1 MLD Commands

Command	Function
clear ipv6 mld group	Clear dynamic group member records in the MLD cache.
clear ipv6 mld interface	Clear all MLD statistics and group member records on an interface.
ipv6 mld access-group	Specify the address range of multicast groups that an interface can join.
ipv6 mld immediate-leave group-list	Enable the fast leave function on an interface.
ipv6 mld join-group	Add an interface to a group.
ipv6 mld last-member-query-count	Configure the group-specific query packet sending times on an interface.
ipv6 mld last-member-query-interval	Configure the group-specific query packet sending interval on an interface.
ipv6 mld limit	Configure the maximum number of MLD group members.
ipv6 mld mroute-proxy	Enable the MRoute proxy function on an interface.
ipv6 mld proxy-service	Enable the proxy service function on an interface.
ipv6 mld querier-timeout	Configure the other querier keepalive time.
ipv6 mld query-interval	Configure the general group query interval.
ipv6 mld query-max-response-time	Configure the maximum response time of query packets.
ipv6 mld robustness-variable	Configure the robustness variable of the querier.
ipv6 mld ssm-map enable	Enable the SSM mapping function.
ipv6 mld ssm-map static	Configure static mapping entries.
ipv6 mld static-group	Add an interface to a static multicast group.
ipv6 mld version	Configure an MLD version on an interface.
show ipv6 mld groups	Display groups directly connected to the device and group information learned from MLD.
show ipv6 mld interface	Display MLD information about an interface.

| show ipv6 mld ssm-mapping | Display SSM mapping information. |

1.1   clear ipv6 mld group

Function

Run the **clear ipv6 mld group** command to clear dynamic group member records in the MLD cache.

Syntax

clear ipv6 mld group [*ipv6-group-address*] [*interface-type interface-number*]

Parameter Description

ipv6-group-address: Address of an IPv6 multicast group.

interface-type interface-number: Interface type and interface number of a relevant interface.

Command Modes

Privileged EXEC mode

Default Level

14

Usage Guidelines

The MLD cache contains a list, which includes multicast groups that hosts in the same directly connected subnet join. If devices join a multicast group, this group is also in the list.

If no parameter is specified, all dynamic group member records are cleared from the MLD cache.

Examples

The following example clears all dynamic group member records.

```
Hostname> enable
Hostname# clear ipv6 mld group
```

The following example clears group member records about the group address FF1E::100.

```
Hostname> enable
Hostname# clear ipv6 mld group ff1e::100
```

The following example clears group member records about the group address FF1E::100 and the interface GigabitEthernet 0/1.

```
Hostname> enable
Hostname# clear ipv6 mld group ff1e::100 gigabitethernet 0/1
```

Notifications

N/A

Platform Description

N/A

Related Commands

N/A

1.2   clear ipv6 mld interface

Function

Run the **clear ipv6 mld interface** command to clear all MLD statistics and group member records on an interface.

Syntax

clear ipv6 mld interface *interface-type interface-number*

Parameter Description

interface-type interface-number: Interface type and interface number

Command Modes

Privileged EXEC mode

Default Level

14

Usage Guidelines

This command is used to clear all group information learned from MLD and packet statistics on an interface. The packet statistics include the number of received report packets, number of done packets, and group member count on the interface.

Examples

The following example clears the MLD statistics and group member records on GigabitEthernet 0/1.

```
Hostname> enable
Hostname# clear ipv6 mld interface gigabitethernet 0/1
```

Notifications

N/A

Platform Description

N/A

Related Commands

N/A

1.3   ipv6 mld access-group

Function

Run the **ipv6 mld access-group** command to specify the address range of multicast groups that an interface can join.

Run the **no** form of this command to remove this configuration.

Run the **default** form of this command to restore the default configuration.

An interface can join any group by default.

Syntax

> **ipv6 mld access-group** *acl-name*
>
> **no ipv6 mld access-group**
>
> **default ipv6 mld access-group**

Parameter Description

> *acl-name*: ACL name referenced to specify a group address range. The value is a case-sensitive string of 1 to 99 characters.

