

# Contents

Multicast routing and forwarding commands.....	1
delete ip rpf-route-static .....	1
display mrib interface .....	1
display multicast boundary .....	2
display multicast fast-forwarding cache .....	3
display multicast forwarding event.....	5
display multicast forwarding-table .....	6
display multicast routing-table .....	8
display multicast routing-table static .....	9
display multicast rpf-info .....	10
ip rpf-route-static .....	11
load-splitting (MRIB view).....	12
longest-match (MRIB view).....	13
mtrace-service port.....	13
mtrace v1 .....	14
mtrace v2 .....	17
multicast boundary .....	21
multicast forwarding supervlan community.....	22
multicast routing.....	23
multicast rpf-fail-pkt bridging .....	23
multicast rpf-fail-pkt flooding .....	24
multicast rpf-fail-pkt trap-to-cpu .....	25
reset multicast fast-forwarding cache.....	25
reset multicast forwarding event .....	26
reset multicast forwarding-table .....	26
reset multicast routing-table.....	27

# Multicast routing and forwarding commands

## delete ip rpf-route-static

Use `delete ip rpf-route-static` to delete all static multicast routes.

### Syntax

```
delete ip rpf-route-static
```

### Views

System view

### Predefined user roles

network-admin

### Usage guidelines

This command deletes all static multicast routes. To delete a specified static multicast route, use the `undo ip rpf-route-static` command.

### Examples

```
# Delete all static multicast routes.
```

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

```
[Sysname] delete ip rpf-route-static
```

This will erase all multicast static routes and their configurations, you must reconfigure all static routes.

```
Are you sure?[Y/N]:y
```

### Related commands

```
ip rpf-route-static
```

## display mrib interface

Use `display mrib interface` to display information about interfaces maintained by the MRIB.

### Syntax

```
display mrib interface [ interface-type interface-number ]
```

### 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 information about all interfaces maintained by the MRIB.

## Examples

# Display information about interfaces maintained by the MRIB.

```
<Sysname> display mrib interface
Interface: Vlan-interface1
  Index: 0x00004444
  Current state: up
  MTU: 1500
  Type: BROADCAST
  Protocol: PIM-DM
  PIM protocol state: Enabled
  Address list:
    1. Local address : 8.12.0.2/16
      Remote address: 0.0.0.0
      Reference      : 1
      State          : NORMAL
```

**Table 1 Command output**

Field	Description
Interface	Interface name.
Index	Index number of the interface.
Current state	Current status of the interface: up or down.
MTU	MTU value.
Type	Interface type: <ul style="list-style-type: none"> <li>• <b>BROADCAST</b>—Broadcast link interface.</li> <li>• <b>LOOP</b>—Loopback interface.</li> <li>• <b>REGISTER</b>—Register interface.</li> <li>• <b>MTUNNEL</b>—Multicast tunnel interface.</li> </ul> This field is empty if the interface is Null 0.
Protocol	Protocol running on the interface: PIM-DM, PIM-SM, IGMP, PROXY, or MD.
PIM protocol state	Whether PIM is enabled: Enabled or Disabled.
Address list	Interface address list.
Local address	Local IP address.
Remote address	Remote end IP address. This field is displayed only when the interface is vlink type.
Reference	Number of times that the address has been referenced.
State	Status of the interface address: NORMAL or DEL.

## display multicast boundary

Use `display multicast boundary` to display multicast boundary information.

### Syntax

```
display multicast boundary [ group-address [ mask-length | mask ] ]
[ interface interface-type interface-number ]
```

## Views

Any view

## Predefined user roles

network-admin

network-operator

## Parameters

*group-address*: Specifies a multicast group by its IP address in the range of 224.0.0.0 to 239.255.255.255. If you do not specify a multicast group, this command displays multicast boundary information for all multicast groups.

*mask-length*: Specifies an address mask length in the range of 4 to 32. The default is 32.

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

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

## Examples

# Display information about all multicast boundaries.

```
<Sysname> display multicast boundary
Boundary          Interface
224.1.1.0/24      Vlan1
239.2.2.0/24      Vlan2
```

**Table 2 Command output**

Field	Description
Boundary	Multicast group associated with the multicast boundary.
Interface	Boundary interface associated with the multicast boundary.

## Related commands

`multicast boundary`

# display multicast fast-forwarding cache

Use `display multicast fast-forwarding cache` to display multicast fast forwarding entries.

## Syntax

```
display multicast fast-forwarding cache [ source-address | group-address ]
* [ slot slot-number ]
```

## Views

Any view

## Predefined user roles

network-admin

network-operator

## Parameters

*source-address*: Specifies a multicast source address.

*group-address*: Specifies a multicast group address in the range of 224.0.1.0 to 239.255.255.255.

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

## Examples

# Display multicast fast forwarding entries.

```
<Sysname> display multicast fast-forwarding cache
Total 1 entries, 1 matched

(60.1.1.200, 225.0.0.2)
Status      : Enabled
Source port: 2001                Destination port: 2002
Protocol    : 2                  Flag              : 0x2
Incoming interface: Vlan-interface1
List of 1 outgoing interfaces:
Vlan-interface2
Status: Enabled                  Flag: 0x14
```

**Table 3 Command output**

Field	Description
Total 1 entries, 1 matched	Total number of (S, G) entries in the multicast fast forwarding table, and the total number of matching (S, G) entries.
(60.1.1.200, 225.0.0.2)	(S, G) entry.
Protocol	Protocol number.
Flag	<p>Flag of the (S, G) entry or the outgoing interface in the entry.</p> <p>This field displays one flag or the sum of multiple flags. In this example, the value 0x2 means that the entry has only one flag 0x2. The value 0x14 means that the interface has flags 0x4 and 0x10.</p> <p>The following flags are available for an entry:</p> <ul style="list-style-type: none"> <li>• <b>0x1</b>—The entry is created because of packets passed through between cards.</li> <li>• <b>0x2</b>—The entry is added by multicast forwarding.</li> </ul> <p>The following flags are available for an outgoing interface:</p> <ul style="list-style-type: none"> <li>• <b>0x1</b>—The interface is added to the entry because of packets passed through between cards.</li> <li>• <b>0x2</b>—The interface is added to an existing entry.</li> <li>• <b>0x4</b>—The MAC address of the interface is needed for fast forwarding.</li> <li>• <b>0x8</b>—The interface is an outgoing interface associated with the incoming VLAN or super VLAN interface.</li> <li>• <b>0x10</b>—The interface is associated with the entry.</li> <li>• <b>0x20</b>—The interface is to be deleted.</li> </ul>
Status	<p>Status of the (S, G) entry or the outgoing interface:</p> <ul style="list-style-type: none"> <li>• <b>Enabled</b>—Available.</li> <li>• <b>Disabled</b>—Unavailable.</li> </ul>
Incoming interface	Incoming interface of the (S, G) entry.
List of 1 outgoing interfaces	Outgoing interface list of the (S, G) entry.

