commands
border	Configures interface to be a boundary of a PIM6 domain

## Command Mode

- /exec/configure/if-igp

## ipv6 pim dr-priority

```
{ { ipv6 pim dr-priority <priority> } | { no ipv6 pim dr-priority [ <priority> ] } }
```

### Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
pim	PIM interface configuration commands
dr-priority	Configures priority for PIM6 DR election on interface
<i>priority</i>	Priority value

### Command Mode

- /exec/configure/if-igp

# ipv6 pim evpn-border-leaf

[no] ipv6 pim evpn-border-leaf

## Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
pim	PIM6 global configuration commands
evpn-border-leaf	Configure this node as a border leaf

## Command Mode

- /exec/configure

# ipv6 pim flush-routes

[no] ipv6 pim flush-routes

## Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
pim	PIM6 global configuration commands
flush-routes	Remove routes when restarting PIM6

## Command Mode

- /exec/configure /exec/configure/vrf

# ipv6 pim hello-interval

```
{ { ipv6 pim hello-interval <interval> } | { no ipv6 pim hello-interval [ <interval> ] } }
```

## Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
pim	PIM interface configuration commands
hello-interval	Configures the Hello interval for interface
<i>interval</i>	Interval in milliseconds

## Command Mode

- /exec/configure/if-igp

# ipv6 pim isolate

[no] ipv6 pim isolate

## Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
pim	PIM6 global configuration commands
isolate	Isolate this router from IPV6 PIM perspective

## Command Mode

- /exec/configure

# ipv6 pim log-neighbor-changes

[no] ipv6 pim log-neighbor-changes

## Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
pim	PIM6 global configuration commands
log-neighbor-changes	Log up/down PIM6 neighbor transitions

## Command Mode

- /exec/configure /exec/configure/vrf



# ipv6 pim mtu

[no] ipv6 pim mtu <size>

## Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
pim	PIM6 global configuration commands
mtu	MTU for IP PIM6 packet
<i>size</i>	MTU

## Command Mode

- /exec/configure

# ipv6 pim passive

{ ipv6 pim passive | no ipv6 pim passive }

## Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
pim	PIM interface configuration commands
passive	Interface in passive mode. No send/rcv

## Command Mode

- /exec/configure/if-igp

## ipv6 pim register-rate-limit

```
{ { ipv6 pim register-rate-limit <rate> } | { no ipv6 pim register-rate-limit [ <rate> ] } }
```

### Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
pim	PIM6 global configuration commands
register-rate-limit	Rate limit for PIM6 data registers
<i>rate</i>	Packets per second

### Command Mode

- /exec/configure /exec/configure/vrf

## ipv6 pim rp-address

```
{ { ipv6 pim rp-address <rp-address> [ group-list <prefix> | route-map <route-map-name> | prefix-list
<prefix-list-name> ] [ bidir ] [ override ] } | { no ipv6 pim rp-address <rp-address> [ group-list <prefix> |
route-map <route-map-name> | prefix-list <prefix-list-name> ] [ bidir ] [ override ] } }
```

### Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
pim	PIM6 global configuration commands
rp-address	Configure static RP for group range
group-list	(Optional) Group range for static RP
route-map	(Optional) Route Map policy for static RP
<i>route-map-name</i>	(Optional) Route-map name
prefix-list	(Optional) Prefix List policy for static RP
<i>prefix-list-name</i>	(Optional) Name of prefix-list
bidir	(Optional) Group range is treated in PIM6 bidirectional mode
override	(Optional) RP address will override the dynamically learnt RPs

### Command Mode

- /exec/configure /exec/configure/vrf

# ipv6 pim sparse-mode

ipv6 pim sparse-mode | no ipv6 pim [ sparse-mode ]

## Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
pim	PIM interface configuration commands
sparse-mode	Configures sparse-mode PIM6 on interface

## Command Mode

- /exec/configure/if-igp

## ipv6 pim spt-switch-graceful

[no] ipv6 pim spt-switch-graceful

### Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
pim	PIM6 global configuration commands
spt-switch-graceful	Graceful switch-over to SPT