Command Modes

> Interface configuration mode

Default Level

> 14

Usage Guidelines

> This command is configured on the interface to specify the address range of multicast groups that hosts in the directly-connected network segment can join. After ACLs are referenced to specify the address range of multicast groups, report packets denied by the ACLs are discarded.
>
> When MLDv2 is enabled, this command supports extended ACLs to precisely filter source record information in MLDv2 reports. If the received MLD report packets follow the format of (S1, S2, S3 … Sn, G), the corresponding ACL is used to check the packets. Therefore, to normally use this command, you must explicitly configure (*, G) in the extended ACLs to filter (S1, S2, S3 … Sn, G).

Examples

> The following example configures an ACL on GigabitEthernet 0/1 and sets the source address ranges to ::/64 and 2222::3333/64 and the destination address ranges to FF66::100/64 and FF66::100/64.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# ipv6 access-list acl
Hostname(config-ipv6-acl)# permit ipv6 ::/64 ff66::100/64
Hostname(config-ipv6-acl)# permit ipv6 2222::3333/64 ff66::100/64
Hostname(config)# interface gigabitethernet 0/1
Hostname(config-if-GigabitEthernet 0/1)# ipv6 mld access-group acl
```

Notifications

> N/A

Common Errors

> N/A

Platform Description

> N/A

Related Commands

N/A

1.4 ipv6 mld immediate-leave group-list

Function

Run the **ipv6 mld immediate-leave group-list** command to enable the fast leave function on an interface.

Run the **no** form of this command to disable this function.

Run the **default** form of this command to restore the default configuration.

The fast leave function is disabled on an interface by default.

Syntax

ipv6 mld immediate-leave group-list *acl-name*

no ipv6 mld immediate-leave

default ipv6 mld immediate-leave

Parameter Description

acl-name: ACL name referenced to specify a group address range. The value is a case-sensitive string of 1 to 99 characters.

Command Modes

Interface configuration mode

Default Level

14

Usage Guidelines

This function applies to scenarios where only one user host is connected to an interface.

If this command is not configured, when receiving an MLD leave packet, the interface sends a group-specific query packet and waits for response from the host. If no response is received after timeout, this interface is deleted from the member record. The timeout time refers to the product of the group-specific query interval and robustness variable of MLD. The default value is **2** seconds.

After the fast leave function is enabled, when the device receives a leave packet that specifies a group in the permitted range, the device does not send a group-specific query packet and directly deletes the corresponding group. This reduces the leave latency.

Examples

The following example enables the fast leave function for the groups in the ACL, and sets the source address range in the ACL to 2222::3333/64 and the destination address range to FF66::100/64.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# ipv6 access-list acl
Hostname(config-ipv6-acl)# permit ipv6 2222::3333/64 ff66::100/64
```

```
Hostname(config)# interface gigabitethernet 0/1
Hostname(config-if-GigabitEthernet 0/1)# ipv6 mld immediate-leave group-list acl
```

Notifications

If no ACL is configured for reference, the following notification will be displayed:

```
% access-list acl not exist
```

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.5   ipv6 mld join-group

Function

Run the **ipv6 mld join-group** command to add an interface to a group.

Run the **no** form of this command to remove this configuration.

Run the **default** form of this command to restore the default configuration.

No interface joins any group by default.

Syntax

ipv6 mld join-group *ipv6-group-address*

no ipv6 mld join-group *ipv6-group-address*

default ipv6 mld join-group *ipv6-group-address*

Parameter Description

ipv6-group-address: Address of an IPv6 multicast group. An address starting with 0xFF*1, 0xFF*2, or 0xFF3* is not allowed.

Command Modes

Interface configuration mode

Default Level

14

Usage Guidelines

After this command is configured, the interface simulates a host and sends a join packet to the uplink devices to join this group.