## Related commands

```
reset multicast fast-forwarding cache all
```

## display multicast forwarding event

Use `display multicast forwarding event` to display statistics of multicast forwarding events.

### Syntax

```
display multicast forwarding event [ slot slot-number ]
```

### Views

Any view

### Predefined user roles

network-admin  
network-operator

### Parameters

`slot slot-number`: Specifies an IRF member device by its member ID. If you do not specify a member device, this command displays statistics of multicast forwarding events for the master device.

### Examples

```
# Display statistics of multicast forwarding events.  
<Sysname> display multicast forwarding event  
Total active events sent: 0  
Total inactive events sent: 0  
Total NoCache events sent: 2  
Total NoCache events dropped: 0  
Total WrongIF events sent: 0  
Total WrongIF events dropped: 0  
Total SPT switch events sent: 0  
NoCache rate limit: 1024 packets/s  
WrongIF rate limit: 1 packets/10s  
Total timer of register suppress timeout: 0
```

**Table 4 Command output**

Field	Description
Total active events sent	Number of times that entry-active events have been sent.
Total inactive events sent	Number of times that entry-inactive events have been sent.
Total NoCache events sent	Number of times that NoCache events have been sent.
Total NoCache events dropped	Number of times that NoCache events have been dropped.
Total WrongIF events sent	Number of times that WrongIF events have been sent.
Total WrongIF event dropped	Number of times that WrongIF events have been dropped.
Total SPT switch events sent	Number of times that SPT-switch events have been sent.
NoCache rate limit	Rate limit for sending NoCache events, in pps.
WrongIF rate limit	Rate limit for sending WrongIF events, in packets per 10 seconds.

Field	Description
Total timer of register suppress timeout	Number of times that the registration suppression has timed out in total.

## Related commands

`reset multicast forwarding event`

## display multicast forwarding-table

Use `display multicast forwarding-table` to display multicast forwarding entries.

### Syntax

```
display multicast forwarding-table [ source-address [ mask { mask-length | mask } ] ] | group-address [ mask { mask-length | mask } ] ] | incoming-interface interface-type interface-number | outgoing-interface { exclude | include | match } interface-type interface-number | slot slot-number | statistics ]
*
```

### Views

Any view

### Predefined user roles

network-admin  
network-operator

### Parameters

*source-address*: Specifies a multicast source address.

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

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

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

**incoming-interface**: Specifies the multicast forwarding entries that contain the specified incoming interface.

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

**outgoing-interface**: Specifies the multicast forwarding entries that contain the specified outgoing interface.

**exclude**: Specifies the multicast forwarding entries that do not contain the specified interface in the outgoing interface list.

**include**: Specifies the multicast forwarding entries that contain the specified interface in the outgoing interface list.

**match**: Specifies the forwarding entries that contain only the specified interface in the outgoing interface list.

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

**statistics**: Displays statistics for the multicast forwarding table.

## Examples

# Display multicast forwarding entries.

```
<Sysname> display multicast forwarding-table
```

```
Total 1 entries, 1 matched
```

```
00001. (172.168.0.2, 227.0.0.1)
```

```
Flags: 0x0
```

```
Uptime: 00:08:32, Timeout in: 00:03:26
```

```
Incoming interface: Vlan-interface10
```

```
    Incoming sub-VLAN: VLAN 11
```

```
    Outgoing sub-VLAN: VLAN 12
```

```
                    VLAN 13
```

```
List of 1 outgoing interfaces:
```

```
  1: Vlan-interface20
```

```
    Sub-VLAN: VLAN 21
```

```
                    VLAN 22
```

```
Matched 19648 packets(20512512 bytes), Wrong If 0 packet
```

```
Forwarded 19648 packets(20512512 bytes)
```

**Table 5 Command output**

Field	Description
Total 1 entries, 1 matched	Total number of (S, G) entries, and the total number of matching (S, G) entries.
00001	Sequence number of the (S, G) entry.
(172.168.0.2,227.0.0.1)	(S, G) entry.
Flags	<p>Entry flag.</p> <p>This field displays one flag or the sum of multiple flags. In this example, the value 0x0 means that the entry has only one flag 0x0.</p> <p>The following entries are available for an entry:</p> <ul style="list-style-type: none"> <li>• <b>0x0</b>—The entry is in correct state.</li> <li>• <b>0x1</b>—The entry is in inactive state.</li> <li>• <b>0x2</b>—The entry is null.</li> <li>• <b>0x4</b>—The entry fails to update.</li> <li>• <b>0x8</b>—Outgoing interface information fails to update for the entry.</li> <li>• <b>0x10</b>—Data-group information fails to update for the entry.</li> <li>• <b>0x20</b>—A register outgoing interface is available.</li> <li>• <b>0x40</b>—The entry is to be deleted.</li> <li>• <b>0x80</b>—The entry is in registration suppression state.</li> <li>• <b>0x100</b>—The entry is being deleted.</li> <li>• <b>0x200</b>—The entry is in GR state.</li> <li>• <b>0x400</b>—The entry has the VLAN interface of the super VLAN.</li> <li>• <b>0x800</b>—The entry has the associated ARP entry for the multicast source address.</li> <li>• <b>0x400000</b>—The entry is created by the IGMP proxy.</li> </ul>
Uptime	Length of time for which the (S, G) entry has been up.
Timeout in	Length of time in which the (S, G) entry will expire.
Incoming interface	Incoming interface of the (S, G) entry.
Incoming sub-VLAN	Incoming sub-VLAN of the super VLAN when the incoming interface of

