

Contents

IGMP commands	1
display igmp group	1
display igmp interface	4
display igmp ssm-mapping	6
igmp	6
igmp enable	7
igmp fast-leave	8
igmp group-policy	8
igmp last-member-query-count	9
igmp last-member-query-interval	10
igmp max-response-time	11
igmp non-stop-routing	12
igmp other-querier-present-interval	12
igmp query-interval	13
igmp robust-count	13
igmp startup-query-count	14
igmp startup-query-interval	15
igmp static-group	15
igmp version	16
last-member-query-count (IGMP view)	17
last-member-query-interval (IGMP view)	17
max-response-time (IGMP view)	18
other-querier-present-interval (IGMP view)	19
query-interval (IGMP view)	20
reset igmp group	20
robust-count (IGMP view)	21
ssm-mapping (IGMP view)	22
startup-query-count (IGMP view)	23
startup-query-interval (IGMP view)	23

IGMP commands

The term "interface" in this chapter refers to VLAN interfaces.

display igmp group

Use **display igmp group** to display IGMP information for multicast groups.

Syntax

display igmp [**vpn-instance** *vpn-instance-name*] **group** [*group-address* | **interface** *interface-type* *interface-number*] [**static** | **verbose**]

Views

Any view

Predefined user roles

network-admin
network-operator

Parameters

vpn-instance *vpn-instance-name*: Specifies a VPN instance by its name, a case-sensitive string of 1 to 31 characters. If you do not specify a VPN instance, this command displays IGMP information for multicast groups on the public network.

group-address: Specifies a multicast group by its address in the range of 224.0.1.0 to 239.255.255.255. If you do not specify a multicast group, this command displays IGMP information for all multicast groups.

interface *interface-type interface-number*: Specifies an interface by its type and number. If you do not specify an interface, this command displays the IGMP information for multicast groups on all interfaces.

static: Specifies IGMP information for the multicast groups that interfaces joined statically. If you do not specify this keyword, the command displays IGMP information for the multicast groups that interfaces joined dynamically.

verbose: Displays detailed information.

Examples

Display IGMP information for all multicast groups that interfaces dynamically joined on the public network.

```
<Sysname> display igmp group
IGMP groups in total: 3
Vlan-interface1(10.10.1.20):
  IGMP groups reported in total: 3
  Group address   Last reporter   Uptime         Expires
  225.1.1.1       10.10.1.10     00:02:04      00:01:15
  225.1.1.2       10.10.1.10     00:02:04      00:01:15
  225.1.1.3       10.10.1.10     00:02:04      00:01:15
```

Table 1 Command output

Field	Description
IGMP groups in total	Total number of multicast groups.

Field	Description
IGMP groups reported in total	Total number of multicast groups that the interface joins dynamically.
Group address	Multicast group address.
Last reporter	Address of the last receiver host that reported its membership to the multicast group.
Uptime	Length of time since the multicast group was reported.
Expire	Remaining time for the multicast group. If the timer is disabled, this field displays Off .

Display detailed IGMP information for multicast group 225.1.1.1 that interfaces dynamically joined on the public network. In this example, IGMPv3 is running.

```
<Sysname> display igmp group 225.1.1.1 verbose
Vlan-interface1(10.10.1.20):
  IGMP groups reported in total: 1
  Group: 225.1.1.1
    Uptime: 00:00:34
    Expires: Off
    Last reporter: 10.10.1.10
    Last-member-query-counter: 0
    Last-member-query-timer-expiry: Off
    Group mode: Exclude
    Version1-host-present-timer-expiry: Off
    Version2-host-present-timer-expiry: Off
  Source list (sources in total: 1):
    Source: 10.1.1.1
      Uptime: 00:00:03
      Expires: 00:04:16
      Last-member-query-counter: 0
      Last-member-query-timer-expiry: Off
```

Table 2 Command output

Field	Description
IGMP groups reported in total	Total number of multicast groups that the interface joins dynamically.
Group	Multicast group address.
Uptime	Length of time since the multicast group was reported.
Expires	Remaining time for the multicast group. If the timer is disabled, this field displays Off .
Last reporter	Address of the last receiver host that reported its membership to this multicast group.
Last-member-query-counter	Number of group-specific queries or source-and-group-specific queries sent for the multicast group.
Last-member-query-timer-expiry	Remaining time for the last member query timer of the multicast group. If the timer is disabled, this field displays Off .

