Contents

MLD commands

display mld group

Use **`display mld group`** to display information about MLD multicast groups (IPv6 multicast groups that hosts have joined through MLD).

Syntax

`display mld group` [*`ipv6-group-address`* | **`interface`** *`interface-type interface-number`*] [**`static`** | **`verbose`**]

Views

Any view

Predefined user roles

network-admin

network-operator

Parameters

`ipv6-group-address`: Specifies an IPv6 multicast group address. The value range for this argument is FFxy::/16 (excluding FFx1::/16 and FFx2::/16), where "x" and "y" represent any hexadecimal numbers in the range of 0 to F. If you do not specify an IPv6 multicast group, this command displays information about all MLD 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 information about MLD multicast groups for all interfaces.

`static`: Specifies MLD multicast groups that hosts have joined statically. If you do not specify this keyword, the command displays information about MLD multicast groups that hosts have joined dynamically.

`verbose`: Displays detailed information about MLD multicast groups.

Examples

Display information about MLD multicast groups that hosts have dynamically joined.

```
<Sysname> display mld group
MLD groups in total: 1
 Vlan-interface1(FE80::101):
  MLD groups reported in total: 1
   Group address: FF03::101
    Last reporter: FE80::10
    Uptime: 00:02:04
    Expires: 00:01:15
```

Table 1 Command output

Field	Description
MLD groups in total	Total number of MLD multicast groups.
MLD groups reported in total	Total number of MLD multicast groups that the hosts attached to the interface have joined dynamically.
Group address	IPv6 multicast group address.

Field	Description
Last reporter	IPv6 address of the receiver host that last reported membership for the group.
Uptime	Length of time since the IPv6 multicast group was joined.
Expires	Remaining lifetime for the IPv6 multicast group. This field displays **Off** if the timer is disabled.

Display detailed information about MLD multicast group FF3E::101 that hosts have statically joined. In this example, the switch is configured with MLDv2.

```
<Sysname> display mld group ff3e::101 verbose
 Vlan-interface1(FE80::101):
  MLD groups reported in total: 1
   Group: FF3E::101
     Uptime: 00:01:46
     Exclude expires: 00:04:16
     Mapping expires: 00:02:16
     Last reporter: FE80::10
     Last-listener-query-counter: 0
     Last-listener-query-timer-expiry: Off
     Mapping last-listener-query-counter: 0
     Mapping last-listener-query-timer-expiry: Off
     Group mode: Exclude
     Version1-host-present-timer-expiry: Off
     Source list (sources in total: 1):
       Source: 10::10
          Uptime: 00:00:09
          V2 expires: 00:04:11
          Mapping expires: 00:02:16
          Last-listener-query-counter: 0
          Last-listener-query-timer-expiry: Off
```

Table 2 Command output

Field	Description
MLD groups reported in total	Total number of MLD multicast groups that the hosts attached to the interface have joined dynamically.
Group	IPv6 multicast group address.
Uptime	Length of time since the IPv6 multicast group was reported.
Exclude expires	Remaining time for the IPv6 multicast group in Exclude mode. This field displays **Off** if the timer is disabled.
Mapping expires	Remaining time for the IPv6 multicast group specified in MLD SSM mappings. This field is displayed only when the device is configured with MLD SSM mappings.
Last reporter	IPv6 address of the receiver host that last reported membership for this group.
Last-listener-query-counter	Number of MLD multicast-address-specific queries or MLD multicast-address-and-source-specific queries sent for the group.

Field	Description
Last-listener-query-timer-expiry	Remaining time for the MLD last listener query timer for the multicast group. This field displays **Off** if the timer is disabled.
Mapping last-listener-query-counter	Number of MLD multicast-address-specific queries or MLD multicast-address-and-source-specific queries sent for the IPv6 multicast group specified in MLD SSM mappings. This field is displayed only when the device is configured with MLD SSM mappings.
Mapping last-listener-query-timer-expiry	Remaining time for the last listener query timer of the IPv6 multicast group specified in MLD SSM mappings. This field displays **Off** if the timer is disabled. This field is displayed only when the device is configured with MLD SSM mappings.
Group mode	IPv6 multicast source filtering mode: • **Include**—Include mode. • **Exclude**—Exclude mode. For a device that runs MLDv1: • If MLD SSM mappings are not configured, this field displays **Exclude**. • If MLD SSM mappings are configured, this field displays **Include** or **Exclude** depending on the SSM mappings and the IPv6 multicast groups that the host joins.
Version1-host-present-timer-expiry	Remaining time for the MLDv1 host present timer. This field displays **Off** if the timer is disabled. This field is displayed only when the device runs MLDv2.
Source list (sources in total 1)	List of IPv6 multicast sources and total number of IPv6 multicast sources. This field is displayed only when the device runs MLDv2 or is configured with MLD SSM mappings.
Source	IPv6 multicast source address. This field is displayed only when the device runs MLDv2 or the device is configured with MLD SSM mappings.
Uptime	Length of time since the IPv6 multicast source was reported. This field is displayed only when the device runs MLDv2 or is configured with MLD SSM mappings.
V2 expires	Remaining time for the IPv6 multicast source when the device runs MLDv2. This field displays **Off** if the timer is disabled. This field displays three hyphens (---) if the IPv6 multicast source is specified in MLD SSM mappings. This field is displayed only when the device runs MLDv2 or is configured with MLD SSM mappings.
Mapping expires	Remaining time for the IPv6 multicast sources specified in MLD SSM mappings.
Last-listener-query-counter	Number of MLD multicast-address-specific queries or MLD multicast-address-and-source-specific queries sent for the IPv6 multicast source and group. This field is displayed only when the device runs MLDv2 or is configured with MLD SSM mappings.