Field	Description
	the (S, G) entry is the VLAN interface of this super VLAN.
Outgoing sub-VLAN	Outgoing sub-VLAN of the super VLAN when the incoming interface of the (S, G) entry is the VLAN interface of this super VLAN.
List of 1 outgoing interfaces	Outgoing interface list of the (S, G) entry.
Sub-VLAN	Outgoing sub-VLAN of the super VLAN when the outgoing interface of the (S, G) entry is the VLAN interface of this super VLAN.
Matched 19648 packets(20512512 bytes), Wrong If 0 packet	Number of packets (bytes) that match the (S, G) entry, and number of packets with incoming interface errors. The numbers are displayed as 0 if an outgoing interface of the (S, G) entry is on the specified slot.
Forwarded 19648 packets(20512512 bytes)	Number of packets (bytes) that have been forwarded. The numbers are displayed as 0 if an outgoing interface of the (S, G) entry is on the specified slot.

## Related commands

`reset multicast forwarding-table`

## display multicast routing-table

Use `display multicast routing-table` to display multicast routing entries.

### Syntax

```
display multicast routing-table [ source-address [ mask { mask-length | mask } ] | group-address [ mask { mask-length | mask } ] | incoming-interface interface-type interface-number | outgoing-interface { exclude | include | match } interface-type interface-number ] *
```

### Views

Any view

### Predefined user roles

network-admin

network-operator

### Parameters

*source-address*: Specifies a multicast source address.

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

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

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

**incoming-interface**: Specifies the multicast routing entries that contain the specified incoming interface.

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

**outgoing-interface**: Specifies the multicast routing entries that contain the specified outgoing interface.

**exclude:** Specifies the multicast routing entries that do not contain the specified interface in the outgoing interface list.

**include:** Specifies the multicast routing entries that contain the specified interface in the outgoing interface list.

**match:** Specifies the multicast routing entries that contain only the specified interface in the outgoing interface list.

## Usage guidelines

Multicast routing entries are the basis of multicast forwarding. You can use this command to view the establishment state of (S, G) entries.

## Examples

# Display multicast routing entries.

```
<Sysname> display multicast routing-table
Total 1 entries

00001. (172.168.0.2, 227.0.0.1)
  Uptime: 00:00:28
  Upstream Interface: Vlan-interface1
  List of 2 downstream interfaces
    1: Vlan-interface2
    2: Vlan-interface3
```

**Table 6 Command output**

Field	Description
Total 1 entries	Total number of (S, G) entries.
00001	Sequence number of the (S, G) entry.
(172.168.0.2, 227.0.0.1)	(S, G) entry.
Uptime	Length of time for which the (S, G) entry has been up.
Upstream Interface	Upstream interface at which (S, G) packets should arrive.
List of 2 downstream interfaces	List of downstream interfaces that need to forward (S, G) packets.

## Related commands

```
reset multicast routing-table
```

## display multicast routing-table static

Use **display multicast routing-table static** to display static multicast routing entries.

## Syntax

```
display multicast routing-table static [ source-address { mask-length | mask } ]
```

## Views

Any view

## Predefined user roles

network-admin

network-operator

## Parameters

*source-address*: Specifies a multicast source address.

*mask-length*: Specifies an address mask length in the range of 0 to 32.

*mask*: Specifies an address mask.

## Usage guidelines

This command displays only valid static multicast routing entries.

## Examples

# Display static multicast routing entries.

```
<Sysname> display multicast routing-table static
Destinations: 3          Routes: 4
```

```
Destination/Mask  Pre  RPF neighbor  Interface
1.1.0.0/16        10   7.12.0.1      Vlan12
                  7.11.0.1      Vlan11
2.2.2.0/24        20   7.11.0.1      Vlan11
3.3.3.3/32        50   7.12.0.1      Vlan12
```

**Table 7 Command output**

Field	Description
Destinations	Number of the multicast destination addresses.
Routes	Number of routes.
Destination/Mask	Destination address and its mask length.
Pre	Route preference.
RPF neighbor	IP address of the RPF neighbor to the reachable destination.
Interface	Outgoing interface to the reachable destination.

## display multicast rpf-info

Use `display multicast rpf-info` to display RPF information for a multicast source.

### Syntax

```
display multicast rpf-info source-address [ group-address ]
```

### Views

Any view

### Predefined user roles

network-admin

network-operator

### Parameters

*source-address*: Specifies a multicast source address.

*group-address*: Specifies a multicast group address in the range of 224.0.1.0 to 239.255.255.255.

## Examples

```
# Display RPF information for multicast source 192.168.1.55.
<Sysname> display multicast rpf-info 192.168.1.55
RPF information about source 192.168.1.55:
  RPF interface:Vlan-interface1, RPF neighbor: 10.1.1.1
  Referred route/mask: 192.168.1.0/24
  Referred route type: igp
  Route selection rule: preference-preferred
  Load splitting rule: disable
```

**Table 8 Command output**

Field	Description
RPF neighbor	IP address of the RPF neighbor.
Referred route/mask	Referred route and its mask length.
Referred route type	Type of the referred route: <ul style="list-style-type: none"><li>• <b>igp</b>—IGP unicast route.</li><li>• <b>egp</b>—EGP unicast route.</li><li>• <b>unicast (direct)</b>—Directly connected unicast route.</li><li>• <b>unicast</b>—Other unicast routes, such as static unicast route.</li><li>• <b>multicast static</b>—Static multicast route.</li><li>• <b>mbgp</b>—MBGP route.</li></ul>
Route selection rule	Rule for RPF route selection: <ul style="list-style-type: none"><li>• Route preference.</li><li>• Longest prefix match.</li></ul>
Load splitting rule	Status of the load splitting rule: enable or disable.

## Related commands

```
display multicast forwarding-table
```

```
display multicast routing-table
```

## ip rpf-route-static

Use **ip rpf-route-static** to configure a static multicast route.

