1 REUP Commands

Command	Function
switchport backup interface	Configure a dual-link backup port of Rapid Ethernet Uplink Protection (REUP).
switchport backup interface preemption mode	Configure the link preemption mode of REUP.
switchport backup interface preemption delay	Configure the link preemption delay time of REUP.
mac-address-table update group	Configure a MAC address update group.
mac-address-table move update transit	Enable the function of sending MAC address update private multicast messages.
mac-address-table move update transit vlan	Configure the ID of a VLAN, in which a port sends MAC address update private multicast messages.
mac-address-table move update max-update-rate	Configure the maximum rate for sending MAC address update broadcast packets.
mac-address-table move update receive	Enable the function of receiving MAC address update private multicast messages.
mac-address-table move update receive vlan	Configure a VLAN ID range, in which MAC address update private multicast messages are received.
switchport backup interface prefer instance	Configure VLAN load balancing for a port with REUP dual-link backup enabled.
link state track	Enable a link state tracking group.
link state group	Add a port to a specified link state tracking group.
show interfaces switchport backup	Display the status information of a port with REUP dual-link backup enabled.
show mac-address-table update group	Display the information about a MAC address update group.
show mac-address-table move update	Display the statistics on the MAC address update private multicast messages sent by a port with REUP dual-link backup enabled.
show link state group	Display information about a link state tracking group.

1.1 switchport backup interface

Function

Run the **switchport backup interface** command to configure a dual-link backup port of Rapid Ethernet Uplink Protection (REUP).

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

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

No REUP dual-link backup port is configured by default.

Syntax

switchport backup interface *interface-type interface-number*

no switchport backup interface *interface-type interface-number*

default switchport backup interface *interface-type interface-number*

Parameter Description

interface-type interface-number: Port type and number of the backup link.

Command Modes

Interface configuration mode

Default Level

14

Usage Guidelines

When this command is configured, the port where the interface configuration mode is configured is the active port, and the port specified by the *interface-type interface-number* parameter is the backup port. When the active link corresponding to the active port is faulty, the backup port link is enabled to implement rapid recovery.

Examples

The following example configures the REUP dual-link backup function, and configures GigabitEthernet 0/1 as the active port and GigabitEthernet 0/2 as the backup port.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# interface gigabitethernet 0/1
Hostname(config-if-GigabitEthernet 0/1)# switchport backup interface
gigabitethernet 0/2
```

Notifications

If a port is configured as the active port and backup port at the same time, the following notification will be displayed:

```
interface GigabitEthernet 0/1 can not backup itself.
```

If a configured active or backup port has been used to constitute another REUP pair, the following notification will be displayed:

```
interface GigabitEthernet 0/1 have already configured to another reup pair.
```

If the number of configured REUP port pairs reaches the maximum number, the following notification will be displayed:

```
Can not configure more than 16 pair.
```

Common Errors

- The configured active or backup port has been used to constitute another REUP pair.

- When the configured port is not an L2 physical port or L2 aggregate port (AP), this command is not supported.

Platform Description

N/A

Related Commands

N/A

1.2 switchport backup interface preemption mode

Function

Run the **switchport backup interface preemption mode** command to configure the link preemption mode of REUP.

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 link preemption mode of REUP is off mode.

Syntax

switchport backup interface *interface-type interface-number* **preemption mode** { **bandwidth** | **forced** | **off** }

no switchport backup interface *interface-type interface-number* **preemption mode**

default switchport backup interface *interface-type interface-number* **preemption mode**

Parameter Description

interface-type interface-number: Port type and number of the backup link.

bandwidth: Indicates the bandwidth mode, in which a port with a greater bandwidth is preferred for data transmission.

forced: Indicates the forced mode, in which the active port is preferred for data transmission.

off: Indicates the off mode, in which preemption is not performed.

Command Modes

Interface configuration mode

Default Level

14

Usage Guidelines

When this command is configured, if no REUP backup port is configured for an active port, a backup port is automatically configured and added. When the **no** form of this command is run, the backup port is not deleted.

Examples

The following example configures the REUP dual-link backup function, specifies GigabitEthernet 0/1 as the active port and GigabitEthernet 0/2 as the backup port, and sets the link preemption mode of REUP to bandwidth mode.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# interface gigabitethernet 0/1
Hostname(config-if-GigabitEthernet 0/1)# switchport backup interface
gigabitethernet 0/2 preemption mode bandwidth
```

