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IPv6 multicast VLAN commands

display ipv6 multicast-vlan

Use `display ipv6 multicast-vlan` to display information about IPv6 multicast VLANs.

Syntax

```
display ipv6 multicast-vlan [ vlan-id ]
```

Views

Any view

Predefined user roles

network-admin

network-operator

Parameters

vlan-id: Specifies an IPv6 multicast VLAN by its VLAN ID in the range of 1 to 4094. If you do not specify an IPv6 multicast VLAN, this command displays information about all IPv6 multicast VLANs.

Examples

```
# Display information about all IPv6 multicast VLANs.
```

```
<Sysname> display ipv6 multicast-vlan  
Total 2 IPv6 multicast VLANs.
```

```
IPv6 multicast VLAN 100:  
  Sub-VLAN list(3 in total):  
    2-3, 6  
  Port list(3 in total):  
    GE1/0/1  
    GE1/0/2  
    GE1/0/3
```

```
IPv6 multicast VLAN 200:  
  Sub-VLAN list(0 in total):  
  Port list(0 in total):
```

Table 1 Command output

Field	Description
Total 2 IPv6 multicast VLANs	Total number of IPv6 multicast VLANs.
Sub-VLAN list(3 in total)	Sub-VLAN list of the IPv6 multicast VLAN, and the total number of the sub-VLANs.
Port list(3 in total)	Port list of the IPv6 multicast VLAN, and the total number of the ports.

display ipv6 multicast-vlan forwarding-table

Use **display ipv6 multicast-vlan forwarding-table** to display IPv6 multicast VLAN forwarding entries.

Syntax

```
display ipv6 multicast-vlan forwarding-table [ ipv6-source-address [ prefix-length ] | ipv6-group-address [ prefix-length ] | slot slot-number | subvlan vlan-id | vlan vlan-id ] *
```

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 VLAN forwarding entries for all IPv6 multicast sources.

prefix-length: Specifies a prefix length of the IPv6 multicast source address. The value range is 0 to 128 and the default value is 128.

ipv6-group-address: Specifies an IPv6 multicast group address. The value range for this argument is FFxy::/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 VLAN forwarding entries for all IPv6 multicast groups.

prefix-length: Specifies a prefix length of the IPv6 multicast group address. The value range is 8 to 128 and the default value is 128.

slot *slot-number*: Specifies an IRF member device by its member ID. If you do not specify a member device, this command displays IPv6 multicast VLAN forwarding entries for the master device.

subvlan *vlan-id*: Specifies a sub-VLAN by its VLAN ID. If you do not specify a sub-VLAN, this command displays IPv6 multicast VLAN forwarding entries for all sub-VLANs.

vlan *vlan-id*: Specifies an IPv6 multicast VLAN by its VLAN ID in the range of 1 to 4094. If you do not specify an IPv6 multicast VLAN, this command displays IPv6 multicast VLAN forwarding entries for all VLANs.

Examples

Display all IPv6 multicast VLAN forwarding entries.

```
<Sysname> display ipv6 multicast-vlan forwarding-table
IPv6 multicast VLAN 100 Forwarding Table
Total 1 entries, 1 matched
```

```
00001. (1::1, FF0E::1)
  Flags: 0x10000
  IPv6 multicast VLAN: 100
  List of sub-VLANs (3 in total):
    1: VLAN 10
    2: VLAN 20
    3: VLAN 30
```