Use **undo ip rpf-route-static** to delete a static multicast route.

## Syntax

```
ip rpf-route-static source-address { mask-length | mask }
{ rpf-nbr-address | interface-type interface-number } [ preference
preference ]
```

```
undo ip rpf-route-static source-address { mask-length | mask }
{ rpf-nbr-address | interface-type interface-number }
```

## Default

No static multicast routes exist.

## Views

System view

## Predefined user roles

network-admin

## Parameters

*source-address*: Specifies a multicast source address.

*mask-length*: Specifies an address mask length in the range of 0 to 32.

*mask*: Specifies an address mask.

*rpf-nbr-address*: Specifies an RPF neighbor by its IP address.

*interface-type interface-number*: Specifies an interface by its type and number. The interface connects the RPF neighbor.

*preference*: Sets a route preference in the range of 1 to 255. The default value is 1.

## Usage guidelines

If the interface connected to an RPF neighbor is a point-to-point interface, you must specify the interface by its type and number.

If the interface connected to an RPF neighbor is not a point-to-point interface, you must specify the interface by its IP address. This type of interfaces includes loopback interface and VLAN interfaces.

The configured static multicast route might not take effect when one of the following conditions exists:

- The outgoing interface iteration fails.
- The specified interface is not a point-to-point interface.
- The specified interface is down.

If multiple static multicast routes within the same multicast source address range are available, only the one with the highest route preference can become active. You can use the **display multicast routing-table static** command to verify that the configured static multicast route has taken effect.

The **undo ip rpf-route-static** command deletes the specified static multicast route, but the **delete ip rpf-route-static** command deletes all static multicast routes.

## Examples

```
# Configure a static multicast route to multicast source 10.1.1.0/24 and specify the interface with IP address 192.168.1.23 as the RPF neighbor.
```

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

```
[Sysname] ip rpf-route-static 10.1.1.0 24 192.168.1.23
```

## Related commands

```
delete ip rpf-route-static
```

```
display multicast routing-table static
```

## load-splitting (MRIB view)

Use **load-splitting** to enable multicast load splitting.

Use **undo load-splitting** to restore the default.

## Syntax

```
load-splitting { source | source-group }
```

```
undo load-splitting
```

## Default

Multicast load splitting is disabled.

## Views

MRIB view

## Predefined user roles

network-admin

## Parameters

**source**: Enables multicast load splitting based on multicast source.

**source-group**: Enables multicast load splitting based on multicast source and group.

## Examples

```
# Enable multicast load splitting based on multicast source.
```

```
<Sysname> system-view
[Sysname] multicast routing
[Sysname-mrib] load-splitting source
```

# longest-match (MRIB view)

Use **longest-match** to specify the longest prefix match principle for RPF route.

Use **undo longest-match** to restore the default.

## Syntax

```
longest-match
undo longest-match
```

## Default

Route preference is used for RPF route selection. The route with the highest preference is used as the RPF route.

## Views

MRIB view

## Predefined user roles

network-admin

## Usage guidelines

This command enables the device to use the matching route with the longest prefix as the RPF route.

## Examples

```
# Specify the longest prefix match principle for RPF route selection.
```

```
<Sysname> system-view
[Sysname] multicast routing
[Sysname-mrib] multicast longest-match
```

# mtrace-service port

Use **mtrace-service port** to specify the UDP port number used by mtrace.

Use **undo mtrace-service port** to restore the default.

## Syntax

```
mtrace-service port number  
undo mtrace-service port
```

## Default

Mtrace uses UDP port number 10240.

## Views

System view

## Predefined user roles

network-admin

## Parameters

*number*: Specifies a UDP port number to be used by mtrace, in the range of 1024 to 49151.

## Usage guidelines

Execute this command only when mtrace2 is used.

For successful mtrace, do not specify a UDP port number used by other modules.

You must specify the same UDP port number on all devices on the traced path. Additionally, the specified UDP port number must be the same as that specified in the **mtrace v2** command.

## Examples

```
# Specify 12345 as the UDP port number used by mtrace.  
<Sysname> system-interview  
[sysname] mtrace-service port 12345
```

## Related commands

**mtrace v2**

# mtrace v1

Use **mtrace v1** to trace a multicast path through mtrace1.

## Syntax

```
mtrace v1 { source-address | group-address } * [ destination address ]  
[ verbose ]
```

## Views

Any view

## Predefined user roles

network-admin

## Parameters

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

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

**destination address**: Specifies the destination address of mtrace. The default destination address is 224.0.0.2.

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

## Usage guidelines

To perform a non-group-specific mtrace, specify a multicast source and a destination. The mtrace starts from the destination and ends at the device directly connected to the multicast source.

To perform a non-source-specific mtrace, specify a multicast group and a destination. The mtrace starts from the destination and ends at the RP associated with the multicast group.

To perform a source-and-group-specific mtrace, specify both a multicast source and a multicast group. If you also specify a destination, the mtrace starts from the destination and ends at the device directly connected to the multicast source. If you do not specify a destination, the mtrace starts from the upstream device of the client and ends at the device directly connected to the multicast source.

An mtrace process stops if the number of traced hops reaches 255.

If the client does not receive a Reply message within 10 seconds, the client initiates a hop-by-hop mtrace to determine which device on the path encountered an error. It sends a Query message with the `hops` field set to 1 and waits for a Reply message. If it does not receive a Reply message within 10 seconds, the client determines that this hop encountered an error. If the client receives a Reply message within 10 seconds, it sends a Query message with the `hops` field value increased by 1 and waits for a Reply message. This process continues until the client does not receive a Reply message within the waiting time any more.

