



# I Commands

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# icmp-echo

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

## Syntax Description

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

# icmpv6 cache disable

[no] icmpv6 cache disable

## Syntax Description

Syntax Description	
no	(Optional) Negate a command or set its defaults
icmpv6	ICMPv6 Commands
cache	Disable cache
disable	Disable cache

## Command Mode

- /exec/configure

# icmpv6 cfs-queue

{ icmpv6 cfs-queue <size> } | { no icmpv6 cfs-queue }

## Syntax Description

<b>Syntax Description</b>	<i>no</i>	Negate a command or set its defaults
	<i>icmpv6</i>	ICMPv6 Commands
	<i>cfs-queue</i>	<i>cfs-queue</i>
	<i>size</i>	Size for adjacencies to be sent in CFSoE payload

## Command Mode

- /exec/configure

## icmpv6 library mts-queue

```
{ icmpv6 library mts-queue <size> } | { no icmpv6 library mts-queue }
```

### Syntax Description

Syntax Description		
no		Negate a command or set its defaults
icmpv6		ICMPv6 Commands
library		library data queue
mts-queue		mts-queue
<i>size</i>		Size for icmpv6 data sap qlimit

### Command Mode

- /exec/configure

# icmpv6 mts-queue

{ icmpv6 mts-queue <size> } | { no icmpv6 mts-queue }

## Syntax Description

<b>Syntax Description</b>	<i>no</i>	Negate a command or set its defaults
	<i>icmpv6</i>	ICMPv6 Commands
	<i>mts-queue</i>	<i>mts-queue</i>
	<i>size</i>	Size for icmpv6 data sap qlimit

## Command Mode

- /exec/configure

# import

import

## Syntax Description

---

### Syntax Description

---

import import

---

## Command Mode

- /exec/configure

# import interface

import interface <if0>

## Syntax Description

---

### Syntax Description

---

import import

---

interface Interface configuration

---

*if0* interface type and number in module/slot format

---

## Command Mode

- /exec/configure

# import map

[no] import map <rmap-name>

## Syntax Description

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	

## Command Mode

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



# import running-config

import running-config [ exclude interface ethernet ]

## Syntax Description

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 vrf default map

```
import vrf default [ <prefix-limit> ] map <rmap-name> | no import vrf default [ <prefix-limit> ] map
<rmap-name>
```

## Syntax Description

Syntax Description		
no		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
map		Route-map based VRF import
<i>rmap-name</i>		Route-map name

## 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

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

# in-order-guarantee

[no] in-order-guarantee

## Syntax Description

<b>Syntax Description</b>	no	(Optional) Negate a command or set its defaults
	in-order-guarantee	Enable IOD

## Command Mode

- /exec/configure/policy-map/type/uf/class

# include profile

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

## Syntax Description

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

<b>Syntax Description</b>	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 next

```
{ { index <index> { next-address [ loose | strict ] <ipaddr> | exclude-address <ipaddr> } } | { no index <index> } }
```

## Syntax Description

Syntax Description		
no		Negate a command or set its defaults
index		Specify the next entry index to add, edit (or delete)
<i>index</i>		Previous index number
next-address		Specify the next address in the path
loose		(Optional) Target address is loose
strict		(Optional) Target address is strict
exclude-address		Exclude an address from subsequent partial path segments
<i>ipaddr</i>		Enter IP address (A.B.C.D)

## Command Mode

- /exec/configure/te/expl-path

# ingress-replication

ingress-replication <addr>

## Syntax Description

---

**Syntax Description**

---

ingress-replication	Configure ingress replication
---------------------	-------------------------------

---

<i>addr</i>	Remote Peer IP Address
-------------	------------------------

---

## Command Mode

- /exec/configure/if-nve/vni



# ingress-replication protocol bgp

[no] ingress-replication protocol bgp

## Syntax Description

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

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

{ ingress <ifh> | no ingress }

## Syntax Description

---

**Syntax Description**

**no** Negate a command or set its defaults

---

**ingress** Ingress interface to determine enhanced forwarding enabled

---

*ifh* Name of the interface for ngoam on which fabric forwarding is configured

---

## Command Mode

- /exec/configure/configngoamprofile

# ingress interface

[no] ingress interface <interface-ref>

## Syntax Description

Syntax Description		
no	(Optional)	Negate a command or set its defaults
ingress	ITD	ingress interface
interface	ITD	ingress interface
<i>interface-ref</i>		

## Command Mode

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

# ingress interface

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

## Syntax Description

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	(Optional)	next hop ip address
<i>ip-addr</i>	(Optional)	Next hop IPv4 address connected to ingress intrerface

## Command Mode

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

# inherit peer-policy

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

## Syntax Description

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-vpn4  
/exec/configure/router-bgp/router-bgp-neighbor/router-bgp-neighbor-af-vpn6  
/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

# inherit peer-policy

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

## Syntax Description

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-ipv4-mdt
- /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

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

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

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

# inject-map exist-map

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

## Syntax Description

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

# install activate

install activate <patch> + [ forced ]

## Syntax Description

---

### Syntax Description

---

install Install package

---

activate Activate package

---

*patch* Package Name

---

forced (Optional)  
non-interactive

---

## Command Mode

- /exec

# install add

```
install add { <package-name> | <uri1> } [ vrf <vrf-known-name> ] [ [ activate [ upgrade | downgrade ] ] [ forced ] ]
```

## Syntax Description

Syntax Description		
install		Install package
add		Add package
<i>package-name</i>		Package name
<i>uri1</i>		Enter package uri
vrf		(Optional) Display per-VRF information
<i>vrf-known-name</i>		(Optional) Known VRF name
activate		(Optional) Activate package
forced		(Optional) non-interactive
upgrade		(Optional) Upgrade package
downgrade		(Optional) Downgrade package

## Command Mode

- /exec

# install all

```
install { all [ nxos <uri> | kickstart <uri1> | system <uri3> | serial ] + [ force ] [ non-disruptive | no-reload |
noswitchover ] [ bios | no-save ] [ bios-force ] [ non-interruptive ] [ compact ] | force-all [ nxos <uri> | serial
] + [ non-disruptive ] [ force ] }
```

## Syntax Description

### Syntax Description

install	upgrade software
all	Upgrade the system
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	(Optional) Exit right before reload during install.
non-interruptive	(Optional) Non-Interruptive install.
no-save	(Optional) Config not saved. Manually save config before starting install all
bios	(Optional) BIOS Only
bios-force	(Optional) Forcefully upgrade bios.
force	(Optional) Forcefully allow ISSU with target image .
non-disruptive	(Optional) Non-Disruptive install.
compact	(Optional) Compact image to make it nexus 3k only
nxos	(Optional) boot-variable name
<i>uri</i>	(Optional) Enter image uri
serial	(Optional) Upgrade linecards in serial
force-all	Force upgrade the system

## Command Mode

- /exec

# install commit

install commit [ <patch> ]

## Syntax Description

---

### Syntax Description

---

`install` Install package

---

`commit` Commit software patch

---

`patch` (Optional) Package  
Name

---

## Command Mode

- /exec

# install deactivate

install deactivate <patch> + [ forced ]

## Syntax Description

---

**Syntax Description**

---

install    Install package

---

deactivate    Deactivate package

---

*patch*    Package Name

---

forced    (Optional)  
          non-interactive

---

## Command Mode

- /exec



# install epld

```
install epld <uri> { { module { <module> } [ force ] } }
```

## Syntax Description

<b>Syntax Description</b>	<i>install</i> upgrade software
	<i>epld</i> Install EPLD from EPLD image
	<i>uri</i> Local URI containing EPLD Image
	<i>module</i> Upgrade the modules
	<i>module</i> Enter the module number to be upgraded
	<i>force</i> (Optional) Force Install EPLD from EPLD image

## Command Mode

- /exec

# install epld

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

## Syntax Description

### Syntax Description

---

install upgrade software

---

epld Install EPLD from EPLD image

---

*uri1* Local URI containing EPLD Image

---

module Upgrade the modules

---

all Install all the modules

---

force (Optional) Force Install EPLD from EPLD image

---

## Command Mode

- /exec

# install epld

```
install epld <uri> { { module { <module> } { primary | golden } [ force ] } }
```

## Syntax Description

Syntax Description	
install	upgrade software
epld	Install EPLD from EPLD image
<i>uri</i>	Local URI containing EPLD Image
module	Upgrade the modules
<i>module</i>	Enter the module number to be upgraded
primary	Upgrade primary fpga image
golden	Upgrade golden fpga image
force	(Optional) Force Install EPLD from EPLD image

## Command Mode

- /exec

# install epld

```
install epld <uri> { { module { all } { primary | golden } [ force ] } }
```

## Syntax Description

Syntax Description	
install	upgrade software
epld	Install EPLD from EPLD image
<i>uri</i>	Local URI containing EPLD Image
module	Upgrade the modules
all	Install all the modules
primary	Upgrade primary fpga image
golden	Upgrade golden fpga image
force	(Optional) Force Install EPLD from EPLD image

## Command Mode

- /exec

# install epld psu

install epld <uri1> psu

## Syntax Description

<b>Syntax Description</b>	install upgrade software
	epld Install EPLD from EPLD image
	<i>uri1</i> Local URI containing EPLD Image
	psu Upgrade PSU firmware

## Command Mode

- /exec

# install feature-set fcoe-npv

[no] install feature-set fcoe-npv

## Syntax Description

<b>Syntax Description</b>	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 fex

[no] install feature-set fex

## Syntax Description

Syntax Description	
no	(Optional) Negate a command or set its defaults
install	install a feature-set
feature-set	install feature-set
fex	FEX

## Command Mode

- /exec/configure

# install feature-set mpls

[no] install feature-set mpls

## Syntax Description

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 license

install license <uri0> [ <s0> ]

## Syntax Description

---

**Syntax Description**

---

install upgrade software

---

license install license

---

*uri0* Specify URL for license file

---

*s0* (Optional) Specify a target name for the license file

---

## Command Mode

- /exec

# install module

```
install module <module> { bios [ [ system <uri0> ] [ forced2 ] ] | bios [ primary | golden ] [ forced ] | image
[ { forced1 | system1 <uri1> } ] }
```

## Syntax Description

### Syntax Description

`install` upgrade software

`module` Upgrade for module

*module* Enter module index

`bios` Upgrade module bios

`system` (Optional) System Image

*uri0* (Optional) Local URI containing the system Image

`forced2` (Optional) Force install bios

`primary` (Optional) Upgrade the Primary bios

`golden` (Optional) Upgrade the Golden bios

`forced` (Optional) Force install bios

`image` Upgrade module image

`forced1` (Optional) Bypass SRG check

`system1` (Optional) System Image

*uri1* (Optional) Local URI containing the system Image

## Command Mode

- /exec

# install remove

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

## Syntax Description

---

**Syntax Description**

---

`install` Install package

---

`remove` Remove package

---

*patch* Package Name

---

`inactive` All inactive except non-committed packages

---

`forced` (Optional) Remove package

---

## Command Mode

- /exec

# instance-id

[no] instance-id <iid>

## Syntax Description

<b>Syntax Description</b>	<i>no</i>	(Optional) Negate a command or set its defaults
	<i>instance-id</i>	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 <plistinst>

## Syntax Description

---

**Syntax Description**

---

no (Optional) Negate a command or set its defaults

---

instance Configure a parameter list instance

---

*plistinst* Enter the name of the parameter list instance

---

## Command Mode

- /exec/configure/param-list

# instance

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

## Syntax Description

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 vlan

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

## Syntax Description

<b>Syntax Description</b>	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

# interface-vlan reset credits

```
interface-vlan reset credits [ <count> ]
```

## Syntax Description

Syntax Description	
interface-vlan	Vlan Interface
reset	Reset SVI Credits
credits	SVI Credits
<i>count</i>	(Optional) Set SVI Credit Count

## Command Mode

- /exec/configure



# interface-vlan reset fsm

```
interface-vlan <vlan-id> reset fsm
```

## Syntax Description

Syntax	Description
interface-vlan	Vlan Interface
<i>vlan-id</i>	VLAN Id
reset	Reset SVI Credits
fsm	SVI FSM

## Command Mode

- /exec/configure

# interface

[no] interface <interface>

## Syntax Description

---

<b>Syntax Description</b>	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

<b>Syntax Description</b>	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

---

<b>Syntax Description</b>	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

---

### Syntax Description

---

no (Optional) Negate a command or set its defaults

---

interface Configure interfaces

---

*interface* Interface Name

---

## Command Mode

- /exec/configure

# interface

[no] interface <interface>

## Syntax Description

---

<b>Syntax Description</b>	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

---

### Syntax Description

---

no (Optional) Negate a command or set its defaults

---

interface Configure interfaces

---

*interface* Interface Name

---

## Command Mode

- /exec/configure

# interface

[no] interface <interface>

## Syntax Description

---

<b>Syntax Description</b>	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

<b>Syntax Description</b>	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

---

### Syntax Description

---

interface Configure  
interfaces

---

*interface* Interface Name

---

## Command Mode

- /exec/configure

# interface

[no] interface <interface>

## Syntax Description

<b>Syntax Description</b>	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

---

<b>Syntax Description</b>	no	(Optional) Negate a command or set its defaults
---------------------------	----	---

---

	interface	Configure interfaces
--	-----------	----------------------

---

	<i>interface</i>	Interface Name
--	------------------	----------------

---

## Command Mode

- /exec/configure

# interface

{ interface <interface-range> } | { no interface }

## Syntax Description

Syntax Description		
no		Negate a command or set its defaults
interface		Configure ngoam egress interface
<i>interface-range</i>		Configure ngoam egress interface

## Command Mode

- /exec/configure/configngoamprofile

# interface breakout module

interface breakout module <module>

## Syntax Description

---

### Syntax Description

---

*interface* Configure interfaces

---

*breakout* Configuring the breakout for a module

---

*module* High Bandwidth Module

---

*module* High Bandwidth Module number

---

## Command Mode

- /exec/configure

# interface breakout module

[no] interface breakout module <module>

## Syntax Description

<b>Syntax Description</b>	no	Negate a command or set its defaults
	interface	Configure interfaces
	breakout	Configuring the breakout for a module
	module	High Bandwidth Module
	<i>module</i>	High Bandwidth Module number

## Command Mode

- /exec/configure

# interface breakout module port map

```
interface breakout module <module> port <port_num> map <breakout_map>
```

## Syntax Description

Syntax Description		
interface		Configure interfaces
breakout		Configuring the breakout for an interface
module		High Bandwidth Module
<i>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



# interface breakout module port map

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

## Syntax Description

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>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

# interface down delay

[no] interface down delay |

## Syntax Description

### Syntax Description

*down* delay

no Negate a command or set its defaults

interface Add tunnel interface config

delay Tunnel interface down delay config

## Command Mode

- /exec/configure/if-te

# interop-enable

[no] interop-enable

## Syntax Description

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

# ip

[no] ip [ <ipaddress> [ secondary ] ]

## Syntax Description

Syntax Description	
no	(Optional) Negate a command or set its defaults
ip	Set Virtual IP address
<i>ipaddress</i>	(Optional) Virtual IP address
secondary	(Optional) Make this a secondary IP address

## Command Mode

- /exec/configure/if-eth-any/glbp

# ip

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

## Syntax Description

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

## Command Mode

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

# ip

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

## Syntax Description

---

### 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] ip <ipaddr>

## Syntax Description

---

### Syntax Description

---

no (Optional) Negate a command or set its defaults

---

ip ip address of redundancy group member

---

*ipaddr* Redundancy-group node IP address

---

## Command Mode

- /exec/configure/if-nve/rgrp

# ip access-class

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

## Syntax Description

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

## Command Mode

- /exec/configure/line



# ip access-group

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

## Syntax Description

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

## Command Mode

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

# ip access-list

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

## Syntax Description

Syntax Description		
no	(Optional)	Negate a command or set its defaults
ip		Configure IP features
access-list		Configure access list
<i>name</i>		List name
client	(Optional)	set client type
<i>clienttype</i>	(Optional)	CLI/ONEP
<i>clientID</i>	(Optional)	client appID

## 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

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

```
[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

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

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 secondary

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

## Syntax Description

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

# ip adjacency cache disable

[no] ip adjacency cache disable

## Syntax Description

Syntax Description	
no	(Optional) Negate a command or set its defaults
ip	Configure IP features
adjacency	Configure Adjmgr
cache	Disable cache
disable	Disable cache

## Command Mode

- /exec/configure

# ip adjacency forcedownload

```
ip adjacency [ vrf { <vrf-name> | <vrf-known-name> } ] { <interface> { * | <ip-addr> } | * } forcedownload
```

## Syntax Description

Syntax Description		
ip		Configure IP features
adjacency		Configure Adjmgr
vrf		(Optional) Display per-VRF information
<i>vrf-name</i>		(Optional) VRF name
<i>vrf-known-name</i>		(Optional) Known VRF name
<i>interface</i>		Display specific interface adjacencies only
<i>ip-addr</i>		IPV4 source address
*		for all adjacencies in this context
forcedownload		Create consistency in UFDM

## Command Mode

- /exec/configure



## ip adjacency l2fm-reg

```
[no] ip adjacency l2fm-reg { [ vrf <vrf-known-name> ] | <interface> }
```

### Syntax Description

Syntax Description		
no	(Optional)	Negate a command or set its defaults
ip		Configure IP features
adjacency		Configure Adjmgr
l2fm-reg		Register with l2fm
vrf	(Optional)	vrf name
<i>vrf-known-name</i>	(Optional)	Known VRF name
<i>interface</i>		Interface name

### Command Mode

- /exec/configure

# ip adjacency notify interval

{ ip adjacency notify interval <time> } | { no ip adjacency notify interval }

## Syntax Description

Syntax Description		
no		Negate a command or set its defaults
ip		Configure IP features
adjacency		Configure Adjmgr
notify		Notify URIB/FIB
interval		Time interval
<i>time</i>		value in milli seconds

## Command Mode

- /exec/configure

## ip adjacency peer-gmac

[no] ip adjacency [ vrf { <vrf-name> | <vrf-known-name> } ] { <interface> { \* | <ip-addr> } | \* } peer-gmac

### Syntax Description

Syntax Description		
no	(Optional)	Negate a command or set its defaults
ip		Configure IP features
adjacency		Configure Adjmgr
vrf	(Optional)	Display per-VRF information
<i>vrf-name</i>	(Optional)	VRF name
<i>vrf-known-name</i>	(Optional)	Known VRF name
<i>interface</i>		Display specific interface adjacencies only
<i>ip-addr</i>		IPv4 source address
*		for all adjacencies in this context
peer-gmac		Set/clear the peer-gmac bit

### Command Mode

- /exec/configure

## ip adjacency remote-adj