Table 2 Command output

Field	Description
IPv6 multicast VLAN 100 Forwarding Table	The multicast forwarding table for IPv6 multicast VLAN 100.
Total 1 entries, 1 matched	Total number of (S, G) entries, and the number of matching entries.
00001	Sequence number of the (S, G) entry.
(1::1, FF0E::1)	(S, G) entry, where a double colon (::) in the S position means all IPv6 multicast sources.
Flags	<p>Entry flag.</p> <p>This field displays one flag or the sum of multiple flags. In this example, the value 0x10000 means that the entry has only one flag 0x10000.</p> <p>The following flags are available for an entry:</p> <ul style="list-style-type: none"> • 0x1—The entry is in inactive state. • 0x4—The entry fails to update. • 0x8—The sub-VLAN information fails to update for the entry. • 0x200—The entry is in GR state. • 0x10000—The entry is an IPv6 multicast VLAN forwarding entry.
List of sub-VLANs (3 in total)	Sub-VLAN list of the IPv6 multicast VLAN, and the total number of the sub-VLANs.

display ipv6 multicast-vlan group

Use `display ipv6 multicast-vlan group` to display information about IPv6 multicast groups in IPv6 multicast VLANs.

Syntax

```
display ipv6 multicast-vlan group [ ipv6-source-address |
ipv6-group-address | slot slot-number | verbose | vlan vlan-id ] *
```

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 information about IPv6 multicast groups for all IPv6 multicast sources in IPv6 multicast VLANs.

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 IPv6 multicast groups in IPv6 multicast VLANs.

slot slot-number: Specifies an IRF member device by its member ID. If you do not specify a member device, this command displays information about IPv6 multicast groups in IPv6 multicast VLANs for the master device.

verbose: Displays detailed information. If you do not specify the keyword, this command displays brief information.

vlan *vlan-id*: Specifies an IPv6 multicast VLAN by its VLAN ID in the range of 1 to 4094. If you do not specify an IPv6 multicast VLAN, this command displays information about IPv6 multicast groups for all IPv6 multicast VLANs.

Examples

Display detailed information about all IPv6 multicast groups in IPv6 multicast VLANs.

```
<Sysname> display ipv6 multicast-vlan group verbose
Total 6 entries.
```

```
IPv6 multicast VLAN 10: Total 3 entries.
```

```
(2::2, FF0E::2)
  Flags: 0x70000020
  Sub-VLANs (1 in total):
    VLAN 40
(22::22, FF0E::4)
  Flags: 0x70000030
  Sub-VLANs (1 in total):
    VLAN 40
(:, FF0E::10)
  Flags: 0x10000030
  Sub-VLANs (1 in total):
    VLAN 40
```

```
IPv6 multicast VLAN 20: Total 3 entries.
```

```
(2::2, FF0E::2)
  Flags: 0x70000010
  Sub-VLANs (0 in total):
(22::22, FF0E::4)
  Flags: 0x70000010
  Sub-VLANs (0 in total):
(:, FF0E::10)
  Flags: 0x50000010
  Sub-VLANs (0 in total):
```

Table 3 Command output

Field	Description
Total 6 entries	Total number of (S, G) entries.
IPv6 multicast VLAN 10: Total 3 entries	Total number of (S, G) entries in IPv6 multicast VLAN 10.
(::, FF0E::10)	(S, G) entry, where a double colon (::) in the S position means all IPv6 multicast sources.
Flags	<p>Entry flag.</p> <p>This field displays one flag or the sum of multiple flags. For example, the value 0x70000020 means that the entry has flags 0x20, 0x10000000, 0x20000000, and 0x40000000.</p> <p>The following flags are available for an entry:</p> <ul style="list-style-type: none"> • 0x10—The entry is created by the IPv6 multicast VLAN. • 0x20—The entry is created by the sub-VLAN of the IPv6

Field	Description
	multicast VLAN. <ul style="list-style-type: none"> • 0x40—The entry is to be deleted. • 0x10000000—This value represents one of the following situations: <ul style="list-style-type: none"> ○ The entry is newly created. ○ The device receives an MLD query within an MLD general query interval. • 0x20000000—The device does not receive MLDv1 or MLDv2 reports that match the entry within an MLD general query interval. • 0x40000000—The device does not receive MLDv2 IS_EX (NULL) reports that match the entry within an MLD general query interval.
Sub-VLANs (1 in total)	Sub-VLAN list of the IPv6 multicast VLAN, and the total number of the sub-VLANs.