Field	Description
Group mode	Multicast source filtering mode: <ul style="list-style-type: none"> • Include. • Exclude. This field is displayed only when the switch runs IGMPv3.
Version1-host-present-timer-expiry	Remaining time for the IGMPv1 host present timer. If the timer is disabled, this field displays Off . This field is displayed only when the switch runs IGMPv2 or IGMPv3.
Version2-host-present-timer-expiry	Remaining time for the IGMPv2 host present timer. If the timer is disabled, this field displays Off . This field is displayed only when the switch runs IGMPv3.
Source list (sources in total)	List of multicast sources, and the total number of multicast sources. This field is displayed only when the switch runs IGMPv3.
Source	Multicast source address. This field is displayed only when the switch runs IGMPv3.
Uptime	Length of time since the multicast source was reported. This field is displayed only when the switch runs IGMPv3.
Expires	Remaining time for the multicast source. If the timer is disabled, this field displays Off . This field is displayed only when the switch runs IGMPv3.
Last-member-query-counter	Number of group-specific queries or group-and-source-specific queries sent for the multicast source and group. This field is displayed only when the switch runs IGMPv3.
Last-member-query-timer-expiry	Remaining time for the last member query timer for the multicast source and group. If the timer is disabled, this field displays Off . This field is displayed only when the switch runs IGMPv3.

Display IGMP information for multicast groups that interfaces statically joined on the public network.

```
<Sysname> display igmp group static
```

```
Entries in total: 2
```

```

Group address   Source address  Interface      Expires
-----
225.1.1.1      0.0.0.0        Vlan1         Never
225.2.2.2      1.1.1.1        Vlan1         Never
```

Table 3 Command output

Field	Description
Entries in total	Total number of multicast groups.
Group address	Multicast group address.
Source address	Multicast source address.
Interface	Interface name.
Expires	Remaining time for the multicast group. If the timer is disabled, this field displays Off .

Related commands

`reset igmp group`

display igmp interface

Use **display igmp interface** to display IGMP information for an interface.

Syntax

```
display igmp [ vpn-instance vpn-instance-name ] interface [ interface-type interface-number ]  
[ verbose ]
```

Views

Any view

Predefined user roles

network-admin

network-operator

Parameters

vpn-instance *vpn-instance-name*: Specifies a VPN instance by its name, a case-sensitive string of 1 to 31 characters. If you do not specify a VPN instance, this command displays IGMP information for an interface on the public network.

interface-type interface-number: Specifies an interface by its type and number. If you do not specify an interface, this command displays IGMP information for all IGMP-enabled interfaces.

verbose: Displays detailed IGMP information.

Examples

Display detailed IGMP information for VLAN-interface 1 on the public network.

```
<Sysname> display igmp interface vlan-interface 1 verbose  
Vlan-interface1(10.10.1.20):  
  IGMP is enabled.  
  IGMP version: 2  
  Query interval for IGMP: 125s  
  Other querier present time for IGMP: 255s  
  Maximum query response time for IGMP: 10s  
  Last member query interval: 1s  
  Last member query count: 2  
  Startup query interval: 31s  
  Startup query count: 2  
  General query timer expiry (hh:mm:ss): 00:00:54  
  Querier for IGMP: 10.10.1.20 (This router)  
  IGMP activity: 1 join(s), 0 leave(s)  
  Multicast routing on this interface: Enabled  
  Robustness: 2  
  Require-router-alert: Disabled  
  Fast-leave: Disabled  
  SSM-mapping: Disabled  
  SSM-mapping: Disabled  
  Startup-query: Off  
  Other-querier-present-timer-expiry (hh:mm:ss): --:--:--
```

IGMP groups reported in total: 1

Table 4 Command output

Field	Description
Vlan-interface1(10.10.1.20)	Interface and its IP address.
Query interval for IGMP	IGMP general query interval, in seconds.
Other querier present time for IGMP	Other querier present interval, in seconds.
Maximum query response time for IGMP	Maximum response time for IGMP general queries, in seconds.
Last member query interval	IGMP last member query interval, in seconds.
Last member query count	Number of IGMP group-specific queries or IGMP group-and-source-specific queries sent for the multicast group.
Startup query interval	IGMP startup query interval, in seconds.
Startup query count	Number of IGMP general queries that the switch sends on startup.
General query timer expiry	Remaining time for the IGMP general query time. If the timer is disabled, this field displays Off .
Querier for IGMP	IP address of the IGMP querier. This field is not displayed when the switch runs IGMPv1 and the switch is not the IGMP querier. NOTE: In IGMPv1, the PIM DR acts as the IGMP querier. You can use the display pim interface command to display PIM information.
No querier elected	No IGMP querier is elected. This field is displayed only when the switch runs IGMPv1 and the switch is not the IGMP querier. NOTE: In IGMPv1, the PIM DR acts as the IGMP querier. You can use the display pim interface command to display PIM information.
IGMP activity: 1 join(s), 0 leave(s)	Statistics of IGMP activities: <ul style="list-style-type: none"> join(s)—Total number of multicast groups that this interface has joined. leave(s)—Total number of multicast groups that this interface has left.
Multicast routing on this interface	Whether multicast routing and forwarding is enabled.
Robustness	Robustness variable of the IGMP querier.
Require-router-alert	Whether the feature of dropping IGMP messages without Router-Alert is enabled.
Fast-leave	Whether the fast-leave processing feature is enabled.
SSM-mapping	Whether the IGMP SSM mapping feature is enabled.
Startup-query	Whether the IGMP querier sends IGMP general queries at the startup query interval on startup: <ul style="list-style-type: none"> On—The IGMP querier performs the above action. Off—The IGMP querier does not perform the above action.
Other-querier-present-timer-expiry	Remaining time for the other querier present timer. If the timer is disabled, this field displays Off .

