I Commands

This chapter describes the Cisco NX-OS IGMP commands that begin with I.

ip igmp access-group

To enable a route-map policy to control the multicast groups that hosts on the subnet serviced by an interface can join, use the **ip igmp access-group** command. To disable the route-map policy, use the **no** form of this command.

ip igmp access-group *policy-name*

no ip igmp access-group [*policy-name*]

Syntax Description

policy-name	Route-map policy name. The route map name can be a maximum of 100 alphanumeric characters.

Command Default

Disabled

Command Modes

Interface configuration mode

Command History

Release	Modification
6.0(2)N1(1)	This command was introduced.

Usage Guidelines

The **ip igmp access-group** command is an alias of the **ip igmp report-policy** command.

This command does not require a license.

Examples

This example shows how to enable a route-map policy:

```
switch(config)# interface ethernet 2/2
switch(config-if)# ip igmp access-group my_access_group_policy
switch(config-if)#
```

This example shows how to disable a route-map policy:

```
switch(config)# interface ethernet 2/2
switch(config-if)# no ip igmp access-group
switch(config-if)#
```

Related Commands

Command	Description
show ip igmp interface	Displays IGMP information about the interface.

ip igmp enforce-router-alert

To enable the enforce router alert option check for IGMPv2 and IGMPv3 packets, use the **ip igmp enforce-router-alert** command. To disable the option check, use the **no** form of this command.

ip igmp enforce-router-alert

no ip igmp enforce-router-alert

Syntax Description

This command has no arguments or keywords.

Command Default

Enabled

Command Modes

Global configuration mode

Command History

Release	Modification
6.0(2)N1(1)	This command was introduced.

Usage Guidelines

This command does not require a license.

Examples

This example shows how to enable the enforce router alert option check:

```
switch(config)# ip igmp enforce-router-alert
```

This example shows how to disable the enforce router alert option check:

```
switch(config)# no ip igmp enforce-router-alert
```

Related Commands

Command	Description
show running-config igmp	Displays information about the IGMP running-system configuration.

ip igmp event-history

To configure the size of the IGMP event history buffers, use the **ip igmp event-history** command. To revert to the default buffer size, use the **no** form of this command.

ip igmp event-history {**cli** | **group-debugs** | **group-events** | **ha** | **igmp-internal** | **interface-debugs** | **interface-events** | **msgs** | **mtrace** | **policy** | **statistics** | **vrf**} **size** *buffer-size*

no ip igmp event-history {**clis** | **group-debugs** | **group-events** | **ha** | **igmp-internal** | **interface-debugs** | **interface-events** | **msgs** | **mtrace** | **policy** | **statistics** | **vrf**} **size** *buffer-size*

Syntax Description

clis	Configures the IGMP CLI event history buffer size.
group-debugs	Configures the IGMP group debug event history buffer size.
group-events	Configures the IGMP group-event event history buffer size.
ha	Configures the IGMP HA event history buffer size.
igmp-internal	Configures the IGMP IGMP-internal event history buffer size.
interface-debugs	Configures the IGMP interface debug event history buffer size.
interface-events	Configures the IGMP interface-event event history buffer size.
msgs	Configures the message event history buffer size.
mtrace	Configures the IGMP mtrace event history buffer size.
policy	Configures the IGMP policy event history buffer size.
statistics	Configures the statistics event history buffer size.
vrf	Configures the IGMP VRF event history buffer size.
size	Specifies the size of the buffer to allocate.
buffer-size	Buffer size that is one of the following values: **disabled**, **large**, **medium**, or **small**. The default buffer size is **small**.

Command Default

All history buffers are allocated as small.

Command Modes

Any command mode

Command History

Release	Modification
6.0(2)N1(1)	This command was introduced.

Usage Guidelines

This command does not require a license.

Examples

This example shows how to configure the IGMP HA event history buffer size:

```
switch(config)# ip igmp event-history ha size large
switch(config)#
```

Related Commands

Command	Description
clear ip igmp event-history	Clears the contents of IGMP event history buffers.
show ip igmp event-history	Displays information in the IGMP event history buffers.
show running-config igmp	Displays information about the IGMP running-system configuration.

ip igmp flush-routes

To remove routes when the IGMP process is restarted, use the **ip igmp flush-routes** command. To leave routes in place, use the **no** form of this command.

ip igmp flush-routes

no ip igmp flush-routes

Syntax Description

This command has no arguments or keywords.