Notifications

If a port is configured as the active port and backup port at the same time, the following notification will be displayed:

```
interface GigabitEthernet 0/1 can not backup itself.
```
If a configured active or backup port has been used to constitute another REUP pair, the following notification will be displayed:

```
interface GigabitEthernet 0/1 have already configured to another reup pair.
```

Common Errors

- The configured active or backup port has been used to constitute another REUP pair.

- When the configured port is not an L2 physical port or L2 AP, this command is not supported.

Platform Description

N/A

Related Commands

- **switchport backup interface**

1.3   switchport backup interface preemption delay

Function

Run the **switchport backup interface preemption delay** command to configure the link preemption delay time of REUP.

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 preemption delay time of REUP is **35** seconds.

Syntax

switchport backup interface *interface-type interface-number* **preemption delay** *interval*

no switchport backup interface *interface-type interface-number* **preemption delay**

default switchport backup interface *interface-type interface-number* **preemption delay**

Parameter Description

interface-type interface-number: Port type and number of the backup link.

interval: Delay time for link preemption, in seconds. The value range is from 1 to 300.

Command Modes

Interface configuration mode

Default Level

14

Usage Guidelines

Preemption delay indicates the delay time for link switching after a faulty link recovers.

It is effective only in bandwidth and forced preemption modes.

When this command is configured, if no REUP backup port is configured for an active port, a backup port is automatically configured and added. When the **no** form of this command is run, the backup port is not deleted.

Examples

The following example configures the REUP dual link backup function, specifies GigabitEthernet 0/1 as the active port and GigabitEthernet 0/2 as the backup port, and sets the link preemption mode of REUP to forced mode and the link preemption delay time to 40s.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# interface gigabitethernet 0/1
Hostname(config-if-GigabitEthernet 0/1)# switchport backup interface
gigabitethernet 0/2 preemption mode forced
Hostname(config-if-GigabitEthernet 0/1)# switchport backup interface
gigabitethernet 0/2 preemption delay 40
```

Notifications

If a port is configured as the active port and backup port at the same time, the following notification will be displayed:

```
interface GigabitEthernet 0/1 can not backup itself.
```

If a configured active or backup port has been used to constitute another REUP pair, the following notification will be displayed:

```
interface GigabitEthernet 0/1 have already configured to another reup pair.
```

Common Errors

● The configured active or backup port has been used to constitute another REUP pair.

● When the configured port is not an L2 physical port or L2 AP, this command is not supported.

Platform Description

N/A

Related Commands

- **switchport backup interface**
- **switchport backup interface preemption mode**

1.4 mac-address-table update group

Function

Run the **mac**-**address**-**table update group** command to configure a MAC address update 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 MAC address update group is configured by default.

Syntax

mac-**address**-**table update group** [*group-id*]

no mac-**address**-**table update group** [*group-id*]

default mac-**address**-**table update group** [*group-id*]

Parameter Description

group-id: ID of a MAC address update group. The value range is from 1 to 8, and the default value is **1**.

Command Modes

Interface configuration mode

Default Level

14

Usage Guidelines

To restore data transmission quickly after link switching, you can use the MAC address update advertising function. MAC address updates can cause massive broadcast packet flooding, which affects normal data transmission of the device. To prevent this consequence, you only need to add all ports in a switching path to the same MAC address update group so that the MAC address changes are synchronized in the group to achieve instant recovery.

Running the **no** and **default** forms of the command without specifying any parameters means that the configuration takes effect in all the update groups.

One port can belong to multiple MAC address update groups, and different types of ports can belong to the same MAC address update group.

Examples

The following example adds port GigabitEthernet 0/1 and GigabitEthernet 0/2 to MAC address update group 1.