Field	Description
IGMP groups reported in total	Total number of multicast groups that the interface has joined dynamically. This field is not displayed if the interface does not join multicast groups.

display igmp ssm-mapping

Use **display igmp ssm-mapping** to display IGMP SSM mappings.

Syntax

display igmp [**vpn-instance** *vpn-instance-name*] **ssm-mapping** *group-address*

Views

Any view

Predefined user roles

network-admin

network-operator

Parameters

vpn-instance *vpn-instance-name*: Specifies a VPN instance by its name, a case-sensitive string of 1 to 31 characters. If you do not specify a VPN instance, this command displays information about the IGMP SSM mappings on the public network.

group-address: Specifies a multicast group by its IP address in the range of 224.0.1.0 to 239.255.255.255.

Examples

Display IGMP SSM mappings for multicast group 232.1.1.1 on the public network.

```
<Sysname> display igmp ssm-mapping 232.1.1.1
Group: 232.1.1.1
Source list:
    1.2.3.4
    5.5.5.5
    10.1.1.1
    100.1.1.10
```

Table 5 Command output

Field	Description
Group	Multicast group address.
Source list	List of multicast source addresses.

igmp

Use **igmp** to enter IGMP view.

Use **undo igmp** to remove the configurations made in IGMP view.

Syntax

igmp [**vpn-instance** *vpn-instance-name*]

undo igmp [**vpn-instance** *vpn-instance-name*]

Views

System view

Predefined user roles

network-admin

Parameters

vpn-instance *vpn-instance-name*: Specifies a VPN instance by its name, a case-sensitive string of 1 to 31 characters. If you do not specify a VPN instance, this command applies to the public network.

Examples

Enter IGMP view for the public network.

```
<Sysname> system-view
[Sysname] igmp
[Sysname-igmp]
```

Enter IGMP view for VPN instance **mvpn**.

```
<Sysname> system-view
[Sysname] igmp vpn-instance mvpn
[Sysname-igmp-mvpn]
```

igmp enable

Use **igmp enable** to enable IGMP on an interface.

Use **undo igmp enable** to disable IGMP on an interface.

Syntax

igmp enable

undo igmp enable

Default

IGMP is disabled on all interfaces.

Views

Interface view

Predefined user roles

network-admin

Usage guidelines

This command takes effect only when IP multicast routing is enabled. If the interface belongs to a VPN instance, make sure IP multicast routing is enabled on the VPN instance.

IGMP configurations on an interface take effect only when IGMP is enabled on the interface.

Examples

Enable IP multicast routing, and enable IGMP on VLAN-interface 100 on the public network.

```
<Sysname> system-view
[Sysname] multicast routing
[Sysname-mrib] quit
[Sysname] interface vlan-interface 100
[Sysname-Vlan-interface100] igmp enable
```

Related commands

multicast routing

igmp fast-leave

Use **igmp fast-leave** to enable fast-leave processing on an interface.

Use **undo igmp fast-leave** to disable fast-leave processing on an interface.

Syntax

igmp fast-leave [**group-policy** *acl-number*]

undo igmp fast-leave

Default

Fast-leave processing is disabled. The IGMP querier sends IGMP group-specific or group-and-source-specific queries after receiving IGMP leave messages.

Views

Interface view

Predefined user roles

network-admin

Parameters

acl-number: Specifies an IPv4 basic ACL by its number in the range of 2000 to 2999. If you specify an ACL, this command takes effect only on the multicast groups that the ACL permits. This command takes effect on all multicast groups when one of the following conditions exists:

- You do not specify an ACL.
- The specified ACL does not exist.
- The specified ACL does not contain valid rules.

Usage guidelines

This feature enables an IGMP querier to send leave notifications to the upstream routers without sending group-specific or group-and-source-specific queries after receiving leave messages.