```
[no] ip adjacency [ vrf { <vrf-name> | <vrf-known-name> } ] { <interface> { * | <ip-addr> } | * } remote-adj
```

### Syntax Description

Syntax Description		
no	(Optional)	Negate a command or set its defaults
ip		Configure IP features
adjacency		Configure Adjmgr
vrf	(Optional)	Display per-VRF information
<i>vrf-name</i>	(Optional)	VRF name
<i>vrf-known-name</i>	(Optional)	Known VRF name
<i>interface</i>		Display specific interface adjacencies only
<i>ip-addr</i>		IPv4 source address
*		for all adjacencies in this context
remote-adj		Set/clear the remote-adj bit

### Command Mode

- /exec/configure

# ip adjacency route distance

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

## Syntax Description

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 adjacency statistics collect

{ ip adjacency statistics collect } | { no ip adjacency statistics collect }

## Syntax Description

<b>Syntax Description</b>	no	Negate a command or set its defaults
	ip	Configure IP features
	adjacency	Configure Adjmgr
	statistics	Statistics
	collect	Collection

## Command Mode

- /exec/configure

# ip adjacency statistics interval

{ ip adjacency statistics interval <time> } | { no ip adjacency statistics interval }

## Syntax Description

<b>Syntax Description</b>	no	Negate a command or set its defaults
	ip	Configure IP features
	adjacency	Configure Adjmgr
	statistics	Statistics
	interval	Interval
	<i>time</i>	Timer timeout value

## Command Mode

- /exec/configure

## ip adjmgr internal event-history size

```
[no] ip adjmgr internal event-history { control | errors | ipc | stats | ha | cli | sdb | snmp | nb | dme-event } size
{ <size_in_text> }
```

### Syntax Description

#### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
adjmgr	AM information
internal	Commands for internal use
event-history	various event logs of Adjmgr
control	Control logs of Adjmgr
errors	error logs of Adjmgr
ipc	ipc debug message logs of Adjmgr
stats	stats debug message logs of Adjmgr
ha	ha debug message logs of Adjmgr
cli	cli related events of Adjmgr
sdb	sdb debug message logs of Adjmgr
snmp	snmp debug message logs of Adjmgr
nb	netbroker debug message logs of Adjmgr
dme-event	dme event logs of Adjmgr
size	Configure the size of the event-hist buffer
<i>size_in_text</i>	Buffer size

### Command Mode

- /exec/configure



## ip adjmgr internal event-history size

```
[no] ip adjmgr internal event-history { control | errors | ipc | stats | ha | cli | sdb | snmp | nb | dme-event } size
{ <size_in_Kbytes> }
```

### Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
ip	Configure IP features	
adjmgr	AM information	
internal	Commands for internal use	
event-history	various event logs of Adjmgr	
control	Control logs of Adjmgr	
errors	error logs of Adjmgr	
ipc	ipc debug message logs of Adjmgr	
stats	stats debug message logs of Adjmgr	
ha	ha debug message logs of Adjmgr	
cli	cli related events of Adjmgr	
sdb	sdb debug message logs of Adjmgr	
snmp	snmp debug message logs of Adjmgr	
nb	netbroker debug message logs of Adjmgr	
dme-event	dme event logs of Adjmgr	
size	Configure the size of the event-hist buffer	
<i>size_in_Kbytes</i>	Size of the file in kbytes	

### Command Mode

- /exec/configure

# ip allow address-overlap

[no] ip allow address-overlap

## Syntax Description

Syntax Description		
	no	(Optional) Negate a command or set its defaults
	ip	Configure IP features
	allow	Allow interface IP address overlap
	address-overlap	Allow interface IP address overlap

## Command Mode

- /exec/configure

# ip allow port

```
{ ip allow port { <allow_ports> | none } | no ip allow port [ <allow_ports> | none ] }
```

## Syntax Description

Syntax Description		
no		Negate a command or set its defaults
ip		IP protocol
port		Well known UDP/TCP ports
allow		Restrict the set of allowed ports
<i>allow_ports</i>		Comma separated list of ports or ranges
none		Disallow binding to any ports

## Command Mode

- /exec/configure/virt-serv

## ip amt anycast-gateway-address

```
{ { ip amt anycast-gateway-address <address> } | { no ip amt anycast-gateway-address [ <address> ] } } | {
ipv6 amt anycast-gateway-address <address6> } | { no ipv6 amt anycast-gateway-address [ <address6> ] } }
```

### Syntax Description

Syntax Description		
no		Negate a command or set its defaults
ip		Configure IP features
ipv6		Configure IPv6 features
amt		AMT global configuration commands
anycast-gateway-address		Configure anycast address for AMT gateway
<i>address</i>		IP anycast address of AMT gateway

### Command Mode

- /exec/configure /exec/configure/vrf

# 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

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

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 gateway send-discovery

[no] ip amt gateway send-discovery

## Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
ip	Configure IP features	
amt	AMT global configuration commands	
gateway	Configures IP AMT gateway functionality	
send-discovery	Trigger a Discovery message to the Anycast address	

## Command Mode

- /exec/configure /exec/configure/vrf

## ip amt join-policy

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

### Syntax Description

#### 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>route-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

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

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

<b>Syntax Description</b>	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

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

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

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

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 am mts-batch

```
{ ip arp am mts-batch <batch-timer> }
```

## Syntax Description

Syntax Description		
	ip	Configure IP features
	arp	Configure ARP parameters
	am	Adjacency Manager
	mts-batch	Configure ARP-AM mts batch count
	<i>batch-timer</i>	Interval in milliseconds

## Command Mode

- /exec/configure



# ip arp broadcast mac-mismatch

{ ip arp broadcast mac-mismatch } | { no ip arp broadcast mac-mismatch }

## Syntax Description

Syntax Description		
no		Negate a command or set its defaults
ip		Configure IP features
arp		Configure ARP parameters
broadcast		Enable/disable arp broadcast
mac-mismatch		when there is a smac mismatch

## Command Mode

- /exec/configure

# ip arp cache disable

[no] ip arp cache disable

## Syntax Description

Syntax Description	
no	(Optional) Negate a command or set its defaults
ip	Configure IP features
arp	Configure ARP parameters
cache	Disable cache
disable	Disable cache

## Command Mode

- /exec/configure

# ip arp cache limit

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

## Syntax Description

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
max	Maximum number of ARP entries
syslog	(Optional) Syslog messages
rate	(Optional) Syslogs per second

## Command Mode

- /exec/configure

# ip arp cfs-queue

{ ip arp cfs-queue <size> } | { no ip arp cfs-queue }

## Syntax Description

Syntax Description		
no		Negate a command or set its defaults
ip		Configure IP features
arp		ARP
cfs-queue	cfs-queue	
<i>size</i>		Size for adjacencies to be sent in CFSOE payload

## Command Mode

- /exec/configure

# ip arp cos

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

## Syntax Description

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 event-history size

```
[no] ip arp event-history { packet | event | sync-event | ip-sync-event | control | ha | errors | lcache | lcache-errors
| client-event | client-errors | snmp | cli | suppression-event | suppression-errors | controller-errors | dme-event
} size { <size_in_text> }
```

### Syntax Description

Syntax Description		
no	(Optional)	Negate a command or set its defaults
ip		IP events
arp		Configure ARP parameters
event-history		log debug events into event history buffer
packet	inst	packet logs
event		Internal event logs
sync-event		CFS and MCECM related event logs
ip-sync-event		L3 over vpc events
control		ARP control event logs
ha		HA and GR logs
errors	inst	error logs
lcache		lcache logs
lcache-errors		lcache_error logs
client-event		Client_event logs
client-errors		Client_error logs
cli		cli logs
snmp		SNMP logs
suppression-event		ARP suppression event logs
suppression-errors		ARP suppression error logs
controller-errors		Controller MAC-IP route error logs
dme-event		ARP DME event logs
size		Configure the size of the event-hist buffer
<i>size_in_text</i>		Buffer size

**Command Mode**

- /exec/configure

## ip arp event-history size

```
[no] ip arp event-history { packet | event | sync-event | ip-sync-event | control | ha | errors | lcache | lcache-errors
| client-event | client-errors | snmp | cli | suppression-event | suppression-errors | dme-event } size {
<size_in_Kbytes> }
```

### Syntax Description

Syntax Description		
no	(Optional)	Negate a command or set its defaults
ip		IP events
arp		Configure ARP parameters
event-history		log debug events into event history buffer
packet	inst	packet logs
event		Internal event logs
sync-event		CFS and MCECM related event logs
ip-sync-event		L3 over vpc events
control		ARP control event logs
ha		HA and GR logs
errors	inst	error logs
lcache		lcache logs
lcache-errors	lcache_error	logs
client-event	Client_event	logs
client-errors	Client_error	logs
cli		cli logs
snmp		SNMP logs
suppression-event		ARP suppression event logs
suppression-errors		ARP suppression error logs
dme-event		ARP DME event logs
size		Configure the size of the event-hist buffer
<i>size_in_Kbytes</i>		Size of the file in kbytes

### Command Mode

- /exec/configure



# ip arp garp-storm

{ ip arp garp-storm } | { no ip arp garp-storm }

## Syntax Description

Syntax Description		
no		Negate a command or set its defaults
ip		Configure IP features
arp		Configure ARP parameters
garp-storm		Configure timer values for garp-storm

## Command Mode

- /exec/configure

## ip arp garp-storm timer count

```
{ ip arp garp-storm timer <garp-timer> count <garp-count> } | { no ip arp garp-storm timer <garp-timer>
count <garp-count> }
```

### Syntax Description

Syntax Description		
no		Negate a command or set its defaults
ip		Configure IP features
arp		Configure ARP parameters
garp-storm		Configure timer values for garp-storm
timer		Set the garp-storm timer value in seconds
<i>garp-timer</i>		Timer value in seconds
count		Set the garp count value
<i>garp-count</i>		Timer value in seconds

### Command Mode

- /exec/configure

# ip arp gratuitous hsrp duplicate

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

## Syntax Description

<b>Syntax Description</b>	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-igmp /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

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

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-igmp /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

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

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

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

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

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 mts-queue

{ ip arp mts-queue <size> } | { no ip arp mts-queue }

### Syntax Description

Syntax Description		
no		Negate a command or set its defaults
ip		Configure IP features
arp		ARP
mts-queue	mts-queue	
size		Size for arp data sap qlimit

### Command Mode

- /exec/configure

## ip arp off-list timeout

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

### Syntax Description

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 rarp fabric-forwarding

[no] ip arp rarp fabric-forwarding

## Syntax Description

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

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 request

ip arp request <ip-address>

## Syntax Description

Syntax Description		
	ip	Configure IP features
	arp	Configure ARP parameters
	request	Trigger ARP request
	<i>ip-address</i>	IP address

## Command Mode

- /exec/configure/if-igp

## 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

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 testnum

```
ip arp suppression testnum <testnum> [ { <ip-address> <mac-address> <vlan_id> <interface> <phy-interface>
} <count> ]
```

### Syntax Description

Syntax Description		
ip		Configure IP features
arp		Configure ARP parameters
suppression		ARP-suppression based event
testnum		test case number
<i>testnum</i>		id of test (1-100)
<i>ip-address</i>		(Optional) IP address
<i>mac-address</i>		(Optional) MAC address
<i>vlan_id</i>		(Optional) Vlan
<i>interface</i>		(Optional) ARP interface
<i>phy-interface</i>		(Optional) ARP interface
<i>count</i>		(Optional) no of adjacencies needed

### Command Mode

- /exec/configure

# ip arp suppression timeout

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

## Syntax Description

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

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 synchronize pull

ip arp synchronize pull

## Syntax Description

Syntax Description		
	ip	Configure IP features
	arp	ARP
	synchronize	CFS synchronize
	pull	Initiate CFS pull request

## Command Mode

- /exec

# ip arp synchronize push

ip arp synchronize push

## Syntax Description

Syntax Description		
	ip	Configure IP features
	arp	ARP
	synchronize	CFS synchronize
	push	Initiate CFS push message

## Command Mode

- /exec

# ip arp test

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

## Syntax Description

Syntax Description		
no		Negate a command or set its defaults
ip		Configure IP features
arp		Configure ARP parameters
test		test command
<i>ip-address</i>		IP address
<i>mac-address</i>		MAC address
<i>mode</i>		Mode: 1 - Data plane, 2 - Control plane

## Command Mode

- /exec/configure/if-vlan-common

# ip arp timeout

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

## Syntax Description

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 timeout

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

## Syntax Description

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 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

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	(Optional)	Timeout to be used for checking regex cpu hog
<i>sec</i>	(Optional)	No. of seconds used as timeout
deny		Specify packets to reject
permit		Specify packets to forward
<i>line</i>		A

### 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

#### Syntax Description

<code>no</code>	Negate a command or set its defaults
<code>ip</code>	Configure IP features
<code>as-path</code>	BGP autonomous system path filter
<code>access-list</code>	Specify an access list name
<i>aspl-name</i>	AS path access list name
<i>aspl-name</i>	Known as-path access-list name
<code>timeout</code>	(Optional) Timeout to be used for checking regex cpu hog
<i>sec</i>	(Optional) No. of seconds used as timeout
<code>deny</code>	Specify packets to reject
<code>permit</code>	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

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	(Optional)	Timeout to be used for checking regex cpu hog
<i>sec</i>	(Optional)	No. of seconds used as timeout
deny		Specify packets to reject
permit		Specify packets to forward
<i>line</i>		A

### Command Mode

- /exec/configure

# ip authentication

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

## Syntax Description

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	
mode	mode	
eigrp	EIGRP interface configuration commands	
md5	Keyed message digest	
<i>eigrp-ptag</i>		

## Command Mode

- /exec/configure/if-igp

# ip auto-discard

[no] ip auto-discard

## Syntax Description

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

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

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 cache disable

[no] ip cache disable

## Syntax Description

Syntax Description	
no	(Optional) Negate a command or set its defaults
ip	Configure IP features
cache	Disable cache
disable	Disable cache

## Command Mode

- /exec/configure



## 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

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	(Optional) Timeout to be used for checking regex cpu hog
<i>sec</i>	(Optional) No. of seconds used as timeout
deny	Specify community to reject
permit	Specify community to accept
<i>line</i>	Regular-expression(must

### Command Mode

- /exec/configure

## 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

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	(Optional)	Timeout to be used for checking regex cpu hog
<i>sec</i>	(Optional)	No. of seconds used as timeout
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

#### 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	(Optional) Timeout to be used for checking regex cpu hog
<i>sec</i>	(Optional) No. of seconds used as timeout
deny	Specify community to reject
permit	Specify community to accept
<i>line</i>	Regular-expression(must

### Command Mode

- /exec/configure

## ip community-list standard permit internet local-AS

```
{ ip community-list standard <name> { permit | deny } { internet | local-AS | no-advertise | no-export | <aann>
| <number> | <hex_num> } + } | { no ip community-list standard <name> [ permit | deny ] [ { internet | local-AS
| no-advertise | no-export | <aann> | <number> | <hex_num> } + ] }
```

### Syntax Description

#### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
community-list	Add a community list entry
standard	Add a standard Community list entry
<i>name</i>	Standard community list name
permit	Specify community to accept
deny	Specify community to reject
internet	Internet (well-known community)
local-AS	Do not send outside local AS (well-known community)
no-advertise	Do not advertise to any peer (well-known community)
no-export	Do not export to next AS (well-known community)
<i>aann</i>	Community number aa:nn format
<i>number</i>	Community number
<i>hex_num</i>	Community number in hex
<i>internet</i>	(Optional) local-AS

### Command Mode

- /exec/configure

# ip community-list standard permit internet local-AS

```
{ ip community-list standard <name> { permit | deny } { internet | local-AS | no-advertise | no-export | <aann>
| <number> | <hex_num> } + } | { no ip community-list standard <name> [ permit | deny ] [ { internet | local-AS
| no-advertise | no-export | <aann> | <number> | <hex_num> } + ] }
```

## Syntax Description

Syntax Description		
no		Negate a command or set its defaults
ip		Configure IP features
community-list		Add a community list entry
standard		Add a standard Community list entry
<i>name</i>		Standard community list name
permit		Specify community to accept
deny		Specify community to reject
internet		Internet (well-known community)
local-AS		Do not send outside local AS (well-known community)
no-advertise		Do not advertise to any peer (well-known community)
no-export		Do not export to next AS (well-known community)
<i>aann</i>		Community number aa:nn format
<i>number</i>		Community number
<i>hex_num</i>		Community number in hex
<i>internet</i>		(Optional) local-AS

## Command Mode

- /exec/configure

## ip community-list standard seq permit internet local-AS

```
{ ip community-list standard <name> seq <seq> { permit | deny } { internet | local-AS | no-advertise | no-export
| <aann> | <number> | <hex_num> } + } | { no ip community-list standard <name> seq <seq> [ permit | deny
] [ { internet | local-AS | no-advertise | no-export | <aann> | <number> | <hex_num> } + ] }
```

### Syntax Description

#### Syntax Description

no	Negate a command or set its defaults
ip	Configure IP features
community-list	Add a community list entry
standard	Add a standard Community list entry
<i>name</i>	Standard community list name
seq	Sequence number of an entry
<i>seq</i>	Sequence number
permit	Specify community to accept
deny	Specify community to reject
internet	Internet (well-known community)
local-AS	Do not send outside local AS (well-known community)
no-advertise	Do not advertise to any peer (well-known community)
no-export	Do not export to next AS (well-known community)
<i>aann</i>	Community number aa:nn format
<i>number</i>	Community number
<i>hex_num</i>	Community number in hex
<i>internet</i>	(Optional) local-AS

### Command Mode

- /exec/configure

# ip default-gateway

[no] ip default-gateway <ip-addr> [ vrf { <vrf-name> | <vrf-known-name> } ]

## Syntax Description

Syntax Description		
no	(Optional)	Negate a command or set its defaults
ip		Configure IP features
default-gateway		Configure default gateway
<i>ip-addr</i>		IP prefix in format i.i.i.i
vrf	(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/config-mgmt /exec/configure/vrf /exec/configure/if-gre-tunnel

## ip delay eigrp

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

### Syntax Description

#### 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

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 packet strict-validation

[no] ip dhcp packet strict-validation

## Syntax Description

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

<b>Syntax Description</b>	<b>no</b> (Optional) Negate a command or set its defaults
	<b>ip</b> Configure IP features
	<b>dhcp</b> Configure DHCP snooping or relay
	<b>relay</b> Enable DHCP relay agent

## Command Mode

- /exec/configure

# ip dhcp relay address

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

## Syntax Description

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 information option

[no] ip dhcp relay information option

## Syntax Description

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 trust

[no] ip dhcp relay information option trust

## Syntax Description

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

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

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

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-interface

ip dhcp relay source-interface <interface-name>

## Syntax Description

### Syntax Description

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 source-interface

[no] ip dhcp relay source-interface

## Syntax Description

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

## 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

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

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 type cisco

[no] ip dhcp relay sub-option type cisco

## Syntax Description

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-broadcast

[no] ip dhcp relay subnet-broadcast

## Syntax Description

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

## Command Mode

- /exec/configure/if-igp

# ip dhcp smart-relay

[no] ip dhcp smart-relay

## Syntax Description

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

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

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

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

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 trust

[no] ip dhcp snooping trust

## Syntax Description

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

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>

## Syntax Description

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	

## Command Mode

- /exec/configure

# ip directed-broadcast

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

## Syntax Description

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

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

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

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	(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 domain-lookup

[no] ip domain-lookup

## Syntax Description

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

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	(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 drop-glean

[no] ip drop-glean

## Syntax Description

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

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 eigrp bfd

[no] ip eigrp <eigrp-tag> bfd [ disable ]

## Syntax Description

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

## Command Mode

- /exec/configure/if-igp



## ip eigrp event-history bfd size

[no] ip eigrp [ <eigrp-ptag> ] event-history bfd size { <size\_in\_text> | <size\_in\_Kbytes> }

### Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
ip	Clear IP commands	
eigrp	EIGRP clear commands	
<i>eigrp-ptag</i>	(Optional) Process tag	
event-history	Event History of EIGRP	
bfd	Show bfd log of EIGRP	
size	Configure the size of the event-hist buffer	
<i>size_in_text</i>	Buffer size	
<i>size_in_Kbytes</i>	Size of the file in kbytes	

### Command Mode

- /exec/configure

## ip eigrp event-history errors