Field	Description
Last-listener-query-timer-expiry	Remaining time for the last listener query timer for the IPv6 multicast source and group. This field displays **Off** if the timer is disabled. This field is displayed only when the device runs MLDv2 or is configured with MLD SSM mappings.

Display information about the MLD multicast groups that hosts have statically joined.

```
<Sysname> display mld group static
 Entries in total: 2
  (*, FF03::101)
   Interface: Vlan1
   Expires: Never

  (2001::101, FF3E::202)
   Interface: Vlan1
   Expires: Never
```

Table 3 Command output

Field	Description
Entries in total	Total number of the IPv6 multicast groups that hosts have joined statically.
(*, FF03::101)	(*, G) entry.
(2001::101, FF3E::202)	(S, G) entry.
Expires	Remaining lifetime for the IPv6 multicast group. This field always displays **Never**, which means that the IPv6 multicast group never expires.

Related commands

reset mld group

display mld interface

Use **display mld interface** to display MLD information for interfaces.

Syntax

display mld interface [*interface-type interface-number*] [**proxy**] [**verbose**]

Views

Any view

Predefined user roles

network-admin

network-operator

Parameters

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

proxy: Displays the MLD proxy interface information. If you do not specify this keyword, the command displays MLD information for all interfaces.

verbose: Displays detailed MLD information.

Examples

Display detailed MLD information for VLAN-interface 1 (non-proxy interface).

```
<Sysname> display mld interface vlan-interface 1 verbose
 Vlan-interface1(FE80::200:AFF:FE01:101):
   MLD is enabled.
   MLD version: 1
   Query interval for MLD: 125s
   Other querier present time for MLD: 255s
   Maximum query response time for MLD: 10s
   Last listener query interval: 1s
   Last listener query count: 2
   Startup query interval: 31s
   Startup query count: 2
   General query timer expiry (hh:mm:ss): 00:00:23
   Querier for MLD: FE80::200:AFF:FE01:101 (This router)
   MLD activity: 1 join(s), 0 done(s)
   IPv6 multicast routing on this interface: Enabled
   Robustness: 2
   Require-router-alert: Disabled
   Fast-leave: Disabled
   Startup-query: Off
   Other-querier-present-timer-expiry (hh:mm:ss): Off
  MLD groups reported in total: 1
```

Display detailed MLD information for all MLD proxy interfaces.

```
<Sysname> display mld interface proxy verbose
 Vlan-interface2(FE80::100:CEF:FE01:101):
   MLD proxy is enabled.
   MLD version: 1
   IPv6 multicast routing on this interface: Enabled
   Require-router-alert: Disabled
   Version1-querier-present-timer-expiry: Off
```

Table 4 Command output

Field	Description
Vlan-interface1(FE80::200:AFF:FE01:101)	Interface and its IPv6 link-local address.
MLD is enabled	MLD is enabled on the interface.
MLD version	Version of MLD that the interface runs.
Query interval for MLD	MLD query interval, in seconds.
Other querier present time for MLD	MLD other querier present interval, in seconds.
Maximum query response time for MLD	Maximum response time for MLD general query messages, in seconds.
Last listener query interval	Interval for sending MLD multicast-address-specific queries or MLD multicast-address-and-source-specific

Field	Description
	queries, in seconds.
Last listener query count	Number of MLD multicast-address-specific queries or MLD multicast-address-and-source-specific queries sent for the group.
Startup query interval	MLD startup query interval, in seconds.
Startup query count	Number of MLD general queries sent on startup.
General query timer expiry	Remaining time for the MLD general query timer. This field displays **Off** if the timer is disabled.
Querier for MLD	IPv6 link-local address of the MLD querier.
MLD activity: 1 join(s), 0 done(s)	MLD activity statistics: • **join(s)**—Total number of IPv6 multicast groups that the interface has joined. • **done(s)**—Total number of IPv6 multicast groups that the interface has left.
IPv6 multicast routing on this interface	Whether IPv6 multicast routing is enabled: Enabled or Disabled.
Robustness	Robustness variable of the MLD querier.
Require-router-alert	Whether the feature of dropping MLD messages without Router-Alert is enabled: Enabled or Disabled.
Fast-leave	Whether fast-leave processing is enabled: Enabled or Disabled.
Startup-query	Whether the MLD querier sends MLD general queries at the startup query interval on startup: • **On**—The MLD querier performs the above action. • **Off**—The MLD querier does not perform the above action.
Other-querier-present-timer-expiry	Remaining time for MLD other querier present timer. This field displays **Off** if the timer is disabled.
MLD groups reported in total	Total number of IPv6 multicast groups that the interface has joined dynamically. This field is not displayed if the interface does not join IPv6 multicast groups.
MLD proxy is enabled	MLD proxying is enabled.
Version1-querier-present-timer-expiry	Remaining time for the MLDv1 querier present timer. This field displays **Off** if the timer is disabled.

display mld proxy group

Use **display mld proxy group** to display information about IPv6 multicast groups maintained by the MLD proxy.