Related commands

```
reset ipv6 multicast-vlan group
```

ipv6 multicast-vlan

Use `ipv6 multicast-vlan` to configure an IPv6 multicast VLAN and enter its view, or enter the view of an existing IPv6 multicast VLAN.

Use `undo ipv6 multicast-vlan` to remove the configuration of IPv6 multicast VLANs.

Syntax

```
ipv6 multicast-vlan vlan-id
undo ipv6 multicast-vlan { all | vlan-id }
```

Default

No IPv6 multicast VLANs exist.

Views

System view

Predefined user roles

network-admin

Parameters

vlan-id: Specifies an existing VLAN ID in the range of 1 to 4094.

all: Specifies all IPv6 multicast VLANs.

Usage guidelines

The total number of IPv6 multicast VLANs on a device cannot exceed the system upper limit.

You must enable MLD snooping for the VLAN to be configured as an IPv6 multicast VLAN.

As a best practice, do not configure an IPv6 multicast VLAN on a device that is enabled with IPv6 multicast routing.

Examples

```
# Enable MLD snooping for VLAN 100. Configure VLAN 100 as an IPv6 multicast VLAN and enter its view.
```

```
<Sysname> system-view
[Sysname] mld-snooping
[Sysname-mld-snooping] quit
[Sysname] vlan 100
[Sysname-vlan100] mld-snooping enable
[Sysname-vlan100] quit
[Sysname] ipv6 multicast-vlan 100
[Sysname-ipv6-mvlan-100]
```

Related commands

```
ipv6 multicast routing
mld-snooping enable
```

ipv6 multicast-vlan entry-limit

Use **ipv6 multicast-vlan entry-limit** to set the maximum number of IPv6 multicast VLAN forwarding entries.

Use **undo ipv6 multicast-vlan entry-limit** to restore the default.

Syntax

```
ipv6 multicast-vlan entry-limit limit
undo ipv6 multicast-vlan entry-limit
```

Default

The maximum number of IPv6 multicast VLAN forwarding entries is 250.

Views

System view

Predefined user roles

network-admin

Parameters

limit: Specifies the maximum number of IPv6 multicast VLAN forwarding entries, in the range of 0 to 250.

Usage guidelines

If the configured value is smaller than the current number of IPv6 multicast VLAN forwarding entries, the device cannot create new entries until some entries age out or are manually removed. To allow new entries to be created immediately, use the **reset ipv6 multicast-vlan group** command to remove IPv6 multicast VLAN forwarding entries.

Examples

```
# Set the maximum number of IPv6 multicast VLAN forwarding entries to 120.
```

```
<Sysname> system-view
[Sysname] ipv6 multicast-vlan entry-limit 120
```

Related commands

```
entry-limit (MLD-snooping view)
```

ipv6 port multicast-vlan

Use `ipv6 port multicast-vlan` to assign a user port to an IPv6 multicast VLAN.

Use `undo ipv6 port multicast-vlan` to restore the default.

Syntax

```
ipv6 port multicast-vlan vlan-id  
undo ipv6 port multicast-vlan
```

Default

A port does not belong to an IPv6 multicast VLAN.

Views

Layer 2 Ethernet interface view

Layer 2 aggregate interface view

Predefined user roles

network-admin

Parameters

vlan-id: Specifies an IPv6 multicast VLAN by its VLAN ID in the range of 1 to 4094.

Usage guidelines

You can assign a port to only one IPv6 multicast VLAN.

For the port to be assigned to an IPv6 multicast VLAN, you must enable MLD snooping for the VLAN to which the port belongs.

Examples

```
# Assign GigabitEthernet 1/0/1 to IPv6 multicast VLAN 100.  
<Sysname> system-view  
[Sysname] interface gigabitethernet 1/0/1  
[Sysname-GigabitEthernet1/0/1] ipv6 port multicast-vlan 100
```

port (IPv6 multicast VLAN view)

Use `port` to assign user ports to an IPv6 multicast VLAN.

