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MLD commands

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

display mld group

Use **display mld group** to display MLD information for IPv6 multicast groups.

Syntax

```
display mld [ vpn-instance vpn-instance-name ] group [ ipv6-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 MLD information for IPv6 multicast groups on the public network.

ipv6-group-address: Specifies an IPv6 multicast group by its IPv6 address. The value range for this argument is FFxy::/16 (excluding FFx0::/16, FFx1::/16, FFx2::/16, and FF0y::), where "x" and "y" represent any hexadecimal numbers from 0 to F. If you do not specify an IPv6 multicast source, this command displays MLD information 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 MLD information for IPv6 multicast groups on all interfaces.

static: Specifies MLD information for IPv6 multicast groups that interfaces joined statically. If you do not specify this keyword, the command displays MLD information for IPv6 multicast groups that interfaces joined dynamically.

verbose: Displays detailed MLD information.

Examples

Display MLD information for all IPv6 multicast groups that interfaces dynamically joined on the public network.

```
<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
```

Figure 1 Command output

| Field | Description |
|------------------------------|--|
| MLD groups in total | Total number of IPv6 multicast groups. |
| MLD groups reported in total | Total number of IPv6 multicast groups that the interface has joined dynamically. |
| Group address | IPv6 multicast group address. |
| 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. If the timer is disabled, this field displays Off . |

Display detailed MLD information for the IPv6 multicast group FF03::101 that interfaces dynamically joined on the public network. In this example, MLDv2 is running.

```
<Sysname> display mld group ff03::101 verbose
Vlan-interfaces(FE80::101):
  MLD groups reported in total: 1
  Group: FF03::101
    Uptime: 00:01:46
    Expires: Off
    Last reporter: FE80::10
    Last-listener-query-counter: 0
    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
      Expires: 00:04:11
      Last-listener-query-counter: 0
      Last-listener-query-timer-expiry: Off
```

Table 1 Command output

| Field | Description |
|------------------------------|--|
| MLD groups reported in total | Total number of IPv6 multicast groups that the interface joined dynamically. |
| Group | IPv6 multicast group address. |
| Uptime | Length of time since the IPv6 multicast group was joined. |
| Expires | Remaining time for the IPv6 multicast group. If the timer is disabled, this field displays Off . |
| Last reporter | IPv6 address of the host that last reported membership for this group. |
| Last-listener-query-counter | Number of multicast-address-specific queries or multicast-address-and-source-specific queries sent for this group. |

| Field | Description |
|------------------------------------|--|
| Last-listener-query-timer-expiry | Remaining time for the MLD last listener of the multicast group. If the timer is disabled, this field displays Off . |
| Group mode | Multicast source filtering mode: <ul style="list-style-type: none"> • Include—Include mode. • Exclude—Exclude mode. This field is displayed only when the switch runs MLDv2. |
| Version1-host-present-timer-expiry | Remaining time for the MLDv1 host present timer. If the timer is disabled, this field displays Off . |
| Source list (sources in total) | List of IPv6 multicast sources and total number of IPv6 multicast sources. This field is displayed only when the switch runs MLDv2. |
| Source | IPv6 multicast source address. This field is displayed only when the switch runs MLDv2. |
| Uptime | Length of time since the IPv6 multicast source was reported. This field is displayed only when the switch runs MLDv2. |
| Expires | Remaining time for the IPv6 multicast source. If the timer is disabled, this field displays Off . This field is displayed only when the switch runs MLDv2. |
| Last-listener-query-counter | Number of multicast-address-specific queries or multicast-address-and-source-specific queries sent for this IPv6 multicast source and group. This field is displayed only when the switch runs MLDv2. |
| Last-listener-query-timer-expiry | Remaining time for the last listener query timer of the IPv6 multicast source and group. If the timer is disabled, this field displays Off . This field is displayed only when the switch runs MLDv2. |

Display detailed MLD information for the IPv6 multicast groups that interfaces dynamically joined on the public network.

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

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

Figure 2 Command output

| Field | Description |
|------------------------|--|
| Entries in total | Total number of IPv6 multicast groups. |
| (*, FF03::101) | (*, G) entry. |
| (2001::101, FF3E::202) | (S, G) entry. |

| Field | Description |
|-----------|---|
| Interface | Interface name. |
| Expires | Remaining time for the IPv6 multicast group. The timer is disabled, and this field displays Never . |

Related commands

`reset mld group`

display mld interface

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

Syntax

```
display mld [ 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 MLD information for interfaces 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 MLD information for all MLD-enabled interfaces.

verbose: Displays detailed MLD information.