Syntax

display mld proxy group [*ipv6-group-address* | **interface** *interface-type interface-number*] [**verbose**]

Views

Any view

Predefined user roles

network-admin

network-operator

Parameters

ipv6-group-address: Specifies an IPv6 multicast group by its IPv6 address. The value range for this argument is FFxy::/16 (excluding FFx1::/16 and FFx2::/16), where "x" and "y" represent any hexadecimal numbers in the range of 0 to F. If you do not specify an IPv6 multicast group, this command displays IPv6 multicast group membership entries for all IPv6 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 information about IPv6 multicast groups maintained by the MLD proxy for all interfaces.

verbose: Displays detailed information.

Examples

Display information about IPv6 multicast groups maintained by the MLD proxy.

```
<Sysname> display mld proxy group
MLD proxy group records in total: 2
 Vlan-interface1(FE80::16:1):
  MLD proxy group records in total: 2
   Group address: FF1E::1
    Member state: Idle
    Expires: Off


   Group address: FF1E::2
    Member state: Idle
    Expires: Off
```

Display detailed information about IPv6 multicast group FF1E::1 maintained by the MLD proxy.

```
<Sysname> display mld proxy group ff1e::1 verbose
 Vlan-interface1(FE80::16:1):
  MLD proxy group records in total: 2
   Group: FF1E::1
     Group mode: Include
     Member state: Idle
     Expires: Off
     Source list (sources in total: 1):
       100::1
```

Table 5 Command output

Field	Description
MLD proxy group records in total	Total number of IPv6 multicast group membership entries maintained by the MLD proxy.
Vlan-interface1(FE80::16:1)	Interface and its IPv6 address.
Pending proxy group	Pending IPv6 multicast group membership entries maintained by the MLD proxy.
Group address/Group	IPv6 multicast group address.
Member state	Member host states: • **Delay**—The member host has joined a group and

Field	Description
	started a delay timer. • **Idle**—The member host has joined a group, but didn't start a delay timer.
Expires	Remaining delay time for a member host to send a responding report. This field displays **Off** if the timer is disabled.
Group mode	IPv6 multicast source filtering mode: • Include. • Exclude.
Source list (sources in total: 1)	List of IPv6 multicast sources in the group membership database maintained by the MLD proxy, and the total number of the IPv6 multicast sources.

display mld proxy routing-table

Use **display mld proxy routing-table** to display IPv6 multicast routing entries maintained by the MLD proxy.

Syntax

display mld proxy routing-table [*ipv6-source-address* [*prefix-length*] | *ipv6-group-address* [*prefix-length*]] * [**verbose**]

Views

Any view

Predefined user roles

network-admin

network-operator

Parameters

ipv6-source-address: Specifies an IPv6 multicast source by its IPv6 address. If you do not specify an IPv6 multicast source, this command displays IPv6 multicast routing entries maintained by the MLD proxy for all IPv6 multicast sources.

ipv6-group-address: Specifies an IPv6 multicast group by its IPv6 address. The value range for this argument is FFxy::/16 (excluding FFx1::/16 and FFx2::/16), where "x" and "y" represent any hexadecimal numbers in the range of 0 to F. If you do not specify an IPv6 multicast group, this command displays IPv6 multicast routing entries for all IPv6 multicast groups maintained by the MLD proxy.

prefix-length: Specifies an address prefix length. For an IPv6 multicast source address, the value range for this argument is 0 to 128. For an IPv6 multicast group address, the value range for this argument is 8 to 128. The default value is 128.

verbose: Displays detailed information about IPv6 multicast routing entries maintained by the MLD proxy.

Examples

Display IPv6 multicast routing entries maintained by the MLD proxy.

```
<Sysname> display mld proxy routing-table
 Total 1 (*, G) entries, 2 (S, G) entries.

 (100::1, FF1E::1)
```

```
        Upstream interface: Vlan-interface1
        Downstream interfaces (1 in total):
            1: Vlan-interface2
                Protocol: MLD


 (*, FF1E::2)
        Upstream interface: Vlan-interface1
        Downstream interfaces (1 in total):
            1: Vlan-interface2
                Protocol: STATIC


 (2::2, FF1E::2)
        Upstream interface: Vlan-interface1
        Downstream interfaces (2 in total):
            1: LoopBack1
                Protocol: STATIC
            2: Vlan-interface2
                Protocol: PROXY
```