### Command Mode

- /exec/configure /exec/configure/vrf

## ipv6 pim state-limit

```
{ { ipv6 pim state-limit <max-states> [ reserved <route-map-name> <max-reserved> ] } | { no ipv6 pim state-limit [ <max-states> [ reserved <route-map-name> <max-reserved> ] ] } }
```

### Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
pim	PIM6 global configuration commands
state-limit	Configures State limit
<i>max-states</i>	Maximum (*,G)/(S,G) entries allowed in this VRF
reserved	(Optional) Configures Reserved limit
<i>route-map-name</i>	(Optional) Route-map name
<i>max-reserved</i>	(Optional) Maximum reserved (*,G)/(S,G) entries allowed in this VRF

### Command Mode

- /exec/configure /exec/configure/vrf

## ipv6 policy route-map

```
ipv6 policy route-map <route-map-name> | no ipv6 policy route-map [ <route-map-name> | <route-map-name> ]
```

### Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
policy	Configure PBR feature
route-map	Route-map for PBR
<i>route-map-name</i>	Route-map name
<i>route-map-name</i>	(Optional) Route-map name
<i>route-map-name</i>	(Optional) Known route-map name

### Command Mode

- /exec/configure/if-igp /exec/configure/if-vni/



# ipv6 port traffic-filter

[no] ipv6 port traffic-filter <acl-ipv6-name> <inout>

## Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
port	Port policy
traffic-filter	Specify access control for packets
<i>acl-ipv6-name</i>	List name
<i>inout</i>	Traffic direction

## Command Mode

- /exec/configure/if-set-acl-l2

## ipv6 prefix-list description

```
{ ipv6 prefix-list <ipv6-pfl-name> description <line> } | { no ipv6 prefix-list <ipv6-pfl-name> description }
```

### Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
prefix-list	Build a prefix list
<i>ipv6-pfl-name</i>	Name of prefix-list
<i>ipv6-pfl-name</i>	Known prefix-list name
description	Description of the IPv6 prefix list
<i>line</i>	IPv6 prefix-list description string

### Command Mode

- /exec/configure

## ipv6 prefix-list permit

```
{ ipv6 prefix-list <ipv6-pfl-name> [ seq <seq> ] { permit | deny } <prefix> { [ eq <equal> ] | [ ge <greater> ] | [ le <lesser> ] } [ mask <mask> ] } | { no ipv6 prefix-list { <ipv6-pfl-name> | <ipv6-pfl-name> } [ seq <seq> ] | { permit | deny } <prefix> { [ eq <equal> ] | [ ge <greater> ] | [ le <lesser> ] } [ mask <mask> ] }
```

### Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
prefix-list	Build a prefix list
<i>ipv6-pfl-name</i>	Name of prefix-list
<i>ipv6-pfl-name</i>	Name of prefix-list
<i>ipv6-pfl-name</i>	Known prefix-list name
seq	(Optional) Sequence number of an entry
<i>seq</i>	(Optional) Sequence number
permit	Specify routes to forward
deny	Specify routes to reject
eq	(Optional) Exact prefix length to be matched
<i>equal</i>	(Optional) Exact prefix length
ge	(Optional) Minimum prefix length to be matched
<i>greater</i>	(Optional) Minimum prefix length
le	(Optional) Maximum prefix length to be matched
<i>lesser</i>	(Optional) Maximum prefix length
mask	(Optional) Explicit match mask

### Command Mode

- /exec/configure

# ipv6 queue-packets

[no] ipv6 queue-packets

## Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
queue-packets	Queue 1 packet when triggered NS is sent

## Command Mode

- /exec/configure

# ipv6 redirect syslog

ipv6 redirect syslog [ <logInterval> ] | no ipv6 redirect syslog

## Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
redirect	ipv6 redirect feature
syslog	syslog for ipv6 redirect
<i>logInterval</i>	(Optional) Syslog interval in seconds (default=60)

## Command Mode

- /exec/configure

# ipv6 redirects

ipv6 [ nd ] redirects | no ipv6 [ nd ] redirects

## Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
nd	(Optional) ICMPv6 Neighbor Discovery commands
redirects	Enable sending ICMPv6 Redirect messages