This command is used for laboratory test.

Examples

The following example adds GigabitEthernet 0/1 to the group FF55::100.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# interface gigabitethernet 0/1
Hostname(config-if-GigabitEthernet 0/1)# ipv6 mld join-group ff55::100
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.6 ipv6 mld last-member-query-count

Function

Run the **ipv6 mld last-member-query-count** command to configure the group-specific query packet sending times on an interface.

Run the **no** form of this command to remove this configuration.

Run the **default** form of this command to restore the default configuration.

The group-specific query packet sending times is **2** by default.

Syntax

ipv6 mld last-member-query-count *count*

no ipv6 mld last-member-query-count

default ipv6 mld last-member-query-count

Parameter Description

count: Group-specific query packet sending times. The value range is from 2 to 7.

Default Level

14

Command Modes

Interface configuration mode

Usage Guidelines

After receiving a done packet, the interface continuously sends group-specific query packets and waits for responses from hosts. If no response is received after timeout, it is considered that no member exists in the

group in the directly-connected network segment and the interface is deleted from the MLD group member record. The timeout interval is calculated as follows:

Timeout interval = last-member-query-interval × last-member-query-count + query-max-response-time/2

Examples

The following example sets the group-specific query packet sending times to 3 on GigabitEthernet 0/1.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# interface gigabitethernet 0/1
Hostname(config-if-GigabitEthernet 0/1)# ipv6 mld last-member-query-count 3
```

Notifications

If the number of group-specific query packet sending times is not within the range from 2 to 7, the following notification will be displayed:

```
% Invalid Last Member Query Count value
```

Common Errors

N/A

Platform Description

N/A

Related Commands

● **show ipv6 mld interface**

1.7   ipv6 mld last-member-query-interval

Function

Run the **ipv6 mld last-member-query-interval** command to configure the group-specific query packet sending interval on an interface.

Run the **no** form of this command to remove this configuration.

Run the **default** form of this command to restore the default configuration.

The group-specific query packet sending interval is **1** second by default.

Syntax

ipv6 mld last-member-query-interval *interval*

no ipv6 mld last-member-query-interval

default ipv6 mld last-member-query-interval

Parameter Description

interval: Group-specific query packet sending interval, in 0.1 seconds. The value range is from 1 to 255. The default value is 10, indicating 1 second.

Command Modes

Interface configuration mode

Default Level

14

Usage Guidelines

After receiving a done packet, the interface continuously sends group-specific query packets and waits for responses from hosts. If no response is received after timeout, it is considered that no member exists in the group in the directly-connected network segment and the interface is deleted from the MLD group member record. The timeout interval is calculated as follows:

Timeout interval = last-member-query-interval × last-member-query-count + query-max-response-time/2

Examples

The following example sets the group-specific query packet sending interval to 2 seconds on GigabitEthernet 0/1.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# interface gigabitethernet 0/1
Hostname(config-if-GigabitEthernet 0/1)# ipv6 mld last-member-query-interval 20
```

Notifications

If the value of group-specific query packet sending interval is not within the range from 1 to 255, the following notification will be displayed:

```
% Invalid Last Member Query Interval value
```

Common Errors

N/A

Platform Description

N/A

Related Commands

- **show ipv6 mld interface**

1.8 ipv6 mld limit

Function

Run the **ipv6 mld limit** command to configure the maximum number of MLD group members.

Run the **no** form of this command to remove this configuration.

Run the **default** form of this command to restore the default configuration.

By default, the maximum number of MLD group members on an interface is **4000**, and the maximum number of MLD group numbers on a device is **64000**.

Syntax

ipv6 mld limit *limit* [**except** *acl-name*]

no ipv6 mld limit

default ipv6 mld limit

Parameter Description

limit: Maximum number of MLD group members. The value range is from 1 to 64000.

except *access-list*: References an ACL name to specify groups that are not counted. The value is a case-sensitive string of 1 to 99 characters.