Examples

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

```
<Sysname> display mld interface vlan-interface 1 verbose
Vlan-interfaces1(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
SSM-mapping: Disabled
SSM-mapping: Disabled
Startup-query: Off
Other-querier-present-timer-expiry (hh:mm:ss): --:--:--
MLD groups reported in total: 1

```

Table 2 Command output

| Field | Description |
|--|---|
| Vlan-interface1(FE80::200:AFF:FE01:101) | Interface and IPv6 link-local address. |
| 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 general query messages, in seconds. |
| Last listener query interval | MLD last listener query interval, 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. If the timer is disabled, this field displays Off . |
| Querier for MLD | IPv6 link-local address of the MLD querier. |
| MLD activity: 1 join(s), 0 done(s) | MLD activity statistics: <ul style="list-style-type: none"> 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 and forwarding is enabled. |
| Robustness | Robustness variable of the MLD querier. |
| Require-router-alert | Whether the function of dropping MLD messages without Router-Alert is enabled. |
| Fast-leave | Whether the MLD fast-leave processing feature is enabled. |
| SSM-mapping | Whether the MLD SSM mapping feature is enabled. |
| Startup-query | Whether the MLD querier sends MLD general queries at the startup query interval on startup: <ul style="list-style-type: none"> 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. If the timer is disabled, this field displays Off . |

| Field | Description |
|------------------------------|--|
| MLD groups reported in total | Total number of IPv6 multicast groups the interface joined dynamically. This field is not displayed if the interface does not join IPv6 multicast groups. |

display mld ssm-mapping

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

Syntax

display mld [**vpn-instance** *vpn-instance-name*] **ssm-mapping** *ipv6-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 MLD SSM mappings on the public network.

ipv6-group-address: Specifies an IPv6 multicast group by its IPv6 address. The value range for this argument is FFxy::/16 (excluding FFx0::/16, FFx1::/16, FFx2::/16, and FF0y::), where "x" and "y" represent any hexadecimal numbers from 0 to F.

Examples

Display MLD SSM mappings for IPv6 multicast group FF3E::101 on the public network.

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

Table 3 Command output

| Fields | Description |
|-------------|--|
| Group | IPv6 multicast group address. |
| Source list | List of IPv6 multicast source addresses. |

last-listener-query-count (MLD view)

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

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 on the public network.  
<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 on the public network.
```

```
<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 global 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 on the public network.
```

```
<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 remove the configurations made in MLD view.

Syntax

```
mld [ vpn-instance vpn-instance-name ]
```

```
undo mld [ 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 takes effect on the public network.

Examples

```
# Enter MLD view of the public network.
```

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

```
[Sysname] mld
```

```
[Sysname-mld]
```

```
# Enter MLD view of VPN instance mvpn.
```

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

```
[Sysname] mld vpn-instance mvpn
```

```
[Sysname-mld-mvpn]
```

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 all interfaces.

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 an interface take effect only when MLD is enabled on the interface.

Examples

```
# Enable IPv6 multicast routing, and enable MLD for VLAN-interface 100 on the public network.
<Sysname> system-view
[Sysname] ipv6 multicast routing
[Sysname-mrib6] quit
[Sysname] interface vlan-interface 100
[Sysname-Vlan-interface100] mld enable
```

Related commands

ipv6 multicast routing

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** *acl6-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 MLD done messages.

Views

Interface view

Predefined user roles

network-admin

Parameters

acl6-number: Specifies an IPv6 basic ACL by its number in the range of 2000 to 2999. If you specify an ACL, this command takes effect only on the IPv6 multicast groups that the ACL permits. This command 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 contain valid rules.

Usage guidelines

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

When you configure a rule in the IPv6 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-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 MLD 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 the hosts attached to the interface can join.

Use **undo mld group-policy** to remove the configured IPv6 multicast group policy.

Syntax