## Command Mode

- /exec/configure/if-igp /exec/configure/if-mgmt-config

# ipv6 route

```
[no] ipv6 route <ipv6-prefix> { <interface> | { { <link-local> <interface-link-local> } | { <pin-interface>
<next-hop> } | { <next-hop> | <nh-prefix> } | { <vlan-interface> } } [ vrf { <vrf-name> | <vrf-known-name>
} ] ] [ track <object-num> ] [ name <rt-name> ] [ <pref> | tag <tag-value> ] +
```

## Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
route	Configure IPv6 unicast static route
<i>interface</i>	Interface for interface static routes
<i>vlan-interface</i>	vlan interface
name	(Optional) Specify name of the next hop
<i>rt-name</i>	(Optional) Name of next hop
<i>pin-interface</i>	Pin interface
<i>interface-link-local</i>	Interface for interface static routes
track	(Optional) Specify the Object to be Tracked
<i>object-num</i>	(Optional) Track Object Number
vrf	(Optional) VRF for next-hop if different from this vrf
<i>vrf-name</i>	(Optional) VRF name
<i>vrf-known-name</i>	(Optional) Known VRF name
<i>pref</i>	(Optional) Route preference
tag	(Optional) Supply tag value with static route
<i>tag-value</i>	(Optional) 32-bit value for tag

## Command Mode

- /exec/configure /exec/configure/vrf

## ipv6 route static bfd

[no] ipv6 route static bfd <pin-interface> <next-hop>

### Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IP features
route	Route information
static	Static route based configuration
bfd	Enable bfd detection on static route
<i>pin-interface</i>	Interface on which bfd has to be enabled

### Command Mode

- /exec/configure /exec/configure/config-mgmt /exec/configure/vrf



# ipv6 router isis

[no] ipv6 router isis <tag>

## Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
router	Enable a routing process
isis	Intermediate System to Intermediate System (IS-IS)
<i>tag</i>	Process tag

## Command Mode

- /exec/configure/if-igp

## ipv6 router ospfv3 area

[no] ipv6 router ospfv3 <tag> area { <area-id-ip> | <area-id-int> } [ secondaries none ]

### Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
router	Enable a routing process
ospfv3	OSPFv3 configuration commands
<i>tag</i>	Process tag
area	Area associated with interface
<i>area-id-ip</i>	OSPFv3 area ID in IP address format
<i>area-id-int</i>	OSPFv3 area ID as a decimal format
secondaries	(Optional) Do not include secondary IPv6 addresses
none	(Optional) Do not include secondary IPv6 addresses

### Command Mode

- /exec/configure/if-igp /exec/configure/if-gre-tunnel /exec/configure/if-mpls-tunnel /exec/configure/if-mgmt-config

## ipv6 router ospfv3 multi-area

[no] ipv6 router ospfv3 [ <tag> ] multi-area <area-id-ip>

### Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
router	Enable a routing process
ospfv3	OSPFv3 configuration commands
<i>tag</i>	(Optional) Process tag
multi-area	Multi-Area associated with interface
<i>area-id-ip</i>	Area Id as an integer or ip address

### Command Mode

- /exec/configure/if-igmp /exec/configure/if-gre-tunnel /exec/configure/if-mpls-tunnel /exec/configure/if-mgmt-config

# ipv6 routing multicast holddown

[no] { ipv6 } routing multicast holddown [ <route-holddown-sec> | [ disable-init-phase ] ]

## Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Display IPv6 information
routing	Configure routing information
multicast	Configure multicast
holddown	Initial holddown period
<i>route-holddown-sec</i>	(Optional) Delay in seconds [70..3600], 0 to disable holddown
disable-init-phase	THIS KEYWORD OR VARIABLE IS NOT SUPPORTED

## Command Mode

- /exec/configure

## ipv6 routing multicast mfdm-buffer-route-count

ipv6 routing multicast mfdm-buffer-route-count { <size> } | no ipv6 routing multicast mfdm-buffer-route-count [ <size> ]

### Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IP features
routing	Configure routing information
multicast	Configure multicast
mfdm-buffer-route-count	mfdm buffer route size
<i>size</i>	size in numbers

### Command Mode

- /exec/configure

# ipv6 routing multicast software-replicate

[no] ipv6 routing multicast software-replicate [ iif ] [ fabric ]

## Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
routing	Configure routing information
multicast	Configure multicast
software-replicate	Enable software replication of PIM ASM leak packets
fabric	(Optional) Enable software replication to fabric
iif	THIS KEYWORD OR VARIABLE IS NOT SUPPORTED

## Command Mode

- /exec/configure

# ipv6 snooping

[no] ipv6 snooping [ attach-policy <policy\_name> ]

## Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
<i>policy_name</i>	(Optional) policy name for ipv6 snooping

## Command Mode

- /exec/configure/if-switching

# ipv6 snooping

[no] ipv6 snooping [ attach-policy <policy\_name> ]

## Syntax Description

no	(Optional) Negate a command or set its defaults
<i>policy_name</i>	(Optional) policy name for ipv6 snooping

## Command Mode

- /exec/configure/vlan-config



# ipv6 snooping policy

[no] ipv6 snooping policy <name>

## Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
<i>name</i>	Name of the snooping policy

## Command Mode

- /exec/configure

# ipv6 snooping unit-test bt-add vlan

```
{ ipv6 snooping unit-test bt-add vlan <vlanid>
```

## Syntax Description

ipv6	Configure IPv6 features
<i>vlanid</i>	Number of entries

## Command Mode

- /exec/configure

# ipv6 switch-packets

[no] ipv6 switch-packets [ lla ]

## Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
switch-packets	Switch ND packets received on core ports
lla	(Optional) Switch ND packets targeted to Link local address on core ports

## Command Mode

- /exec/configure

# ipv6 traffic-filter

[no] ipv6 traffic-filter <acl-ipv6-name> <inout>

## Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
traffic-filter	Specify access control for packets
<i>acl-ipv6-name</i>	List name
<i>inout</i>	Traffic direction

## Command Mode

- /exec/configure/if-set-acl-l3

# ipv6 unreachable

[no] ipv6 [ icmp ] unreachable

## Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
icmp	(Optional) ICMPv6 commands
unreachables	Enable sending ICMPv6 Unreachable messages (port-unreachables are always rate-limit enabled)

## Command Mode

- /exec/configure/if-igp

## ipv6 verify unicast source reachable-via rx

[no] ipv6 verify unicast source reachable-via [ { rx [ allow vni-hosts ] | any [ allow-default ] } ] | ipv6 verify unicast source reachable-via { rx [ allow vni-hosts ] | any [ allow-default ] }

### Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
verify	Unicast Reverse Path Forwarding
unicast	Unicast Reverse Path Forwarding
source	Validation of source address
reachable-via	Specify reachability check to apply to the source address
rx	(Optional) Source is reachable via interface on which packet was received
allow	(Optional) More options
vni-hosts	(Optional) Source is reachable via interface vlan
any	(Optional) Source is reachable via any interface
allow-default	(Optional) Loose Default Route Unicast Reverse Path Forwarding

### Command Mode

- /exec/configure/if-igp

# is-type

is-type <is-type> | no is-type [ <is-type> ]

## Syntax Description

no	Negate a command or set its defaults
is-type	IS type for this IS-IS process
<i>is-type</i>	IS-IS IS type

## Command Mode

- /exec/configure/router-isis/router-isis-vrf-common

# ishow cli find nodes

ishow cli find nodes [ <component> ] [ recurse ]

## Syntax Description

ishow	Show internal information
cli	Show CLI information
find	
nodes	display
<i>component</i>	(Optional) display
recurse	(Optional) go

## Command Mode

- /exec



# ishow cli modes

ishow cli modes

## Syntax Description

ishow	Show internal information
cli	Show CLI information
modes	show

## Command Mode

- /exec

# ishow cli nodes

ishow cli nodes [ <mode> ]

## Syntax Description

ishow	Show internal information
cli	Show CLI information
nodes	show
<i>mode</i>	(Optional) mode

## Command Mode

- /exec

# ishow cli paths

ishow cli paths <component> [ <type> ]

## Syntax Description

ishow	Show internal information
cli	Show CLI information
paths	show
<i>component</i>	component
<i>type</i>	(Optional)

## Command Mode

- /exec

# ishow cli tags

ishow cli tags

## Syntax Description

ishow	Show internal information
cli	Show CLI information
tags	

## Command Mode

- /exec

# ishow core backtrace

ishow core <pid> backtrace

## Syntax Description

ishow	Show internal information
core	display info from core file
<i>pid</i>	PID from 'show cores
backtrace	display backtrace -- needs enough space to unzip the core file!