When you configure a rule in the IPv4 basic ACL, follow these restrictions and guidelines:

- For the rule to take effect, do not specify the **vpn-instance** *vpn-instance* option.
- The **source** *source-address source-wildcard* option specifies a multicast group address.
- Among the other optional parameters, only the **fragment** keyword and the **time-range** *time-range-name* option take effect.

Examples

```
# Enable fast-leave processing on VLAN-interface 100.
```

```
<Sysname> system-view
[Sysname] interface vlan-interface 100
[Sysname-Vlan-interface100] igmp fast-leave
```

igmp group-policy

Use **igmp group-policy** to configure a multicast group policy on an interface to control the multicast groups that receiver hosts attached to the interface can join.

Use **undo igmp group-policy** to remove the configured multicast group policy.

Syntax

```
igmp group-policy acl-number [ version-number ]
```

```
undo igmp group-policy
```

Default

Multicast group policies are not configured on an interface, and receiver hosts attached to the interface can join multicast groups.

Views

Interface view

Predefined user roles

network-admin

Parameters

acl-number. Specifies an IPv4 basic or advanced ACL by its number in the range of 2000 to 3999. Receiver hosts can join only the multicast groups that the ACL permits. If the specified ACL does not exist or the specified ACL does not contain valid rules, receiver hosts cannot join multicast groups.

version-number. Specifies an IGMP version in the range of 1 to 3. By default, the configured group filter applies to IGMP reports of all versions.

Usage guidelines

When you configure a rule in the IPv4 ACL, follow these restrictions and guidelines:

- For the rule to take effect, do not specify the **vpn-instance** *vpn-instance* option.
- In a basic ACL, the **source** *source-address source-wildcard* option specifies a multicast group address.
- In an advanced ACL, the **source** *source-address source-wildcard* option specifies a multicast source address. The **destination** *dest-address dest-wildcard* option specifies a multicast group address.

To match the following IGMP reports, set the **source** *source-address source-wildcard* option to 0.0.0.0:

- IGMPv1 and IGMPv2 reports.
- IGMPv3 IS_EX and IGMPv3 TO_EX reports that do not carry multicast source addresses.
- Among the other optional parameters, only the **fragment** keyword and the **time-range** *time-range-name* option take effect.

If you configure the interface as a static member interface for a multicast group or a multicast source and group, this configuration has no effect on the multicast group or the multicast source and group.

Examples

```
# Configure a multicast group policy on VLAN-interface 100 so that receiver hosts attached to  
VLAN-interface 100 can join only multicast group 225.1.1.1.
```

```
<Sysname> system-view  
[Sysname] acl number 2005  
[Sysname-acl-basic-2005] rule permit source 225.1.1.1 0  
[Sysname-acl-basic-2005] quit  
[Sysname] interface vlan-interface 100  
[Sysname-Vlan-interface100] igmp group-policy 2005
```

igmp last-member-query-count

Use **igmp last-member-query-count** to set the IGMP last member query count on an interface.

Use **undo igmp last-member-query-count** to restore the default.

Syntax

```
igmp last-member-query-count count  
undo igmp last-member-query-count
```

Default

The IGMP last member query count equals the IGMP querier's robustness variable.

Views

Interface view

Predefined user roles

network-admin

Parameters

count: Specifies an IGMP last member query count in the range of 1 to 255.

Usage guidelines

You can set the IGMP last member query count for an interface in interface view or globally for all interfaces in IGMP view. For an interface, the interface-specific configuration takes priority over the global configuration.

Examples

```
# Set the IGMP last member query count to 6 on VLAN-interface 100.  
<Sysname> system-view  
[Sysname] interface vlan-interface 100  
[Sysname-Vlan-interface100] igmp last-member-query-count 6
```

Related commands

last-member-query-count (IGMP view)

igmp last-member-query-interval

Use **igmp last-member-query-interval** to set the IGMP last member query interval on an interface.

Use **undo igmp last-member-query-interval** to restore the default.

Syntax

```
igmp last-member-query-interval interval  
undo igmp last-member-query-interval
```

Default

The IGMP last member query interval is 1 second.

Views

Interface view

Predefined user roles

network-admin

Parameters

interval: Specifies an IGMP last member query interval in the range of 1 to 25 seconds.

Usage guidelines

You can set the IGMP last member query interval for an interface in interface view or globally for all interfaces in IGMP view. For an interface, the interface-specific configuration takes priority over the global configuration.

Examples

```
# Set the IGMP last member query interval to 6 seconds on VLAN-interface 100.
```

```
<Sysname> system-view
[Sysname] interface vlan-interface 100
[Sysname-Vlan-interface100] igmp last-member-query-interval 6
```

Related commands

last-member-query-interval (IGMP view)

igmp max-response-time

Use **igmp max-response-time** to set the maximum response time for IGMP general queries on an interface.