```
[no] { ip | ipv6 } eigrp [ <eigrp-ptag> ] event-history { errors | msgs }
```

### Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
ip	Clear IP commands	
ipv6	Clear IPv6 commands	
eigrp	EIGRP clear commands	
<i>eigrp-ptag</i>	(Optional) Process tag	
event-history	Event History of EIGRP	
errors	Show error log of EIGRP	
msgs	Show message log of EIGRP	

### Command Mode

- /exec/configure

## ip eigrp event-history size

```
[no] { ip | ipv6 } eigrp [ <eigrp-ptag> ] event-history { fsm | packet | rib | cli } size { <size_in_text> | <size_in_Kbytes> }
```

### Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
ip	Clear IP commands	
ipv6	Clear IPv6 commands	
eigrp	EIGRP clear commands	
<i>eigrp-ptag</i>	(Optional) Process tag	
event-history	Event History of EIGRP	
fsm	FSM log of EIGRP	
packet	Packet log of EIGRP	
rib	RIB log of EIGRP	
cli	EIGRP CLI related events	
size	Configure the size of the event-hist buffer	
<i>size_in_text</i>	Buffer size	
<i>size_in_Kbytes</i>	Size of the file in kbytes	

### Command Mode

- /exec/configure

## ip eigrp internal syslog rate-limit

[no] { ip | ipv6 } eigrp [ <eigrp-ptag> ] internal syslog rate-limit

### Syntax Description

Syntax Description		
no	(Optional)	Negate a command or set its defaults
ip		IP events
ipv6		IPv6 events
eigrp		Display EIGRP status and configuration
<i>eigrp-ptag</i>	(Optional)	Process tag
internal		Commands for internal use
syslog		control syslog message
rate-limit		rate-limiting

### Command Mode

- /exec

# ip eigrp shutdown

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

## Syntax Description

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 deny

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

### Syntax Description

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
	deny	Specify extcommunity to reject
	permit	Specify extcommunity to accept
	<i>line</i>	Regular-expression(must

### Command Mode

- /exec/configure

## ip extcommunity-list standard permit

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

### Syntax Description

#### 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
permit	Specify extcommunity to accept
deny	Specify extcommunity to reject
4byteas-generic	Generic extended community
transitive	Transitive extcommunity
non-transitive	Non-Transitive extcommunity
rt	Router-Target
soo	Site-Of-Origin
<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 flow monitor input

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

## Syntax Description

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
sampler		(Optional) Optional Sampler to apply to this Flow Monitor
<i>samplername</i>		(Optional) Name of Sampler

## Command Mode

- /exec/configure/if-routing /exec/configure/if-mgmt-ether /exec/configure/if-any-tunnel /exec/configure/if-eth-port-channel /exec/configure/if-eth-port-channel-p2p



# ip flow monitor input

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

## Syntax Description

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
sampler		(Optional) Optional Sampler to apply to this Flow Monitor
<i>samplername</i>		(Optional) Name of Sampler

## Command Mode

- /exec/configure/vlan

# ip flow monitor input

```
[no] ip flow monitor <monitorname> input [ sampler <samplername> ]
```

## Syntax Description

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
	sampler	(Optional) Optional Sampler to apply to this Flow Monitor
	<i>samplername</i>	(Optional) Name of Sampler

## Command Mode

- /exec/configure/vlan-config

# ip flow monitor input

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

## Syntax Description

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
sampler		(Optional) Optional Sampler to apply to this Flow Monitor
<i>samplername</i>		(Optional) Name of Sampler

## Command Mode

- /exec/configure/if-vlan-common

# ip flow monitor output

```
ip flow monitor <monitorname> output [ sampler <samplername> ]
```

## Syntax Description

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
	output	Apply Flow Monitor on output traffic
	sampler	(Optional) Optional Sampler to apply to this Flow Monitor
	<i>samplername</i>	(Optional) Name of Sampler

## Command Mode

- /exec/configure/vlan-config

# ip flow monitor output

[no] ip flow monitor <monitorname> output [ sampler <samplername> ]

## Syntax Description

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
	output	Apply Flow Monitor on output traffic
	sampler	(Optional) Optional Sampler to apply to this Flow Monitor
	<i>samplername</i>	(Optional) Name of Sampler

## Command Mode

- /exec/configure/vlan-config

# ip forward

ip forward | no ip forward

## Syntax Description

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

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

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

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>

## Syntax Description

Syntax Description	
no	(Optional) Negate a command or set its defaults
ip	Configure IP features
host	Add an entry to the ip hostname table
s0	Name of Host
ipv4_0	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

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 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 icmp-errors source-interface

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

### Syntax Description

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>		(Optional) ICMPv6 types

### Command Mode

- /exec/configure /exec/configure/vrf

# ip igmp allow-v3-asm

[no] ip igmp allow-v3-asm

## Syntax Description

Syntax Description		
no	(Optional)	Negate a command or set its defaults
ip		Configure IP features
igmp		IGMP interface configuration commands
allow-v3-asm		Accept IGMPv3 reports for non SSM groups

## Command Mode

- /exec/configure/if-igp

# ip igmp any-query-destination

[no] ip igmp any-query-destination

## Syntax Description

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 bootup-delay

```
{ { no ip igmp bootup-delay [ <delay> ] } | { ip igmp bootup-delay <delay> } }
```

## Syntax Description

Syntax Description		
no		Negate a command or set its defaults
ip		Configure IP features
igmp		IGMP global configuration commands
bootup-delay		Configures bootup route add delay to RIB
delay		(Optional) Delay downloading in seconds

## Command Mode

- /exec/configure

# ip igmp enforce-router-alert

[no] ip igmp enforce-router-alert

## Syntax Description

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 event-history cli

[no] ip igmp event-history cli { size { <size\_in\_text> | <size\_in\_kbytes> } }

### Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
ip	Configure IP features	
igmp	IGMP global configuration commands	
event-history	Configure event-history buffers	
cli	CLI events for IGMP	
size	Configure size	
<i>size_in_text</i>	Buffer size	
<i>size_in_kbytes</i>	Size in kbytes	

### Command Mode

- /exec/configure

## ip igmp event-history ha

```
[no] ip igmp event-history ha { size { <size_in_text> | <size_in_kbytes> } }
```

### Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
ip	Configure IP features	
igmp	IGMP global configuration commands	
event-history	Configure event-history buffers	
ha	HA events for IGMP	
size	Configure size	
<i>size_in_text</i>	Buffer size	
<i>size_in_kbytes</i>	Size in kbytes	

### Command Mode

- /exec/configure

## ip igmp event-history igmp-internal

```
[no] ip igmp event-history igmp-internal { size { <size_in_text> | <size_in_kbytes> } }
```

### Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
ip	Configure IP features	
igmp	IGMP global configuration commands	
event-history	Configure event-history buffers	
igmp-internal	Internal events for IGMP	
size	Configure size	
<i>size_in_text</i>	Buffer size	
<i>size_in_kbytes</i>	Size in kbytes	

### Command Mode

- /exec/configure

## ip igmp event-history interface

```
[no] ip igmp event-history { interface-events | group-events } { size { <size_in_text> | <size_in_kbytes> } }
```

### Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
ip	Configure IP features	
igmp	IGMP global configuration commands	
event-history	Configure event-history buffers	
interface-events	Interface-events for IGMP	
group-events	Group-events for IGMP	
size	Configure size	
<i>size_in_text</i>	Buffer size	
<i>size_in_kbytes</i>	Size in kbytes	

### Command Mode

- /exec/configure

## ip igmp event-history interface

```
[no] ip igmp event-history { interface-debug | group-debug } { size { <size_in_text> | <size_in_kbytes> } }
```

### Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
ip	Configure IP features	
igmp	IGMP global configuration commands	
event-history	Configure event-history buffers	
interface-debug	Interface-debug for IGMP	
group-debug	Group-debug for IGMP	
size	Configure size	
<i>size_in_text</i>	Buffer size	
<i>size_in_kbytes</i>	Size in kbytes	

### Command Mode

- /exec/configure

## ip igmp event-history mtrace

```
[no] ip igmp event-history mtrace { size { <size_in_text> | <size_in_kbytes> } }
```

### Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
ip	Configure IP features	
igmp	IGMP global configuration commands	
event-history	Configure event-history buffers	
mtrace	Mtrace events for IGMP	
size	Configure size	
<i>size_in_text</i>	Buffer size	
<i>size_in_kbytes</i>	Size in kbytes	

### Command Mode

- /exec/configure

## ip igmp event-history policy

```
[no] ip igmp event-history policy { size { <size_in_text> | <size_in_kbytes> } }
```

### Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
ip	Configure IP features	
igmp	IGMP global configuration commands	
event-history	Configure event-history buffers	
policy	Policy events for IGMP	
size	Configure size	
<i>size_in_text</i>	Buffer size	
<i>size_in_kbytes</i>	Size in kbytes	

### Command Mode

- /exec/configure

## ip igmp event-history vrf

```
[no] ip igmp event-history vrf { size { <size_in_text> | <size_in_kbytes> } }
```

### Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
ip	Configure IP features	
igmp	IGMP global configuration commands	
event-history	Configure event-history buffers	
vrf	VRF events for IGMP	
size	Configure size	
<i>size_in_text</i>	Buffer size	
<i>size_in_kbytes</i>	Size in kbytes	

### Command Mode

- /exec/configure



# ip igmp file-debug

[no] ip igmp file-debug

## Syntax Description

Syntax Description	
no	(Optional) Negate a command or set its defaults
ip	Configure IP features
igmp	IGMP global configuration commands
file-debug	Collect all debugs to a file

## Command Mode

- /exec/configure

# ip igmp flush-routes

[no] ip igmp flush-routes

## Syntax Description

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-specific-strict

[no] ip igmp group-specific-strict

## Syntax Description

Syntax Description		
no	(Optional)	Negate a command or set its defaults
ip		Configure IP features
igmp		IGMP global configuration commands
group-specific-strict		Enable group specific consistency check

## Command Mode

- /exec/configure

# ip igmp group-timeout

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

## Syntax Description

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 ha-stateful

[no] ip igmp ha-stateful

## Syntax Description

Syntax Description		
no	(Optional)	Negate a command or set its defaults
ip		Configure IP features
igmp		IGMP global configuration commands
ha-stateful		Enable stateful IGMP HA

## Command Mode

- /exec/configure

# ip igmp immediate-leave

[no] ip igmp immediate-leave

## Syntax Description

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

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

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-igp



## 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

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

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

## Syntax Description

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

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

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

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

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>		prefix-list name

### Command Mode

- /exec/configure/if-igp

# ip igmp robustness-variable

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

## Syntax Description

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-igp

# ip igmp snooping

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

## Syntax Description

<b>Syntax Description</b>	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

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

# ip igmp snooping

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

## Syntax Description

<b>Syntax Description</b>	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

```
[no] ip igmp snooping { ha-stateful | cc-mode | m2rib-max-omfs <omf-count> | m2rib-max-omf-routes
<omf-route-count> | m2rib-max-routes <route-count> | m2rib-max-buffers <buf-count> }
```

## Syntax Description

Syntax Description		
ip		Configure IP features
igmp		IGMP global configuration commands
snooping		Configures IGMP Snooping
no		(Optional) Negate a command or set its defaults
ha-stateful		Enable stateful IGMP-Snooping HA
cc-mode		Enter MFDM congestion-control mode
m2rib-max-omfs		Number of OMF entries in M2RIB buffer
m2rib-max-routes		Number of route entries in M2RIB buffer
m2rib-max-omf-routes		Number of omf route entries in M2RIB buffer
m2rib-max-buffers		Number of update buffers with M2RIB
<i>omf-count</i>		
<i>route-count</i>		
<i>buf-count</i>		
<i>omf-route-count</i>		

## Command Mode

- /exec/configure

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

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

## Syntax Description

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 event-history igmp-snoop-internal

```
[no] ip igmp snooping event-history igmp-snoop-internal { size { <size_in_text> | <size_in_kbytes> } }
```

## Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
ip	Configure IP features	
igmp	IGMP global configuration commands	
snooping	Configures IGMP Snooping	
event-history	Configure event-history buffers	
igmp-snoop-internal	Internal events for IGMP-snoop	
size	Configure size	
<i>size_in_text</i>	Buffer size	
<i>size_in_kbytes</i>	Size in kbytes	

## Command Mode

- /exec/configure

## ip igmp snooping event-history mfdm-sum

```
[no] ip igmp snooping event-history mfdm-sum { size { <size_in_text> | <size_in_kbytes> } }
```

### Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
ip	Configure IP features	
igmp	IGMP global configuration commands	
snooping	Configures IGMP Snooping	
event-history	Configure event-history buffers	
mfdm-sum	MFDM-SUM events for IGMP-snoop	
size	Configure size	
<i>size_in_text</i>	Buffer size	
<i>size_in_kbytes</i>	Size in kbytes	

### Command Mode

- /exec/configure

## ip igmp snooping event-history mfdm

```
[no] ip igmp snooping event-history mfdm { size { <size_in_text> | <size_in_kbytes> } }
```

### Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
ip	Configure IP features	
igmp	IGMP global configuration commands	
snooping	Configures IGMP Snooping	
event-history	Configure event-history buffers	
mfdm	MFDM events for IGMP-snoop	
size	Configure size	
<i>size_in_text</i>	Buffer size	
<i>size_in_kbytes</i>	Size in kbytes	

### Command Mode

- /exec/configure

## ip igmp snooping event-history rib

```
[no] ip igmp snooping event-history rib { size { <size_in_text> | <size_in_kbytes> } }
```

### Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
ip	Configure IP features	
igmp	IGMP global configuration commands	
snooping	Configures IGMP Snooping	
event-history	Configure event-history buffers	
rib	RIB events for IGMP-snoop	
size	Configure size	
<i>size_in_text</i>	Buffer size	
<i>size_in_kbytes</i>	Size in kbytes	

### Command Mode

- /exec/configure



## ip igmp snooping event-history vlan-events

```
[no] ip igmp snooping event-history vlan-events { size { <size_in_text> | <size_in_kbytes> } }
```

### Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
ip	Configure IP features	
igmp	IGMP global configuration commands	
snooping	Configures IGMP Snooping	
event-history	Configure event-history buffers	
vlan-events	VLAN/BD events for IGMP-snoop	
size	Configure size	
<i>size_in_text</i>	Buffer size	
<i>size_in_kbytes</i>	Size in kbytes	

### Command Mode

- /exec/configure

## ip igmp snooping event-history vlan

```
[no] ip igmp snooping event-history vlan { size { <size_in_text> | <size_in_kbytes> } }
```

### Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
ip	Configure IP features	
igmp	IGMP global configuration commands	
snooping	Configures IGMP Snooping	
event-history	Configure event-history buffers	
vlan	VLAN/BD events for IGMP-snoop	
size	Configure size	
<i>size_in_text</i>	Buffer size	
<i>size_in_kbytes</i>	Size in kbytes	

### Command Mode

- /exec/configure

## ip igmp snooping event-history vpc

```
[no] ip igmp snooping event-history vpc { size { <size_in_text> | <size_in_kbytes> } }
```

### Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
ip	Configure IP features	
igmp	IGMP global configuration commands	
snooping	Configures IGMP Snooping	
event-history	Configure event-history buffers	
vpc	VPC events for IGMP-snoop	
size	Configure size	
<i>size_in_text</i>	Buffer size	
<i>size_in_kbytes</i>	Size in kbytes	

### Command Mode

- /exec/configure

# ip igmp snooping explicit-tracking

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

## Syntax Description

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 explicit-tracking

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

## Syntax Description

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

## ip igmp snooping fast-leave

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

### Syntax Description

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 fast-leave

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

### Syntax Description

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

## ip igmp snooping group-timeout

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

### Syntax Description

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

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-count

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

### Syntax Description

#### 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-count	Configures number of group-specific queries sent
<i>count</i>	(Optional) Count value

### Command Mode

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

## ip igmp snooping last-member-query-count

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

### Syntax Description

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-count		Configures number of group-specific queries sent
<i>count</i>		(Optional) Count value

### Command Mode

- /exec/configure/vlan

# 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

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 last-member-query-interval

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

## Syntax Description

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

# ip igmp snooping link-local-groups-suppression

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

## Syntax Description

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 link-local-groups-suppression

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

## Syntax Description

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

# ip igmp snooping link-local-groups-suppression

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

## Syntax Description

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 Global link-local groups suppression

## 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

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 <interface> } | { ip igmp snooping mrouter interface <interface> } }
```

## Syntax Description

Syntax Description		
no		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
<i>interface</i>		Interface name

## Command Mode

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

## ip igmp snooping mrouter interface

```
{ { no ip igmp snooping mrouter interface <interface> } | { ip igmp snooping mrouter interface <interface> } }
```

### Syntax Description

Syntax Description		
no		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
<i>interface</i>		Interface name

### Command Mode

- /exec/configure/vlan

# ip igmp snooping mrouter vpc-peer-link

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

## Syntax Description

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
vpc-peer-link		Specify vpc-peer-link as static mrouter for all VLAN/BDS

## Command Mode

- /exec/configure

# ip igmp snooping optimised-multicast-flood

[no] ip igmp snooping optimised-multicast-flood

## Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
ip	Configure IP features	
igmp	IGMP configuration commands	
snooping	Configures IGMP Snooping	
optimised-multicast-flood	Configures Optimised Multicast Flood (OMF) on the VLAN/BD	

## Command Mode

- /exec/configure/vlan

# 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

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

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 proxy general-queries

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

## Syntax Description

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 querier-timeout

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

### Syntax Description

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-timeout

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

## Syntax Description

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

## ip igmp snooping querier

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

### Syntax Description

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 querier

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

## Syntax Description

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

# ip igmp snooping query-interval

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

## Syntax Description

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-interval

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

## Syntax Description

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

## 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

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 query-max-response-time

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

### Syntax Description

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



# 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

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

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

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

# ip igmp snooping report-suppression

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

## Syntax Description

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 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

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	IGMP access-group	
prefix-list	IPv4 Prefix-List Policy	
route-map	Route-Map Policy	
<i>pname</i>	Policy Name 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

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 robustness-variable

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

### Syntax Description

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

# ip igmp snooping self-mac-check

[no] ip igmp snooping self-mac-check

## Syntax Description

Syntax Description		
	no	(Optional) Negate a command or set its defaults
	ip	Configure IP features
	igmp	IGMP global configuration commands
	self-mac-check	enable loopback packet check and drop it
	snooping	Configures IGMP Snooping