## Examples

# Use mtrace1 to trace the path along which multicast data of group 225.2.1.1 travels from source 10.11.5.24 to destination 192.168.2.2 and display brief mtrace information.

```
<Sysname> mtrace v1 10.11.5.24 225.2.1.1 destination 192.168.2.2
Mtrace from 10.11.5.24 to 192.168.2.2 via group 225.2.1.1, 255 hops at most, press
CTRL_C to break.
Querying full reverse path...
```

Hop	Incoming address	Outgoing address	Protocol	Time	Fwd code
0	5.1.1.2	192.168.2.1	PIM	50 s	NO_ERROR
-1	4.1.1.2	5.1.1.1	PIM	40 s	NO_ERROR
-2	3.1.1.2	4.1.1.1	PIM	60 s	NO_ERROR
-3	2.1.1.2	3.1.1.1	PIM	55 s	NO_ERROR
-4	10.11.5.1	2.1.1.1	PIM	30 s	NO_ERROR

**Table 9 Command output**

Field	Description
Hop	Number of the hop. <b>0</b> represents the last hop, <b>-1</b> represents the hop before the last hop, and so on.
Incoming address	Incoming interface of the multicast data.
Outgoing address	Outgoing interface of the multicast data.
Protocol	Multicast routing protocol used between this device and the previous-hop device: <ul style="list-style-type: none"> <li>• <b>PIM</b>.</li> <li>• <b>PIM(STATIC)</b>—PIM using a static multicast route.</li> <li>• <b>PIM(MBGP)</b>—PIM using an MBGP route.</li> <li>• <b>PIM(ASSERT)</b>—PIM in a state created by Assert processing.</li> </ul>
Time	Length of time used to transmit an mtrace message between this device and the previous-hop device, in seconds.
Fwd code	Forwarding code or error code: <ul style="list-style-type: none"> <li>• <b>NO_ERROR</b>—No error.</li> </ul>

Field	Description
	<ul style="list-style-type: none"> <li>• <b>WRONG_IF</b>—The interface on which the mtrace message arrives is not in the outgoing interface list of the multicast data.</li> <li>• <b>PRUNE_SENT</b>—This device has sent a prune message to the upstream device.</li> <li>• <b>PRUNE_RCVD</b>—This device has received a prune message from the downstream device.</li> <li>• <b>SCOPED</b>—A multicast border is configured on the incoming interface or outgoing interface of the multicast data.</li> <li>• <b>NO_ROUTE</b>—This device does not have any route for the source or the RP.</li> <li>• <b>WRONG_LAST_HOP</b>—This device is not the proper last-hop device.</li> <li>• <b>REACHED_RP</b>—This device is the RP for the (*, G) multicast data.</li> <li>• <b>RPF_IF</b>—The mtrace message arrived on the expected RPF interface for the multicast data.</li> <li>• <b>NO_MULTICAST</b>—The mtrace message arrived on an interface that is not enabled with IP multicast.</li> <li>• <b>NO_SPACE</b>—No space is available for inserting a response data block in the packet.</li> </ul>

# Use mtrace1 to trace the path along which multicast data of group 225.2.1.1 travels from source 10.11.5.24 to destination 192.168.2.2 and display detailed mtrace information.

```
<Sysname> mtrace v1 10.11.5.24 225.2.1.1 destination 192.168.2.2 verbose
Mtrace from 10.11.5.24 to 192.168.2.2 via group 225.2.1.1, 255 hops at most, use query
ID 12345, client port 50001, press CTRL_C to break.
Querying full reverse path.....
Switching to hop-by-hop mode, Current hops: 2

0: Incoming interface address: 4.1.1.2
   Outgoing interface address: 5.1.1.1
   Upstream router address: 4.1.1.1
   Input multicast packets: 111
   Output multicast packets: 111
   Forwarded packets for the (S, G) pair: 22
   Multicast protocol in use: PIM
   Multicast TTL threshold: 1
   Forwarding code: NO_ERROR
   Time used (s): 50

-1: Incoming interface address: 3.1.1.2
    Outgoing interface address: 4.1.1.1
    Upstream router address: 3.1.1.1
    Input multicast packets: 111
    Output multicast packets: 111
    Forwarded Packets for the (S, G) pair: 22
    Multicast protocol in use: PIM
    Multicast TTL threshold: 1
    Forwarding code: NO_ERROR
    Time used (s): 50
```

**Table 10 Command output**

Field	Description
<i>n</i>	Number of the hop. <b>0</b> represents the last hop, <b>-1</b> represents the hop before the last hop, and so on.
Incoming interface address	Incoming interface of the multicast data.
Outgoing interface address	Outgoing interface of the multicast data.
Upstream router address	IP address of the upstream device.
Input multicast packets	Statistics for packets received on the incoming interface of the multicast data.
Output multicast packets	Statistics for packets forwarded through the outgoing interface of the multicast data.
Forwarded packets for the (S, G) pair	Statistics for forwarded (S, G) packets.
Multicast protocol in use	Multicast routing protocol used on the traced path: <ul style="list-style-type: none"> <li>• <b>PIM</b>.</li> <li>• <b>PIM(STATIC)</b>—PIM using a static multicast route.</li> <li>• <b>PIM(MBGP)</b>—PIM using an MBGP route.</li> <li>• <b>PIM(ASSERT)</b>—PIM in a state created by Assert processing.</li> </ul>
Multicast TTL threshold	Maximum number of hops to be traced on the interface.
Forwarding code	Forwarding code or error code: <ul style="list-style-type: none"> <li>• <b>NO_ERROR</b>—No error.</li> <li>• <b>WRONG_IF</b>—The interface on which the mtrace message arrives is not in the outgoing interface list of the multicast data.</li> <li>• <b>PRUNE_SENT</b>—This device has sent a prune message to the upstream device.</li> <li>• <b>PRUNE_RCVD</b>—This device has received a prune message from the downstream device.</li> <li>• <b>SCOPED</b>—A multicast border is configured on the incoming interface or outgoing interface of the multicast data.</li> <li>• <b>NO_ROUTE</b>—This device does not have any route for the source or the RP.</li> <li>• <b>WRONG_LAST_HOP</b>—This device is not the proper last-hop device.</li> <li>• <b>REACHED_RP</b>—This device is the RP for the (*, G) multicast data.</li> <li>• <b>RPF_IF</b>—The mtrace message arrived on the expected RPF interface for the multicast data.</li> <li>• <b>NO_MULTICAST</b>—The mtrace message arrived on an interface that is not enabled with IP multicast.</li> <li>• <b>NO_SPACE</b>—No space is available for inserting a response data block in the packet.</li> </ul>
Time used (s)	Length of time for transmitting the mtrace message from the previous-hop device to this device.