```
Hostname> enable
```

```
Hostname# configure terminal
Hostname(config)# interface range gigabitethernet 0/1-2
Hostname(config-if-range)# mac-address-table update group 1
```

Notifications

If the number of member ports in a MAC address update group reaches the maximum value, the following notification will be displayed:

```
Can not configure more than 8 member for a flush group.
```

Common Errors

- The configured MAC address update group ID is not within the allowed value range.

- When the configured port is not an L2 physical port or L2 AP, this command is not supported.

Platform Description

N/A

Related Commands

N/A

1.5   mac-address-table move update transit

Function

Run the **mac**-**address**-**table move update transit** command to enable the function of sending MAC address update private multicast messages.

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

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

No MAC address update private multicast message is sent by default.

Syntax

mac-**address**-**table move update transit**

no mac-**address**-**table move update transit**

default mac-**address**-**table move update transit**

Parameter Description

N/A

Command Modes

Global configuration mode

Default Level

14

Usage Guidelines

To reduce data loss in downstream data streams during link switching, you need to enable the function of sending MAC address update private multicast messages on the device where link switching occurs.

Examples

The following example enables the function of sending MAC address update private multicast messages.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# mac-address-table move update transit
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.6 mac-address-table move update transit vlan

Function

Run the **mac-address-table move update transit vlan** command to configure the ID of a VLAN, in which a port sends MAC address update private multicast messages.

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 VLAN, in which a port sends MAC address update private multicast messages, is the default VLAN of the port.

Syntax

mac-address-table move update transit vlan *vlan-id*

no mac-address-table move update transit vlan

default mac-address-table move update transit vlan

Parameter Description

vlan-id: ID of a VLAN, in which a port sends MAC address update private multicast messages.

Command Modes

Interface configuration mode

Default Level

14

Usage Guidelines

If the REUP dual-link backup and the function of sending MAC address update private multicast messages have been configured on a device, when link switching is performed, the device sends the MAC address update private multicast message that carries a specified VLAN ID to the uplink device.

Examples

The following example sets the ID of a VLAN, in which port GigabitEthernet 0/1 sends MAC address update private multicast messages to 10.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# interface gigabitethernet 0/1
Hostname(config-if-GigabitEthernet 0/1)# mac-address-table move update transit
vlan 10
```

Notifications

If REUP is not configured for the local port, the following notification will be displayed:

```
Please enable REUP first.
```

Common Errors

- REUP is not configured for the local port.

Platform Description

N/A

Related Commands

- **switchport backup interface**
- **mac-address-table move update transit**

1.7 mac-address-table move update max-update-rate

Function

Run the **mac-address-table move update max-update-rate** command to configure the maximum rate for sending MAC address update broadcast 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 default maximum rate for sending MAC address update broadcast packets is **150** packets/second.

Syntax

mac-address-table move update max-update-rate *packet-per-second*

no mac-address-table move update max-update-rate

default mac-address-table move update max-update-rate

Parameter Description

packet-per-second: Maximum rate for sending MAC address update broadcast packets, in packets per second. The value range is from 0 to 32000.

Command Modes

Global configuration mode

Default Level

14

Usage Guidelines

If a device has been configured with REUP dual-link backup, when link switching is performed, a MAC address update broadcast packet is sent to the uplink device at the configured maximum rate to quickly recover downlink data transmission of the uplink device.

When the uplink device is another vendor's device (which does not support receiving MAC address update private multicast messages), the downlink device updates the MAC address by using the default policy (sending broadcast packets regularly), and this command is used to configure the maximum sending rate.