Display detailed information about IPv6 multicast routing entries maintained by the MLD proxy.

```
<Sysname> display mld proxy routing-table verbose
 Total 1 (*, G) entries, 2 (S, G) entries.


 (100::1, FF1E::1)
        Upstream interface: Vlan-interface1
        Downstream interfaces (1 in total):
            1: Vlan-interface2
                Protocol: MLD
                Querier state: Querier
                Join/Prune state:Join


        Non-downstream interfaces: None

 (*, FF1E::2)
        Upstream interface: Vlan-interface1
        Downstream interfaces (1 in total):
            1: Vlan-interface2
                Protocol: STATIC
                Querier state: Querier
                Join/Prune state:Join


        Non-downstream interfaces (1 in total):
            1: Vlan-interface3
                Protocol: MLD
                Querier state: Non-querier
                Join/Prune state:Join


 (2::2, FF1E::2)
        Upstream interface: Vlan-interface1
```

```
            Downstream interfaces (2 in total):
                1: LoopBack1
                    Protocol: STATIC
                    Querier state: Querier
                    Join/Prune state: Join
                2: Vlan-interface2
                    Protocol: PROXY
                    Querier state: Querier
                    Join/Prune state: Join

            Non-downstream interfaces: None
```

Table 6 Command output

Field	Description
Total 1 (*, G) entries, 2 (S, G) entries	Total number of (*, G), and the total number of (S, G) entries.
(100::1, FF1E::1)	(S, G) entry.
Upstream interface	Incoming interface of a forwarding entry.
Downstream interfaces (1 in total)	Outgoing interfaces, and the total number of outgoing interfaces.
Non-downstream interfaces (1 in total)	Non-outgoing interfaces, and the total number of non-outgoing interfaces.
1: Vlan-interface2	Index of an outgoing interface and the outgoing interface.
Protocol	Protocol type: • **MLD**—Dynamic MLD. • **PROXY**—MLD proxy. • **STATIC**—Static MLD.
Querier state	Querier state: • Querier. • Non-querier.
Join/Prune state	Joined or pruned state of the interface: • **NI**—Default state. • **Join**—Joined state. • **Prune**—Pruned state.

display mld ssm-mapping

Use **display mld ssm-mapping** to display MLD SSM mappings.

Syntax

display mld ssm-mapping *ipv6-group-address*

Views

Any view

Predefined user roles

network-admin

network-operator

Parameters

ipv6-group-address: Specifies an IPv6 multicast group by its IPv6 address. The value range for this argument is FFxy::/16 (excluding FFx1::/16 and FFx2::/16), where "x" and "y" represent any hexadecimal numbers in the range of 0 to F.

Examples

Display MLD SSM mappings for IPv6 multicast group FF3E::101.

```
<Sysname> display mld ssm-mapping ff3e::101
 Group: FF3E::101
 Source list:
        1::1
        1::2
        10::1
        100::10
```

Table 7 Command output

Field	Description
Group	IPv6 multicast group address.
Source list	List of IPv6 multicast source addresses.

dscp

Use **dscp** to set the DSCP value for outgoing MLD protocol packets.

Use **undo dscp** to restore the default.

Syntax

dscp *dscp-value*

undo dscp

Default

The DSCP value is 48 for outgoing MLD protocol packets.

Views

MLD view

Predefined user roles

network-admin

Parameters

dscp-value: Specifies a DSCP value in the range of 0 to 63.

Usage guidelines

The DSCP value is carried in the Traffic Class field of an IPv6 packet to determine the transmission priority of the packet. A greater DSCP value represents a higher priority.

Examples

Set the DSCP value to 63 for outgoing MLD protocol packets.

```
<Sysname> system-view
[Sysname] mld
[Sysname-mld] dscp 63
```

last-listener-query-count (MLD view)

Use **last-listener-query-count** to set the MLD last listener query count globally.

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

Syntax

mld last-member-query-count *count*

undo mld last-member-query-count

Default

The MLD last listener query count equals the MLD querier's robustness variable.

Views

MLD view

Predefined user roles

network-admin

Parameters

count: Specifies an MLD last listener query count in the range of 1 to 255.

Usage guidelines

You can set the MLD last listener query count globally for all interfaces in MLD 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 MLD last listener query count to 6.
```
<Sysname> system-view
[Sysname] mld
[Sysname-mld] last-listener-query-count 6
```

Related commands

mld last-listener-query-count

last-listener-query-interval (MLD view)

Use **last-listener-query-interval** to set the MLD last listener query interval globally.

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

Syntax

last-listener-query-interval *interval*

undo last-listener-query-interval

Default

The MLD last listener query interval is 1 second.

Views

MLD view

Predefined user roles

network-admin

Parameters

interval: Specifies an MLD last listener query interval in the range of 1 to 25 seconds.

Usage guidelines

You can set the MLD last listener query interval globally for all interfaces in MLD 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 MLD last listener query interval to 6 seconds.

```
<Sysname> system-view
[Sysname] mld
[Sysname-mld] last-listener-query-interval 6
```

Related commands

mld last-listener-query-interval

max-response-time (MLD view)

Use **max-response-time** to set the maximum response time for MLD general queries globally.