Use **undo igmp max-response-time** to restore the default.

Syntax

igmp max-response-time *time*

undo igmp max-response-time

Default

The maximum response time for IGMP general queries is 10 seconds.

Views

Interface view

Predefined user roles

network-admin

Parameters

time: Specifies the maximum response time for IGMP general queries, in the range of 1 to 3174 seconds.

Usage guidelines

You can set the maximum response time for an interface in interface view or globally for all interfaces in IGMP view. For an interface, the interface-specific configuration takes priority over the global configuration.

Examples

```
# Set the maximum response time for IGMP general queries to 25 seconds on VLAN-interface 100.
```

```
<Sysname> system-view
[Sysname] interface vlan-interface 100
[Sysname-Vlan-interface100] igmp max-response-time 25
```

Related commands

max-response-time (IGMP view)

igmp non-stop-routing

Use **igmp non-stop-routing** to enable IGMP NSR.

Use **undo igmp non-stop-routing** to disable IGMP NSR.

Syntax

igmp non-stop-routing

undo igmp non-stop-routing

Default

IGMP NSR is disabled.

Views

System view

Predefined user roles

network-admin

Examples

```
# Enable IGMP NSR.  
<Sysname> system-view  
[Sysname] igmp non-stop-routing
```

igmp other-querier-present-interval

Use **igmp other-querier-present-interval** to set the IGMP other querier present timer on an interface.

Use **undo igmp other-querier-present-interval** to restore the default.

Syntax

igmp other-querier-present-interval *interval*

undo igmp other-querier-present-interval

Default

The IGMP other querier present timer is calculated by the following formula:

$[\text{IGMP general query interval}] \times [\text{IGMP querier's robustness variable}] + [\text{maximum response time for IGMP general queries}] / 2.$

Views

Interface view

Predefined user roles

network-admin

Parameters

interval: Specifies an IGMP other querier present timer in the range of 1 to 31744 seconds.

Usage guidelines

You can set the IGMP other querier present timer for an interface in interface view or globally for all interfaces in IGMP view. For an interface, the interface-specific configuration takes priority over the global configuration.

Examples

```
# Set the IGMP other querier present timer to 125 seconds on VLAN-interface 100.
<Sysname> system-view
[Sysname] interface vlan-interface 100
[Sysname-Vlan-interface100] igmp other-querier-present-interval 125
```

Related commands

other-querier-present-interval (IGMP view)

igmp query-interval

Use **igmp query-interval** to set the IGMP general query interval on an interface.

Use **undo igmp query-interval** to restore the default.

Syntax

igmp query-interval *interval*

undo igmp query-interval

Default

The IGMP general query interval is 125 seconds.

Views

Interface view

Predefined user roles

network-admin

Parameters

interval: Specifies an IGMP general query interval in the range of 1 to 31744 seconds.

Usage guidelines

You can set the IGMP general query interval for an interface in interface view or globally for all interfaces in IGMP view. For an interface, the interface-specific configuration takes priority over the global configuration.

Examples

```
# Set the IGMP general query interval to 60 seconds on VLAN-interface 100.
<Sysname> system-view
[Sysname] interface vlan-interface 100
[Sysname-Vlan-interface100] igmp query-interval 60
```

Related commands

query-interval (IGMP view)

igmp robust-count

Use **igmp robust-count** to set the IGMP querier's robustness variable on an interface.

Use **undo igmp robust-count** to restore the default.

Syntax

igmp robust-count *count*

undo igmp robust-count

Default

The IGMP querier's robustness variable is 2.

Views

Interface view

Predefined user roles

network-admin

Parameters

count: Specifies an IGMP querier's robustness variable in the range of 1 to 255.

Usage guidelines

The IGMP querier's robustness variable defines the number of times to retransmit queries if packet loss occurs. A higher robustness variable makes the IGMP querier more robust, but it increases timeout time for multicast groups.

You can set the IGMP querier's robustness variable for an interface in interface view or globally for all interfaces in IGMP view. For an interface, the interface-specific configuration takes priority over the global configuration.

Examples

```
# Set the IGMP querier's robustness variable to 5 on VLAN-interface 100.  
<Sysname> system-view  
[Sysname] interface vlan-interface 100  
[Sysname-Vlan-interface100] igmp robust-count 5
```

Related commands

robust-count (IGMP view)

igmp startup-query-count

Use **igmp startup-query-count** to set the IGMP startup query count on an interface.

Use **undo igmp startup-query-count** to restore the default.

Syntax

igmp startup-query-count *count*

undo igmp startup-query-count

Default

The IGMP startup query count equals the IGMP querier's robustness variable.