## Command Mode

- /exec

# isis authentication-check

[no] isis authentication-check

## Syntax Description

no	(Optional) Negate a command or set its defaults
isis	IS-IS configuration commands
authentication-check	Check authentication on received hellos

## Command Mode

- /exec/configure/if-igp

# isis authentication-check level-1

[no] isis authentication-check level-1

## Syntax Description

no	(Optional) Negate a command or set its defaults
isis	IS-IS configuration commands
authentication-check	Check authentication on received hellos
level-1	Configure authentication check for level-1 IIHs

## Command Mode

- /exec/configure/if-igp

## isis authentication-check level-2

[no] isis authentication-check level-2

### Syntax Description

no	(Optional) Negate a command or set its defaults
isis	IS-IS configuration commands
authentication-check	Check authentication on received hellos
level-2	Configure authentication check for level-2 IIHs

### Command Mode

- /exec/configure/if-igp



# isis authentication-type cleartext

[no] isis authentication-type { cleartext | md5 }

## Syntax Description

no	(Optional) Negate a command or set its defaults
isis	IS-IS configuration commands
authentication-type	Set hello authentication type
cleartext	Cleartext
md5	HMAC-MD5

## Command Mode

- /exec/configure/if-igp

# isis authentication-type cleartext level-1

[no] isis authentication-type { cleartext | md5 } level-1

## Syntax Description

no	(Optional) Negate a command or set its defaults
isis	IS-IS configuration commands
authentication-type	Set hello authentication type
cleartext	Cleartext
md5	HMAC-MD5
level-1	Specify authentication type for level-1 IIHs

## Command Mode

- /exec/configure/if-igp

## isis authentication-type cleartext level-2

[no] isis authentication-type { cleartext | md5 } level-2

### Syntax Description

no	(Optional) Negate a command or set its defaults
isis	IS-IS configuration commands
authentication-type	Set hello authentication type
cleartext	Cleartext
md5	HMAC-MD5
level-2	Specify authentication type for level-2 IIHs

### Command Mode

- /exec/configure/if-igp

# isis authentication key-chain

[no] isis authentication key-chain <auth-keychain>

## Syntax Description

no	(Optional) Negate a command or set its defaults
isis	IS-IS configuration commands
authentication	Set hello authentication keychain
key-chain	Set hello authentication keychain
<i>auth-keychain</i>	authentication keychain

## Command Mode

- /exec/configure/if-igp

# isis authentication key-chain level-1

[no] isis authentication key-chain <auth-keychain> level-1

## Syntax Description

no	(Optional) Negate a command or set its defaults
isis	IS-IS configuration commands
authentication	Set hello authentication keychain
key-chain	Set hello authentication keychain
<i>auth-keychain</i>	authentication keychain

## Command Mode

- /exec/configure/if-igp

## isis authentication key-chain level-2

[no] isis authentication key-chain <auth-keychain> level-2

### Syntax Description

no	(Optional) Negate a command or set its defaults
isis	IS-IS configuration commands
authentication	Set hello authentication keychain
key-chain	Set hello authentication keychain
<i>auth-keychain</i>	authentication keychain

### Command Mode

- /exec/configure/if-igp

# isis bfd

[no] isis bfd [ disable ]

## Syntax Description

no	(Optional) Negate a command or set its defaults
isis	IS-IS configuration commands
bfd	Interface BFD configuration
disable	(Optional) Disable BFD on interface

## Command Mode

- /exec/configure/if-igp

## isis circuit-type

isis circuit-type <circuit-type> | no isis circuit-type [ <circuit-type> ]

### Syntax Description

no	Negate a command or set its defaults
isis	IS-IS configuration commands
circuit-type	Configure circuit type for interface
<i>circuit-type</i>	IS-IS circuit type
<i>isis</i>	