Command Default

The routes are not flushed.

Command Modes

Global configuration mode

Command History

Release	Modification
6.0(2)N1(1)	This command was introduced.

Usage Guidelines

To display whether flush routes are configured, use this command line:

```
switch(config)# show running-config | include flush-routes
```

This command does not require a license.

Examples

This example shows how to remove routes when the IGMP process is restarted:

```
switch(config)# ip igmp flush-routes
```

This example shows how to leave routes in place when the IGMP process is restarted:

```
switch(config)# no ip igmp flush-routes
```

Related Commands

Command	Description
show running-config	Displays information about the running-system configuration.

ip igmp group-timeout

To configure a group membership timeout for IGMPv2, use the **ip igmp group-timeout** command. To return to the default timeout, use the **no** form of this command.

ip igmp group-timeout *timeout*

no ip igmp group-timeout [*timeout*]

Syntax Description

timeout	Timeout in seconds. The range is from 3 to 65,535. The default is 260.

Command Default

The group membership timeout is 260 seconds.

Command Modes

Interface configuration mode

Command History

Release	Modification
6.0(2)N1(1)	This command was introduced.

Usage Guidelines

This command does not require a license.

Examples

This example shows how to configure a group membership timeout:

```
switch(config)# interface ethernet 2/2
switch(config-if)# ip igmp group-timeout 200
switch(config-if)#
```

This example shows how to reset a group membership timeout to the default:

```
switch(config)# interface ethernet 2/2
switch(config-if)# no ip igmp group-timeout
switch(config-if)#
```

Related Commands

Command	Description
show ip igmp interface	Displays IGMP information about the interface.

ip igmp immediate-leave

To enable the device to remove the group entry from the multicast routing table immediately upon receiving a leave message for the group, use the **ip igmp immediate-leave** command. To disable the immediate leave option, use the **no** form of this command.

ip igmp immediate-leave

no ip igmp immediate-leave

Syntax Description

This command has no arguments or keywords.

Command Default

The immediate leave feature is disabled.

Command Modes

Interface configuration mode

Command History

Release	Modification
6.0(2)N1(1)	This command was introduced.

Usage Guidelines

Use the **ip igmp immediate-leave** command only when there is one receiver behind the interface for a given group.

This command does not require a license.

Examples

This example shows how to enable the immediate leave feature:

```
switch(config)# interface ethernet 2/2
switch(config-if)# ip igmp immediate-leave
```

This example shows how to disable the immediate leave feature:

```
switch(config)# interface ethernet 2/2
switch(config-if)# no ip igmp immediate-leave
```

Related Commands

Command	Description
show ip igmp interface	Displays IGMP information about the interface.

ip igmp join-group

To statically bind a multicast group to an interface, use the **ip igmp join-group** command. To remove a group binding, use the **no** form of this command.

ip igmp join-group {*group* [**source** *source*] | **route-map** *policy-name*}

no ip igmp join-group {*group* [**source** *source*] | **route-map** *policy-name*}

Syntax Description

group	Multicast group IP address.
source *source*	(Optional) Configures a source IP address for the IGMPv3 (S,G) channel.
route-map *policy-name*	Specifies the route-map policy name that defines the group prefixes where this feature is applied. The route map name can be a maximum of 63 alphanumeric characters.

Command Default

None

Command Modes

Interface configuration mode

Command History

Release	Modification
6.0(2)N1(1)	This command was introduced.

Usage Guidelines

If you specify only the group address, the (*, G) state is created. If you specify the source address, the (S, G) state is created.

If you use the route map, the only **match** command that is read from the route map is the **match ip multicast** command. You can specify the group prefix and source prefix.

Note A source tree is built for the (S, G) state only if you enable IGMPv3.

Caution When you enter this command, the traffic generated is handled by the device CPU, not the hardware.

This command does not require a license.