Views

Interface view

Predefined user roles

network-admin

Parameters

count: Specifies an IGMP startup query count in the range of 1 to 255.

Usage guidelines

You can set the IGMP startup query count for an interface in interface view or globally for all interfaces in IGMP view. For an interface, the interface-specific configuration takes priority over the global configuration.

Examples

```
# Set the IGMP startup query count to 5 on VLAN-interface 100.
<Sysname> system-view
[Sysname] interface vlan-interface 100
[Sysname-Vlan-interface100] igmp startup-query-count 5
```

Related commands

startup-query-count (IGMP view)

igmp startup-query-interval

Use **igmp startup-query-interval** to set the IGMP startup query interval on an interface.

Use **undo igmp startup-query-interval** to restore the default.

Syntax

igmp startup-query-interval *interval*

undo igmp startup-query-interval

Default

The IGMP startup query interval equals one quarter of the IGMP general query interval.

Views

Interface view

Predefined user roles

network-admin

Parameters

interval: Specifies an IGMP startup query interval in the range of 1 to 31744 seconds.

Usage guidelines

You can set the IGMP startup query interval for an interface in interface view or globally for all interfaces in IGMP view. For an interface, the interface-specific configuration takes priority over the global configuration.

Examples

```
# Set the IGMP startup query interval to 100 seconds on VLAN-interface 100.
<Sysname> system-view
[Sysname] interface vlan-interface 100
[Sysname-Vlan-interface100] igmp startup-query-interval 100
```

Related commands

startup-query-interval (IGMP view)

igmp static-group

Use **igmp static-group** to configure an interface as a static group member of a multicast group.

Use **undo igmp static-group** to restore the default.

Syntax

```
igmp static-group group-address [ source source-address ]  
undo igmp static-group { all | group-address [ source source-address ] }
```

Default

An interface is not a static group member of multicast groups.

Views

Interface view

Predefined user roles

network-admin

Parameters

group-address: Specifies a multicast group by its IP address in the range of 224.0.1.0 to 239.255.255.255.

source-address: Specifies a multicast source by its IP address. If you do not specify a multicast source, this command configures an interface as a static group member of the multicast groups with all multicast source addresses.

all: Specifies all multicast groups that the interface has statically joined.

Usage guidelines

If the specified multicast address is in the SSM multicast address range, you must specify a multicast source address at the same time. Otherwise, IGMP routing entries cannot be established. No such a restriction exists if the specified multicast group address is not in the SSM multicast address range.

Examples

```
# Configure VLAN-interface 100 as a static group member of multicast group 224.1.1.1.
```

```
<Sysname> system-view  
[Sysname] interface vlan-interface 100  
[Sysname-Vlan-interface100] igmp static-group 224.1.1.1
```

```
# Configure VLAN-interface 100 as a static group member of the multicast source and group (192.168.1.1, 232.1.1.1).
```

```
<Sysname> system-view  
[Sysname] interface vlan-interface 100  
[Sysname-Vlan-interface100] igmp static-group 232.1.1.1 source 192.168.1.1
```

igmp version

Use **igmp version** to specify an IGMP version for an interface.

Use **undo igmp version** to restore the default.

Syntax

```
igmp version version-number  
undo igmp version
```

Default

The default IGMP version is 2.

Views

Interface view

Predefined user roles

network-admin

Parameters

version-number: Specifies an IGMP version in the range of 1 to 3.

Examples

```
# Specify IGMP version 1 for VLAN-interface 100.
<Sysname> system-view
[Sysname] interface vlan-interface 100
[Sysname-Vlan-interface100] igmp version 1
```

last-member-query-count (IGMP view)

Use **last-member-query-count** to set the global IGMP last member query count.

Use **undo last-member-query-count** to restore the default.

Syntax

last-member-query-count *count*

undo last-member-query-count

Default

The global IGMP last member query count equals the IGMP querier's robustness variable.

Views

IGMP view

Predefined user roles

network-admin

Parameters

count: Specifies an IGMP last member query count in the range of 1 to 255.

Usage guidelines

You can set the IGMP last member query count globally for all interfaces in IGMP view or for an interface in interface view. For an interface, the interface-specific configuration takes priority over the global configuration.

Examples

```
# Set the global IGMP last member query count to 6 on the public network.
<Sysname> system-view
[Sysname] igmp
[Sysname-igmp] last-member-query-count 6
```

Related commands

igmp last-member-query-count

last-member-query-interval (IGMP view)

Use **last-member-query-interval** to set the global IGMP last member query interval.

Use **undo last-member-query-interval** to restore the default.