### Command Mode

- /exec/configure/if-igp



# isis csnp-interval level

[no] isis csnp-interval <sec> { level-1 | level-2 }

## Syntax Description

no	(Optional) Negate a command or set its defaults
isis	IS-IS configuration commands
csnp-interval	Set CSNP interval in seconds
<i>sec</i>	CSNP interval value
level-1	Specify interval for level-1 CSNPs
level-2	Specify interval for level-2 CSNPs

## Command Mode

- /exec/configure/if-igp

# isis hello-interval

[no] isis hello-interval <sec>

## Syntax Description

no	(Optional) Negate a command or set its defaults
isis	IS-IS configuration commands
hello-interval	Set Hello interval in seconds
<i>sec</i>	Hello interval value

## Command Mode

- /exec/configure/if-igp

# isis hello-interval level

[no] isis hello-interval <sec> { level-1 | level-2 }

## Syntax Description

no	(Optional) Negate a command or set its defaults
isis	IS-IS configuration commands
hello-interval	Set Hello interval in seconds
<i>sec</i>	Hello interval value
level-1	Specify hello-interval for level-1 IIHs
level-2	Specify hello-interval for level-2 IIHs

## Command Mode

- /exec/configure/if-igp

# isis hello-multiplier

[no] isis hello-multiplier <multi>

## Syntax Description

no	(Optional) Negate a command or set its defaults
isis	IS-IS configuration commands
hello-multiplier	Set multiplier for Hello holding time
<i>multi</i>	Hello multiplier value

## Command Mode

- /exec/configure/if-igp

# isis hello-multiplier level

[no] isis hello-multiplier <multi> { level-1 | level-2 }

## Syntax Description

no	(Optional) Negate a command or set its defaults
isis	IS-IS configuration commands
hello-multiplier	Set multiplier for Hello holding time
<i>multi</i>	Hello multiplier value
level-1	Specify hello multiplier for level-1 IIHs
level-2	Specify hello multiplier for level-2 IIHs

## Command Mode

- /exec/configure/if-igp

# isis hello-padding

```
{ isis hello-padding | no isis hello-padding [ always ] }
```

## Syntax Description

no	Negate a command or set its defaults
isis	IS-IS configuration commands
hello-padding	Pad IS-IS hello PDUs to full MTU
always	(Optional) Pad every hello

## Command Mode

- /exec/configure/if-igp

# isis ipv6 bfd

[no] isis ipv6 bfd [ disable ]

## Syntax Description

no	(Optional) Negate a command or set its defaults
isis	IS-IS configuration commands
ipv6	Enable BFD for ipv6
bfd	Interface BFD configuration
disable	(Optional) Disable BFD on interface

## Command Mode

- /exec/configure/if-igp

# isis ipv6 metric level-1

[no] isis ipv6 metric <metric> level-1

## Syntax Description

no	(Optional) Negate a command or set its defaults
isis	IS-IS configuration commands
metric	Configure metric for IPV6 topology
ipv6	Configure metric for IPV6 topology
<i>metric</i>	Default metric
level-1	Apply metric to level-1 links

## Command Mode

- /exec/configure/if-igp /exec/configure/router-isis/router-isis-af-ipv6



## isis ipv6 metric level-2

[no] isis ipv6 metric <metric> level-2

### Syntax Description

no	(Optional) Negate a command or set its defaults
isis	IS-IS configuration commands
metric	Configure metric for IPV6 topology
ipv6	Configure metric for IPV6 topology
<i>metric</i>	Default metric
level-2	Apply metric to level-2 links

### Command Mode

- /exec/configure/if-igp /exec/configure/router-isis/router-isis-af-ipv6

# isis lsp-interval

[no] isis lsp-interval <msec>

## Syntax Description

no	(Optional) Negate a command or set its defaults
isis	IS-IS configuration commands
lsp-interval	Set LSP transmission interval
<i>msec</i>	LSP transmission interval (milliseconds)