## mtrace v2

Use `mtrace v2` to trace a multicast path through mtrace2.

## Syntax

```
mtrace v2 { source-address | group-address } * [ destination address | port number | wait-time time | max-hop count ] * [ verbose ]
```

## Views

Any view

## Predefined user roles

network-admin

## Parameters

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

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

**destination address**: Specifies the destination address of mtrace. The default destination address is 224.0.0.2.

**port number**: Specifies a UDP port number for mtrace2, in the range of 1024 to 49151. The default value is 10240.

**wait-time time**: Specifies the length of time that the client waits for a Reply message. The value range for the *time* argument is 1 to 65535 seconds and the default value is 10 seconds. If the client does not receive a Reply message within the waiting time, the client initiates a hop-by-hop mtrace.

**max-hop count**: Specifies the maximum number of the hops to be traced. The value range for the *count* argument is 1 to 255 and the default value is 255. If the maximum number of hops is reached on a device, the device directly sends an mtrace2 Reply message to the client and the mtrace is terminated.

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

## Usage guidelines

To perform a non-group-specific mtrace, specify a multicast source and a destination. The mtrace starts from the destination and ends with the device directly connected to the multicast source.

To perform a non-source-specific mtrace, specify a multicast group and a destination. The mtrace starts from the destination and ends at the RP associated with the multicast group.

To perform a source-and-group-specific mtrace, specify both a multicast source and a multicast group. If you also specify a destination, the mtrace starts from the destination and ends at the device directly connected to the multicast source. If you do not specify a destination, the mtrace starts from the upstream device of the client and ends at the device directly connected to the multicast source.

An mtrace process stops if the maximum number of the hops to be traced is reached.

If the client does not receive a Reply message within the waiting time, the client initiates a hop-by-hop mtrace to determine which device on the path encountered an error. It sends a Query message with the **hops** field set to 1 and waits for a Reply message. If the client receives a Reply message within the waiting time, it sends a Query message with the **hops** field value increased by 1 and waits for a Reply message. This process continues until the client does not receive a Reply message within the waiting time any more.

## Examples

```
# Use mtrace2 to trace the path along which multicast data of group 225.2.1.1 travels from source 10.11.5.24 to destination 192.168.2.2 and display brief mtrace information.
```

```
<Sysname> mtrace v2 10.11.5.24 225.2.1.1 destination 192.168.2.2
```

```
Mtrace from 10.11.5.24 to 192.168.2.2 via group 225.2.1.1, 255 hops at most, press CTRL_C to break.
```

Querying full reverse path...

Hop	Incoming address	Outgoing address	Protocol	Time	Fwd code
0	5.1.1.2	192.168.2.1	PIM-SM(OSPF)	50 s	NO_ERROR
-1	4.1.1.2	5.1.1.1	PIM-SM(OSPF)	40 s	NO_ERROR
-2	3.1.1.2	4.1.1.1	PIM-SM(OSPF)	60 s	NO_ERROR
-3	2.1.1.2	3.1.1.1	PIM-SM(OSPF)	55 s	NO_ERROR
-4	10.11.5.1	2.1.1.1	PIM-SM(OSPF)	30 s	NO_ERROR

**Table 11 Command output**

Field	Description
Hop	Number of the hop. <b>0</b> represents the last hop, <b>-1</b> represents the hop before the last hop, and so on.
Incoming address	Incoming interface of the multicast data.
Outgoing address	Outgoing interface of the multicast data.
Protocol	<p>Multicast routing protocol used between this device and the previous-hop device:</p> <ul style="list-style-type: none"> <li>• PIM-SM.</li> <li>• PIM-DM.</li> </ul> <p>Unicast routing protocol used between this device and the previous-hop device:</p> <ul style="list-style-type: none"> <li>• <b>LOCAL</b>—Direct route.</li> <li>• <b>STATIC ROUTE</b>—Static route.</li> <li>• <b>RIP</b>.</li> <li>• <b>ISIS</b>.</li> <li>• <b>OSPF</b>.</li> <li>• <b>BGP</b>.</li> </ul>
Time	Length of time used to transmit an mtrace message between this device and the previous-hop device, in seconds.
Fwd code	<p>Forwarding code or error code:</p> <ul style="list-style-type: none"> <li>• <b>NO_ERROR</b>—No error.</li> <li>• <b>WRONG_IF</b>—The interface on which the mtrace message arrives is not in the outgoing interface list of the multicast data.</li> <li>• <b>PRUNE_SENT</b>—This device has sent a prune message to the upstream device.</li> <li>• <b>PRUNE_RCVD</b>—This device has received a prune message from the downstream device.</li> <li>• <b>SCOPED</b>—A multicast border is configured on the incoming interface or outgoing interface of the multicast data.</li> <li>• <b>NO_ROUTE</b>—This device does not have any route for the source or the RP.</li> <li>• <b>WRONG_LAST_HOP</b>—This device is not the proper last-hop device.</li> <li>• <b>REACHED_RP</b>—This device is the RP for the (*, G) multicast data.</li> <li>• <b>RPF_IF</b>—The mtrace message arrived on the expected RPF interface for the multicast data.</li> <li>• <b>NO_MULTICAST</b>—The mtrace message arrived on an interface that is not enabled with IP multicast.</li> <li>• <b>NO_SPACE</b>—No space is available for inserting a response data block in the packet.</li> </ul>

# Use mtrace2 to trace the path along which multicast data of group 225.2.1.1 travels from source 10.11.5.24 to destination 192.168.2.2 and display detailed mtrace information.

```
<Sysname> mtrace v2 10.11.5.24 225.2.1.1 destination 192.168.2.2 verbose
Mtrace from 10.11.5.24 to 192.168.2.2 via group 225.2.1.1, 255 hops at most, use query ID 12345, client port 50001, press CTRL_C to break.
Querying full reverse path...
```

```
0: Incoming interface address: 4.1.1.2
   Outgoing interface address: 5.1.1.1
   Upstream router address: 4.1.1.1
   Input multicast packets: 111
   Output multicast packets: 111
   Forwarded packets for the (S, G) pair: 22
   Multicast protocol in use: PIM-SM
   Unicast protocol in use: OSPF
   Multicast TTL threshold: 1
   Forwarding code: NO_ERROR
   Time used (s): 50
```

```
-1: Incoming interface address: 3.1.1.2
    Outgoing interface address: 4.1.1.1
    Upstream router address: 3.1.1.1
    Input multicast packets: 111
    Output multicast packets: 111
    Forwarded packets for the (S, G) pair: 22
    Multicast protocol in use: PIM-SM
    Unicast protocol in use: OSPF
    Multicast TTL threshold: 1
    Forwarding code: NO_ERROR
    Time used (s): 50
```