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

Syntax

max-response-time *time*

undo max-response-time

Default

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

Views

MLD view

Predefined user roles

network-admin

Parameters

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

Usage guidelines

You can set the maximum response time globally for all interfaces in MLD 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 MLD general queries to 25 seconds.

```
<Sysname> system-view
[Sysname] mld
[Sysname-mld] max-response-time 25
```

Related commands

mld max-response-time

mld

Use **mld** to enter MLD view.

Use **undo mld** to delete the configurations in MLD view.

Syntax

mld

undo mld

Views

System view

Predefined user roles

network-admin

Examples

Enter MLD view.

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

mld enable

Use **mld enable** to enable MLD on an interface.

Use **undo mld enable** to disable MLD on an interface.

Syntax

mld enable

undo mld enable

Default

MLD is disabled on an interface.

Views

Interface view

Predefined user roles

network-admin

Usage guidelines

This command takes effect only when IPv6 multicast routing is enabled on the public network or for the VPN instance to which the interface belongs.

Other MLD configurations on the interface take effect only when MLD is enabled on the interface.

Examples

Enable IPv6 multicast routing, and enable MLD for VLAN-interface 100.

```
<Sysname> system-view
[Sysname] ipv6 multicast routing
[Sysname-mrib6] quit
[Sysname] interface vlan-interface 100
[Sysname-Vlan-interface100] mld enable
```

mld fast-leave

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

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

Syntax

mld fast-leave [**group-policy** *ipv6-acl-number*]

undo mld fast-leave

Default

Fast-leave processing is disabled. The MLD querier sends MLD multicast-address-specific or multicast-address-and-source-specific queries after receiving a done message.

Views

Interface view

Predefined user roles

network-admin

Parameters

ipv6-acl-number: Specifies an IPv6 basic ACL by its number in the range of 2000 to 2999. If you specify an ACL, the fast-leave processing feature takes effect only on the IPv6 multicast groups that the ACL permits. The feature takes effect on all IPv6 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 have valid rules.

Usage guidelines

The fast-leave processing feature enables an MLD querier to suppress MLD multicast-address-specific or multicast-address-and-source-specific queries upon receiving MLD done messages permitted by the ACL.

When you configure a rule in the IPv6 basic ACL, follow these restrictions and guidelines:

● The **source** *source-address source-prefix* option specifies an IPv6 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] mld fast-leave
```

mld group-policy

Use **mld group-policy** to configure an IPv6 multicast group policy on an interface to control the IPv6 multicast groups that hosts attached to the interface can join.

Use **undo mld group-policy** to delete the IPv6 multicast group policy on an interface.

Syntax

mld group-policy *ipv6-acl-number* [*version-number*]

undo mld group-policy

Default

No IPv6 multicast group policy exists. Hosts attached to the interface can join any IPv6 multicast groups.

Views

Interface view

Predefined user roles

network-admin

Parameters

ipv6-acl-number: Specifies an IPv6 basic or advanced ACL by its number in the range of 2000 to 3999. Receiver hosts can join only the IPv6 multicast groups that the ACL permits. If the ACL does not exist or have valid rules, receiver hosts cannot join IPv6 multicast groups.

version-number: Specifies an MLD version number, 1 or 2. By default, this command takes effect on both MLDv1 reports and MLDv2 reports.

Usage guidelines

An IPv6 multicast group policy filters MLD reports to control the IPv6 multicast groups that hosts can join.

This command does not take effect on static member interfaces because static member interfaces do not send MLD reports.

When you configure a rule in the IPv6 ACL, follow these restrictions and guidelines:

- In a basic ACL, the **source** *source-address source-prefix* option specifies an IPv6 multicast group address.
- In an advanced ACL, the **source** *source-address source-prefix* option specifies an IPv6 multicast source address. The **destination** *dest-address dest-prefix* option specifies an IPv6 multicast group address.

  Set the **source** *source-address source-prefix* option to 0::0 to match the following MLD reports:
  - ○ MLDv1 reports.
  - ○ MLDv2 IS_EX and MLDv2 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 execute this command multiple times, the most recent configuration takes effect.

Examples

Configure an IPv6 multicast group policy on VLAN-interface 100 so that hosts attached to the interface can join only IPv6 multicast group FF03::101.

```
<Sysname> system-view
[Sysname] acl ipv6 basic 2005
[Sysname-acl-ipv6-basic-2005] rule permit source ff03::101 128
[Sysname-acl-ipv6-basic-2005] quit
[Sysname] interface vlan-interface 100
[Sysname-Vlan-interface100] mld group-policy 2005
```

mld last-listener-query-count

Use **mld last-listener-query-count** to set the MLD last member query count on an interface.

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

Syntax

mld last-listener-query-count *count*

undo mld last-listener-query-count

Default

The MLD last listener query count equals the MLD querier's robustness variable.

Views

Interface view

Predefined user roles

network-admin

Parameters

count: Specifies an MLD last listener query count in the range of 1 to 255.

Usage guidelines

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

Examples

Set the MLD last listener query count to 6 on VLAN-interface 100.