Examples

This example shows how to statically bind a group to an interface:

```
switch(config)# interface ethernet 2/2
switch(config-if)# ip igmp join-group 230.0.0.0
switch(config-if)#
```

This example shows how to remove a group binding from an interface:

```
switch(config)# interface ethernet 2/2
switch(config-if)# no ip igmp join-group 230.0.0.0
switch(config-if)#
```

Related Commands

Command	Description
show ip igmp interface	Displays IGMP information about the interface.

ip igmp last-member-query-count

To configure the number of times that the software sends an IGMP query in response to a host leave message, use the **ip igmp last-member-query-count** command. To reset the query interval to the default, use the **no** form of this command.

ip igmp last-member-query-count *count*

no ip igmp last-member-query-count [*count*]

Syntax Description

count	Query count. The range is from 1 to 5. The default is 2.

Command Default

The query count is 2.

Command Modes

Interface configuration mode

Command History

Release	Modification
6.0(2)N1(1)	This command was introduced.

Usage Guidelines

This command does not require a license.

Examples

This example shows how to configure a query count:

```
switch(config)# interface ethernet 2/2
switch(config-if)# ip igmp last-member-query-count 3
switch(config-if)#
```

This example shows how to reset a query count to the default:

```
switch(config)# interface ethernet 2/2
switch(config-if)# no ip igmp last-member-query-count
switch(config-if)#
```

Related Commands

Command	Description
show ip igmp interface	Displays IGMP information about the interface.

ip igmp last-member-query-response-time

To configure a query interval in which the software sends membership reports and then deletes the group state, use the **ip igmp last-member-query-response-time** command. To reset the query interval to the default, use the **no** form of this command.

ip igmp last-member-query-response-time *interval*

no ip igmp last-member-query-response-time [*interval*]

Syntax Description

interval	Query interval in seconds. The range is from 1 to 25. The default is 1.

Command Default

The query interval is 1 second.

Command Modes

Interface configuration mode

Command History

Release	Modification
6.0(2)N1(1)	This command was introduced.

Usage Guidelines

This command does not require a license.

Examples

This example shows how to configure a query interval:

```
switch(config)# interface ethernet 2/2
switch(config-if)# ip igmp last-member-query-response-time 3
switch(config-if)#
```

This example shows how to reset a query interval to the default:

```
switch(config)# interface ethernet 2/2
switch(config-if)# no ip igmp last-member-query-response-time
switch(config-if)#
```

Related Commands

Command	Description
show ip igmp interface	Displays IGMP information about the interface.

ip igmp querier-timeout

To configure a querier timeout that the software uses when deciding to take over as the querier, use the **ip igmp querier-timeout** command. To reset to the querier timeout to the default, use the **no** form of this command.

ip igmp querier-timeout *timeout*

no ip igmp querier-timeout [*timeout*]

Syntax Description

timeout	Timeout in seconds. The range is from 1 to 65,535. The default is 255.

Command Default

The querier timeout is 255 seconds.

Command Modes

Interface configuration mode

Command History

Release	Modification
6.0(2)N1(1)	This command was introduced.

Usage Guidelines

The **ip igmp query-timeout** command is an alternative form of this command.

This command does not require a license.

Examples

This example shows how to configure a querier timeout:

```
switch(config)# interface ethernet 2/2
switch(config-if)# ip igmp querier-timeout 200
switch(config-if)#
```

This example shows how to reset a querier timeout to the default:

```
switch(config)# interface ethernet 2/2
switch(config-if)# no ip igmp querier-timeout
switch(config-if)#
```

Related Commands

Command	Description
ip igmp query-timeout	Configures a querier timeout.
show ip igmp interface	Displays IGMP information about the interface.

ip igmp query-interval

To configure a query interval used when the IGMP process starts up, use the **ip igmp query-interval** command. To reset the query interval to the default, use the **no** form of this command.

ip igmp query-interval *interval*

no ip igmp query-interval [*interval*]

Syntax Description

interval	Interval in seconds. The range is from 1 to 18,000. The default is 125.

Command Default

The query interval is 125 seconds.

Command Modes

Interface configuration mode

Command History

Release	Modification
6.0(2)N1(1)	This command was introduced.

Usage Guidelines

This command does not require a license.