**Table 12 Command output**

Field	Description
<i>n</i>	Number of the hop. <b>0</b> represents the last hop, <b>-1</b> represents the hop before the last hop, and so on.
Incoming interface address	Incoming interface of the multicast data.
Outgoing interface address	Outgoing interface of the multicast data.
Upstream router address	IP address of the upstream device.
Input multicast packets	Statistics of packets received on the incoming interface of the multicast data.
Output multicast packets	Statistics of packets forwarded through the outgoing interface of the multicast data.
Forwarded packets for the (S, G) pair	Statistics of forwarded (S, G) packets.
Multicast protocol in use	Multicast routing protocol running on the incoming interface of the multicast data.
Unicast protocol in use	Unicast routing protocol running on the incoming interface of the multicast data.

Field	Description
Multicast TTL threshold	Maximum number of hops to be traced on the interface.
Forwarding code	Forwarding code or error code: <ul style="list-style-type: none"> <li>• <b>NO_ERROR</b>—No error.</li> <li>• <b>WRONG_IF</b>—The interface on which the mtrace message arrives is not in the outgoing interface list of the multicast data.</li> <li>• <b>PRUNE_SENT</b>—This device has sent a prune message to the upstream device.</li> <li>• <b>PRUNE_RCVD</b>—This device has received a prune message from the downstream device.</li> <li>• <b>SCOPED</b>—A multicast border is configured on the incoming interface or outgoing interface of the multicast data.</li> <li>• <b>NO_ROUTE</b>—This device does not have any route for the source or the RP.</li> <li>• <b>WRONG_LAST_HOP</b>—This device is not the proper last-hop device.</li> <li>• <b>REACHED_RP</b>—This device is the RP for the (*, G) multicast data.</li> <li>• <b>RPF_IF</b>—The mtrace message arrived on the expected RPF interface for the multicast data.</li> <li>• <b>NO_MULTICAST</b>—The mtrace message arrived on an interface that is not enabled with IP multicast.</li> <li>• <b>NO_SPACE</b>—No space is available for inserting a response data block in the packet.</li> </ul>
Time used (s)	Length of time for transmitting the mtrace message from the previous-hop device to this device.

## Related commands

`mtrace-service port`

## multicast boundary

Use `multicast boundary` to configure a multicast forwarding boundary.

Use `undo multicast boundary` to delete a multicast forwarding boundary.

### Syntax

```
multicast boundary group-address { mask-length | mask }
```

```
undo multicast boundary { group-address { mask-length | mask } | all }
```

### Default

No multicast forwarding boundaries are configured on an interface.

### Views

Interface view

### Predefined user roles

network-admin

### Parameters

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

*mask-length*: Specifies an address mask length in the range of 4 to 32.

*mask*: Specifies an address mask.

**a11**: Specifies all forwarding boundaries configured on the interface.

## Usage guidelines

A multicast forwarding boundary sets the boundary condition for the multicast groups in the specified address range. If the destination address of a multicast packet matches the set boundary condition, the packet is not forwarded.

You can configure an interface as a multicast forwarding boundary for different multicast group ranges by executing this command multiple times on the interface.

You do not need to enable IP multicast routing before you execute this command.

Assume that Set A and Set B are multicast forwarding boundary sets with different address ranges, and B is a subset of A. A takes effect on the interface no matter whether A is configured earlier or later than B.

## Examples

```
# Configure VLAN-interface 100 as the forwarding boundary of multicast groups in the range of 239.2.0.0/16.
```

```
<Sysname> system-view
[Sysname] interface vlan-interface 100
[Sysname-Vlan-interface100] multicast boundary 239.2.0.0 16
```

## Related commands

```
display multicast boundary
```

# multicast forwarding supervlan community

Use **multicast forwarding supervlan community** to enable multicast forwarding between sub-VLANs that are associated with a super VLAN.

Use **undo multicast forwarding supervlan community** to disable multicast forwarding between sub-VLANs that are associated with a super VLAN.

## Syntax

```
multicast forwarding supervlan community
undo multicast forwarding supervlan community
```

## Default

Multicast forwarding between sub-VLANs that are associated with a super VLAN is disabled.

## Views

VLAN interface view

## Predefined user roles

network-admin

## Usage guidelines

For this command to take effect, you must clear all multicast forwarding entries with the super VLAN interface as the incoming interface after executing this command. To clear multicast forwarding entries, use the **reset multicast forwarding-table** command.

## Examples

```
# Enable multicast forwarding between sub-VLANs that are associated with the super VLAN 2.
```

```
<Sysname> system-view
[Sysname] interface vlan-interface 2
[Sysname-Vlan-interface2] multicast forwarding supervlan community
```

### Related commands

```
reset multicast forwarding-table
```

## multicast routing

Use **multicast routing** to enable IP multicast routing and enter MRIB view.

Use **undo multicast routing** to disable IP multicast routing.

### Syntax

```
multicast routing
undo multicast routing
```

### Default

IP multicast routing is disabled.

### Views

System view

### Predefined user roles

network-admin

### Usage guidelines

Other Layer 3 multicast commands take effect only when IP multicast routing is enabled.

The device does not forward multicast packets before IP multicast routing is enabled.

### Examples

```
# Enable IP multicast routing, and enter MRIB view.
```

```
<Sysname> system-view
[Sysname] multicast routing
[Sysname-mrib]
```

## multicast rpf-fail-pkt bridging

Use **multicast rpf-fail-pkt bridging** to enable the device to multicast the multicast data packets that fail the RPF check in a VLAN.