```
<Sysname> system-view
[Sysname] interface vlan-interface 100
[Sysname-Vlan-interface100] mld last-listener-query-count 6
```

Related commands

last-listener-query-count (MLD view)

mld last-listener-query-interval

Use **mld last-listener-query-interval** to set the MLD last listener query interval on an interface.

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

Syntax

mld last-listener-query-interval *interval*

undo mld last-listener-query-interval

Default

The MLD last listener query interval is 1 second.

Views

Interface view

Predefined user roles

network-admin

Parameters

interval: Specifies an MLD last listener query interval in the range of 1 to 25 seconds.

Usage guidelines

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

Examples

Set the MLD last listener query interval to 6 seconds on VLAN-interface 100.

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

Related commands

last-listener-query-interval (MLD view)

mld max-response-time

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

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

Syntax

mld max-response-time *time*

undo mld max-response-time

Default

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

Views

Interface view

Predefined user roles

network-admin

Parameters

time: Specifies the maximum response time for MLD 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 MLD view. For an interface, the interface-specific configuration takes priority over the global configuration.

Examples

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

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

Related commands

max-response-time (MLD view)

mld non-stop-routing

Use **mld non-stop-routing** to enable MLD NSR.

Use **undo mld non-stop-routing** to disable MLD NSR.

Syntax

mld non-stop-routing

undo mld non-stop-routing

Default

MLD NSR is disabled.

Views

System view

Predefined user roles

network-admin

Examples

Enable MLD NSR.

```
<Sysname> system-view
[Sysname] mld non-stop-routing
```

mld other-querier-present-timeout

Use **mld other-querier-present-timeout** to set the MLD other querier present timer on an interface.

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

Syntax

mld other-querier-present-timeout *time*

undo mld other-querier-present-timeout

Default

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

[MLD general query interval] x [MLD querier's robustness variable] + [maximum response time for MLD general queries] / 2.

Views

Interface view

Predefined user roles

network-admin

Parameters

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

Usage guidelines

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

Examples

Set the MLD other querier present timer to 125 seconds on VLAN-interface 100.

```
<Sysname> system-view
[Sysname] interface vlan-interface 100
[Sysname-Vlan-interface100] mld other-querier-present-timeout 125
```

Related commands

other-querier-present-timeout (MLD view)

mld proxy enable

Use **mld proxy enable** to enable MLD proxying on an interface.

Use **undo mld proxy enable** to disable MLD proxying on an interface.

Syntax

mld proxy enable

undo mld proxy enable

Default

MLD proxying is disabled on an interface.

Views

Interface view

Predefined user roles

network-admin

Usage guidelines

This command takes effect only when IPv6 multicast routing is enabled on the public network or for the VPN instance to which the interface belongs.

Examples

Enable IPv6 multicast routing, and enable MLD proxying on VLAN-interface 100.

```
<Sysname> system-view
[Sysname] ipv6 multicast routing
[Sysname-mrib6] quit
[Sysname] interface vlan-interface 100
[Sysname-Vlan-interface100] mld proxy enable
```

Related commands

ipv6 multicast routing

mld proxy forwarding

Use **mld proxy forwarding** to enable IPv6 multicast forwarding on a non-querier interface.

Use **undo mld proxy forwarding** to disable IPv6 multicast forwarding on a non-querier interface.

Syntax

    `mld proxy forwarding`

    `undo mld proxy forwarding`

Default

    IPv6 multicast forwarding is disabled for a non-querier interface.

Views

    Interface view

Predefined user roles

    network-admin

Usage guidelines

    Typically, only MLD queriers can forward IPv6 multicast traffic and non-queriers cannot. This prevents IPv6 multicast data from being repeatedly forwarded. If a router interface on the MLD proxy device failed the querier election, enable multicast forwarding capability on this interface to forward multicast data to attached receivers.

Examples

    # Enable IPv6 multicast forwarding on VLAN-interface 100 (non-querier interface).

```
<Sysname> system-view
[Sysname] interface vlan-interface 100
[Sysname-Vlan-interface100] mld proxy forwarding
```

mld query-interval

    Use `mld query-interval` to set the MLD general query interval on an interface.

    Use `undo mld query-interval` to restore the default.

Syntax

    `mld query-interval` *interval*

    `undo mld query-interval`

Default

    The MLD general query interval is 125 seconds.

Views

    Interface view

Predefined user roles

    network-admin

Parameters

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

Usage guidelines

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

Examples

    # Set the MLD general query interval to 60 seconds on VLAN-interface 100.

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

```
[Sysname] interface vlan-interface 100
[Sysname-Vlan-interface100] mld query-interval 60
```

Related commands

query-interval (MLD view)

mld robust-count

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

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

Syntax

mld robust-count *count*

undo mld robust-count

Default

The MLD querier's robustness variable is 2.

Views

Interface view

Predefined user roles

network-admin

Parameters

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

Usage guidelines

The MLD querier's robustness variable defines the number of times to retransmit MLD queries if packet loss occurs. A higher robustness variable makes the MLD querier more robust, but it increases the timeout time for IPv6 multicast groups.

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

Examples

Set the MLD querier's robustness variable to 5 on VLAN-interface 100.