Examples

This example shows how to configure a query interval:

```
switch(config)# interface ethernet 2/2
switch(config-if)# ip igmp query-interval 100
switch(config-if)#
```

This example shows how to reset a query interval to the default:

```
switch(config)# interface ethernet 2/2
switch(config-if)# no ip igmp query-interval
switch(config-if)#
```

Related Commands

Command	Description
show ip igmp interface	Displays IGMP information about the interface.

ip igmp query-max-response-time

To configure a query maximum response time that is advertised in IGMP queries, use the **ip igmp query-max-response-time** command. To reset the response time to the default, use the **no** form of this command.

ip igmp query-max-response-time *time*

no ip igmp query-max-response-time [*time*]

Syntax Description

time	Query maximum response time in seconds. The range is from 1 to 25. The default is 10.

Command Default

The query maximum response time is 10 seconds.

Command Modes

Interface configuration mode

Command History

Release	Modification
6.0(2)N1(1)	This command was introduced.

Usage Guidelines

This command does not require a license.

Examples

This example shows how to configure a query maximum response time:

```
switch(config)# interface ethernet 2/2
switch(config-if)# ip igmp query-max-response-time 15
switch(config-if)#
```

This example shows how to reset a query maximum response time to the default:

```
switch(config)# interface ethernet 2/2
switch(config-if)# no ip igmp query-max-response-time
switch(config-if)#
```

Related Commands

Command	Description
show ip igmp interface	Displays IGMP information about the interface.

ip igmp query-timeout

To configure a query timeout that the software uses when deciding to take over as the querier, use the **ip igmp query-timeout** command. To reset to the querier timeout to the default, use the **no** form of this command.

ip igmp query-timeout *timeout*

no ip igmp query-timeout [*timeout*]

Syntax Description

timeout	Timeout in seconds. The range is from 1 to 65,535. The default is 255.

Command Default

The query timeout is 255 seconds.

Command Modes

Interface configuration mode

Command History

Release	Modification
6.0(2)N1(1)	This command was introduced.

Usage Guidelines

The **ip igmp querier-timeout** command is an alternative form of this command.

This command does not require a license.

Examples

This example shows how to configure a querier timeout:

```
switch(config)# interface ethernet 2/2
switch(config-if)# ip igmp query-timeout 200
switch(config-if)#
```

This example shows how to reset a querier timeout to the default:

```
switch(config)# interface ethernet 2/2
switch(config-if)# no ip igmp query-timeout
switch(config-if)#
```

Related Commands

Command	Description
ip igmp querier-timeout	Configures a querier timeout.
show ip igmp interface	Displays IGMP information about the interface.

ip igmp report-link-local-groups

To enable IGMP to send reports for link-local groups, use the **ip igmp report-link-local-groups** command. To disable sending reports to link-local groups, use the **no** form of this command.

ip igmp report-link-local-groups

no ip igmp report-link-local-groups

Syntax Description

This command has no arguments or keywords.

Command Default

Disabled

Command Modes

Interface configuration mode

Command History

Release	Modification
6.0(2)N1(1)	This command was introduced.

Usage Guidelines

This command does not require a license.

Examples

This example shows how to enable sending reports to link-local groups:

```
switch(config)# interface ethernet 2/2
switch(config-if)# ip igmp report-link-local-groups
switch(config-if)#
```

This example shows how to disable sending reports to link-local groups:

```
switch(config)# interface ethernet 2/2
switch(config-if)# no ip igmp report-link-local-groups
switch(config-if)#
```

Related Commands

Command	Description
show ip igmp interface	Displays IGMP information about the interface.

ip igmp report-policy

To enable an access policy that is based on a route-map policy for IGMP reports, use the **ip igmp report-policy** command. To disable the route-map policy, use the **no** form of this command.

ip igmp report-policy *policy-name*

no ip igmp report-policy [*policy-name*]

Syntax Description

policy-name	Route-map policy name. The route name is a maximum of 100 alphanumeric characters.

Command Default

Disabled

Command Modes

Interface configuration mode

Command History

Release	Modification
6.0(2)N1(1)	This command was introduced.

Usage Guidelines

Use the **ip igmp report-policy** command to filter incoming messages. You can configure the route map to prevent state from being created in the multicast routing table.

The **ip igmp report-policy** command is an alias of the **ip igmp access-group** command.

If you use the route map, the only **match** command that is read from the route map is the **match ip multicast** command. You can specify the group prefix, group range, and source prefix to filter messages.

This command requires the Enterprise Services license.