Syntax

last-member-query-interval *interval*

undo last-member-query-interval

Default

The global IGMP last member query interval is 1 second.

Views

IGMP view

Predefined user roles

network-admin

Parameters

interval: Specifies an IGMP last member query interval in the range of 1 to 25 seconds.

Usage guidelines

You can set the IGMP last member query interval globally for all interfaces in IGMP view or for an interface in interface view. For an interface, the interface-specific configuration takes priority over the global configuration.

Examples

Set the global IGMP last member query interval to 6 seconds on the public network.

```
<Sysname> system-view
```

```
[Sysname] igmp
```

```
[Sysname-igmp] last-member-query-interval 6
```

Related commands

igmp last-member-query-interval

max-response-time (IGMP view)

Use **max-response-time** to set the global maximum response time for IGMP general queries.

Use **undo max-response-time** to restore the default.

Syntax

max-response-time *time*

undo max-response-time

Default

The global maximum response time for IGMP general queries is 10 seconds.

Views

IGMP view

Predefined user roles

network-admin

Parameters

time: Specifies the maximum response time for IGMP general queries in the range of 1 to 3174 seconds.

Usage guidelines

You can set the maximum response time globally for all interfaces in IGMP view or for an interface in interface view. For an interface, the interface-specific configuration takes priority over the global configuration.

Examples

```
#Set the global maximum response time for IGMP general queries to 25 seconds on the public network.
<Sysname> system-view
[Sysname] igmp
[Sysname-igmp] max-response-time 25
```

Related commands

igmp max-response-time

other-querier-present-interval (IGMP view)

Use **other-querier-present-interval** to set the global IGMP other querier present timer.

Use **undo other-querier-present-interval** to restore the default.

Syntax

other-querier-present-interval *interval*

undo other-querier-present-interval

Default

The IGMP other querier present timer is calculated by the following formula:

$[\text{IGMP general query interval}] \times [\text{IGMP querier's robustness variable}] + [\text{maximum response time for IGMP general queries}] / 2.$

Views

IGMP view

Predefined user roles

network-admin

Parameters

interval: Specifies an IGMP other querier present timer in the range of 1 to 31744 seconds.

Usage guidelines

You can set the IGMP other querier present timer globally for all interfaces in IGMP view or for an interface in interface view. For an interface, the interface-specific configuration takes priority over the global configuration.

Examples

```
# Set the global IGMP other querier present timer to 125 seconds on the public network.
<Sysname> system-view
[Sysname] igmp
[Sysname-igmp] other-querier-present-interval 125
```

Related commands

igmp other-querier-present-interval

query-interval (IGMP view)

Use **query-interval** to set the global IGMP general query interval.

Use **undo query-interval** to restore the default.

Syntax

query-interval *interval*

undo query-interval

Default

The global IGMP general query interval is 125 seconds.

Views

IGMP view

Predefined user roles

network-admin

Parameters

interval: Specifies an IGMP general query interval in the range of 1 to 31744 seconds.

Usage guidelines

You can set the IGMP general query interval globally for all interfaces in IGMP view or for an interface in interface view. For an interface, the interface-specific configuration takes priority over the global configuration.

Examples

```
# Set the global IGMP general query interval to 60 seconds on the public network.
```

```
<Sysname> system-view
```

```
[Sysname] igmp
```

```
[Sysname-igmp] query-interval 60
```

Related commands

igmp query-interval

reset igmp group

Use **reset igmp group** to remove dynamic IGMP group entries.

Syntax

```
reset igmp [ vpn-instance vpn-instance-name ] group { all | interface interface-type  
interface-number { all | group-address [ mask { mask | mask-length } ] [ source-address [ mask  
{ mask | mask-length } ] ] }
```

Views

User view

Predefined user roles

network-admin

Parameters

vpn-instance *vpn-instance-name*: Specifies a VPN instance by its name, a case-sensitive string of 1 to 31 characters. If you do not specify a VPN instance, this command removes dynamic IGMP group entries on the public network.

all: Specifies all interfaces (the first **all**), or all multicast groups (the second **all**).

interface-type interface-number: Specifies an interface by its type and number.

group-address: Specifies a multicast group by its address in the range of 224.0.0.0 to 239.255.255.255.

source-address: Specifies a multicast source address. If this argument is not specified, this command removes dynamic IGMP group entries of all multicast source addresses.

mask: Specifies an address mask. The default is 255.255.255.255.

mask-length: Specifies an address mask length. The default is 32. For a multicast group address, the value range for this argument is 4 to 32. For a multicast source address, the value range for this argument is 0 to 32.

Usage guidelines

This command might interrupt the multicast information transmission.