```
<Sysname> system-view
[Sysname] interface vlan-interface 100
[Sysname-Vlan-interface100] mld robust-count 5
```

Related commands

robust-count (MLD view)

mld startup-query-count

Use **mld startup-query-count** to set the MLD startup query count on an interface.

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

Syntax

mld startup-query-count *count*

undo mld startup-query-count

Default

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

Views

Interface view

Predefined user roles

network-admin

Parameters

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

Usage guidelines

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

Examples

Set the MLD startup query count to 5 on VLAN-interface 100.

```
<Sysname> system-view
[Sysname] interface vlan-interface 100
[Sysname-Vlan-interface100] mld startup-query-count 5
```

Related commands

startup-query-count (MLD view)

mld startup-query-interval

Use **mld startup-query-interval** to set the MLD startup query interval on an interface.

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

Syntax

mld startup-query-interval *interval*

undo mld startup-query-interval

Default

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

Views

Interface view

Predefined user roles

network-admin

Parameters

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

Usage guidelines

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

Examples

Set the MLD startup query interval to 100 seconds on VLAN-interface 100.

```
<Sysname> system-view

[Sysname] interface vlan-interface 100

[Sysname-Vlan-interface100] mld startup-query-interval 100
```

Related commands

> **startup-query-interval** (MLD view)

mld static-group

Use **mld static-group** to configure an interface as a static group member of an IPv6 multicast group.

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

Syntax

> **mld static-group** *ipv6-group-address* [**source** *ipv6-source-address*]
>
> **undo mld static-group** { **all** | *ipv6-group-address* [**source** *ipv6-source-address*] }

Default

> An interface is not a static member of IPv6 multicast groups.

Views

> Interface view

Predefined user roles

> network-admin

Parameters

> *ipv6-group-address*: Specifies an IPv6 multicast group by its IPv6 address. The value range for this argument is FFxy::/16 (excluding FFx1::/16 and FFx2::/16), where "x" and "y" represent any hexadecimal numbers in the range of 0 to F.
>
> *ipv6-source-address*: Specifies an IPv6 multicast source by its IPv6 address. If you do not specify an IPv6 multicast source, this command configures an interface as a static group member of the multicast groups with all IPv6 multicast source addresses.
>
> **all**: Specifies all IPv6 multicast groups that the interface has statically joined.

Usage guidelines

> For IPv6 multicast routing entries to be created, specify an IPv6 multicast source address if the specified IPv6 multicast group address is in the SSM group range.

Examples

> # Configure VLAN-interface 100 as a static group member of IPv6 multicast group FF03::101.
>
> ```
> <Sysname> system-view
>
> [Sysname] interface vlan-interface 100
>
> [Sysname-Vlan-interface100] mld static-group ff03::101
> ```
>
> # Configure VLAN-interface 100 as a static group member of IPv6 multicast source and group (2001::101, FF3E::202).
>
> ```
> <Sysname> system-view
>
> [Sysname] interface vlan-interface 100
>
> [Sysname-Vlan-interface100] mld static-group ff3e::202 source 2001::101
> ```

mld version

Use **mld version** to specify an MLD version for an interface.

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

Syntax

mld version *version-number*

undo mld version

Default

The MLD version is 1.

Views

Interface view

Predefined user roles

network-admin

Parameters

version-number: Specifies an MLD version, 1 or 2.

Examples

Specify MLD version 2 for VLAN-interface 100.

```
<Sysname> system-view
[Sysname] interface vlan-interface 100
[Sysname-Vlan-interface100] mld version 2
```

other-querier-present-timeout (MLD view)

Use **other-querier-present-timeout** to set the MLD other querier present timer globally.

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

Syntax

other-querier-present-timeout *time*

undo other-querier-present-timeout

Default

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

[MLD general query interval] ⨯ [MLD querier's robustness variable] + [maximum response time for MLD general queries] / 2.

Views

MLD view

Predefined user roles

network-admin

Parameters

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

Usage guidelines

You can set the MLD other querier present timer globally for all interfaces in MLD 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 MLD other querier present timer to 125 seconds.

```
<Sysname> system-view
[Sysname] mld
[Sysname-mld] other-querier-present-timeout 125
```

Related commands

mld other-querier-present-timeout

proxy multipath (MLD view)

Use **proxy multipath** to enable load splitting on the MLD proxy.

Use **undo proxy multipath** to disable load splitting on the MLD proxy.

Syntax

proxy multipath

undo proxy multipath

Default

The load splitting feature is disabled on the MLD proxy.

Views

MLD view

Predefined user roles

network-admin

Usage guidelines

Use this feature when the MLD proxy has multiple proxy interfaces. All proxy interfaces on the MLD proxy share IPv6 multicast traffic on a per-group basis. If you do not enable this feature, only the proxy interface with the highest IPv6 address forwards IPv6 multicast traffic.

Examples

\# Enable load splitting on the MLD proxy device.