## Command Mode

- /exec/configure/if-igp

# isis mesh-group

```
{ isis mesh-group { blocked | <mesh-id> } | no isis mesh-group [ { blocked | <mesh-id> } ] }
```

## Syntax Description

no	Negate a command or set its defaults
isis	IS-IS configuration commands
mesh-group	Set IS-IS mesh group
<i>mesh-id</i>	Mesh group number
blocked	Block LSPs on this interface

## Command Mode

- /exec/configure/if-igp

# isis metric level-1

[no] isis metric <metric> level-1

## Syntax Description

no	(Optional) Negate a command or set its defaults
isis	IS-IS configuration commands
metric	Configure the metric for interface
<i>metric</i>	Default metric
level-1	Apply metric to level-1 links

## Command Mode

- /exec/configure/if-igp /exec/configure/if-mpls-tunnel

## isis metric level-2

[no] isis metric <metric> level-2

### Syntax Description

no	(Optional) Negate a command or set its defaults
isis	IS-IS configuration commands
metric	Configure the metric for interface
<i>metric</i>	Default metric
level-2	Apply metric to level-2 links

### Command Mode

- /exec/configure/if-igp /exec/configure/if-mpls-tunnel

# isis mtu-check

[no] isis mtu-check

## Syntax Description

no	(Optional) Negate a command or set its defaults
isis	IS-IS configuration commands
mtu-check	Check mtu on received hellos, if its padded

## Command Mode

- /exec/configure/if-igp

# isis mtu-check level-1

[no] isis mtu-check level-1

## Syntax Description

no	(Optional) Negate a command or set its defaults
isis	IS-IS configuration commands
mtu-check	Check mtu on received hellos, if its padded
level-1	Configure mtu-check for level-1

## Command Mode

- /exec/configure/if-igp

## isis mtu-check level-2

[no] isis mtu-check level-2

### Syntax Description

no	(Optional) Negate a command or set its defaults
isis	IS-IS configuration commands
mtu-check	Check mtu on received hellos, if its padded
level-2	Configure mtu-check for level-2

### Command Mode

- /exec/configure/if-igp



# isis network point-to-point

[no] isis network point-to-point [ use-allIS-mac ]

## Syntax Description

no	(Optional) Negate a command or set its defaults
isis	IS-IS configuration commands
network	Change interface medium to p2p
point-to-point	Change interface medium to p2p
use-allIS-mac	THIS KEYWORD OR VARIABLE IS NOT SUPPORTED

## Command Mode

- /exec/configure/if-igp /exec/configure/if-mpls-tunnel

# isis passive-interface

isis passive-interface <level> | no isis passive-interface <level> | default isis passive-interface [ <level\_obsolete> ]

## Syntax Description

no	Negate a command or set its defaults
isis	IS-IS configuration commands
passive-interface	Suppress IS-IS PDU
default	Undo a command
<i>level</i>	Level to suppress
<i>level_obsolete</i>	THIS KEYWORD OR VARIABLE IS NOT SUPPORTED

## Command Mode

- /exec/configure/if-igp

# isis prefix-attributes n-flag-clear

[no] isis prefix-attributes n-flag-clear

## Syntax Description

no	(Optional) Negate a command or set its defaults
isis	IS-IS configuration commands
prefix-attributes	Segment routing attribute
n-flag-clear	Clear N flag for prefix

## Command Mode

- /exec/configure/if-igp

# isis priority level

[no] isis priority <priority> { level-1 | level-2 }

## Syntax Description

no	(Optional) Negate a command or set its defaults
isis	IS-IS configuration commands
priority	Set priority for DIS election
<i>priority</i>	Priority value
level-1	Specify priority for level-1 routing
level-2	Specify priority for level-2 routing

## Command Mode

- /exec/configure/if-igp

# isis retransmit-interval

[no] isis retransmit-interval <sec>

## Syntax Description

no	(Optional) Negate a command or set its defaults
isis	IS-IS configuration commands
retransmit-interval	Set per-LSP retransmission interval
<i>sec</i>	Interval between retransmissions of the same LSP (seconds)

## Command Mode

- /exec/configure/if-igp

# isis retransmit-throttle-interval

[no] isis retransmit-throttle-interval <msec>

## Syntax Description

no	(Optional) Negate a command or set its defaults
isis	IS-IS configuration commands
retransmit-throttle-interval	Set interface LSP retransmission interval
<i>msec</i>	Delay between retransmitted LSPs (milliseconds)