## Command Mode

- /exec/configure



## ip igmp snooping startup-query-count

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

### Syntax Description

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-count

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

### Syntax Description

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

# ip igmp snooping startup-query-interval

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

## Syntax Description

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 startup-query-interval

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

## Syntax Description

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

## ip igmp snooping static-group interface

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

### Syntax Description

Syntax Description		
no	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	
<i>interface</i>	Interface name	

### 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 <interface> } | { ip igmp snooping
static-group <group> [ source <source> ] interface <interface> } }
```

### Syntax Description

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

### Command Mode

- /exec/configure/vlan

# ip igmp snooping syslog-threshold

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

## Syntax Description

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

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

### 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

# ip igmp snooping v3-report-suppression

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

## Syntax Description

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 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

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 version

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

### Syntax Description

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

## ip igmp snooping vpc

ip igmp snooping vpc { clear-cfs-flag | clear-pending-flag | clear-native-flag }

### Syntax Description

Syntax Description		
ip		Configure IP features
igmp		IGMP global configuration commands
snooping		Configures IGMP Snooping
vpc		vPC related command
clear-cfs-flag		clear cfs learnt flag from the routes / oifs
clear-native-flag		clear native learnt flag from the routes / oifs
clear-pending-flag		clear pending flag if set

### Command Mode

- /exec

# ip igmp snooping vpc

ip igmp snooping vpc [ vpc-incremental | vpc-sync-only ]

## Syntax Description

Syntax Description		
ip		Configure IP features
igmp		IGMP global configuration commands
snooping		Configures IGMP Snooping
vpc		vPC related events
vpc-sync-only	(Optional)	default - no vpc-incremental with route proxy disabled
vpc-incremental	(Optional)	vpc-incremental mode with route proxy enabled

## Command Mode

- /exec/configure

# ip igmp snooping vpc peer-link-exclude

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

## Syntax Description

Syntax Description		
no	(Optional)	Negate a command or set its defaults
ip		Configure IP features
igmp		IGMP configuration commands
snooping		Configures IGMP Snooping
vpc		Configures vPC
peer-link-exclude		Exclude vPC Peer-link for Routed multicast traffic

## Command Mode

- /exec/configure

# ip igmp snooping vpc peer-routes-download

ip igmp snooping vpc peer-routes-download [ stale ]

## Syntax Description

Syntax Description		
	ip	Configure IP features
	igmp	IGMP global configuration commands
	snooping	Configures IGMP Snooping
	vpc	vPC related command
	peer-routes-download	get peer-learned routes
	stale	(Optional) stale the cfs learnt entry, i.e. clear cfs_flag

## Command Mode

- /exec



## ip igmp snooping vxlan-umc drop

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

### Syntax Description

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

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

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

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

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

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

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) entries allowed on the interface

### Command Mode

- /exec/configure/if-igp

# ip igmp static

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

## Syntax Description

Syntax Description		
no	(Optional)	Negate a command or set its defaults
ip		Configure IP features
igmp		IGMP interface configuration commands
static-group		Configures static oif for a multicast forwarding entry
static-oif		Configures static oif for a multicast forwarding entry
<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		Static group policy
<i>route-map-name</i>		route-map name

## Command Mode

- /exec/configure/if-igp



# ip igmp suppress v3-gsq

[no] ip igmp suppress v3-gsq

## Syntax Description

<b>Syntax Description</b>	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

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

### 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 load-sharing address

```
[no] ip load-sharing address { source-destination [ port source-destination2 | gre | gre-outer ] | destination
port2 destination2 | source } { [ rotate <rotate> ] | [ concatenation ] } + [ universal-id <random-seed> ] | no
ip load-sharing address
```

## Syntax Description

### 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
gre-outer	(Optional) Use outer IPv4 header fields for GRE tunnel hashing
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
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 load-sharing per-packet

ip load-sharing per-packet | no ip load-sharing [ per-packet ]

## Syntax Description

Syntax Description		
no		Negate a command or set its defaults
ip		Configure IP features
load-sharing		Style of load sharing
per-packet		Enable per-packet load balancing on interface

## Command Mode

- /exec/configure/if-igp

# ip local-proxy-arp

{ ip local-proxy-arp | no ip local-proxy-arp }

## Syntax Description

Syntax Description		
	no	Negate a command or set its defaults
	ip	Configure IP features
	local-proxy-arp	Configure local proxy ARP

## 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

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 mroute

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

## Syntax Description

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
<code>ip-addr</code>		IP prefix in format i.i.i.i
<code>ip-mask</code>		IP network mask in format m.m.m.m
<code>ip-prefix</code>		IP prefix and network mask length in format x.x.x.x/m
<code>next-hop</code>		IP next-hop address in format i.i.i.i
<code>nh-prefix</code>		IP next-hop prefix in format i.i.i.i/m
<code>interface</code>		Interface for interface static multicast routes
<code>pref</code>	(Optional)	Route preference
<code>vrf</code>	(Optional)	Display per-VRF information
<code>vrf-name</code>	(Optional)	VRF name
<code>vrf-known-name</code>	(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

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 event-history cli

[no] ip msdp event-history cli { size { <size\_in\_text> | <size\_in\_kbytes> } }

### Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
ip	Configure IP features	
msdp	MSDP global configuration commands	
event-history	Configure event-history buffer	
cli	CLI logs for MSDP	
size	Configure size	
<i>size_in_text</i>	Buffer size	
<i>size_in_kbytes</i>	Size in kbytes	

### Command Mode

- /exec/configure

## ip msdp event-history events

[no] ip msdp event-history events { size { <size\_in\_text> | <size\_in\_kbytes> } }

### Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
ip	Configure IP features	
msdp	MSDP global configuration commands	
event-history	Configure event-history buffer	
events	Peer events for MSDP	
size	Configure size	
<i>size_in_text</i>	Buffer size	
<i>size_in_kbytes</i>	Size in kbytes	

### Command Mode

- /exec/configure

## ip msdp event-history msdp-internal

```
[no] ip msdp event-history msdp-internal { size { <size_in_text> | <size_in_kbytes> } }
```

### Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
ip	Configure IP features	
msdp	MSDP global configuration commands	
event-history	Configure event-history buffer	
msdp-internal	Internal logs for MSDP	
size	Configure size	
<i>size_in_text</i>	Buffer size	
<i>size_in_kbytes</i>	Size in kbytes	

### Command Mode

- /exec/configure

## ip msdp event-history routes

```
[no] ip msdp event-history routes { size { <size_in_text> | <size_in_kbytes> } }
```

### Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
ip	Configure IP features	
msdp	MSDP global configuration commands	
event-history	Configure event-history buffer	
routes	Route logs for MSDP	
size	Configure size	
<i>size_in_text</i>	Buffer size	
<i>size_in_kbytes</i>	Size in kbytes	

### Command Mode

- /exec/configure

## ip msdp event-history tcp

```
[no] ip msdp event-history tcp { size { <size_in_text> | <size_in_kbytes> } }
```

### Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
ip	Configure IP features	
msdp	MSDP global configuration commands	
event-history	Configure event-history buffer	
tcp	TCP logs for MSDP	
size	Configure size	
<i>size_in_text</i>	Buffer size	
<i>size_in_kbytes</i>	Size in kbytes	

### Command Mode

- /exec/configure

# ip msdp flush-routes

[no] ip msdp flush-routes

## Syntax Description

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

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

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 mesh-group

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

### Syntax Description

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 no-sa-data

[no] ip msdp no-sa-data

## Syntax Description

Syntax Description		
no	(Optional)	Negate a command or set its defaults
ip		Configure IP features
msdp		MSDP global configuration commands
no-sa-data		Don't send SA-encapsulated data

## Command Mode

- /exec/configure /exec/configure/vrf

## ip msdp originator-id

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

### Syntax Description

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

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

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

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

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 policy name
prefix-list	(Optional)	Prefix list policy
<i>prefix-list-name</i>	(Optional)	prefix-list name

## Command Mode

- /exec/configure /exec/configure/vrf



# ip msdp sa-interval

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

## Syntax Description

<b>Syntax Description</b>	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

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

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 policy name	
<i>prefix-list-name</i>	prefix-list name	
<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

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 policy name	
<i>prefix-list-name</i>	prefix-list name	
<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

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

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 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> } [ use-vrf { <vrf-name> | <vrf-known-name> } ] | { <ipv4_14> | <ipv6_15> } [ { <ipv4_16> | <ipv6_17> } [ use-vrf { <vrf-name> | <vrf-known-name> } ] ] | { <ipv4_18> | <ipv6_19> } [ { <ipv4_20> | <ipv6_21> } [ { <ipv4_22> | <ipv6_23> } [ use-vrf { <vrf-name> | <vrf-known-name> } ] ] ] | { <ipv4_24> | <ipv6_25> } [ { <ipv4_26> | <ipv6_27> } [ { <ipv4_28> | <ipv6_29> } [ { <ipv4_30> | <ipv6_31> } [ 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> } [ 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> } [ use-vrf { <vrf-name> | <vrf-known-name> } ] ] ] ] ] ] }
```

## Syntax Description

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
	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

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-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 ] ] [ add-route ] } | { static { tcp | udp } <insideLocalIP> <insideLocalPort>
<insideGlobalIP> <insideGlobalPort> [ vrf <vrf-name> [ match-in-vrf ] ] [ group <group-id> [ dynamic ] ] [
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

#### 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
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 ] ] [ add-route ] | static { tcp | udp } <outsideGlobalIP> <outsideGlobalPort>
<outsideLocalIP> <outsideLocalPort> [ vrf <vrf-name> [ match-in-vrf ] ] [ group <group-id> [ dynamic ] ]
[ add-route ] | list <acl-name> pool <pool-name> [ vrf <vrf-name> [ match-in-vrf ] ] [ group <group-id>
dynamic ] } [ add-route ]
```

### Syntax Description

#### 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
<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

#### 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>
```

## Syntax Description

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

[no] ip nat translation { tcp-timeout | udp-timeout | timeout } <timeout>

## Syntax Description

Syntax Description		
no	(Optional)	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
timeout		Specify timeout for dynamic NAT flows
<i>timeout</i>		Timeout in seconds

## 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

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
max	Number of entries

### Command Mode

- /exec/configure

# ip nat translation sampling-timeout

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

## Syntax Description

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)	

## Command Mode

- /exec/configure

# ip next-hop-self eigrp

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

## Syntax Description

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

#### 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

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

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
key		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

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

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-igp /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

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

# ip ospf cost

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

## Syntax Description

<b>Syntax Description</b>	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

<b>Syntax Description</b>	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-igmp /exec/configure/if-gre-tunnel /exec/configure/if-mpls-tunnel /exec/configure/if-mgmt-config

# ip ospf flood-bw-percentage

[no] ip ospf flood-bw-percentage <percentage>

## Syntax Description

Syntax Description		
no	(Optional)	Negate a command or set its defaults
ip		Configure IP features
ospf		OSPF configuration commands
flood-bw-percentage		Percentage of bandwidth used for flooding
<i>percentage</i>		Negate a command or set its defaults

## 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

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-igmp /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

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

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

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

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

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 priority

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

## Syntax Description

<b>Syntax Description</b>	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-igmp /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

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

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

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

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 anycast-rp

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

### Syntax Description

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

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

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

### 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

#### 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>	A 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

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

#### 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>	A 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

### 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>	prefix-list name
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

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

---

### 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

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	
limit	Set limit for Bidir RPs permitted in IPv4 PIM	

### Command Mode

- /exec/configure /exec/configure/vrf

# ip pim border

[no] ip pim border

## Syntax Description

<b>Syntax Description</b>	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

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

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>		A 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

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

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>		A route-map name
<i>rtr_pol_name</i>		An existing routing-rules policy

### Command Mode

- /exec/configure /exec/configure/vrf

# ip pim cpu-punt dr-only

{ { no ip pim cpu-punt dr-only } | { ip pim cpu-punt dr-only } }

## Syntax Description

Syntax Description		
no	Negate a command or set its defaults	
ip	Configure IP features	
pim	PIM global configuration commands	
cpu-punt	Disable PIM NON-DR copy-to-cpu on RPF check failure	
dr-only	Disable PIM NON-DR copy-to-cpu on RPF check failure	

## Command Mode

- /exec/configure /exec/configure/vrf



# ip pim df-offer-burst-interval

[no] ip pim df-offer-burst-interval <burst-interval>

## Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
ip	Configure IP features	
pim	PIM global configuration commands	
df-offer-burst-interval	Interval between DF offer bursts	
<i>burst-interval</i>	Interval in milliseconds	

## Command Mode

- /exec/configure /exec/configure/vrf

## ip pim dr-delay

```
{ { ip pim dr-delay <delay> } | { no ip pim dr-delay [ <delay> ] } }
```

### Syntax Description

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

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 event-history assert-receive

```
[no] ip pim event-history assert-receive { size { <size_in_text> | <size_in_kbytes> } }
```

### Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
ip	Configure IP features	
pim	PIM global configuration commands	
event-history	Configure event-history buffer	
assert-receive	Assert receive events for PIM	
size	Configure size	
<i>size_in_text</i>	Buffer size	
<i>size_in_kbytes</i>	Size in kbytes	

### Command Mode

- /exec/configure

## ip pim event-history bidir

[no] ip pim event-history bidir { size { <size\_in\_text> | <size\_in\_kbytes> } }

### Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
ip	Configure IP features	
pim	PIM global configuration commands	
event-history	Configure event-history buffer	
bidir	Bidir events for PIM	
size	Configure size	
<i>size_in_text</i>	Buffer size	
<i>size_in_kbytes</i>	Size in kbytes	

### Command Mode

- /exec/configure

# ip pim event-history cli

```
[no] ip pim event-history cli { size { <size_in_text> | <size_in_kbytes> } }
```

## Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
ip	Configure IP features	
pim	PIM global configuration commands	
event-history	Configure event-history buffer	
cli	CLI events for PIM	
size	Configure size	
<i>size_in_text</i>	Buffer size	
<i>size_in_kbytes</i>	Size in kbytes	

## Command Mode

- /exec/configure

# ip pim event-history hello

[no] ip pim event-history hello { size { <size\_in\_text> | <size\_in\_kbytes> } }

## Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
ip	Configure IP features	
pim	PIM global configuration commands	
event-history	Configure event-history buffer	
hello	Hello events for PIM	
size	Configure size	
<i>size_in_text</i>	Buffer size	
<i>size_in_kbytes</i>	Size in kbytes	

## Command Mode

- /exec/configure

## ip pim event-history join-prune-summary

```
[no] ip pim event-history join-prune-summary { size { <size_in_text> | <size_in_kbytes> } }
```

### Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
ip	Configure IP features	
pim	PIM global configuration commands	
event-history	Configure event-history buffer	
join-prune-summary	JoinPrune-Summary for PIM	
size	Configure size	
<i>size_in_text</i>	Buffer size	
<i>size_in_kbytes</i>	Size in kbytes	

### Command Mode

- /exec/configure



## ip pim event-history join-prune

```
[no] ip pim event-history join-prune { size { <size_in_text> | <size_in_kbytes> } }
```

### Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
ip	Configure IP features	
pim	PIM global configuration commands	
event-history	Configure event-history buffer	
join-prune	Join Prune events for PIM	
size	Configure size	
<i>size_in_text</i>	Buffer size	
<i>size_in_kbytes</i>	Size in kbytes	

### Command Mode

- /exec/configure

## ip pim event-history mvpn

```
[no] ip pim event-history mvpn { size { <size_in_text> | <size_in_kbytes> } }
```

### Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
ip	Configure IP features	
pim	Configure PIM event history	
event-history	Configure event-history buffer	
mvpn	MVPN events for PIM	
size	Configure size	
<i>size_in_text</i>	Buffer size	
<i>size_in_kbytes</i>	Size in kbytes	

### Command Mode

- /exec/configure

## ip pim event-history null-register

[no] ip pim event-history null-register { size { <size\_in\_text> | <size\_in\_kbytes> } }

### Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
ip	Configure IP features	
pim	PIM global configuration commands	
event-history	Configure event-history buffer	
null-register	Null register events for PIM	
size	Configure size	
<i>size_in_text</i>	Buffer size	
<i>size_in_kbytes</i>	Size in kbytes	

### Command Mode

- /exec/configure

## ip pim event-history packet

```
[no] ip pim event-history packet { size { <size_in_text> | <size_in_kbytes> } }
```

### Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
ip	Configure IP features	
pim	PIM global configuration commands	
event-history	Configure event-history buffer	
packet	Packet events for PIM	
size	Configure size	
<i>size_in_text</i>	Buffer size	
<i>size_in_kbytes</i>	Size in kbytes	

### Command Mode

- /exec/configure

## ip pim event-history pim-internal

[no] ip pim event-history pim-internal { size { <size\_in\_text> | <size\_in\_kbytes> } }

### Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
ip	Configure IP features	
pim	PIM global configuration commands	
event-history	Configure event-history buffer	
pim-internal	Internal events for PIM	
size	Configure size	
<i>size_in_text</i>	Buffer size	
<i>size_in_kbytes</i>	Size in kbytes	

### Command Mode

- /exec/configure

## ip pim event-history rp

```
[no] ip pim event-history rp { size { <size_in_text> | <size_in_kbytes> } }
```

### Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
ip	Configure IP features	
pim	PIM global configuration commands	
event-history	Configure event-history buffer	
rp	RP events for PIM	
size	Configure size	
<i>size_in_text</i>	Buffer size	
<i>size_in_kbytes</i>	Size in kbytes	

### Command Mode

- /exec/configure

## ip pim event-history vpc

[no] ip pim event-history vpc { size { <size\_in\_text> | <size\_in\_kbytes> } }

### Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
ip	Configure IP features	
pim	Configure PIM event history	
event-history	Configure event-history buffer	
vpc	vPC events for PIM	
size	Configure size	
<i>size_in_text</i>	Buffer size	
<i>size_in_kbytes</i>	Size in kbytes	

### Command Mode

- /exec/configure

## ip pim event-history vrf

```
[no] ip pim event-history vrf { size { <size_in_text> | <size_in_kbytes> } }
```

### Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
ip	Configure IP features	
pim	PIM global configuration commands	
event-history	Configure event-history buffer	
vrf	VRF events for PIM	
size	Configure size	
<i>size_in_text</i>	Buffer size	
<i>size_in_kbytes</i>	Size in kbytes	

### Command Mode

- /exec/configure



# ip pim file-debug

[no] ip pim file-debug

## Syntax Description

Syntax Description	
no	(Optional) Negate a command or set its defaults
ip	Configure IP features
pim	PIM global configuration commands
file-debug	Collect all debugs to a file

## Command Mode

- /exec/configure

# ip pim flush-routes

[no] ip pim flush-routes

## Syntax Description

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

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>	prefix-list name	

### 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

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-interval

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

## Syntax Description

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

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-delay

```
{ { ip pim jp-delay <delay> } | { no ip pim jp-delay [ <delay> ] } }
```

## Syntax Description

<b>Syntax Description</b>	no	Negate a command or set its defaults
	ip	Configure IP features
	pim	PIM global configuration commands
	jp-delay	Join-Prune message inter-packet delay
	<i>delay</i>	Delay value in microseconds