Command Modes

Global configuration mode

Interface configuration mode

Default Level

14

Usage Guidelines

In the global configuration mode, the number of members in an MLD group on a device is limited.

In the interface configuration mode, the number of members in an MLD group on an interface is limited.

If the number of group members exceeds the interface limit or global limit, subsequent report packets are ignored.

If an except list is configured, report packets in a specified range can be normally processed, and the records about these group members are not counted.

Interface and global limits can be configured separately. If the global limit is smaller than the interface limit, the global limit prevails.

Examples

The following example sets the maximum number of MLD group members on a device to **400** and sets the maximum number of MLD group members on GigabitEthernet 0/1 to **300**, excluding the groups in the IPv6 list.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# ipv6 access-list ipv6-list
Hostname(config-ipv6-acl)#permit ipv6 any ff13::/64
Hostname(config)# ipv6 mld limit 400 except ipv6-list
Hostname(config)# interface gigabitethernet 0/1
Hostname(config-if-GigabitEthernet 0/1)# ipv6 mld limit 300 except ipv6-list
```

Notifications

If the number of MLD group members is not within the range from 1 to 64000, the following notification will be displayed:

```
% Invalid Limit value
```
If the access list is unavailable, the following notification will be displayed:

```
% access-list acl1 not exist
```

Common Errors

N/A

Platform Description

N/A

Related Commands

● **show ipv6 mld interface**

1.9 ipv6 mld mroute-proxy

Function

Run the **ipv6 mld mroute-proxy** command to enable the MRoute proxy function on an interface.

Run the **no** form of this command to disable this function.

Run the **default** form of this command to restore the default configuration.

The MRoute proxy function is disabled by default.

Syntax

ipv6 mld mroute-proxy *interface-type interface-number*

no ipv6 mld mroute-proxy

default ipv6 mld mroute-proxy

Parameter Description

interface-type interface-number: Type and number of an uplink interface.

Command Modes

Interface configuration mode

Default Level

14

Usage Guidelines

The **ipv6 mld proxy-service** command is run to enable the proxy service function on an uplink interface in the root direction of the multicast distribution tree (MDT).

The **ipv6 mld mroute-proxy** command is run to enable the MRoute proxy function on a downlink interface in the leaf direction of the MDT.

The proxy service interface forwards MLD query packets to the MRoute proxy interface. The MRoute proxy interface forwards MLD report packets to the proxy service interface.

Examples

The following example enables the proxy service function on GigabitEthernet 0/1 and the MRoute proxy function on GigabitEthernet 0/2.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# interface gigabitethernet 0/1
Hostname(config-if-GigabitEthernet 0/1)# ipv6 mld proxy-service
Hostname(config-if-GigabitEthernet 0/1)# exit
```

```
Hostname(config)# interface gigabitethernet 0/2
Hostname(config-if-GigabitEthernet 0/2)# ipv6 mld mroute-proxy gigabitethernet
0/1
```

Notifications

If the multicast proxy function is already enabled on the current interface, the following notification will be displayed:

```
Mroute proxy had configured
```

Common Errors

N/A

Platform Description

N/A

Related Commands

- **ipv6 multicast-routing** (IPv6 multicast route management)
- **show ipv6 mld interface**

1.10   ipv6 mld proxy-service

Function

Run the **ipv6 mld proxy-service** command to enable the proxy service function on an interface.

Run the **no** form of this command to disable this function.

Run the **default** form of this command to restore the default configuration.

The proxy service function on an interface is disabled by default.

Syntax

ipv6 mld proxy-service

no ipv6 mld proxy-service

default ipv6 mld proxy-service

Parameter Description

N/A

Command Modes

Interface configuration mode

Default Level

14

Usage Guidelines

The **ipv6 mld proxy-service** command is run to enable the proxy service function on an uplink interface in the root direction of the MDT.

The **ipv6 mld mroute-proxy** command is run to enable the MRoute proxy function on a downlink interface in the leaf direction of the MDT.