## Command Mode

- /exec/configure/if-igp

# isis shutdown

[no] isis shutdown

## Syntax Description

no	(Optional) Negate a command or set its defaults
isis	IS-IS configuration commands
shutdown	Graceful shutdown IS-IS functionality on the interface

## Command Mode

- /exec/configure/if-igp

# isis suppressed

[no] isis suppressed

## Syntax Description

no	(Optional) Negate a command or set its defaults
isis	IS-IS configuration commands
suppressed	Do not advertise connected prefixes of this interface

## Command Mode

- /exec/configure/if-igp



# isolate

[no] isolate [ include-local | route-map <rmap-name> ]

## Syntax Description

no	(Optional) Negate a command or set its defaults
isolate	Withdraw remote BGP routes to isolate this router
include-local	(Optional) Withdraw both local and remote BGP routes
route-map	(Optional) Display routes matching the route-map
<i>rmap-name</i>	(Optional) Route-map name

## Command Mode

- /exec/configure/router-bgp

# isolate

[no] isolate

## Syntax Description

no	(Optional) Negate a command or set its defaults
isolate	Isolate this router from RIP perspective

## Command Mode

- /exec/configure/router-rip

# isolate

[no] isolate

## Syntax Description

no	(Optional) Negate a command or set its defaults
isolate	Isolate router, ISIS perspective (set overload)

## Command Mode

- /exec/configure/router-isis

# isolate

[no] isolate

## Syntax Description

no	(Optional) Negate a command or set its defaults
isolate	Isolate this router from OSPFV3 perspective

## Command Mode

- /exec/configure/router-ospf3

# isolate

[no] isolate

## Syntax Description

no	(Optional) Negate a command or set its defaults
isolate	Isolate this router from EIGRP perspective

## Command Mode

- /exec/configure/router-eigrp

# isolate

[no] isolate

## Syntax Description

no	(Optional) Negate a command or set its defaults
isolate	Isolate this router from OSPF perspective

## Command Mode

- /exec/configure/router-ospf

# itd

{ itd <service-name> } | { no itd <service-name> }

## Syntax Description

no	Negate a command or set its defaults
itd	ITD service
<i>service-name</i>	ITD service-name

## Command Mode

- /exec/configure

# itd device-group

{ itd device-group <svc-name> } | { no itd device-group <svc-name> }

## Syntax Description

no	Negate a command or set its defaults
itd	ITD service
device-group	ITD device group
<i>svc-name</i>	service-name

## Command Mode

- /exec/configure



# itd port-group

```
{ itd port-group <svc-name> } | { no itd port-group <svc-name> }
```

## Syntax Description

no	Negate a command or set its defaults
itd	ITD service
port-group	port group
<i>svc-name</i>	service-name

## Command Mode

- /exec/configure

## itd session access-list refresh

itd session access-list <acl-name> refresh

### Syntax Description

itd	ITD service
session	ITD session
access-list	ITD include access-list
<i>acl-name</i>	acl-name
refresh	Refresh ITD policies based on access-list changes

### Command Mode

- /exec/configure

# itd session device-group

{ itd session device-group <svc-name> } | { no itd session device-group <svc-name> }

## Syntax Description

no	Negate a command or set its defaults
itd	ITD service
session	ITD session
device-group	ITD device group
<i>svc-name</i>	service-name

## Command Mode

- /exec/configure

# itd statistics

{ itd statistics <service-name> } | { no itd statistics <service-name> }

## Syntax Description

no	Negate a command or set its defaults
itd	ITD service
statistics	ITD statistics
<i>service-name</i>	ITD service-name

## Command Mode

- /exec/configure

# itu channel

itu channel <itu\_channel\_val> | no itu channel [ <itu\_channel\_val> ]

## Syntax Description

no	Negate a command or set its defaults
itu	Configure itu_channel for the DWDM SFP
channel	Configure itu_channel for the DWDM SFP
<i>itu_channel_val</i>	Enter itu channel

## Command Mode

- /exec/configure/if-ethernet-all /exec/configure/if-eth-base