## Command Mode

- /exec/configure /exec/configure/vrf

# ip pim jp-interval

[no] ip pim jp-interval <interval>

## Syntax Description

<b>Syntax Description</b>	no	(Optional) Negate a command or set its defaults
	ip	Configure IP features
	pim	PIM interface configuration commands
	jp-interval	Join-Prune interval used between peers
	<i>interval</i>	Interval in seconds

## Command Mode

- /exec/configure/if-igp



# 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

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>		prefix-list name
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

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

<b>Syntax Description</b>	<i>no</i> (Optional) Negate a command or set its defaults
	<i>ip</i> Configure IP features
	<i>pim</i> PIM global configuration commands
	<i>mtu</i> MTU for IP PIM packet
	<i>size</i> MTU

## Command Mode

- /exec/configure

# ip pim mtu

[no] ip pim mtu <size>

## Syntax Description

<b>Syntax Description</b>	no (Optional) Negate a command or set its defaults
	ip Configure IP features
	pim PIM global configuration commands
	mtu MTU for IP PIM packet
	size 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

#### 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>	prefix-list name

### Command Mode

- /exec/configure/if-igp

# ip pim non-dr flood

{ { no ip pim non-dr flood } | { ip pim non-dr flood } }

## Syntax Description

Syntax Description		
no	Negate a command or set its defaults	
ip	Configure IP features	
pim	PIM global configuration commands	
non-dr	Enable PIM NON-DR flood on vlan	
flood	Enable PIM NON-DR flood on vlan	

## Command Mode

- /exec/configure /exec/configure/vrf

# ip pim null-reg-delay

```
{ { ip pim null-reg-delay <delay> } | { no ip pim null-reg-delay [ <delay> ] } }
```

## Syntax Description

<b>Syntax Description</b>	<i>no</i>	Negate a command or set its defaults
	<i>ip</i>	Configure IP features
	<i>pim</i>	PIM global configuration commands
	<i>null-reg-delay</i>	Null registers inter-batch delay
	<i>delay</i>	Delay value in microseconds

## Command Mode

- /exec/configure /exec/configure/vrf

## ip pim null-reg-routes

```
{ { ip pim null-reg-routes <num> } | { no ip pim null-reg-routes [ <num> ] } }
```

### Syntax Description

Syntax Description		
no		Negate a command or set its defaults
ip		Configure IP features
pim		PIM global configuration commands
null-reg-routes		Null registers number of routes
<i>num</i>		Numerical value

### Command Mode

- /exec/configure /exec/configure/vrf



# ip pim pre-build-spt

{ { ip pim pre-build-spt [ force ] } | { no ip pim pre-build-spt } }

## Syntax Description

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

## 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

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>		A route-map name
prefix-list		Prefix List policy for Registers
<i>prefix-list-name</i>		prefix-list name

## 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

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
	rate	Packets per second

## Command Mode

- /exec/configure /exec/configure/vrf

# ip pim register-replicate

[no] ip pim register-replicate

## Syntax Description

Syntax Description		
	no	(Optional) Negate a command or set its defaults
	ip	Configure IP features
	pim	PIM global configuration commands
	register-replicate	Enable software replication of decapsulated PIM Register packets

## Command Mode

- /exec/configure

## ip pim register-source

```
{ { ip pim register-source { <src-interface> } } | { no ip pim register-source [ <src-interface> ] } }
```

### Syntax Description

<b>Syntax Description</b>	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

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

#### 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) prefix-list name
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

#### 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>	prefix-list name
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

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) prefix-list name

### Command Mode

- /exec/configure /exec/configure/vrf

# ip pim sparse-mode

ip pim sparse-mode | no ip pim [ sparse-mode ]

## Syntax Description

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 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

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>		A route-map name
prefix-list		Group range prefix-list policy for SSM range
<i>prefix-list-name</i>		A prefix-list name
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

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 ping source-interface

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

## Syntax Description

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 match router-address

[no] ip policy match router-address

## Syntax Description

Syntax Description		
	no	(Optional) Negate a command or set its defaults
	ip	Configure IP features
	policy	Configure PBR feature
	match	Match values
	router-address	Router's IP address

## 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

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

# ip port-unreachable

[no] ip port-unreachable

## Syntax Description

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

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/if-set-acl-l2

## ip prefix-list description

```
{ ip prefix-list <ipv4-pfl-name> description <line> } | { no ip prefix-list <ipv4-pfl-name> description }
```

### Syntax 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> { permit | deny } <prefix> { [ eq <equal> ] | [ ge <greater> ] [ le <lesser> ]
} [ mask <mask> ] } | { no ip prefix-list { <ipv4-pfl-name> | <ipv4-pfl-name> } [ { permit | deny } <prefix>
{ [ eq <equal> ] | [ ge <greater> ] [ le <lesser> ] } [ mask <mask> ] ] }
```

## Syntax 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>	Name of prefix-list
<i>ipv4-pfl-name</i>	Known prefix-list name
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 prefix-list seq 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

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		Sequence number of an entry
<i>seq</i>		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

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

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 redirects

ip redirects | no ip redirects

## Syntax Description

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 repopulate internal context array

ip repopulate internal context array

## Syntax Description

---

**Syntax Description**

---

ip	Display IP information
repopulate	Repopulate internal data structure
internal	Commands for internal use
context	repopulate context related info
array	arrays which stores context ptrs

---

## Command Mode

- /exec



# ip rip authentication key-chain

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

## Syntax Description

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

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 metric

```
{ ipv6 | ip } rip { metric-offset | offset-list } <metric> | no { ipv6 | ip } rip { metric-offset | offset-list } [ <metric> ]
```

## Syntax Description

Syntax Description		
no		Negate a command or set its defaults
ipv6		Configure IPv6 features
ip		Configure IP features
rip		RIP configuration commands
metric-offset		RIP metric for interface
offset-list		RIP metric for interface
<i>metric</i>		RIP metric value

## Command Mode

- /exec/configure/if-igp

# ip rip passive-interface

[no] { ipv6 | ip } rip passive-interface

## Syntax Description

Syntax Description		
no	(Optional)	Negate a command or set its defaults
ipv6		Configure IPv6 features
ip		Configure IP features
rip		RIP configuration commands
passive-interface		RIP passive interface

## Command Mode

- /exec/configure/if-igp

# ip rip poison-reverse

[no] { ipv6 | ip } rip poison-reverse

## Syntax Description

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

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 rip summary-address

[no] ip rip summary-address <ip-prefix> | no ipv6 rip summary-address <ipv6-prefix> | ipv6 rip summary-address <ipv6-prefix>

## Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
ip	Configure IP features	
ipv6	Configure IPv6 features	
rip	RIP configuration commands	
summary-address	RIP summarization address	
<i>ip-prefix</i>	Exact prefix	

## 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

### 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

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

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

Syntax Description	
<i>no</i>	(Optional) Negate a command or set its defaults
<i>ip</i>	Configure IP features
<i>router</i>	Enable a routing process
<i>isis</i>	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

Syntax Description		
no	(Optional)	Negate a command or set its defaults
ip		Configure IP features
router		Enable a routing process
ospf		OSPF configuration commands
tag		Process tag
area		Area associated with interface
area-id-ip		OSPF area ID in IP address format
area-id-int		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

Syntax Description		
no	(Optional)	Negate a command or set its defaults
ip		Configure IP features
router		Enable a routing process
ospf		OSPF configuration commands
tag	(Optional)	Process tag
multi-area		Multi area associated with interface
area-id-ip		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

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)
tag	Process tag

## Command Mode

- /exec/configure/if-igp

# ip routing download-on-convergence

[no] ip routing download-on-convergence

## Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
ip	IP events	
routing	Enable debugging for routing events	
download-on-convergence	Download Routes/RNHs after Table Convergence	

## Command Mode

- /exec/configure

## ip routing event-history

```
[no] ip routing event-history { add-route | cli | delete-route | detail | errors | general | ha | loop-detection |
modify-route | notifications | recursive-next-hop | summary | ufdm | ufdm-detail | ufdm-summary } size {
<size_in_text> | <size_in_bytes> }
```

### Syntax Description

#### Syntax Description

no	(Optional) Negate a command or set its defaults
ip	Configure IP features
routing	Routing information
event-history	Configure routing event log
add-route	Add route
cli	CLI
delete-route	Delete route
detail	Detail
errors	Errors
general	General
ha	HA
loop-detection	Loop detection
modify-route	Modify route
notifications	Notification
recursive-next-hop	Recursive next hop
summary	Summary
ufdm	UFDM
ufdm-detail	UFDM Detail
ufdm-summary	UFDM Summary
size	Size of buffer
<i>size_in_text</i>	Buffer size
<i>size_in_bytes</i>	Enter an integer value for the event history buffer

### Command Mode

- /exec/configure



# ip secondary

ip <ipaddress> secondary | no ip <ipaddress> secondary

## Syntax Description

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
secondary		Make this IP address a secondary virtual IP address

## Command Mode

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

# ip sla

[no] ip sla <index>

## Syntax Description

---

**Syntax Description**

---

no (Optional)

---

ip

---

sla Service Level Agreement (SLA)

---

*index* Entry Number

---

## Command Mode

- /exec/configure

## ip sla group schedule

```
{ no ip sla group schedule <group-id> | ip sla group schedule <group-id> { { add <operation-ids> | delete
<operation-ids> } | { <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> } ] } + } | reschedule
} }
```

### Syntax Description

#### Syntax Description

no	
<i>add</i>	delete
<i>start-time</i>	(Optional) January
<i>October</i>	(Optional) November
<i>operation-ids</i>	<schedule-period-seconds>
<i>random-frequency-range</i>	(Optional) <ageout-seconds>
ip	
sla	Service Level Agreement (SLA)
group	Group Configuration or Group Scheduling
schedule	Group scheduling
<i>group-id</i>	Group schedule entry number
delete	Delete probes from existing group
reschedule	Reschedule the group using previous config
<i>operation-ids</i>	Multiple probe ID's to be group scheduled
schedule-period	Group schedule period range
<i>schedule-period-seconds</i>	seconds
frequency	(Optional) Group operation frequency
range	(Optional) Group operation frequency-range for random scheduling
<i>frequency-seconds</i>	(Optional) Specify frequency in seconds
ageout	(Optional) How long to keep this Entry when inactive
<i>ageout-seconds</i>	(Optional) Ageout Seconds

life	(Optional) Length of time to execute in 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)
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 logging traps

[no] ip sla logging traps

## Syntax Description

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

#### Syntax Description

no	
<i>action-type</i>	(Optional) threshold-value
<i>falling-value</i>	(Optional) <neverImmed>
<i>consecutive-occurrences</i>	(Optional) <x-value>
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
threshold-type	(Optional) Threshold Type
<i>neverImmed</i>	(Optional)
<i>consecutive</i>	(Optional)
<i>xOfy</i>	(Optional)
<i>average</i>	(Optional)
<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

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

---

### 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

Syntax Description	
<i>tcp-connect</i>	(Optional) ipaddress
no	(Optional)
ip	
sla	
responder	Enable IP SLAs Responder
ipaddress	(Optional) Permanent address
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 restart

ip sla restart <index>

## Syntax Description

---

### Syntax Description

---

ip

---

sla Service Level Agreement (SLA)

---

restart Restart An Active Entry

---

*index* 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

### Syntax Description

no	
<i>life</i>	(Optional) forever
<i>August</i>	(Optional) September
<i>recurring</i>	(Optional) <life-seconds>
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
start-time	(Optional) When to start this entry
<i>hhmm</i>	(Optional) Start time (hh:mm)
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
after	(Optional) Start after a certain amount of time from now
pending	(Optional) Start pending
ageout	(Optional) How long to keep this Entry when inactive
<i>ageout-seconds</i>	(Optional) Ageout Seconds

---

**Command Mode**

- /exec/configure

# ip source-route

[no] ip source-route

## Syntax Description

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

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 source icmp-errors

[no] ip source <interface> icmp-errors

### Syntax Description

Syntax Description	
no	(Optional) Negate a command or set its defaults
ip	Configure IP features
source	Configure source-address for applications
<i>interface</i>	Interface to pick source-address from
icmp-errors	ICMP unreachable/TTL-exceeded/param-prob messages

### Command Mode

- /exec/configure /exec/configure/vrf

## ip split-horizon eigrp

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

### Syntax Description

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

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 sticky-arp

```
{ ip sticky-arp [ ignore ] | no ip sticky-arp ignore }
```

## Syntax Description

Syntax Description		
no		Negate a command or set its defaults
ip		Configure IP features
sticky-arp		Configure sticky ARP
ignore	(Optional)	Ignore previously configured sticky ARP

## Command Mode

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

## 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

#### 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

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 path-mtu-discovery

{ { ip tcp path-mtu-discovery } | { no ip tcp path-mtu-discovery } }

## Syntax Description

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

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

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

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

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 unnumbered

ip unnumbered <interface> | no ip unnumbered [ <interface> ]

## Syntax Description

<b>Syntax Description</b>	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

# ip unreachable

[no] ip unreachable

## Syntax Description

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

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 | any [ allow-default ] } [ policy { <policy-name> | <acl_pol_name> } ]
```

### Syntax Description

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
unicast		Unicast Reverse Path Forwarding
source		Validation of source address
reachable-via		Specify reachability check to apply to the source address
rx		Source is reachable via interface on which packet was received
any		Source is reachable via any interface
allow-default	(Optional)	Loose Default Route Unicast Reverse Path Forwarding
policy	(Optional)	Unicast Reverse Path Forwarding fail policy
<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

# ipv6

```
{ [ <seqno> ] | no } <permitdeny> { ipv6 | <proto> | <ipv6_other_proto> } { <src_any> | { <src_addr>
<src_wild> } | <src_prefix> | { src_key_host <src_host> } | { src_key_addrgrp <src_addrgrp_name> } } {
<dst_any> | { <dst_addr> <dst_wild> } | <dst_prefix> | { dst_key_host <dst_host> } | { dst_key_addrgrp
<dst_addrgrp_name> } } { [ { dscp { <dscp_num> | <dscp_str> } } ] [ { flow-label <flow_num> } ] [ fragments
] [ log ] [ time-range <time_range_name> ] [ packet-length { <plen_op> <plen0> | <plen_range> <plen1>
<plen2> } } ] + [ capture session <session-id> ] { [ <actionv6> <actionidv6> ] }
```

## Syntax Description

### Syntax Description

<i>seqno</i>	(Optional) Sequence number
no	Negate a command or set its defaults
<i>permitdeny</i>	Permit/deny
ipv6	Any IPV6 protocol
<i>proto</i>	A protocol number
<i>ipv6_other_proto</i>	ipv6_other_proto
<i>src_any</i>	Any
src_key_host	A single source host
src_key_addrgrp	Source address group
<i>src_addrgrp_name</i>	Address group name
<i>dst_any</i>	Any
dst_key_host	A single destination host
dst_key_addrgrp	Destination address group
<i>dst_addrgrp_name</i>	Address group name
dscp	(Optional) Match packets with given dscp value
<i>dscp_num</i>	(Optional) Differentiated services codepoint value
<i>dscp_str</i>	(Optional) Differentiated services codepoint label
flow-label	(Optional) Flow label
<i>flow_num</i>	(Optional) Flow label value
fragments	(Optional) Check non-initial fragments
log	(Optional) Log matches against this entry
time-range	(Optional) Specify a time range

<i>time_range_name</i>	(Optional) Time range name
<i>packet-length</i>	(Optional) Match packets based on layer 3 packet length
<i>plen_op</i>	(Optional) Packet-length operator
<i>plen_range</i>	(Optional) Packet-length range
<i>plen0</i>	(Optional) Packet length
<i>plen1</i>	(Optional) Lower packet length
<i>plen2</i>	(Optional) Higher packet length
<i>capture</i>	(Optional) Enable packet capture on this filter for session
<i>session</i>	(Optional) Session ID <1-48> for this session
<i>session-id</i>	(Optional) Session ID <1-48> for this session
<i>actionv6</i>	(Optional) ActionV6
<i>actionidv6</i>	(Optional) redirect: Ethernet1/1,port-channel1 set-erspan-dscp: <1-63> set-erspan-gre-proto: <1-65535>

#### Command Mode

- /exec/configure/ipv6acl

# ipv6 access-class

[no] ipv6 access-class <name> <inout>

## Syntax Description

Syntax Description		
no	(Optional)	Negate a command or set its defaults
ipv6		Configure IPv6 features
access-class		Specify IPv6 access control for packets
<i>name</i>		List name
<i>inout</i>		Traffic direction

## Command Mode

- /exec/configure/line



# ipv6 access-list

[no] ipv6 access-list <name> [ client <clienttype> <clientID> ]

## Syntax Description

Syntax Description	
no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
access-list	Configure access list
<i>name</i>	List name
client	(Optional) set client type
<i>clienttype</i>	(Optional) CLI/ONEP
<i>clientID</i>	(Optional) client appID

## 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

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 [ <ipv6-prefix> [ eui64 ] [ route-preference <pref> ] [ tag <tag> ] [ anycast ] ] | ipv6 address <ipv6-prefix> [ eui64 ] [ route-preference <pref> ] [ tag <tag> ] [ anycast ]

## Syntax Description

Syntax Description		
no		Negate a command or set its defaults
ipv6		Configure IPv6 features
address		Configure IPv6 address on interface
eui64	(Optional)	Configure Extended Unique Identifier for the low-order 64 bits
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

## Command Mode

- /exec/configure/if-igp /exec/configure/if-any-tunnel /exec/configure/if-vsan /exec/configure/if-mgmt-config

# ipv6 address dhcp

[no] ipv6 address dhcp

## Syntax Description

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 secondary

```
ipv6 address <ipv6-prefix> [ eui64 ] secondary
```

## Syntax Description

Syntax Description	
ipv6	Configure IPv6 features
address	Configure IPv6 address on interface
eui64	(Optional) Configure Extended Unique Identifier for the low-order 64 bits
secondary	Configures additional addresses on interface

## Command Mode

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

# ipv6 address use-link-local-only

[no] ipv6 address use-link-local-only | ipv6 address use-link-local-only

## Syntax Description

### 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-vsant

# ipv6 adjacency-stale-timer

```
{ { ipv6 [ icmp ] adjacency-stale-timer <stale-time> } | { no ipv6 [ icmp ] adjacency-stale-timer [ <stale-time> ] } }
```

## Syntax Description

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 forcedownload

```
ipv6 adjacency [ vrf { <vrf-name> | <vrf-known-name> } ] { <interface> { * | <ipv6-addr> } | * } forcedownload
```

## Syntax Description

Syntax Description		
	ipv6	Configure IPv6 features
	adjacency	Configure Adjmgr
	vrf	(Optional) Display per-VRF information
	<i>vrf-name</i>	(Optional) VRF name
	<i>vrf-known-name</i>	(Optional) Known VRF name
	<i>interface</i>	Display specific interface adjacencies only
	*	for all adjacencies in this context
	forcedownload	Create consistency in UFDM