The proxy service interface forwards MLD query packets to the MRoute proxy interface. The MRoute proxy interface forwards MLD report packets to the proxy service interface.

A maximum of 32 proxy service interfaces can be configured on a device. After receiving MLD query packets, the proxy service interface sends report packets based on the MLD group member records.

If the **switchport** command is run on the proxy service interface of a device, the **ipv6 mld mroute-proxy** command configured on the MRoute proxy interface is automatically deleted.

Examples

The following example enables the proxy service function on GigabitEthernet 0/1 and the MRoute proxy function on GigabitEthernet 0/2.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# interface gigabitethernet 0/1
Hostname(config-if-GigabitEthernet 0/1)# ipv6 mld proxy-service
Hostname(config-if-GigabitEthernet 0/1)# exit
Hostname(config)# interface gigabitethernet 0/2
Hostname(config-if-GigabitEthernet 0/2)# ipv6 mld mroute-proxy gigabitethernet
0/1
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

- **ipv6 multicast-routing** (IPv6 multicast route management)

- **show ipv6 mld interface**

1.11   ipv6 mld querier-timeout

Function

Run the **ipv6 mld querier-timeout** command to configure the other querier keepalive time.

Run the **no** form of this command to remove this configuration.

Run the **default** form of this command to restore the default configuration.

The default querier keepalive time is 255 seconds.

Syntax

ipv6 mld querier-timeout *timeout*

no ipv6 mld querier-timeout

default ipv6 mld querier-timeout

Parameter Description

timeout: Other querier keepalive time, in seconds. The value range is from 60 to 300.

Command Modes

Interface configuration mode

Default Level

14

Usage Guidelines

When a non-querier does not receive a query packet in the same network segment within a specified period, the non-querier considers there is only one device (itself) in the directly connected network segment and initiates a new round of querier election.

Examples

The following example sets the other querier keepalive time to 200 seconds on GigabitEthernet 0/1.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# interface gigabitethernet 0/1
Hostname(config-if-GigabitEthernet 0/1)# ipv6 mld querier-timeout 200
```

Notifications

If the configured other querier keepalive time is not within the range from 60 to 300, the following notification will be displayed:

```
% Invalid Querier Timeout Time value
```

Common Errors

N/A

Platform Description

N/A

Related Commands

- **show ipv6 mld interface**

1.12   ipv6 mld query-interval

Function

Run the **ipv6 mld query-interval** command to configure the general group query interval.

Run the **no** form of this command to remove this configuration.

Run the **default** form of this command to restore the default configuration.

The default general group query interval is 125 seconds.

Syntax

> **ipv6 mld query-interval** *interval*
>
> **no ipv6 mld query-interval**
>
> **default ipv6 mld query-interval**

Parameter Description

> *interval*: General group query interval, in seconds. The value range is from 1 to 18000.

Default Level

> 14

Command Modes

> Interface configuration mode

Usage Guidelines

> N/A

Examples

> The following example sets the general group query interval to 120 seconds on GigabitEthernet 0/1.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# interface gigabitethernet 0/1
Hostname(config-if-GigabitEthernet 0/1)# ipv6 mld query-interval 120
```

Notifications

> If the configured general group query interval is not within the range from 1 to 18000, the following notification
> will be displayed:

```
% Invalid Query Interval value
```

Common Errors

> N/A

Platform Description

> N/A

Related Commands

> ● **show ipv6 mld interface**

1.13   ipv6 mld query-max-response-time

Function

> Run the **ipv6 mld query-max-response-time** command to configure the maximum response time of query
> packets.
>
> Run the **no** form of this command to remove this configuration.
>
> Run the **default** form of this command to restore the default configuration.

The maximum response time of query packets is **10** seconds by default.

Syntax

ipv6 mld query-max-response-time *max-response-time*

no ipv6 mld query-max-response-time

default ipv6 mld query-max-response-time

Parameter Description

max-response-time: Maximum response time of query packets, in seconds. The value range is from 1 to 25.