Examples

The following example sets the maximum rate for sending MAC address update packets to 20 packets/second.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# mac-address-table move update max-update-rate 20
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.8 mac-address-table move update receive

Function

Run the **mac-address-table move update receive** command to enable the function of receiving MAC address update private multicast messages.

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

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

No MAC address update private multicast message is received by default.

Syntax

    mac-**address**-**table move update receive**

    no mac-**address**-**table move update receive**

    default mac-**address**-**table move update receive**

Parameter Description

    N/A

Command Modes

    Global configuration mode

Default Level

    14

Usage Guidelines

    When link switching occurs on a device with REUP dual-link backup enabled, forwarding of the downstream data streams is interrupted because the MAC address table of the uplink device is not updated in time. To reduce the interruption time of L2 data streams, the MAC address table of the uplink device can be updated quickly to resume forwarding. Therefore, you need to enable the function of sending MAC address update private multicast messages on the device with dual-link backup enabled and enable the function of receiving MAC address update private multicast messages on the uplink device.

Examples

    The following example enables the function of receiving MAC address update private multicast messages.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# mac-address-table move update receive
```

Notifications

    N/A

Common Errors

    N/A

Platform Description

    N/A

Related Commands

    N/A

1.9   mac-address-table move update receive vlan

Function

    Run the **mac**-**address**-**table move update receive vlan** command to configure a VLAN ID range, in which MAC address update private multicast messages are received.

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

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

The MAC address update private multicast messages in all the VLAN ID ranges are received by default.

Syntax

mac-address-table move update receive vlan *vlan-range*

no mac-address-table move update receive [**vlan** *vlan-range*]

default mac-address-table move update receive [**vlan** *vlan-range*]

Parameter Description

vlan-range: String of the VLAN ID range, in which MAC address update private multicast messages are received. "-" indicates a continuous range, and "," indicates discrete values. The value range is from 1 to 4094.

Command Modes

Global configuration mode

Default Level

14

Usage Guidelines

This command can be used to disable the function of receiving the MAC address update private multicast messages in some VLANs. For a VLAN with the function of receiving MAC address update private multicast messages disabled, MAC address update broadcast packets can be used to recover downlink transmission of the uplink device, but the convergence performance will be decreased in the case of link faults.

The VLAN ID range configured using this command is the incremental configuration. If you need to configure the function of receiving only the MAC address update private multicast messages of a certain VLAN range segment, delete all the VLAN range segments first, and then configure a new VLAN range segment.

Examples

The following example configures the function of receiving the MAC address update private multicast messages of VLAN 10 only.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# no mac-address-table move update receive vlan 1-4094
Hostname(config)# mac-address-table move update receive vlan 10
```

Notifications

If the format of the entered VLAN is incorrect, the following notification will be displayed:

```
% Invalid input detected at '^' marker.
```

Common Errors

- The format of the entered VLAN is incorrect.

Platform Description

N/A

Related Commands

● **mac-address-table move update receive**

1.10   switchport backup interface prefer instance

Function

Run the **switchport backup interface prefer instance** command to configure VLAN load balancing for a port with REUP dual-link backup enabled.

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, no VLAN load balancing is configured for a port with REUP dual-link backup enabled.

Syntax

switchport backup interface *interface-type interface-number* **prefer instance** *instance-range*

no switchport backup interface *interface-type interface-number* **prefer**

default switchport backup interface *interface-type interface-number* **prefer**

Parameter Description

interface-type interface-number: Port type and number of the backup link.

instance-range: Range of instances with VLAN load balancing enabled.

Command Modes

Interface configuration mode

Default Level

14

Usage Guidelines

You can modify the mappings between instances and VLANs by using the instance mapping function of Multiple Spanning Tree Protocol (MSTP).

When this command is configured, if no REUP backup port is configured for an active port, a backup port is automatically configured and added. When the **no** form of this command is run, the backup port is not deleted.