## Command Mode

- /exec/configure



## ipv6 adjacency l2fm-reg

```
[no] ipv6 adjacency l2fm-reg { [ vrf <vrf-known-name> ] | <interface> }
```

### Syntax Description

Syntax Description		
no	(Optional)	Negate a command or set its defaults
ipv6		Configure IPv6 features
adjacency		Configure Adjmgr
l2fm-reg		Register with l2fm
vrf	(Optional)	vrf name
<i>vrf-known-name</i>	(Optional)	Known VRF name
<i>interface</i>		Interface name

### Command Mode

- /exec/configure

# ipv6 adjacency peer-gmac

```
[no] ipv6 adjacency [ vrf { <vrf-name> | <vrf-known-name> } ] { <interface> { * | <ipv6-addr> } | * }
peer-gmac
```

## Syntax Description

### Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
adjacency	Configure Adjmgr
vrf	(Optional) Display per-VRF information
<i>vrf-name</i>	(Optional) VRF name
<i>vrf-known-name</i>	(Optional) Known VRF name
<i>interface</i>	Display specific interface adjacencies only
*	for all adjacencies in this context
peer-gmac	Set/clear the peer-gmac bit

## Command Mode

- /exec/configure

## ipv6 adjacency remote-adj

```
[no] ipv6 adjacency [ vrf { <vrf-name> | <vrf-known-name> } ] { <interface> { * | <ipv6-addr> } | * }
remote-adj
```

### Syntax Description

Syntax Description		
no	(Optional)	Negate a command or set its defaults
ipv6		Configure IPv6 features
adjacency		Configure Adjmgr
vrf	(Optional)	Display per-VRF information
<i>vrf-name</i>	(Optional)	VRF name
<i>vrf-known-name</i>	(Optional)	Known VRF name
<i>interface</i>		Display specific interface adjacencies only
*		for all adjacencies in this context
remote-adj		Set/clear the remote-adj bit

### Command Mode

- /exec/configure

# ipv6 adjacency route distance

{ ipv6 adjacency route distance <pref> } | { no ipv6 adjacency route distance }

## Syntax Description

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

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 gateway send-discovery

[no] ipv6 amt gateway send-discovery

## Syntax Description

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
send-discovery		Trigger a Discovery message to the Anycast address

## Command Mode

- /exec/configure /exec/configure/vrf

# ipv6 amt relay

[no] ipv6 amt relay

## Syntax Description

<b>Syntax Description</b>	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 cache disable

[no] ipv6 cache disable

## Syntax Description

<b>Syntax Description</b>	no	(Optional) Negate a command or set its defaults
	ipv6	Configure IPv6 features
	cache	Disable cache
	disable	Disable cache

## Command Mode

- /exec/configure



# ipv6 dad

ipv6 dad { skip-results | force-dad | address <ipv6-prefix> } | no ipv6 dad skip-results

## Syntax Description

Syntax Description		
no		Negate a command or set its defaults
ipv6		Configure IPv6 features
dad		Duplicate Address Detection
skip-results		Skip DAD results
force-dad		Does force DAD on given interface
address		Address to verify duplicate address in LAN

## Command Mode

- /exec/configure/if-igp

# ipv6 destination

```
{ ipv6 { destination | source } <addr> } | { no ipv6 { destination | source } }
```

## Syntax Description

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 relay

[no] ipv6 dhcp relay

## Syntax Description

<b>Syntax Description</b>	<b>no</b> (Optional) Negate a command or set its defaults
	<b>ipv6</b> Configure IPv6 features
	<b>dhcp</b> Configure DHCPv6 relay
	<b>relay</b> 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

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

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-igmp /exec/configure/ppm-ethernet-switch /exec/configure/ppm-port-channel-switch

# ipv6 dhcp relay option type cisco

[no] ipv6 dhcp relay option type cisco

## Syntax Description

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

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 source-interface

ipv6 dhcp relay source-interface <interface-name>

## Syntax Description

---

**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 relay source-interface

[no] ipv6 dhcp relay source-interface

## Syntax Description

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 flood unknown ucast

[no] ipv6 flood unknown ucast

## Syntax Description

Syntax Description	
no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
flood	Enable flood unknown ucast
unknown	Enable flood unknown ucast
ucast	Enable flood unknown ucast

## Command Mode

- /exec/configure

# ipv6 flow monitor input

[no] ipv6 flow monitor <monitorname> { input | output } [ sampler <samplername> ]

## Syntax Description

Syntax Description		
ipv6		Configure IPv6 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
sampler		(Optional) Optional Sampler to apply to this Flow Monitor
<i>samplername</i>		(Optional) Name of Sampler

## Command Mode

- /exec/configure/if-routing /exec/configure/if-mgmt-ether /exec/configure/if-any-tunnel /exec/configure/if-eth-port-channel /exec/configure/if-eth-port-channel-p2p

## ipv6 flow monitor input

[no] ipv6 flow monitor <monitorname> { input | output } [ sampler <samplername> ]

### Syntax Description

#### Syntax Description

ipv6	Configure IPv6 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
sampler	(Optional) Optional Sampler to apply to this Flow Monitor
<i>samplername</i>	(Optional) Name of Sampler

### Command Mode

- /exec/configure/vlan

# ipv6 flow monitor input

```
[no] ipv6 flow monitor <monitorname> input [ sampler <samplername> ]
```

## Syntax Description

Syntax Description		
ipv6		Configure IPv6 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
sampler		(Optional) Optional Sampler to apply to this Flow Monitor
<i>samplername</i>		(Optional) Name of Sampler

## Command Mode

- /exec/configure/vlan-config

# ipv6 flow monitor input

[no] ipv6 flow monitor <monitorname> { input | output } [ sampler <samplername> ]

## Syntax Description

Syntax Description		
ipv6		Configure IPv6 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
sampler		(Optional) Optional Sampler to apply to this Flow Monitor
<i>samplername</i>		(Optional) Name of Sampler

## Command Mode

- /exec/configure/if-vlan-common

# ipv6 flow monitor output

```
ipv6 flow monitor <monitorname> output [ sampler <samplername> ]
```

## Syntax Description

Syntax Description		
ipv6		Configure IPv6 features
flow		NetFlow related commands
monitor		Apply a Flow Monitor to this interface
<i>monitorname</i>		Name of Flow Monitor
output		Apply Flow Monitor on output traffic
sampler		(Optional) Optional Sampler to apply to this Flow Monitor
<i>samplername</i>		(Optional) Name of Sampler

## Command Mode

- /exec/configure/vlan-config

## ipv6 flow monitor output

[no] ipv6 flow monitor <monitorname> output [ sampler <samplername> ]

### Syntax Description

Syntax Description		
ipv6		Configure IPv6 features
flow		NetFlow related commands
monitor		Apply a Flow Monitor to this interface
<i>monitorname</i>		Name of Flow Monitor
output		Apply Flow Monitor on output traffic
sampler		(Optional) Optional Sampler to apply to this Flow Monitor
<i>samplername</i>		(Optional) Name of Sampler

### Command Mode

- /exec/configure/vlan-config



# ipv6 forward

ipv6 forward | no ipv6 forward

## Syntax Description

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>

## Syntax Description

<b>Syntax Description</b>	<b>no</b> (Optional) Negate a command or set its defaults
	<b>pv6</b> Configure IPv6 features
	<b>host</b> Add an entry to the ip hostname table
	<b>s0</b> Name of Host

## Command Mode

- /exec/configure

## ipv6 icmp internal event-history size

```
[no] ipv6 icmp internal event-history { errors | icmpv6-internal | nd | mld { debugs | events } | ha | sync-event
| ipv6-sync-event | vrf | cli } size { <size_in_text> | <size_in_Kbytes> }
```

### Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
ipv6	Configure IPv6 features	
icmp	Configure icmp parameters	
internal	Commands for internal use	
event-history	various event logs of ICMPV6	
errors	error logs ICMPV6	
icmpv6-internal	internal debug events of ICMPV6	
nd	ICMPV6 ND debugs	
mld	ICMPV6 MLD Information	
events	ICMPV6 MLD non-periodic events	
debugs	ICMPV6 MLD debug messages	
ha	ICMPV6 debugs for HA events	
sync-event	ICMPV6 debugs for CFS and MCECM related events	
ipv6-sync-event	ICMPV6 debugs for CFS and MCECM related events for I3	
vrf	ICMPV6 VRF related events	
cli	ICMPV6 CLI related events	
size	Configure the size of the event-hist buffer	
<i>size_in_text</i>	Buffer size	
<i>size_in_Kbytes</i>	Size of the file in kbytes	

### Command Mode

- /exec/configure

# ipv6 icmp test rfc-4884

ipv6 icmp test rfc-4884 <pkt\_size>

## Syntax Description

---

**Syntax Description**

---

ipv6	Configure IPv6 features
------	-------------------------

---

icmp	ICMPv6 commands
------	-----------------

---

test	test command
------	--------------

---

rfc-4884	RFC
----------	-----

---

<i>pkt_size</i>	ipv6 pkt size
-----------------	---------------

---

## Command Mode

- /exec/configure/if-igp

# ipv6 icmp vip vmac protocol group

[no] ipv6 icmp vip <ipv6-addr> vmac <mac-addr> protocol <prot> group <id>

## Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
ipv6	Configure IPv6 features	
icmp	ICMPv6 commands	
vip	Virtual IPv6 address	
vmac	Virtual MAC address	
<i>mac-addr</i>	Layer-2 MAC address	
protocol	FHRP protocol	
<i>prot</i>	HSRP VRRP GLBP	
group	Group id	
<i>id</i>	Group id	

## Command Mode

- /exec/configure/if-igp

## ipv6 internal event-history size

```
[no] ipv6 internal event-history { errors | bfd | log | ipc | snmp | ha | sdb } size { <size_in_text> | <size_in_Kbytes> }
```

### Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
ipv6	Configure IPv6 features	
internal	Commands for internal use	
event-history	various event logs of IPV6	
errors	error logs of IPV6	
log	syslog message of IPV6	
ipc	ipc debug message of IPV6	
snmp	snmp debug message of IPV6	
ha	ha debug message of IPV6	
sdb	sdb debug message of IPV6	
bfd	bfd debug message for ipv6	
size	Configure the size of the event-hist buffer	
<i>size_in_text</i>	Buffer size	
<i>size_in_Kbytes</i>	Size of the file in kbytes	

### Command Mode

- /exec/configure

# ipv6 link-local

[no] ipv6 link-local [ <ipv6-addr> ] | ipv6 link-local <ipv6-addr>

## Syntax Description

<b>Syntax Description</b>	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 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

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 allow-v2-asm

[no] ipv6 [ icmp ] mld allow-v2-asm

## Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
ipv6	Configure IPv6 features	
icmp	(Optional) ICMPv6 commands	
mld	Multicast Listener Discovery commands	
allow-v2-asm	Accept MLDv2 reports for non SSM groups	

## Command Mode

- /exec/configure/if-igp

# ipv6 mld group-timeout

```
{ { no ipv6 [ icmp ] mld group-timeout [ <time> ] } | { ipv6 [ icmp ] mld group-timeout <time> } }
```

## Syntax Description

Syntax Description	no	Negate a command or set its defaults
	ipv6	Configure IPv6 features
	icmp	(Optional) ICMPv6 commands
	mld	Multicast Listener Discovery 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

Syntax Description		
no	(Optional)	Negate a command or set its defaults
ipv6		Configure IPv6 features
icmp	(Optional)	ICMPv6 commands
mld		Multicast Listener Discovery 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

Syntax Description		
no	(Optional)	Negate a command or set its defaults
ipv6		Configure IPv6 features
icmp	(Optional)	ICMPv6 commands
mld		Multicast Listener Discovery 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

Syntax Description		
no		Negate a command or set its defaults
ipv6		Configure IPv6 features
icmp		(Optional) ICMPv6 commands
mld		Multicast Listener Discovery 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

Syntax Description		
no		Negate a command or set its defaults
ipv6		Configure IPv6 features
icmp		(Optional) ICMPv6 commands
mld		Multicast Listener Discovery 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

Syntax Description		
no		Negate a command or set its defaults
ipv6		Configure IPv6 features
icmp		(Optional) ICMPv6 commands
mld		Multicast Listener Discovery 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

Syntax Description	no	Negate a command or set its defaults
	ipv6	Configure IPv6 features
	icmp	(Optional) ICMPv6 commands
	mld	Multicast Listener Discovery 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

Syntax Description		
no		Negate a command or set its defaults
ipv6		Configure IPv6 features
icmp		(Optional) ICMPv6 commands
mld		Multicast Listener Discovery 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

Syntax Description		
no	(Optional)	Negate a command or set its defaults
ipv6		Configure IPv6 features
icmp	(Optional)	ICMPv6 commands
mld		Multicast Listener Discovery commands
report-link-local-groups		Send Reports for groups in ff02::/16

## 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

Syntax Description		
no		Negate a command or set its defaults
ipv6		Configure IPv6 features
icmp		(Optional) ICMPv6 commands
mld		Multicast Listener Discovery commands
report-policy		ICMPv6 MLD Report Policy
access-group		ICMPv6 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

Syntax Description		
no		Negate a command or set its defaults
ipv6		Configure IPv6 features
icmp		(Optional) ICMPv6 commands
mld		Multicast Listener Discovery commands
robustness-variable		Configures RFC defined Robustness Variable
<i>value</i>		(Optional) Count value

## Command Mode

- /exec/configure/if-igp

# ipv6 mld ssm-translate

[no] ipv6 [ icmp ] mld ssm-translate <group> <source>

## Syntax Description

Syntax Description	
no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
icmp	(Optional) Configure icmp parameters
mld	Multicast Listener Discovery 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

Syntax Description		
no		Negate a command or set its defaults
ipv6		Configure IPv6 features
icmp		(Optional) ICMPv6 commands
mld		Multicast Listener Discovery 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

Syntax Description		
no		Negate a command or set its defaults
ipv6		Configure IPv6 features
icmp		(Optional) ICMPv6 commands
mld		Multicast Listener Discovery 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

Syntax Description		
no		Negate a command or set its defaults
ipv6		Configure IPv6 features
icmp		(Optional) ICMPv6 commands
mld		Multicast Listener Discovery 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 static

```
[no] ipv6 [ icmp ] mld { static-group | static-oif } { { <group> [ source <source> ] } | { route-map
<route-map-name> } }
```

## Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
ipv6	Configure IPv6 features	
icmp	(Optional) ICMPv6 commands	
mld	Multicast Listener Discovery commands	
static-group	Configures static oif for a multicast forwarding entry	
static-oif	Configures static oif for a multicast forwarding entry	
source	(Optional) Configures source address for MLDv2 (S,G) Channel	
route-map	Static group policy	
<i>route-map-name</i>	route-map name	

## Command Mode

- /exec/configure/if-igp

# ipv6 mld version

```
{ { no ipv6 mld version [ <version> ] } | { ipv6 mld version <version> } }
```

## Syntax Description

Syntax Description		
no	Negate a command or set its defaults	
ipv6	Configure IPv6 features	
mld	Multicast Listener Discovery commands	
version	Configures MLD version number for interface	
<i>version</i>	(Optional) Version number value	

## Command Mode

- /exec/configure/if-igp

# ipv6 mroute

```
[no] ipv6 mroute <ipv6-prefix> { { <next-hop> | <nh-prefix> } | <interface> } [ <pref> ] [ vrf { <vrf-name> | <vrf-known-name> } ]
```

## Syntax Description

Syntax Description		
no	(Optional)	Negate a command or set its defaults
ipv6		Configure IPv6 features
mroute		Configure multicast RPF static route
<i>interface</i>		Interface for interface static multicast routes
<i>pref</i>	(Optional)	Route preference
vrf	(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

## ipv6 nd cache limit

```
{ { ipv6 nd cache limit <max> } | { no ipv6 nd cache limit } } [ syslog <rate> ]
```

### Syntax Description

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

### 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

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 hop-limit

```
{ { ipv6 nd hop-limit <hop-limit> } | { no ipv6 nd hop-limit [ <hop-limit> ] } }
```

## Syntax Description

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 limit-incomplete-adjacency

```
{ { ipv6 nd limit-incomplete-adjacency <count> } | { no ipv6 nd limit-incomplete-adjacency [ <count> ] } }
```

### Syntax Description

Syntax Description		
no		Negate a command or set its defaults
ipv6		Configure IPv6 features
nd		ICMPv6 Neighbor Discovery commands
limit-incomplete-adjacency		Number of incomplete adjacencies
<i>count</i>		Count

### Command Mode

- /exec/configure



## ipv6 nd limit\_threshold\_am\_queue

```
{ { ipv6 nd limit_threshold_am_queue <count> } | { no ipv6 nd limit_threshold_am_queue [ <count> ] } }
```

### Syntax Description

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>limit_threshold_am_queue</i>		Threshold AM queue
<i>count</i>		Count

### Command Mode

- /exec/configure

## ipv6 nd mac-extract

[no] ipv6 nd mac-extract [ exclude nud-phase ]

### Syntax Description

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

---

### 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

### 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
mtu	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

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>ns-interval</i>		Retransmission interval between sending Neighbor-Solicitation messages
<i>interval</i>		Interval in milliseconds
<i>retry-count</i>		(Optional) NS Retry count

## 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

Syntax Description		
<code>no</code>	Negate a command or set its defaults	
<code>ipv6</code>	Configure IPv6 features	
<code>nd</code>	Display Neighbor Discovery interface information	
<code>off-list</code>	off-list	
<code>timeout</code>	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

---

### 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

#### 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	(Optional) Do not send full router address in prefix advert
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

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	(Optional)	Do not send full router address in prefix advert
off-link	(Optional)	Prefix is offlink

### Command Mode

- /exec/configure/if-igp

# ipv6 nd process adjacency statistics

[no] ipv6 nd process adjacency statistics

## Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
ipv6	Configure IPv6 features	
nd	ICMPv6 Neighbor Discovery commands	
process	Process Adjacency Statistics	
adjacency	Adjacency	
statistics	Statistics	

## Command Mode

- /exec/configure

# ipv6 nd ra-interval

```
ipv6 nd ra-interval <interval> [ min <min-interval> ] | no ipv6 nd ra-interval [ <interval> ] [ min <min-interval> ]
```

## Syntax Description

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

#### 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 dns search-list sequence

[no] ipv6 nd ra dns search-list <dnssl> [ { <dnssl\_life> | infinite } ] sequence <seqno>

### Syntax Description

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

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

### 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

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

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 raguard

[no] ipv6 nd raguard

## Syntax Description

Syntax Description	
no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
nd	Configure IPv6 ND
raguard	Configure RA guard

## Command Mode

- /exec/configure/if-switching

# ipv6 nd reachable-time

```
{ { ipv6 nd reachable-time <time> } | { no ipv6 nd reachable-time [ <time> ] } }
```

## Syntax Description

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

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

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

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

#### 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

---

**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

ipv6 nd synchronize [ pull | push ]

## Syntax Description

Syntax Description		
ipv6		Configure IPv6 features
nd		Display Neighbor Discovery interface information
synchronize		CFS synchronize
pull		(Optional) Initiate CFS pull request
push		(Optional) Initiate CFS push message