Examples

This example shows how to enable an access policy for IGMP reports:

```
switch(config)# interface ethernet 2/2
switch(config-if)# ip igmp report-policy my_report_policy
switch(config-if)#
```

This example shows how to disable an access policy for IGMP reports:

```
switch(config)# interface ethernet 2/2
switch(config-if)# no ip igmp report-policy
switch(config-if)#
```

Related Commands

Command	Description
show ip igmp interface	Displays IGMP information about the interface.

ip igmp robustness-variable

To configure a robustness count that you can tune to reflect expected packet loss on a congested network, use the **ip igmp robustness-variable** command. To reset the count to the default, use the **no** form of this command.

ip igmp robustness-variable *count*

no ip igmp robustness-variable [*count*]

Syntax Description

count	Robustness count. The range is from 1 to 7. The default is 2.

Command Default

The robustness count is 2.

Command Modes

Interface configuration mode

Command History

Release	Modification
6.0(2)N1(1)	This command was introduced.

Usage Guidelines

This command does not require a license.

Examples

This example shows how to configure a robustness count:

```
switch(config)# interface ethernet 2/2
switch(config-if)# ip igmp robustness-variable 3
switch(config-if)#
```

This example shows how to reset a robustness count to the default:

```
switch(config)# interface ethernet 2/2
switch(config-if)# no ip igmp robustness-variable
switch(config-if)#
```

Related Commands

Command	Description
show ip igmp interface	Displays IGMP information about the interface.

ip igmp ssm-translate

To translate IGMPv1 or IGMPv2 membership reports to create the (S, G) state so that the router treats them as IGMPv3 membership reports, use the **ip igmp ssm-translate** command. To remove the translation, use the **no** form of this command.

ip igmp ssm-translate *group source*

no ip igmp ssm-translate *group source*

Syntax Description

group	IPv4 multicast group range. By default, the group prefix range is 232.0.0.0/8. To modify the IPv4 Protocol Independent Multicast (PIM) SSM range, see the **ip pim ssm range** command.
source	IP multicast address source.

Command Default

None

Command Modes

Global configuration mode
VRF configuration mode

Command History

Release	Modification
6.0(2)N1(1)	This command was introduced.

Usage Guidelines

To display SSM translation commands, use this command line:

```
switch(config)# show running-config | include ssm-translation
```

This command does not require a license.

Examples

This example shows how to configure a translation:

```
switch# configure terminal
switch(config)# ip igmp ssm-translate 232.0.0.0/8 10.1.1.1
switch(config)#
```

This example shows how to remove a translation:

```
switch# configure terminal
switch(config)# no ip igmp ssm-translate 232.0.0.0/8 10.1.1.1
switch(config)#
```

Related Commands

Command	Description
show running-config	Displays information about the running-system configuration.

ip igmp startup-query-count

To configure the query count used when the IGMP process starts up, use the **ip igmp startup-query-count** command. To reset the query count to the default, use the **no** form of this command.

ip igmp startup-query-count *count*

no ip igmp startup-query-count [*count*]

Syntax Description

count	Query count. The range is from 1 to 10. The default is 2.

Command Default

The query count is 2.

Command Modes

Interface configuration mode

Command History

Release	Modification
6.0(2)N1(1)	This command was introduced.

Usage Guidelines

This command does not require a license.

Examples

This example shows how to configure a query count:

```
switch(config)# interface ethernet 2/2
switch(config-if)# ip igmp startup-query-count 3
switch(config-if)#
```

This example shows how to reset a query count to the default:

```
switch(config)# interface ethernet 2/2
switch(config-if)# no ip igmp startup-query-count
switch(config-if)#
```

Related Commands

Command	Description
show ip igmp interface	Displays IGMP information about the interface.

ip igmp startup-query-interval

To configure the query interval used when the IGMP process starts up, use the **ip igmp startup-query-interval** command. To reset the query interval to the default, use the **no** form of this command.

ip igmp startup-query-interval *interval*

no ip igmp startup-query-interval [*interval*]

Syntax Description

interval	Query interval in seconds. The range is from 1 to 18,000. The default is 31.

Command Default

The query interval is 31 seconds.

Command Modes

Interface configuration mode

Command History

Release	Modification
6.0(2)N1(1)	This command was introduced.

Usage Guidelines

This command does not require a license.