Examples

The following example configures the REUP dual-link backup function, specifies GigabitEthernet 0/1 as the active port and GigabitEthernet 0/2 as the backup port, and configures VLAN load balancing on instance 1.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# interface GigabitEthernet 0/1
Hostname(config-if-GigabitEthernet 0/1)# switchport backup interface
gigabitethernet 0/2 prefer instance 1
```

Notifications

If the port is not in the trunk/hybrid/uplink mode, the following notification will be displayed:

```
Reup vlan loadbalance only support interface on trunk, hybrid or uplink mode.
```
If a port is configured as the active port and backup port at the same time, the following notification will be displayed:

```
interface GigabitEthernet 0/1 can not backup itself.
```
If a configured active or backup port has been used to constitute another REUP pair, the following notification will be displayed:

```
interface GigabitEthernet 0/1 have already configured to another reup pair.
```
If the number of configured instances associated with MSTP reaches the maximum value, the following notification will be displayed:

```
Instance range error, right range is 0-64
```

Common Errors

- The command is configured in the trunk/hybrid/uplink mode on a non-L2 port.
- The number of instances associated with MSTP reaches the maximum value.

Platform Description

N/A

Related Commands

- **switchport backup interface**
- **instance** (Ethernet switching/MSTP)

1.11 link state track

Function

Run the **link state track** command to enable a link state tracking group.

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

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

All the link state tracking groups are disabled by default.

Syntax

link state track [*track-number* | **up-delay** *interval*]

no link state track [*track-number*]

default link state track [*track-number*]

Parameter Description

track-number: ID of a link state tracking group. The value range is from 1 to 2, and the default value is **1**.

up-delay *interval*: Configures the delay time for downlink recovery, in seconds. The value range is 0 to 300, and the default value is **0**.

Command Modes

Global configuration mode

Default Level

14

Usage Guidelines

You must create a link state tracking group first and then add a port to the tracking group.

If no parameter is specified, the default link state tracking group 1 is enabled.

Examples

The following example enables link state tracking group 1.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# link state track 1
```

The following example enables link state tracking group 1, and configures the downlink to recover with a delay of 30s after the uplink recovers.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# link state track 1 up-delay 30
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.12   link state group

Function

Run the **link state group** command to add a port to a specified link state tracking 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 port is added to a link state tracking group by default.

Syntax

link state group [*track-number*] { **upstream** | **downstream** }

no link state group

default link state group

Parameter Description

track-number: ID of a link state tracking group. The value range is from 1 to 2, and the default value is **1**. If this parameter is not specified, the link state tracking group ID is 1.

upstream: Configures an upstream port in the link state tracking group.

downstream: Configures a downstream port in the link state tracking group.

Command Modes

Interface configuration mode

Default Level

14

Usage Guidelines

You must enable a link state tracking group and add a port to the tracking group before this command takes effect.

Examples

The following example enables link state tracking group 1, adds port GigabitEthernet 0/1 as an upstream port of link state tracking group 1 and port GigabitEthernet 0/2 as a downstream port of link state tracking group 1.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# link state track 1
Hostname(config)# interface gigabitethernet 0/1
Hostname(config-if-GigabitEthernet 0/1)# link state group 1 upstream
Hostname(config-if-GigabitEthernet 0/1)# interface gigabitethernet 0/2
Hostname(config-if-GigabitEthernet 0/2)# link state group 1 downstream
```

Notifications

If a port has been configured as a port of a link state tracking group, the following notification will be displayed:

```
Have configured a link state group for this interface GigabitEthernet 0/1.
```

If the number of upstream ports in a link state tracking group reaches the maximum value, the following notification will be displayed:

```
Can not configure more than 8 uplink member for 1st group.
```

Common Errors

N/A

Platform Description

N/A

Related Commands

● **link state track**

1.13   show interfaces switchport backup

Function

Run the **show interfaces switchport backup** command to display the status information of a port with REUP dual-link backup enabled.

Syntax

show interfaces [*interface-type interface-number*] **switchport backup** [**detail**]

Parameter Description

interface-type interface-number: Port type and number. After this parameter is specified, information about the REUP dual-link backup port of a specified port type and number is displayed.

detail: Displays the details of a port with REUP dual-link backup enabled. If this parameter is not specified, the brief information of a port with REUP dual-link backup enabled is displayed.

Command Modes

All modes except the user EXEC mode

Default Level

14

Usage Guidelines

N/A

Examples

The following example displays the brief information of all the ports with REUP dual-link backup enabled.

```
Hostname> enable
Hostname# show interfaces switchport backup


Switch Backup Interface Pairs:
Active Interface          Backup Interface          State
-----------------------------------------------------------------------
Gi0/1                     Gi0/2                     Active Down/Backup Down
Gi0/3                     Gi0/4                     Active Down/Backup Down
Gi0/5                     Ag1                       Active Down/Backup Down
```

The following example displays the details of all the ports with REUP dual-link backup enabled.

```
Hostname> enable
Hostname# show interfaces switchport backup detail


Switch Backup Interface Pairs:
Active Interface          Backup Interface          State
-----------------------------------------------------------------------
Gi0/1                     Gi0/2                     Active Down/Backup Down
Gi0/3                     Gi0/4                     Active Down/Backup Down
Gi0/5                     Ag1                       Active Down/Backup Down
```

```
Interface Pair : Gi0/1, Gi0/2
Preemption Mode : off
Preemption Delay : 35 seconds
Bandwidth : Gi0/1(1000 Mbits), Gi0/2(1000 Mbits)


Interface Pair : Gi0/3, Gi0/4
Preemption Mode : forced
Preemption Delay : 120 seconds
Bandwidth : Gi0/3(1000 Mbits), Gi0/4(1000 Mbits)


Interface Pair : Gi0/5, Ag1
Preemption Mode : bandwidth
Preemption Delay : 180 seconds
Bandwidth : Gi0/5(1000 Mbits), Ag1(10000 Mbits)
```

The following example displays the details of port GigabitEthernet 0/1 with REUP dual-link backup enabled.

```
Hostname> enable
Hostname# show interfaces switchport backup detail

Switch Backup Interface Pairs:
Active Interface          Backup Interface        State
--------------------------------------------------------------------
Gi0/1                     Gi0/2                   Active Up/Backup Standby

Interface Pair : Gi0/1, Gi0/2
Preemption Mode : off
Preemption Delay : 50 seconds
Bandwidth : Gi0/1 (1000 Mbits), Gi0/2(1000 Mbits)
```

Table 1-1Output Fields of the show interfaces switchport backup Command

Field	Description
Active Interface	Active port
Backup Interface	Backup port
State	Member port state (**Active** indicates an active port and **Backup** indicates a backup port): ● **Up**: Indicates the forwarding state. ● **Standby**: Indicates the blocked state. ● **Down**: Indicates that the port link is down. ● **Error**: Indicates unknown state.
Interface Pair	Member port list
Preemption Mode	Link preemption mode: ● **Forced**: Indicates forced mode, in which the active port is preferred for data

Field	Description
	transmission.
	● **Bandwidth**: Indicates bandwidth mode, in which the port with a greater bandwidth is preferred for data transmission.
	● **Off**: Indicates that the preemption mode is off, namely, no preemption is performed.
Preemption Delay	Link preemption delay, indicating the delay time for link switching after the faulty link recovers
Bandwidth	Bandwidth of the member port

Notifications

N/A

Platform Description

N/A

Related Commands

N/A

1.14 show mac-address-table update group

Function

Run the **show mac**-**address**-**table update group** command to display the information about a MAC address update group.

Syntax

show mac-**address**-**table update group** [**detail**]

Parameter Description

detail: Displays the details of a MAC address update group.

Command Modes

All modes except the user EXEC mode

Default Level

14

Usage Guidelines

N/A

Examples

The following example displays the brief information of a MAC address update group.