## Command Mode

- /exec

# ipv6 nd synchronize

[no] ipv6 nd synchronize

## Syntax Description

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

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 pim anycast-rp

[no] ipv6 pim anycast-rp <anycast-rp> <rp-addr>

### Syntax Description

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 auto-rp listen

{ ipv6 pim auto-rp { listen | forward } + } | { no ipv6 pim auto-rp [ { listen | forward } + ] }

## Syntax Description

Syntax Description	
no	Negate a command or set its defaults
ipv6	Configure IPv6 features
pim	PIM6 global configuration commands
auto-rp	Enable listening or forwarding of Auto-RP messages
listen	Listen to Auto-RP messages
forward	Forward Auto-RP messages

## Command Mode

- /exec/configure /exec/configure/vrf

## ipv6 pim auto-rp mapping-agent-policy

```
{ ipv6 pim auto-rp mapping-agent-policy { <route-map-name> | <rtr_pol_name> } | no ipv6 pim auto-rp
mapping-agent-policy [ <route-map-name> | <rtr_pol_name> ] }
```

### Syntax Description

#### Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
pim	PIM6 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>	A route-map name
<i>rtr_pol_name</i>	An existing routing-rules policy

### Command Mode

- /exec/configure /exec/configure/vrf

# ipv6 pim auto-rp mapping-agent send-rp-discovery

```
{ { ipv6 pim { { auto-rp mapping-agent } | send-rp-discovery } <interface> [ scope <ttl> ] } | { no ipv6 pim
{ { auto-rp mapping-agent } | send-rp-discovery } [ <interface> ] [ scope <ttl> ] } }
```

## Syntax Description

Syntax Description		
no		Negate a command or set its defaults
ipv6		Configure IPv6 features
auto-rp		Auto-RP protocol RP-distribution configuration
pim		PIM6 global configuration commands
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>		IPV6 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

## ipv6 pim auto-rp rp-candidate-policy

```
{ ipv6 pim auto-rp rp-candidate-policy { <route-map-name> | <rtr_pol_name> } | no ipv6 pim auto-rp
rp-candidate-policy [ <route-map-name> | <rtr_pol_name> ] }
```

### Syntax Description

#### Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
pim	PIM6 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>	A route-map name
<i>rtr_pol_name</i>	An existing routing-rules policy

### Command Mode

- /exec/configure /exec/configure/vrf



## ipv6 pim auto-rp rp-candidate send-rp-announce group

```
{ { ipv6 pim { { auto-rp rp-candidate } | send-rp-announce } <interface> { group-list <prefix> | route-map
<route-map-name> } { [ scope <ttl> ] | [ interval <interval> ] | [ bidir ] } + } | { no ipv6 pim { { auto-rp
rp-candidate } | send-rp-announce } [ <interface> ] [ group-list <prefix> ] [ route-map <route-map-name> ]
{ [ scope <ttl> ] | [ interval <interval> ] | [ bidir ] } } }
```

### Syntax Description

#### Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
pim	PIM6 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>	IPv6 address of interface for nnonce messages
group-list	Group range list
route-map	Group range policy for Auto-RP Candidate RP
<i>route-map-name</i>	route-map name
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 PIM6 bidirectional mode

### Command Mode

- /exec/configure /exec/configure/vrf

# ipv6 pim bidir-rp-limit

[no] ipv6 pim bidir-rp-limit <limit>

## Syntax Description

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	
limit	Set limit for Bidir RPs permitted in IPv6 PIM	

## Command Mode

- /exec/configure /exec/configure/vrf

# ipv6 pim border

[no] ipv6 pim border

## Syntax Description

---

**Syntax Description**

---

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
pim	PIM6 interface configuration commands
border	Configures interface to be a boundary of a PIM6 domain

---

## Command Mode

- /exec/configure/if-igp

# ipv6 pim bsr-candidate

```
{ { ipv6 pim [ bsr ] bsr-candidate <interface> [ hash-len <hash-len> ] [ priority <priority> ] } | { no ipv6 pim [ bsr ] bsr-candidate [ <interface> ] [ hash-len <hash-len> ] [ priority <priority> ] } }
```

## Syntax Description

Syntax Description		
<code>no</code>		Negate a command or set its defaults
<code>ipv6</code>		Configure IPv6 features
<code>pim</code>		PIM6 global configuration commands
<code>bsr</code>		(Optional) Bootstrap protocol RP-distribution configuration
<code>bsr-candidate</code>		Configure router as a Bootstrap Router candidate
<i>interface</i>		Use IPV6 address of interface for Bootstrap messages
<code>hash-len</code>		(Optional) Hash mask length used in Bootstrap messages
<i>hash-len</i>		(Optional) Hash mask length value
<code>priority</code>		(Optional) BSR priority used in Bootstrap messages
<i>priority</i>		(Optional) BSR priority value

## Command Mode

- /exec/configure /exec/configure/vrf

# ipv6 pim bsr bsr-policy

```
{ ipv6 pim bsr bsr-policy { <route-map-name> | <rtr_pol_name> } | no ipv6 pim bsr bsr-policy [
<route-map-name> | <rtr_pol_name> ] }
```

## Syntax Description

Syntax Description		
no		Negate a command or set its defaults
ipv6		Configure IPv6 features
pim		PIM6 global configuration commands
bsr		Bootstrap protocol RP-distribution configuration
bsr-policy		Specify policy for filtering BSR messages
<i>route-map-name</i>		A route-map name
<i>rtr_pol_name</i>		An existing routing-rules policy

## Command Mode

- /exec/configure /exec/configure/vrf

# ipv6 pim bsr listen

{ ipv6 pim bsr { listen | forward } + } | { no ipv6 pim bsr [ { listen | forward } + ] }

## Syntax Description

Syntax Description		
no	Negate a command or set its defaults	
ipv6	Configure IPv6 features	
pim	PIM6 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

# ipv6 pim bsr rp-candidate-policy

```
{ ipv6 pim bsr rp-candidate-policy { <route-map-name> | <rtr_pol_name> } | no ipv6 pim bsr
rp-candidate-policy [ <route-map-name> | <rtr_pol_name> ] }
```

## Syntax Description

Syntax Description		
no		Negate a command or set its defaults
ipv6		Configure IPv6 features
pim		PIM6 global configuration commands
bsr		Bootstrap protocol RP-distribution configuration
rp-candidate-policy		Specify policy for filtering RP candidate messages
<i>route-map-name</i>		A route-map name
<i>rtr_pol_name</i>		An existing routing-rules policy

## Command Mode

- /exec/configure /exec/configure/vrf

# ipv6 pim dr-priority

```
{ { ipv6 pim dr-priority <priority> } | { no ipv6 pim dr-priority [ <priority> ] } }
```

## Syntax Description

Syntax Description		
no		Negate a command or set its defaults
ipv6		Configure IPv6 features
pim		PIM6 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 event-history assert-receive

```
[no] ipv6 pim event-history assert-receive { size { <size_in_text> | <size_in_kbytes> } }
```

### Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
ipv6	Configure IPv6 features	
pim	PIM6 global configuration commands	
event-history	Configure event-history buffer	
assert-receive	Assert-receive events for PIM6	
size	Configure size	
<i>size_in_text</i>	Buffer size	
<i>size_in_kbytes</i>	Size in kbytes	

### Command Mode

- /exec/configure

## ipv6 pim event-history bidir

```
[no] ipv6 pim event-history bidir { size { <size_in_text> | <size_in_kbytes> } }
```

### Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
ipv6	Configure IPv6 features	
pim	PIM6 global configuration commands	
event-history	Configure event-history buffer	
bidir	Bidir events for PIM6	
size	Configure size	
<i>size_in_text</i>	Buffer size	
<i>size_in_kbytes</i>	Size in kbytes	

### Command Mode

- /exec/configure

# ipv6 pim event-history hello

```
[no] ipv6 pim event-history hello { size { <size_in_text> | <size_in_kbytes> } }
```

## Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
ipv6	Configure IPv6 features	
pim	PIM6 global configuration commands	
event-history	Configure event-history buffer	
hello	Hello events for PIM6	
size	Configure size	
<i>size_in_text</i>	Buffer size	
<i>size_in_kbytes</i>	Size in kbytes	

## Command Mode

- /exec/configure

# ipv6 pim event-history join-prune-summary

```
[no] ipv6 pim event-history join-prune-summary { size { <size_in_text> | <size_in_kbytes> } }
```

## Syntax Description

Syntax Description		
	no	(Optional) Negate a command or set its defaults
	ipv6	Configure IPv6 features
	pim	PIM6 global configuration commands
	event-history	Configure event-history buffer
	join-prune-summary	Join/Prune-Summary events for PIM6
	size	Configure size
	<i>size_in_text</i>	Buffer size
	<i>size_in_kbytes</i>	Size in kbytes

## Command Mode

- /exec/configure

## ipv6 pim event-history join-prune

```
[no] ipv6 pim event-history join-prune { size { <size_in_text> | <size_in_kbytes> } }
```

### Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
ipv6	Configure IPv6 features	
pim	PIM6 global configuration commands	
event-history	Configure event-history buffer	
join-prune	Join/Prune events for PIM6	
size	Configure size	
<i>size_in_text</i>	Buffer size	
<i>size_in_kbytes</i>	Size in kbytes	

### Command Mode

- /exec/configure

## ipv6 pim event-history null-register

```
[no] ipv6 pim event-history null-register { size { <size_in_text> | <size_in_kbytes> } }
```

### Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
ipv6	Configure IPv6 features	
pim	PIM6 global configuration commands	
event-history	Configure event-history buffer	
null-register	Reg events for PIM6	
size	Configure size	
<i>size_in_text</i>	Buffer size	
<i>size_in_kbytes</i>	Size in kbytes	

### Command Mode

- /exec/configure

# ipv6 pim event-history packet

[no] ipv6 pim event-history packet { size { <size\_in\_text> | <size\_in\_kbytes> } }

## Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
ipv6	Configure IPv6 features	
pim	PIM6 global configuration commands	
event-history	Configure event-history buffer	
packet	Packet events for PIM6	
size	Configure size	
<i>size_in_text</i>	Buffer size	
<i>size_in_kbytes</i>	Size in kbytes	

## Command Mode

- /exec/configure

# ipv6 pim event-history pim6-internal

```
[no] ipv6 pim event-history pim6-internal { size { <size_in_text> | <size_in_kbytes> } }
```

## Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
ipv6	Configure IPv6 features	
pim	PIM6 global configuration commands	
event-history	Configure event-history buffer	
pim6-internal	Internal events for PIM6	
size	Configure size	
<i>size_in_text</i>	Buffer size	
<i>size_in_kbytes</i>	Size in kbytes	

## Command Mode

- /exec/configure



## ipv6 pim event-history rp

```
[no] ipv6 pim event-history rp { size { <size_in_text> | <size_in_kbytes> } }
```

### Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
ipv6	Configure IPv6 features	
pim	PIM6 global configuration commands	
event-history	Configure event-history buffer	
rp	RP events for PIM6	
size	Configure size	
<i>size_in_text</i>	Buffer size	
<i>size_in_kbytes</i>	Size in kbytes	

### Command Mode

- /exec/configure

## ipv6 pim event-history vrf

```
[no] ipv6 pim event-history vrf { size { <size_in_text> | <size_in_kbytes> } }
```

### Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
ipv6	Configure IPv6 features	
pim	PIM6 global configuration commands	
event-history	Configure event-history buffer	
vrf	VRF events for PIM6	
size	Configure size	
<i>size_in_text</i>	Buffer size	
<i>size_in_kbytes</i>	Size in kbytes	

### Command Mode

- /exec/configure

# ipv6 pim flush-routes

[no] ipv6 pim flush-routes

## Syntax Description

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-authentication ah-md5

```
{ ipv6 pim hello-authentication ah-md5 <auth-key> | no ipv6 pim hello-authentication ah-md5 [ <auth-key>
] }
```

### Syntax Description

Syntax Description		
no		Negate a command or set its defaults
ipv6		Configure IPv6 features
pim		PIM6 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

# ipv6 pim hello-interval

```
{ { ipv6 pim hello-interval { <interval-min> | <interval-max> } } | { no ipv6 pim hello-interval [ <interval-min> | <interval-max> ] } }
```

## Syntax Description

Syntax Description		
no		Negate a command or set its defaults
ipv6		Configure IPv6 features
pim		PIM6 interface configuration commands
hello-interval		Configures the Hello interval for interface
<i>interval-min</i>		Interval in milliseconds
<i>interval-max</i>		Interval in milliseconds

## Command Mode

- /exec/configure/if-igp

# ipv6 pim isolate

[no] ipv6 pim isolate

## Syntax Description

<b>Syntax Description</b>	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 jp-delay

```
{ { ipv6 pim jp-delay <delay> } | { no ipv6 pim jp-delay [ <delay> ] } }
```

## Syntax Description

<b>Syntax Description</b>	<b>no</b>	Negate a command or set its defaults
	<b>ipv6</b>	Configure IPv6 features
	<b>pim</b>	PIM6 global configuration commands
	<b>jp-delay</b>	Join-Prune message inter-packet delay
	<i>delay</i>	Delay value in microseconds

## Command Mode

- /exec/configure /exec/configure/vrf

## ipv6 pim jp-policy

```
{ ipv6 pim jp-policy { <route-map-name> | <rtr_pol_name> } [ in | out ] | no ipv6 pim jp-policy [ <route-map-name> | <rtr_pol_name> ] [ in | out ] }
```

### Syntax Description

Syntax Description		
no		Negate a command or set its defaults
ipv6		Configure IPv6 features
pim		PIM6 interface configuration commands
jp-policy		Specify policy for receiving Join-Prune messages
<i>route-map-name</i>		A route-map name
<i>rtr_pol_name</i>		An existing routing-rules policy
in		(Optional) Inbound
out		(Optional) Outbound

### Command Mode

- /exec/configure/if-igp



# ipv6 pim log-neighbor-changes

[no] ipv6 pim log-neighbor-changes

## Syntax Description

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 neighbor-policy

```
{ ipv6 pim neighbor-policy <route-map-name> | no ipv6 pim neighbor-policy [ <route-map-name> ] }
```

## Syntax Description

Syntax Description		
no		Negate a command or set its defaults
ipv6		Configure IPv6 features
pim		PIM6 interface configuration commands
neighbor-policy		Configures a neighbor policy for filtering adjacencies
<i>route-map-name</i>		A route-map name

## Command Mode

- /exec/configure/if-igp

# ipv6 pim passive

[no] ipv6 pim passive

## Syntax Description

<b>Syntax Description</b>	no	(Optional) Negate a command or set its defaults
	ipv6	Configure IPv6 features
	pim	PIM6 interface configuration commands
	passive	Interface in passive mode. No send/recv

## Command Mode

- /exec/configure/if-igp

# ipv6 pim register-policy

```
{ ipv6 pim register-policy { <route-map-name> | <rtr_pol_name> } | no ipv6 pim register-policy [
<route-map-name> | <rtr_pol_name> ] }
```

## Syntax Description

Syntax Description		
no		Negate a command or set its defaults
ipv6		Configure IPv6 features
pim		PIM6 global configuration commands
register-policy		Specify policy for receiving Register messages
<i>route-map-name</i>		A route-map name
<i>rtr_pol_name</i>		An existing routing-rules policy

## Command Mode

- /exec/configure /exec/configure/vrf

# ipv6 pim register-rate-limit

```
{ { ipv6 pim register-rate-limit <rate> } | { no ipv6 pim register-rate-limit [ <rate> ] } }
```

## Syntax Description

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 PIM 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

#### 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) prefix-list name
bidir	(Optional) Group range is treated in PIM6 bidirectional mode
override	(Optional) Overrides the dynamically learnt RPs

### Command Mode

- /exec/configure /exec/configure/vrf

## ipv6 pim rp-candidate group

```
{ { ipv6 pim [ bsr ] rp-candidate <interface> { group-list <prefix> | route-map <route-map-name> } [ priority
<priority> ] [ interval <interval> ] [ bidir ] } | { no ipv6 pim [ bsr ] rp-candidate [ <interface> ] [ group-list
<prefix> ] [ route-map <route-map-name> ] [ priority <priority> ] [ interval <interval> ] [ bidir ] } }
```

### Syntax Description

#### Syntax Description

no	Negate a command or set its defaults
ipv6	Configure IPv6 features
pim	PIM6 global configuration commands
bsr	(Optional) Bootstrap protocol RP-distribution configuration
rp-candidate	Configure router as a Rendezvous Point (RP) candidate
<i>interface</i>	IPv6 address of interface for Candidate-RP messages
group-list	Group range list
route-map	Group range policy for Candidate RP
<i>route-map-name</i>	route-map name
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 PIM6 bidirectional mode

### Command Mode

- /exec/configure /exec/configure/vrf

# ipv6 pim sparse-mode

ipv6 pim sparse-mode | no ipv6 pim [ sparse-mode ]

## Syntax Description

Syntax Description		
no		Negate a command or set its defaults
ipv6		Configure IPv6 features
pim		PIM6 interface configuration commands
sparse-mode		Configures sparse-mode PIMv6 on interface

## Command Mode

- /exec/configure/if-igp



## ipv6 pim ssm

```
{ ipv6 pim ssm { { range { <group> + | none } } | { route-map <route-map-name> } } | no ipv6 pim ssm { {
range { <group> + | none } } | { route-map <route-map-name> } } }
```

### Syntax Description

Syntax Description		
no		Negate a command or set its defaults
ipv6		Configure IPv6 features
pim		PIM6 global configuration commands
ssm		Source Specific Multicast (SSM) groups
range		Configure explicit group ranges
none		Remove all SSM group ranges
route-map		Group range policy for SSM range
<i>route-map-name</i>		A route-map name

### 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

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 pim use-shared-tree-only spt-threshold infinity group-list

```
{ ipv6 pim { use-shared-tree-only | spt-threshold infinity } group-list <route-map-name> } | { no ipv6 pim {
use-shared-tree-only | spt-threshold infinity } [ group-list <route-map-name> ] }
```

## Syntax Description

Syntax Description		
no		Negate a command or set its defaults
ipv6		Configure IPv6 features
pim		PIM6 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

## 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

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

# ipv6 port traffic-filter

[no] ipv6 port traffic-filter <name> <inout>

## Syntax Description

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>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

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> { permit | deny } <prefix> { [ eq <equal> ] | [ ge <greater> ] | [ le <lesser> ] } } | { no ipv6 prefix-list { <ipv6-pfl-name> | <ipv6-pfl-name> } [ { permit | deny } <prefix> { [ eq <equal> ] | [ ge <greater> ] | [ le <lesser> ] } ] }
```

### Syntax 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>		Name of prefix-list
<i>ipv6-pfl-name</i>		Known prefix-list name
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

### Command Mode

- /exec/configure

# ipv6 prefix-list seq permit