Use `undo port` to delete user ports from an IPv6 multicast VLAN.

Syntax

```
port interface-list  
undo port { all | interface-list }
```

Default

An IPv6 multicast VLAN does not have user ports.

Views

IPv6 multicast VLAN view

Predefined user roles

network-admin

Parameters

interface-list: Specifies a port in the form of *interface-type interface-number*, or a port range in the form of *interface-type interface-number to interface-type interface-number*.

a11: Specifies all user ports in the current IPv6 multicast VLAN.

Usage guidelines

You can assign only Layer 2 Ethernet interfaces or Layer 2 aggregate interfaces as user ports to an IPv6 multicast VLAN. Additionally, you can assign a port to only one IPv6 multicast VLAN.

For ports to be assigned to an IPv6 multicast VLAN, you must enable MLD snooping for the VLANs to which the ports belong.

Examples

```
# Assign GigabitEthernet 1/0/1 through GigabitEthernet 1/0/5 as user ports to IPv6 multicast VLAN 100.
<Sysname> system-view
[Sysname] ipv6 multicast-vlan 100
[Sysname-ipv6-mvlan-100] port gigabitethernet 1/0/1 to gigabitethernet 1/0/5
```

reset ipv6 multicast-vlan group

Use **reset ipv6 multicast-vlan group** to clear IPv6 multicast group entries in IPv6 multicast VLANs.

Syntax

```
reset ipv6 multicast-vlan group [ ipv6-group-address [ prefix-length ] | ipv6-source-address [ prefix-length ] | vlan vlan-id ] *
```

Views

User view

Predefined user roles

network-admin

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 clears all IPv6 multicast group entries in IPv6 multicast VLANs.

prefix-length: Specifies a prefix length of the IPv6 multicast group address. The value range is 8 to 128 and the default value is 128.

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

prefix-length: Specifies a prefix length of the IPv6 multicast source address. The value range is 0 to 128 and the default value is 128.

vlan *vlan-id*: Specifies an IPv6 multicast VLAN by its VLAN ID in the range of 1 to 4094. If you do not specify an IPv6 multicast VLAN, this command clears IPv6 multicast group entries for all IPv6 multicast VLANs.

Examples

```
# Clear all IPv6 multicast group entries for all IPv6 multicast VLANs.
```

```
<Sysname> reset ipv6 multicast-vlan group
```

Related commands

```
display ipv6 multicast-vlan group
```

subvlan (IPv6 multicast VLAN view)

Use **subvlan** to assign VLANs as sub-VLANs to an IPv6 multicast VLAN.

Use **undo subvlan** to delete sub-VLANs from an IPv6 multicast VLAN.

Syntax

```
subvlan vlan-list
```

```
undo subvlan { all | vlan-list }
```

Default

An IPv6 multicast VLAN does not have sub-VLANs.

Views

IPv6 multicast VLAN view

Predefined user roles

network-admin

Parameters

vlan-list: Specifies a space-separated list of up to 10 VLAN items. Each item specifies a VLAN by its ID or a range of VLANs in the form of *start-vlan-id* to *end-vlan-id*. The value range for the VLAN ID is 1 to 4094. The specified VLANs must exist and cannot be multicast VLANs or sub-VLANs of other IPv6 multicast VLANs.

all: Specifies all sub-VLANs of the current IPv6 multicast VLAN.

Usage guidelines

You must enable MLD snooping for VLANs to be configured as sub-VLANs of an IPv6 multicast VLAN.

Examples

```
# Assign VLAN 10 through VLAN 15 as sub-VLANs to multicast VLAN 100.
```

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

```
[Sysname] ipv6 multicast-vlan 100
```

```
[Sysname-ipv6-mvlan-100] subvlan 10 to 15
```