```
mld group-policy acl6-number [ version-number ]
```

```
undo mld group-policy
```

Default

IPv6 multicast group policies are not configured on an interface, and hosts attached to the interface can join IPv6 multicast groups.

Views

Interface view

Predefined user roles

network-admin

Parameters

acl6-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 specified ACL does not exist or the specified ACL does not contain valid rules, receiver hosts cannot join IPv6 multicast groups.

version-number: Specifies an MLD version number, 1 or 2. By default, the configured group filter is effective on both MLDv1 reports and MLDv2 reports.

Usage guidelines

When you configure a rule in the IPv6 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-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.
To match the following MLD reports, set the **source** *source-address source-prefix* option to 0::0:
 - 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.

This command controls the IPv6 multicast groups that the receiver hosts can join by filtering MLD messages. This command does not take effect on a static member interface because the static member interface does not send MLD messages.

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 number 2005
[Sysname-acl6-basic-2005] rule permit source ff03::101 128
[Sysname-acl6-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] × [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 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 group 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 FFx0::/16, FFx1::/16, FFx2::/16, and FF0y::), where "x" and "y" represent any hexadecimal numbers from 0 to F.

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

If the IPv6 multicast address is in the SSM multicast address range, you must specify an IPv6 multicast source address at the same time. Otherwise IPv6 multicast routing entries cannot be established. This restriction does not exist if the specified IPv6 multicast group address is not in the SSM multicast address 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 the 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 global MLD other querier present timer.

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 the following formula:

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

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 on the public network.
<Sysname> system-view
[Sysname] mld
[Sysname-mld] other-querier-present-timeout 125
```

Related commands

mld other-querier-present-timeout

query-interval (MLD view)

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

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

Syntax

query-interval *interval*

undo query-interval

Default

The global 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 on the public network.
```

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

Related commands

mld query-interval

reset mld group

Use **reset mld group** to remove dynamic MLD group entries.

Syntax

```
reset mld [ vpn-instance vpn-instance-name ] 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

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 MLD group entries on the public network.

all: The first **all** specifies all interfaces, and the second **all** specifies all MLD 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 in the range of FFxy::/16, where "x and "y" represent any hexadecimal numbers from 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 removes dynamic MLD group entries of all IPv6 multicast source addresses.

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

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

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

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

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

Remove the dynamic group entry for the MLD group FF03::101:10 on VLAN-interface 100 on the public network.

```
<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 global MLD querier's robustness variable.

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

Syntax

robust-count *count*

undo robust-count

Default

The global 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 on the public network.
<Sysname> system-view
[Sysname] mld
[Sysname-mld] robust-count 5
```

Related commands

mld robust-count

ssm-mapping (MLD view)

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

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

Syntax

```
ssm-mapping ipv6-source-address acl6-number
undo ssm-mapping { ipv6-source-address | all }
```

Default

MLD SSM mappings are not configured.

Views

MLD view

Predefined user roles

network-admin

Parameters

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

acl6-number: Specifies an IPv6 basic ACL number in the range of 2000 to 2999. The specified IPv6 multicast source is mapped only to IPv6 multicast groups that the ACL permits. If the ACL does not exist or the ACL does not have valid rules, the specified IPv6 multicast source is not mapped to IPv6 multicast groups.

all: Removes all the MLD SSM mappings.

Usage guidelines

When you configure a rule in the IPv6 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-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

```
# Map IPv6 multicast source 1::1 to IPv6 multicast groups in the range of FF3E::/64 on the public network.
<Sysname> system-view
[Sysname] acl ipv6 number 2001
[Sysname-acl6-basic-2001] rule permit source ff3e:: 64
```

```
[Sysname-acl6-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 global MLD startup query count.

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

Syntax

startup-query-count *count*

undo startup-query-count

Default

The global 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 on the public network.
```

```
<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 global MLD startup query interval.

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

Syntax

startup-query-interval *interval*

undo startup-query-interval

Default

The global 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 on the public network.

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

Related commands

mld startup-query-interval