Examples

Remove the dynamic group entries for all IGMP groups on all interfaces on the public network.

```
<Sysname> reset igmp group all
```

Remove the dynamic group entries for all IGMP groups on VLAN-interface 100 on the public network.

```
<Sysname> reset igmp group interface vlan-interface 100 all
```

Remove the dynamic group entry for the IGMP group 225.0.0.1 on VLAN-interface 100 on the public network.

```
<Sysname> reset igmp group interface vlan-interface 100 225.0.0.1
```

Related commands

display igmp group

robust-count (IGMP view)

Use **robust-count** to set the global IGMP querier's robustness variable.

Use **undo robust-count** to restore the default.

Syntax

robust-count *count*

undo robust-count

Default

The global IGMP querier's robustness variable is 2.

Views

IGMP view

Predefined user roles

network-admin

Parameters

count: Specifies an IGMP querier's robustness variable in the range of 1 to 255.

Usage guidelines

The IGMP querier's robustness variable defines the number of times to retransmit queries if packet loss occurs. A higher robustness variable makes the IGMP querier more robust, but it increases the timeout time for multicast groups.

You can set the IGMP querier's robustness variable globally for all interfaces in IGMP view or for an interface in interface view. For an interface, the interface-specific configuration takes priority over the global configuration.

Examples

```
# Set the global IGMP querier's robustness variable to 5 on the public network.
```

```
<Sysname> system-view
[Sysname] igmp
[Sysname-igmp] robust-count 5
```

Related commands

igmp robust-count

ssm-mapping (IGMP view)

Use **ssm-mapping** to configure IGMP SSM mappings.

Use **undo ssm-mapping** to remove IGMP SSM mappings.

Syntax

```
ssm-mapping source-address acl-number
undo ssm-mapping { source-address | all }
```

Default

IGMP SSM mappings are not configured.

Views

IGMP view

Predefined user roles

network-admin

Parameters

source-address: Specifies a multicast source by its IP address.

acl-number: Specifies a basic ACL number in the range of 2000 to 2999. The specified multicast source is mapped only to multicast groups that the ACL permits. If the ACL does not exist or the ACL does not have valid rules, the specified multicast source is not mapped to multicast groups.

all: Removes all the IGMP SSM mappings.

Usage guidelines

When you configure a rule in the IPv4 basic ACL, follow these restrictions and guidelines:

- For the rule to take effect, do not specify the **vpn-instance** *vpn-instance* option.
- The **source** *source-address* *source-wildcard* option specifies a multicast group address.
- Among the other optional parameters, only the **fragment** keyword and the **time-range** *time-range-name* option take effect.

Examples

```
# Map multicast source 125.1.1.1 to multicast groups in the range of 232.1.1.0/24 on the public network.
```

```
<Sysname> system-view
[Sysname] acl number 2001
[Sysname-acl-basic-2001] rule permit source 232.1.1.1 0.0.0.255
[Sysname-acl-basic-2001] quit
[Sysname] igmp
[Sysname-igmp] ssm-mapping 125.1.1.1 2001
```

Related commands

display igmp ssm-mapping

startup-query-count (IGMP view)

Use **startup-query-count** to set the global IGMP startup query count.

Use **undo startup-query-count** to restore the default.

Syntax

startup-query-count *count*

undo startup-query-count

Default

The global IGMP startup query count equals the IGMP querier's robustness variable.

Views

IGMP view

Predefined user roles

network-admin

Parameters

count: Specifies an IGMP startup query count in the range of 1 to 255.

Usage guidelines

You can set the IGMP startup query count globally for all interfaces in IGMP view or for an interface in interface view. For an interface, the interface-specific configuration takes priority over the global configuration.

Examples

```
# Set the global IGMP startup query count to 5 on the public network.
```

```
<Sysname> system-view
[Sysname] igmp
[Sysname-igmp] startup-query-count 5
```

Related commands

igmp startup-query-count

startup-query-interval (IGMP view)

Use **startup-query-interval** to set the global IGMP startup query interval.

Use **undo startup-query-interval** to restore the default.

Syntax

startup-query-interval *interval*

undo startup-query-interval

Default

The global IGMP startup query interval equals one quarter of the IGMP general query interval.

Views

IGMP view

Predefined user roles

network-admin

Parameters

interval: Specifies an IGMP startup query interval in the range of 1 to 31744 seconds.

Usage guidelines

You can set the IGMP startup query interval globally for all interfaces in IGMP view or for an interface in interface view. For an interface, the interface-specific configuration takes priority over the global configuration.

Examples

Set the global IGMP startup query interval to 100 seconds on the public network.

```
<Sysname> system-view  
[Sysname] igmp  
[Sysname-igmp] startup-query-interval 100
```

Related commands

igmp startup-query-interval