```
<Sysname> system-view
[Sysname] mld
[Sysname-mld] proxy multipath
```

query-interval (MLD view)

Use **query-interval** to set the MLD general query interval globally.

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

Syntax

query-interval *interval*

undo query-interval

Default

The MLD general query interval is 125 seconds.

Views

MLD view

Predefined user roles

network-admin

Parameters

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

Usage guidelines

You can set the MLD general query interval globally for all interfaces in MLD 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 MLD general query interval to 60 seconds.

```
<Sysname> system-view
[Sysname] mld
[Sysname-mld] query-interval 60
```

Related commands

mld query-interval

reset mld group

Use **reset mld group** to clear dynamic MLD multicast group entries.

Syntax

reset mld group { **all** | **interface** *interface-type* *interface-number* { **all** | *ipv6-group-address* [*prefix-length*] [*ipv6-source-address* [*prefix-length*]] } }

Views

User view

Predefined user roles

network-admin

Parameters

all: The first **all** specifies all interfaces, and the second **all** specifies all MLD multicast groups.

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

ipv6-group-address: Specifies an IPv6 multicast group by its IPv6 address. The value range for this argument is FFxy::/16 (excluding FFx1::/16 and FFx2::/16), where "x" and "y" represent any hexadecimal numbers in the range of 0 to F.

ipv6-source-address: Specifies an IPv6 multicast source by its IPv6 address. If you do not specify an IPv6 multicast source, this command clears dynamic MLD multicast group entries for all IPv6 multicast sources.

prefix-length: Specifies an address prefix length. The default is 128. For a multicast source address, the value range for this argument is 0 to 128. For a multicast group address, the value range for this argument is 8 to 128.

Usage guidelines

This command might interrupt the IPv6 multicast information transmission.

Examples

Clear dynamic MLD multicast group entries for all interfaces.

```
<Sysname> reset mld group all
```

Clear all dynamic MLD multicast group entries for VLAN-interface 100.

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

Clear the dynamic entry of MLD multicast group FF03::101:10 for VLAN-interface 100.

```
<Sysname> reset mld group interface vlan-interface 100 ff03::101:10
```

Related commands

display mld group

robust-count (MLD view)

Use **robust-count** to set the MLD querier's robustness variable globally.

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

Syntax

robust-count *count*

undo robust-count

Default

The MLD querier's robustness variable is 2.

Views

MLD view

Predefined user roles

network-admin

Parameters

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

Usage guidelines

The MLD querier's robustness variable defines the number of times to retransmit MLD queries if packet loss occurs. A higher robustness variable makes the MLD querier more robust, but it increases the timeout time for IPv6 multicast groups.

You can set the MLD querier's robustness variable globally for all interfaces in MLD 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 MLD querier's robustness variable to 5.

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

Related commands

mld robust-count

ssm-mapping (MLD view)

Use **ssm-mapping** to configure an MLD SSM mapping.

Use **undo ssm-mapping** to delete MLD SSM mappings.

Syntax

ssm-mapping *ipv6-source-address ipv6-acl-number*

undo ssm-mapping { *ipv6-source-address* | **all** }

Default

No MLD SSM mappings exist.

Views

MLD view

Predefined user roles

network-admin

Parameters

ipv6-source-address: Specifies an IPv6 multicast source by its IPv6 address.

ipv6-acl-number: Specifies an IPv6 basic ACL number in the range of 2000 to 2999. IPv6 multicast groups in MLD reports permitted by the ACL are associated with the IPv6 multicast source. If the ACL does not exist or does not have valid rules, no IPv6 multicast groups are associated with the IPv6 multicast source.

all: Specifies all MLD SSM mappings.

Usage guidelines

When you configure a rule in the IPv6 basic ACL, follow these restrictions and guidelines:

- The **source** *source-address source-prefix* **option specifies an** IPv6 multicast group address.
- Among the other optional parameters, only the **fragment keyword and the time-range** *time-range-name* option take effect.

Examples

Configure an MLD SSM mapping with IPv6 multicast source 1::1 and IPv6 multicast group range FF3E::/64.

```
<Sysname> system-view
[Sysname] acl ipv6 basic 2001
[Sysname-acl-ipv6-basic-2001] rule permit source ff3e:: 64
[Sysname-acl-ipv6-basic-2001] quit
[Sysname] mld
[Sysname-mld] ssm-mapping 1::1 2001
```

Related commands

display mld ssm-mapping

startup-query-count (MLD view)

Use **startup-query-count** to set the MLD startup query count globally.

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

Syntax

```
startup-query-count count

undo startup-query-count
```

Default

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

Views

MLD view

Predefined user roles

network-admin

Parameters

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

Usage guidelines

You can set the MLD startup query count globally for all interfaces in MLD 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 MLD startup query count to 5.

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

Related commands

```
mld startup-query-count
```

startup-query-interval (MLD view)

Use **startup-query-interval** to set the MLD startup query interval globally.

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

Syntax

```
startup-query-interval interval

undo startup-query-interval
```

Default

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

Views

MLD view

Predefined user roles

network-admin

Parameters

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

Usage guidelines

You can set the MLD startup query interval globally for all interfaces in MLD 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 MLD startup query interval to 100 seconds.

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

Related commands

mld startup-query-interval