Command Modes

Interface configuration mode

Default Level

14

Usage Guidelines

A query packet is sent through an interface. If no response is received after timeout, it is considered that no member exists in the group of the directly connected network segment and the group information is deleted.

Examples

The following example sets the maximum response time of query packets to 20 seconds on GigabitEthernet 0/1.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# interface gigabitEthernet 0/1
Hostname(config-if-GigabitEthernet 0/1)# ipv6 mld query-max-response-time 20
```

Notifications

If the configured maximum response time of query packets is not within the range from 1 to 240, the following notification will be displayed:

```
% Invalid Query Max-Response Time value
```

Common Errors

N/A

Platform Description

N/A

Related Commands

- **show ipv6 mld interface**

1.14   ipv6 mld robustness-variable

Function

Run the **ipv6 mld robustness-variable** command to configure the robustness variable of the querier.

Run the **no** form of this command to remove this configuration.

Run the **default** form of this command to restore the default configuration.

The querier robustness variable is **2** by default.

Syntax

ipv6 mld robustness-variable *robustness*

no ipv6 mld robustness-variable

default ipv6 mld robustness-variable

Parameter Description

robustness: Robustness variable of the querier. The value range is from 2 to 7.

Command Modes

Interface configuration mode

Default Level

14

Usage Guidelines

N/A

Examples

The following example sets the robustness variable of the querier to 3 on GigabitEthernet 0/1.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# interface gigabitethernet 0/1
Hostname(config-if-GigabitEthernet 0/1)# ipv6 mld robustness-variable 3
```

Notifications

If the configured robustness variable of the querier is not within the range from 2 to 7, the following notification
will be displayed:

```
% Invalid Robustness Variable value
```

Common Errors

N/A

Platform Description

N/A

Related Commands

- **show ipv6 mld interface**

1.15   ipv6 mld ssm-map enable

Function

Run the **ipv6 mld ssm-map enable** command to enable the SSM mapping function.

Run the **no** form of this command to disable this function.

Run the **default** form of this command to restore the default configuration.

The SSM mapping function is disabled by default.

Syntax

ipv6 mld ssm-map enable

no ipv6 mld ssm-map enable

default ipv6 mld ssm-map enable

Parameter Description

N/A

Command Modes

Global configuration mode

Default Level

14

Usage Guidelines

The **ipv6 mld ssm-map static** command is run to configure static mapping entries.

The interface runs MLDv2. When receiving MLDv1 report packets, a multicast device adds the static mapping source address.

Examples

The following example enables the SSM mapping function.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# ipv6 mld ssm-map enable
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

● **ipv6 pim ssm** (PIM-SMv6)

● **ipv6 mld ssm-map static**

- **show ipv6 mld ssm-mapping**

1.16 ipv6 mld ssm-map static

Function

Run the **ipv6 mld ssm-map static** command to configure static mapping entries.

Run the **no** form of this command to remove this configuration.

Run the **default** form of this command to restore the default configuration.

No static mapping entry is configured by default.

Syntax

ipv6 mld ssm-map static *acl-name ipv6-source-address*

no ipv6 mld ssm-map static *acl-name ipv6-source-address*

default ipv6 mld ssm-map static *acl-name ipv6-source-address*

Parameter Description

acl-name: ACL name referenced to specify a group address range. The value is a case-sensitive string of 1 to 99 characters.

ipv6-source-address: Address of an IPv6 multicast source.

Command Modes

Global configuration mode

Default Level

14

Usage Guidelines

The **ipv6 mld ssm-map enable** command is run to enable the SSM mapping function.

The interface runs MLDv2. When receiving MLDv1 report packets, a multicast device adds the static mapping source address.