```
{ ipv6 prefix-list <ipv6-pfl-name> seq <seq> { permit | deny } <prefix> { [ eq <equal> ] | [ ge <greater> ] [ le <lesser> ] } } | { no ipv6 prefix-list { <ipv6-pfl-name> | <ipv6-pfl-name> } seq <seq> [ { permit | deny } <prefix> { [ eq <equal> ] | [ ge <greater> ] [ le <lesser> ] } } }
```

## Syntax 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>	Name of prefix-list
<i>ipv6-pfl-name</i>	Known prefix-list name
seq	Sequence number of an entry
<i>seq</i>	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

## Command Mode

- /exec/configure



# ipv6 queue-packets-limit

[no] ipv6 queue-packets-limit [ <limit> ]

## Syntax Description

Syntax Description		
no	(Optional)	Negate a command or set its defaults
ipv6		Configure IPv6 features
queue-packets-limit		Maximum number of queue packets for unresolved NDS
limit	(Optional)	Unresolved ND queue packet limit

## Command Mode

- /exec/configure

# ipv6 queue-packets

[no] ipv6 queue-packets

## Syntax Description

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 redirects

ipv6 [ nd ] redirects | no ipv6 [ nd ] redirects

## Syntax Description

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 repopulate internal context array

ipv6 repopulate internal context array

## Syntax Description

Syntax Description		
	ipv6	Configure IPv6 features
	repopulate	Repopulate internal data structure
	internal	Commands for internal use
	context	repopulate context related info
	array	arrays which stores context ptrs

## Command Mode

- /exec

# 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

### 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

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

---

### 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)

---

**tag** 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

Syntax Description		
no	(Optional)	Negate a command or set its defaults
ipv6		Configure IPv6 features
router		Enable a routing process
ospfv3		OSPFv3 configuration commands
tag		Process tag
area		Area associated with interface
area-id-ip		OSPFv3 area ID in IP address format
area-id-int		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

Syntax Description		
no	(Optional)	Negate a command or set its defaults
ipv6		Configure IPv6 features
router		Enable a routing process
ospfv3		OSPFv3 configuration commands
tag	(Optional)	Process tag
multi-area		Multi-Area associated with interface
area-id-ip		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

# ipv6 routing event-history size

[no] ipv6 routing event-history { am | cli | detail | errors | general | ha | lfe | recursive-next-hop | summary | ufdm | ufdm-detail | ufdm-summary } size { <size\_in\_text> | <size\_in\_bytes> }

## Syntax Description

### Syntax Description

no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
routing	Routing information
event-history	Configure routing event log
am	AM
cli	CLI
detail	Detail
errors	Errors
general	General
ha	HA
lfe	LFE
recursive-next-hop	Recursive next hop
summary	Summary
ufdm	UFDM
ufdm-detail	UFDM Detail
ufdm-summary	UFDM Summary
size	Size of buffer
<i>size_in_text</i>	Buffer size
<i>size_in_bytes</i>	Enter an integer value for the event history buffer

## Command Mode

- /exec/configure

# ipv6 routing multicast software-replication

[no] ipv6 routing multicast software-replication

## Syntax Description

Syntax Description		
no	(Optional)	Negate a command or set its defaults
ipv6		Configure IPv6 features
routing		Routing information
multicast		Configure multicast
software-replication		Enable software replication of PIM ASM leak packets

## Command Mode

- /exec/configure

# ipv6 source-route

[no] ipv6 source-route [ rh0 ]

## Syntax Description

Syntax Description	
no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
source-route	Process IPv6 Routing Header
rh0	(Optional) Process IPv6 Routing Header - Type 0 (RH0)

## Command Mode

- /exec/configure

# ipv6 switch-packets

[no] ipv6 switch-packets [ lla ]

## Syntax Description

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 <name> <inout>

## Syntax Description

Syntax Description	
no	(Optional) Negate a command or set its defaults
ipv6	Configure IPv6 features
traffic-filter	Specify access control for packets
<i>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

---

**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 | any [ allow-default ] }

### Syntax Description

Syntax Description		
no	(Optional) 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	Source is reachable via interface on which packet was received	
any	Source is reachable via any interface	
allow-default	(Optional) Loose Default Route Unicast Reverse Path Forwarding	

### Command Mode

- /exec/configure/if-igp



# ipv6 vip

[no] ipv6 vip <ipv6-addr>

## Syntax Description

---

<b>Syntax Description</b>	no (Optional) Negate a command or set its defaults
---------------------------	--

---

ip6	Configure IPv6 features
-----	-------------------------

---

vip	Virtual IPv6 address
-----	----------------------

---

## Command Mode

- /exec/configure/if-igp

# is-type

is-type <is-type> | no is-type [ <is-type> ]

## Syntax Description

<b>Syntax Description</b>	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

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

---

### Syntax Description

---

ishow Show internal  
information

---

cli Show CLI information

---

mods show

---

## Command Mode

- /exec

# ishow cli nodes

ishow cli nodes [ <mode> ]

## Syntax Description

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

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

---

### Syntax Description

---

ishow Show internal information

---

cli Show CLI information

---

tags

---

## Command Mode

- /exec

# ishow core backtrace

ishow core <pid> backtrace

## Syntax Description

---

### Syntax Description

---

ishow Show internal information

---

core display info from core file

---

*pid* 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

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-p2p

# isis authentication-check level-1

[no] isis authentication-check level-1

## Syntax Description

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-ma

## isis authentication-check level-2

[no] isis authentication-check level-2

### Syntax Description

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-ma

# isis authentication-type cleartext

```
{ isis authentication-type { cleartext | md5 } | no isis authentication-type [ { cleartext | md5 } ] }
```

## Syntax Description

Syntax Description		
no		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-p2p

# isis authentication-type cleartext

```
{ isis authentication-type { cleartext | md5 } <level> | no isis authentication-type [ { cleartext | md5 } ] <level>
}
```

## Syntax Description

Syntax Description		
no		Negate a command or set its defaults
isis		IS-IS configuration commands
authentication-type		Set hello authentication type
cleartext		Cleartext
md5		HMAC-MD5
<i>level</i>		IS-IS level

## Command Mode

- /exec/configure/if-ma

# isis authentication key-chain

```
{ isis authentication key-chain <auth-keychain> | no isis authentication key-chain [ <auth-keychain> ] }
```

## Syntax Description

Syntax Description		
no		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-p2p

# isis authentication key-chain

```
{ isis authentication key-chain <auth-keychain> <level> | no isis authentication key-chain [ <auth-keychain> ] <level> }
```

## Syntax Description

Syntax Description		
<code>no</code>		Negate a command or set its defaults
<code>isis</code>		IS-IS configuration commands
<code>authentication</code>		Set hello authentication keychain
<code>key-chain</code>		Set hello authentication keychain
<code>auth-keychain</code>		authentication keychain
<code>level</code>		IS-IS level

## Command Mode

- /exec/configure/if-ma

# isis bfd

[no] isis bfd [ disable ]

## Syntax Description

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

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

## Command Mode

- /exec/configure/if-igp

# isis csnp-interval level

[no] isis csnp-interval <sec> { level-1 | level-2 }

## Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
isis	IS-IS configuration commands	
csnp-interval	Set CSNP interval in seconds	
sec	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 event-history adjacency

[no] isis event-history adjacency { size { <size\_in\_text> | <size\_in\_kbytes> } }

### Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
isis	Event-history buffers for IS-IS	
event-history	Configure event-history buffers	
adjacency	Adjacency events for IS-IS	
size	Configure size	
<i>size_in_text</i>	Buffer size	
<i>size_in_kbytes</i>	Size in kbytes	

### Command Mode

- /exec/configure/router-isis/router-isis-vrf-common

## isis event-history cli

```
[no] isis event-history cli { size { <size_in_text> | <size_in_kbytes> } }
```

### Syntax Description

Syntax Description		
no	(Optional)	Negate a command or set its defaults
isis		Event-history buffers for IS-IS
event-history		Configure event-history buffers
cli		CLI events for IS-IS
size		Configure size
<i>size_in_text</i>		Buffer size
<i>size_in_kbytes</i>		Size in kbytes

### Command Mode

- /exec/configure/router-isis/router-isis-vrf-common

## isis event-history csnp

```
[no] isis event-history csnp { size { <size_in_text> | <size_in_kbytes> } }
```

### Syntax Description

Syntax Description	
no	(Optional) Negate a command or set its defaults
isis	Event-history buffers for IS-IS
event-history	Configure event-history buffers
csnp	CSNP events for IS-IS
size	Configure size
<i>size_in_text</i>	Buffer size
<i>size_in_kbytes</i>	Size in kbytes

### Command Mode

- /exec/configure/router-isis/router-isis-vrf-common

## isis event-history dis

```
[no] isis event-history dis { size { <size_in_text> | <size_in_kbytes> } }
```

### Syntax Description

Syntax Description		
no	(Optional)	Negate a command or set its defaults
isis		Event-history buffers for IS-IS
event-history		Configure event-history buffers
dis		Dis events for IS-IS
size		Configure size
<i>size_in_text</i>		Buffer size
<i>size_in_kbytes</i>		Size in kbytes

### Command Mode

- /exec/configure/router-isis/router-isis-vrf-common

## isis event-history events

[no] isis event-history events { size { <size\_in\_text> | <size\_in\_kbytes> } }

### Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
isis	Event-history buffers for IS-IS	
event-history	Configure event-history buffers	
events	Events for IS-IS	
size	Configure size	
<i>size_in_text</i>	Buffer size	
<i>size_in_kbytes</i>	Size in kbytes	

### Command Mode

- /exec/configure/router-isis/router-isis-vrf-common

# isis event-history graceful

```
[no] isis event-history graceful { size { <size_in_text> | <size_in_kbytes> } }
```

## Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
isis	Event-history buffers for IS-IS	
event-history	Configure event-history buffers	
graceful	Graceful Restart events for IS-IS	
size	Configure size	
<i>size_in_text</i>	Buffer size	
<i>size_in_kbytes</i>	Size in kbytes	

## Command Mode

- /exec/configure/router-isis/router-isis-vrf-common



## isis event-history ha

[no] isis event-history ha { size { <size\_in\_text> | <size\_in\_kbytes> } }

### Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
isis	Event-history buffers for IS-IS	
event-history	Configure event-history buffers	
ha	HA events for IS-IS	
size	Configure size	
<i>size_in_text</i>	Buffer size	
<i>size_in_kbytes</i>	Size in kbytes	

### Command Mode

- /exec/configure/router-isis/router-isis-vrf-common

## isis event-history iih

```
[no] isis event-history iih { size { <size_in_text> | <size_in_kbytes> } }
```

### Syntax Description

Syntax Description		
no	(Optional)	Negate a command or set its defaults
isis		Event-history buffers for IS-IS
event-history		Configure event-history buffers
iih		IIH events for IS-IS
size		Configure size
<i>size_in_text</i>		Buffer size
<i>size_in_kbytes</i>		Size in kbytes

### Command Mode

- /exec/configure/router-isis/router-isis-vrf-common

## isis event-history lsp-flood

[no] isis event-history lsp-flood { size { <size\_in\_text> | <size\_in\_kbytes> } }

### Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
isis	Event-history buffers for IS-IS	
event-history	Configure event-history buffers	
lsp-flood	LSP-flood events for IS-IS	
size	Configure size	
<i>size_in_text</i>	Buffer size	
<i>size_in_kbytes</i>	Size in kbytes	

### Command Mode

- /exec/configure/router-isis/router-isis-vrf-common

## isis event-history lsp-gen

```
[no] isis event-history lsp-gen { size { <size_in_text> | <size_in_kbytes> } }
```

### Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
isis	Event-history buffers for IS-IS	
event-history	Configure event-history buffers	
lsp-gen	LSP-Gen events for IS-IS	
size	Configure size	
<i>size_in_text</i>	Buffer size	
<i>size_in_kbytes</i>	Size in kbytes	

### Command Mode

- /exec/configure/router-isis/router-isis-vrf-common

## isis event-history mtr

[no] isis event-history mtr { size { <size\_in\_text> | <size\_in\_kbytes> } }

### Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
isis	Event-history buffers for IS-IS	
event-history	Configure event-history buffers	
mtr	MTR events for IS-IS	
size	Configure size	
<i>size_in_text</i>	Buffer size	
<i>size_in_kbytes</i>	Size in kbytes	

### Command Mode

- /exec/configure/router-isis/router-isis-vrf-common

## isis event-history psnp

```
[no] isis event-history psnp { size { <size_in_text> | <size_in_kbytes> } }
```

### Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
isis	Event-history buffers for IS-IS	
event-history	Configure event-history buffers	
psnp	PSNP events for IS-IS	
size	Configure size	
<i>size_in_text</i>	Buffer size	
<i>size_in_kbytes</i>	Size in kbytes	

### Command Mode

- /exec/configure/router-isis/router-isis-vrf-common

# isis event-history redist

[no] isis event-history redist { size { <size\_in\_text> | <size\_in\_kbytes> } }

## Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
isis	Event-history buffers for IS-IS	
event-history	Configure event-history buffers	
redist	Redist events for IS-IS	
size	Configure size	
<i>size_in_text</i>	Buffer size	
<i>size_in_kbytes</i>	Size in kbytes	

## Command Mode

- /exec/configure/router-isis/router-isis-vrf-common

## isis event-history spf-leaf

```
[no] isis event-history spf-leaf { size { <size_in_text> | <size_in_kbytes> } }
```

### Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
isis	Event-history buffers for IS-IS	
event-history	Configure event-history buffers	
spf-leaf	Shortest path first events for IS-IS	
size	Configure size	
<i>size_in_text</i>	Buffer size	
<i>size_in_kbytes</i>	Size in kbytes	

### Command Mode

- /exec/configure/router-isis/router-isis-vrf-common



## isis event-history spf-tree

```
[no] isis event-history spf-tree { size { <size_in_text> | <size_in_kbytes> } }
```

### Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
isis	Event-history buffers for IS-IS	
event-history	Configure event-history buffers	
spf-tree	SPF-Tree events for IS-IS	
size	Configure size	
<i>size_in_text</i>	Buffer size	
<i>size_in_kbytes</i>	Size in kbytes	

### Command Mode

- /exec/configure/router-isis/router-isis-vrf-common

## isis event-history tlv

```
[no] isis event-history tlv { size { <size_in_text> | <size_in_kbytes> } }
```

### Syntax Description

Syntax Description	no	(Optional) Negate a command or set its defaults
	isis	Event-history buffers for IS-IS
	event-history	Configure event-history buffers
	tlv	TLV events for IS-IS
	size	Configure size
	<i>size_in_text</i>	Buffer size
	<i>size_in_kbytes</i>	Size in kbytes

### Command Mode

- /exec/configure/router-isis/router-isis-vrf-common

## isis event-history urib

[no] isis event-history urib { size { <size\_in\_text> | <size\_in\_kbytes> } }

### Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
isis	Event-history buffers for IS-IS	
event-history	Configure event-history buffers	
urib	URIB events for IS-IS	
size	Configure size	
<i>size_in_text</i>	Buffer size	
<i>size_in_kbytes</i>	Size in kbytes	

### Command Mode

- /exec/configure/router-isis/router-isis-vrf-common

# isis hello-interval

[no] isis hello-interval <sec>

## Syntax Description

<b>Syntax Description</b>	no	(Optional) Negate a command or set its defaults
	isis	IS-IS configuration commands
	hello-interval	Set Hello interval in seconds
	sec	Hello interval value

## Command Mode

- /exec/configure/if-p2p

# isis hello-interval level

[no] isis hello-interval <sec> { level-1 | level-2 }

## Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
isis	IS-IS configuration commands	
hello-interval	Set Hello interval in seconds	
sec	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-ma

# isis hello-multiplier

[no] isis hello-multiplier <multi>

## Syntax Description

<b>Syntax Description</b>	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-p2p

# isis hello-multiplier level

[no] isis hello-multiplier <multi> { level-1 | level-2 }

## Syntax Description

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-ma

# isis hello-padding

```
{ isis hello-padding | no isis hello-padding [ always ] }
```

## Syntax Description

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 hello-padding always

isis hello-padding always

## Syntax Description

Syntax Description		
isis		IS-IS configuration commands
hello-padding		Pad IS-IS hello PDUs to full MTU
always		Pad every hello

## Command Mode

- /exec/configure/if-igp

# isis ipv6 bfd

[no] isis ipv6 bfd [ disable ]

## Syntax Description

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

[no] isis ipv6 metric <metric> <level>

## Syntax Description

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
<i>level</i>	IS-IS level

## Command Mode

- /exec/configure/if-igp /exec/configure/router-isis/router-isis-af-ipv6

# isis lsp-interval

[no] isis lsp-interval <msec>

## Syntax Description

Syntax Description		
no	(Optional)	Negate a command or set its defaults
isis		IS-IS configuration commands
lsp-interval		Set LSP transmission interval
msec		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

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

[no] isis metric <metric> <level>

## Syntax Description

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
<i>level</i>	IS-IS level

## Command Mode

- /exec/configure/if-igp /exec/configure/if-mpls-tunnel

# isis mtu-check

[no] isis mtu-check

## Syntax Description

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-p2p

# isis mtu-check level

[no] isis mtu-check { level-1 | level-2 }

## Syntax Description

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
level-2	Configure mtu-check for level-2

## Command Mode

- /exec/configure/if-ma



# isis network point-to-point

[no] isis network point-to-point

## Syntax Description

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

## 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> ]

## Syntax Description

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

## Command Mode

- /exec/configure/if-igp

# isis priority level

[no] isis priority <priority> { level-1 | level-2 }

## Syntax Description

<b>Syntax Description</b>	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-ma

# isis retransmit-interval

[no] isis retransmit-interval <sec>

## Syntax Description

Syntax Description		
no	(Optional) Negate a command or set its defaults	
isis	IS-IS configuration commands	
retransmit-interval	Set per-LSP retransmission interval	
sec	Interval between retransmissions of the same LSP (seconds)	

## Command Mode

- /exec/configure/if-p2p

# isis retransmit-throttle-interval

[no] isis retransmit-throttle-interval <msec>

## Syntax Description

<b>Syntax Description</b>	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-p2p

# isis shutdown

[no] isis shutdown

## Syntax Description

---

**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

# isolate

[no] isolate

## Syntax Description

Syntax	Description
no	(Optional) Negate a command or set its defaults
isolate	Isolate this router from BGP perspective

## Command Mode

- /exec/configure/router-bgp

# isolate

[no] isolate

## Syntax Description

Syntax Description	
no	(Optional) Negate a command or set its defaults
isolate	Isolate this router from OSPF perspective

## Command Mode

- /exec/configure/router-ospf



# isolate

[no] isolate

## Syntax Description

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

<b>Syntax Description</b>	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

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

Syntax Description	
no	(Optional) Negate a command or set its defaults
isolate	Isolate this router from OSPFV3 perspective

## Command Mode

- /exec/configure/router-ospf3

# itd

```
{ itd <service-name> } | { no itd <service-name> }
```

## Syntax Description

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

{ itd <service-name> } | { no itd <service-name> }

## Syntax Description

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

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 device-group

```
{ itd device-group <svc-name> } | { no itd device-group <svc-name> }
```

## Syntax Description

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 session access-list refresh

itd session access-list <acl-name> refresh

## Syntax Description

Syntax Description		
	itd	ITD service
	session	ITD session
	access-list	ITD access-list
	<i>acl-name</i>	acl-name
	refresh	refresh

## Command Mode

- /exec/configure

# itd session device-group

```
{ itd session device-group <svc-name> } | { no itd session device-group <svc-name> }
```

## Syntax Description

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

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

# itd statistics

{ itd statistics <service-name> } | { no itd statistics <service-name> }

## Syntax Description

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