Use **undo multicast rpf-fail-pkt bridging** to restore the default.

### Syntax

```
multicast rpf-fail-pkt bridging
undo multicast rpf-fail-pkt bridging
```

### Default

The multicast data packets that fail the RPF check are not multicast in a VLAN.

### Views

VLAN interface view

## Predefined user roles

network-admin

## Usage guidelines

Before you execute this command, complete the following tasks:

- Enable the device to flood the multicast data packets that fail the RPF check in all VLANs.
- Enable IGMP snooping for the current VLAN.
- Configure a Layer 3 multicast routing protocol (such as IGMP or PIM) on the VLAN interface.

For this command to take effect, you must clear dynamic IGMP snooping forwarding entries in the VLAN after executing this command. To clear dynamic IGMP snooping forwarding entries, use the `reset igmp-snooping group` command.

You do not need to enable IP multicast routing before you execute this command.

## Examples

```
# Enable the device to multicast the multicast data packets that fail the RPF check in VLAN 2.
```

```
<Sysname> system-view
[Sysname] interface vlan-interface 2
[Sysname-Vlan-interface2] multicast rpf-fail-pkt bridging
```

## Related commands

```
multicast rpf-fail-pkt flooding
reset igmp-snooping group
```

# multicast rpf-fail-pkt flooding

Use `multicast rpf-fail-pkt flooding` to enable the device to flood the multicast data packets that fail the RPF check in all VLANs.

Use `multicast rpf-fail-pkt flooding` to restore the default.

## Syntax

```
multicast rpf-fail-pkt flooding
undo multicast rpf-fail-pkt flooding
```

## Default

The multicast data packets that fail the RPF check are not flooded in a VLAN.

## Views

System view

## Predefined user roles

network-admin

## Usage guidelines

You do not need to enable IP multicast routing before you execute this command.

For this command to take effect, you must clear all multicast forwarding entries after executing this command. To clear multicast forwarding entries, use the `reset multicast forwarding-table` command.

## Examples

```
# Enable the device to flood the multicast data packets that fail the RPF check.
```

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

```
[Sysname] multicast rpf-fail-pkt flooding
```

## Related commands

```
reset multicast forwarding-table
```

# multicast rpf-fail-pkt trap-to-cpu

Use `multicast rpf-fail-pkt trap-to-cpu` to enable the device to deliver the multicast data packets that fail the RPF check to the CPU.

Use `undo multicast rpf-fail-pkt trap-to-cpu` to restore the default.

## Syntax

```
multicast rpf-fail-pkt trap-to-cpu
undo multicast rpf-fail-pkt trap-to-cpu
```

## Default

The multicast data packets that fail the RPF check are not delivered to the CPU.

## Views

System view

## Predefined user roles

network-admin

## Usage guidelines

You do not need to enable IP multicast routing before you execute this command.

For this command to take effect, you must clear all multicast forwarding entries after executing this command. To clear multicast forwarding entries, use the `reset multicast forwarding-table` command.

## Examples

```
# Enable the device to deliver multicast data packets that fail the RPF check to the CPU.
```

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

```
[Sysname] multicast rpf-fail-pkt trap-to-cpu
```

## Related commands

```
reset multicast forwarding-table
```

# reset multicast fast-forwarding cache

Use `reset multicast fast-forwarding cache` to clear multicast fast forwarding entries.

## Syntax

```
reset multicast fast-forwarding cache { { source-address | group-address }
* | all } [ slot slot-number ]
```

## Views

User view

## Predefined user roles

network-admin

## Parameters

*source-address*: Specifies a multicast source address.

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

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

**all**: Specifies all multicast fast forwarding entries.

## Examples

# Clear all multicast fast forwarding entries.

```
<Sysname> reset multicast fast-forwarding cache all
```

# Clear the multicast fast forwarding entry for multicast source and group (20.0.0.2, 225.0.0.2).

```
<Sysname> reset multicast fast-forwarding cache 20.0.0.2 225.0.0.2
```

## Related commands

**display multicast fast-forwarding cache**

# reset multicast forwarding event

Use **reset multicast forwarding event** to clear statistics for multicast forwarding events.

## Syntax

```
reset multicast forwarding event
```

## Views

User view

## Predefined user roles

network-admin

## Examples

# Clear statistics for multicast forwarding events.

```
<Sysname> reset multicast forwarding event
```

## Related commands

**display multicast forwarding event**

# reset multicast forwarding-table

Use **reset multicast forwarding-table** to clear multicast forwarding entries.

## Syntax

```
reset multicast forwarding-table { { source-address [ mask { mask-length | mask } ] | group-address [ mask { mask-length | mask } ] | incoming-interface { interface-type interface-number } } * | all }
```

## Views

User view

## Predefined user roles

network-admin

## Parameters

*source-address*: Specifies a multicast source address.

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

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

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

**incoming-interface**: Specifies the multicast forwarding entries that contain the specified incoming interface.

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

**all**: Specifies all multicast forwarding entries.

## Usage guidelines

When you clear a multicast forwarding entry, the associated multicast routing entry is also cleared.

## Examples

```
# Clear multicast forwarding entries for multicast group 225.5.4.3.  
<Sysname> reset multicast forwarding-table 225.5.4.3
```

## Related commands

```
display multicast forwarding-table
```

# reset multicast routing-table

Use **reset multicast routing-table** to clear multicast routing entries.

## Syntax

```
reset multicast routing-table { { source-address [ mask { mask-length |  
mask } ] | group-address [ mask { mask | mask-length } ] | incoming-interface  
interface-type interface-number } * | all }
```

## Views

User view

## Predefined user roles

network-admin

## Parameters

*source-address*: Specifies a multicast source address.

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

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

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

**incoming-interface**: Specifies the routing entries that contain the specified incoming interface.

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

**all**: Specifies all multicast routing entries.

## Usage guidelines

When you clear a multicast routing entry, the associated multicast forwarding entry is also cleared.

## Examples

# Clear multicast routing entries for multicast group 225.5.4.3.

```
<Sysname> reset multicast routing-table 225.5.4.3
```

## Related commands

```
display multicast routing-table
```