Examples

The following example enables the SSM mapping function, and sets the group address of static mapping entries to ACL ASD and the source address to 4444::1234.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# ipv6 access-list asd
Hostname(config-ipv6-acl)# permit ipv6 any FF34::/64
Hostname(config)# ipv6 mld ssm-map enable
Hostname(config)# ipv6 mld ssm-map static asd 4444::1234
```

Notifications

If *ipv6-source-address* is not a multicast address, the following notification will be displayed:

```
% Invalid input, not a unicast IP address 4444::1234!
```

If the name of the access list does not comply with specifications, the following notification will be displayed:

```
% Invalid access list name
```

Common Errors

N/A

Platform Description

N/A

Related Commands

- **ipv6 pim ssm** (PIM-SMv6)

- **ipv6 mld ssm-map enable**

- **show ipv6 mld ssm-mapping**

1.17   ipv6 mld static-group

Function

Run the **ipv6 mld static-group** command to add an interface to a static multicast group.

Run the **no** form of this command to remove this configuration.

Run the **default** form of this command to restore the default configuration.

No interface is added to any static multicast group by default.

Syntax

ipv6 mld static-group *ipv6-group-address*

no ipv6 mld static-group *ipv6-group-address*

default ipv6 mld static-group *ipv6-group-address*

Parameter Description

ipv6-group-address: Address of an IPv6 multicast group.

Command Modes

Interface configuration mode

Default Level

14

Usage Guidelines

After this command is configured, an interface can join a group without MLD packet interaction. Even if no host in the same directly connected network segment as this interface joins this group, this interface is in the member record of this group.

The member record that is generated by adding an interface to a static group cannot be deleted by running the **clear ipv6 mld group** command, and can be deleted by running the **no ipv6 mld static-group** command.

Examples

The following example adds GigabitEthernet 0/1 to the group FF55::3.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# interface gigabitEthernet 0/1
Hostname(config-if-GigabitEthernet 0/1)# ipv6 mld static-group ff55::3
```

Notifications

If an interface fails to join a static group, the following notification will be displayed:

```
Static-group create fail! addr= ff55::3
```

Common Errors

N/A

Platform Description

N/A

Related Commands

- **show ipv6 mld interface**

1.18   ipv6 mld version

Function

Run the **ipv6 mld version** command to configure an MLD version on an interface.

Run the **no** form of this command to remove this configuration.

Run the **default** form of this command to restore the default configuration.

MLDv2 is running on an interface by default.

Syntax

ipv6 mld version { **1** | **2** }

no ipv6 mld version

default ipv6 mld version

Parameter Description

1: Uses MLDv1.

2: Uses MLDv2.

Command Modes

Interface configuration mode

Default Level

14

Usage Guidelines

After this command is configured, the MLD process automatically restarts.

A device is backward compatible, and can process MLD packets of the same version or earlier version. It is recommended that the MLD version of the device be later than or equal to that of a host.

Examples

The following example configures MLDv1 on GigabitEthernet 0/1.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# interface gigabitethernet 0/1
Hostname(config-if-GigabitEthernet 0/1)# ipv6 mld version 1
```

Notifications

If the version number is not within the range from 1 to 3, the following notification will be displayed:

```
% Invalid Version value:
```

Common Errors

N/A

Platform Description

N/A

Related Commands

- **show ipv6 mld interface**

1.19   show ipv6 mld groups

Function

Run the **show ipv6 mld groups** command to display groups directly connected to the device and group information learned from MLD.

Syntax

show ipv6 mld groups [*ipv6-group-address* | *interface-type interface-number*] [**detail**]

Parameter Description

ipv6-group-address: Address of a specified IPv6 multicast group.

interface-type interface-number: Type and number of a specified interface.

detail: Displays detailed information about an IPv6 multicast group. If this parameter is not specified, the summary information about the multicast group is displayed.

Command Modes

All modes except the user EXEC mode

Default Level

14

Usage Guidelines

If no parameter is specified, the summary information about all multicast groups learned from all interfaces is displayed.

Examples

The following example displays all group information.