Examples

This example shows how to configure a startup query interval:

```
switch(config)# interface ethernet 2/2
switch(config-if)# ip igmp startup-query-interval 25
switch(config-if)#
```

This example shows how to reset a startup query interval to the default:

```
switch(config)# interface ethernet 2/2
switch(config-if)# no ip igmp startup-query-interval
switch(config-if)#
```

Related Commands

Command	Description
show ip igmp interface	Displays IGMP information about the interface.

ip igmp state-limit

To configure the maximum states allowed, use the **ip igmp state-limit** command. To remove the state limit, use the **no** form of this command.

ip igmp state-limit *max-states* [**reserved** *reserve-policy max-reserved*]

no ip igmp state-limit [*max-states* [**reserved** *reserve-policy max-reserved*]]

Syntax Description

max-states	Maximum states allowed. The range is from 1 to 4,294,967,295.
reserved *reserve-policy max-reserved*	(Optional) Specifies to use the route-map policy name for the reserve policy. The route map name can be a maximum of 100 alphanumeric characters.
max-reserved	(Optional) Maximum number of (*, G) and (S, G) entries allowed on the interface.

Command Default

None

Command Modes

Interface configuration mode

Command History

Release	Modification
6.0(2)N1(1)	This command was introduced.

Usage Guidelines

This command does not require a license.

Examples

This example shows how to configure a state limit:

```
switch(config)# interface ethernet 2/2
switch(config-if)# ip igmp state-limit 5000
switch(config-if)#
```

This example shows how to remove a state limit:

```
switch(config)# interface ethernet 2/2
switch(config-if)# no ip igmp state-limit
switch(config-if)#
```

Related Commands

Command	Description
show ip igmp interface	Displays IGMP information about the interface.

ip igmp static-oif

To statically bind a multicast group to the outgoing interface (OIF), which is handled by the device hardware, use the **ip igmp static-oif** command. To remove a static group, use the **no** form of this command.

ip igmp static-oif {*group* [**source** *source*] | **route-map** *policy-name*}

no ip igmp static-oif {*group* [**source** *source*] | **route-map** *policy-name*}

Syntax Description

group	Multicast group IPv4 address. If you specify only the group address, the (*, G) state is created.
source *source*	(Optional) Configures the source IP address for IGMPv3 and creates the (S, G) state. **Note** A source tree is built for the (S, G) state only if you enable IGMPv3.
route-map *policy-name*	Specifies the route-map policy name that defines the group prefixes where this feature is applied. The route map name can be a maximum of 63 alphanumeric characters.

Command Default

None

Command Modes

Interface configuration mode

Command History

Release	Modification
6.0(2)N1(1)	This command was introduced.

Usage Guidelines

Before you use this command, make sure that you enable Protocol Independent Multicast (PIM) on the interface by using the **ip pim sparse-mode** command.

This command does not require a license.

Examples

This example shows how to statically bind a group to the OIF:

```
switch(config)# interface ethernet 2/2
switch(config-if)# no switchport
switch(config-if)# ip igmp static-oif 230.0.0.0
switch(config-if)#
```

This example shows how to remove a static binding from the OIF:

```
switch(config)# interface ethernet 2/2
switch(config-if)# no switchport
switch(config-if)# no ip igmp static oif 230.0.0.0
switch(config-if)#
```

Related Commands

Command	Description
ip pim sparse-mode	Enables IPv4 PIM sparse mode on an interface.
no switchport	Configures the interface as a routed interface.
show ip igmp local-groups	Displays information about the IGMP local group membership.

ip igmp version

To configure the IGMP version to use on an interface, use the **ip igmp version** command. To reset the IGMP version to the default, use the **no** form of this command.

ip igmp version *version*

no ip igmp version [*version*]

Syntax Description

version	Version number. The number is 2 or 3. The default is 2.

Command Default

The version number is 2.

Command Modes

Interface configuration mode

Command History

Release	Modification
6.0(2)N1(1)	This command was introduced.

Usage Guidelines

This command does not require a license.

Examples

This example shows how to configure the IGMP version to use on an interface:

```
switch(config)# interface ethernet 2/2
switch(config-if)# ip igmp version 3
switch(config-if)#
```

This example shows how to reset the IGMP version to the default:

```
switch(config)# interface ethernet 2/2
switch(config-if)# no ip igmp version
switch(config-if)#
```

Related Commands

Command	Description
show ip igmp interface	Displays IGMP information about the interface.