```
Hostname> enable
Hostname# show ipv6 mld groups
MLD Connected Group Membership
Group Address    Interface    Uptime      Expires     Last Reporter
ff66::1          VLAN1        00:10:57    00:02:16    fe80::2d0:f8ff:fe22:3378
```

The following example displays detailed information about a group.

```
Hostname> enable
Hostname# show ipv6 mld groups detail
Interface:      VLAN 1
Group:          ff66::1
Uptime:         00:10:26
Group mode:     Exclude (Expires: 00:02:47)
Last reporter:  fe80::2d0:f8ff:fe22:3378
Source list is empty
```

Table 1-1 Output Fields of the show ipv6 mld groups Command

Field	Description
Group Address	Group address.
Interface	Interface.
Uptime	Update time.
Group mode	Group record filtering mode. The values of this field are as follows: ● Include ● Exclude
Expires	Entry timeout time.
Last Reporter	Address of the last member that sends report packets.

Notifications

N/A

Platform Description

N/A

Related Commands

N/A

1.20   show ipv6 mld interface

Function

Run the **show ipv6 mld interface** command to display MLD information about an interface.

Syntax

show ipv6 mld interface [*interface-type interface-number*]

Parameter Description

interface-type interface-number: Interface type and interface number. If this parameter is not specified, the MLD information about all interfaces is displayed.

Command Modes

All modes except the user EXEC mode

Default Level

14

Usage Guidelines

N/A

Examples

The following example displays MLD information about all interfaces.

```
Hostname> enable
Hostname# show ipv6 mld interface
Interface VLAN 2 (Index 4098)
 MLD Enabled, Inactive, Version 2 (default)
 MLD interface limit is 1024
 MLD interface has 0 group-record states
 MLD interface has 1 join-group records
 MLD interface has 0 static-group records
 MLD activity: 0 joins, 0 leaves
 MLD query interval is 125 seconds
 MLD querier timeout is 255 seconds
 MLD max query response time is 10 seconds
 Last member query response interval is 10 (1/10s)
 Last member query count is 2
 Group Membership interval is 260
 Robustness Variable is 2
```

Table 1-1Output Fields of the show ipv6 mld interface Command

Field	Description
Interface	Interface.
MLD interface limit is x	Maximum number of group members on

Field	Description
	an MLD interface.
MLD interface has x group-record states	Number of group record states on an interface.
MLD interface has x join-group records	Number of member join records on an interface.
MLD interface has x static-group records	Number of static group records on an interface.
MLD query interval is x seconds	MLD query interval, in seconds.
MLD querier timeout is x seconds	MLD query timeout time, in seconds.
MLD max query response time is x seconds	Maximum response time of MLD query, in seconds.
Last member query response interval is *last-member-query-response-interval* (1/10s)	Last member query interval, in 0.1 seconds.
Last member query count is *last-member-query-count*	Last member query times.
Group Membership interval is *group-membership-interval*	Membership sending interval.
Robustness Variable is *robustness*	Robustness variable.

Notifications

N/A

Platform Description

N/A

Related Commands

N/A

1.21   show ipv6 mld ssm-mapping

Function

Run the **show ipv6 mld ssm-mapping** command to display SSM mapping information.

Syntax

show ipv6 mld ssm-mapping [*ipv6-group-address*]

Parameter Description

ipv6-group-address: Address of an IPv6 multicast group. If this parameter is not specified, all MLD SSM mapping information is displayed.

Command Modes

All modes except the user EXEC mode

Default Level

14

Usage Guidelines

N/A

Examples

The following example displays the SSM mapping information of the group FF66::1234.

```
Hostname> enable
Hostname# show ipv6 mld ssm-mapping ff66::1234
Group address: ff66::1234
Database     : Static
Source list  : 5555::1234
```

Table 1-1Output Fields of the show ipv6 mld ssm-mapping Command

Field	Description
Group Address	Group address.
Database	Data state.
Source list	Linked list of source addresses.

Notifications

N/A

Platform Description

N/A

Related Commands

N/A