```
Hostname>
```

```
Hostname# show mac-address-table update group


Mac-address-table Update Group:1
Member:Gi0/1, Gi0/2
```

The following example displays the details of a MAC address update group.

```
Hostname>
Hostname# show mac-address-table update group detail


Mac-address-table Update Group:1
Received mac-address-table update message count:0
Group member          Receive Count    Last Receive Switch-ID      Receive Time
Gi0/1                 0                0000.0000.0000
Gi0/2                 0                0000.0000.0000
```

Table 1-1Output Fields of the show mac-address-table update group Command

Field	Description
Mac-address-table Update Group	ID of a MAC address update group
Received mac-address-table update message count	Number of the MAC address update private multicast messages received by the MAC address update group
Group member	Member port
Receive Count	Number of the MAC address update private multicast messages received by the member port
Last Receive Switch-ID	Device MAC address in the MAC address update private multicast message received by the member port last time
Receive Time	Time when the member port receives a MAC address update private multicast message last time

Notifications

N/A

Platform Description

N/A

Related Commands

N/A

1.15   show mac-address-table move update

Function

Run the **show mac-address-table move update** command to display the statistics on the MAC address update private multicast messages sent by a port with REUP dual-link backup enabled.

Syntax

show mac-address-table move update

Parameter Description

N/A

Command Modes

All modes except the user EXEC mode

Default Level

14

Usage Guidelines

N/A

Examples

The following example displays the statistics on the MAC address update private multicast messages sent by a port with REUP dual-link backup enabled.

```
Hostname> enable
Hostname# show mac-address-table move update
Mac address table move update status:
Transit:enable
Receive:enable
Max-update-rate:150
Receive vlan:1-4094


Pair: Gi0/1,Gi0/2
Members             Status    Transit Count    Transit VLAN    Last Transit Time
--------------------------------------------------------------------------------
--------------
Gi0/1               Down      0
Gi0/2               Down      0
Pair: Ag1,Ag2
Members             Status    Transit Count    Transit VLAN    Last Transit Time
--------------------------------------------------------------------------------
--------------
Ag1                 Down      0
Ag2                 Down      0
Pair: Gi0/3,Ag3
Members             Status    Transit Count    Transit VLAN    Last Transit Time
```

```
-----------------------------------------------------------------------------
--------------
Gi0/3              Down       0
Ag3                Down       0
```

Table 1-1Output Fields of the show mac-address-table move update Command

Field	Description
Transit	Whether the function of sending MAC address update private multicast messages globally is enabled: ● **enable**: Indicates that the function is enabled. ● **disable**: Indicates that the function is disabled.
Receive	Whether the function of receiving MAC address update private multicast messages globally is enabled: ● **enable**: Indicates that the function is enabled. ● **disable**: Indicates that the function is disabled.
Max-update-rate	Maximum rate for sending MAC address update broadcast packets, in packets per second
Receive vlan	VLAN ID range for receiving MAC address update private multicast messages
Pair	REUP port pair
Members	Members of the REUP port pair
Status	Status of a member port: ● **Up**: Indicates the forwarding state. ● **Standby**: Indicates the blocked state. ● **Down**: Indicates that the port link is down. ● **Error**: Indicates unknown state.
Transit Count	Number of the MAC address update private multicast messages sent by the member port.
Transit VLAN	VLAN range, in which MAC address update private multicast messages are sent by the member port
Last Transit Time	Time when the member port sends a MAC address update private multicast message last time

Notifications

N/A

Platform Description

N/A

Related Commands

N/A

1.16   show link state group

Function

Run the **show link state group** command to display information about a link state tracking group.

Syntax

show link state group

Parameter Description

N/A

Command Modes

All modes except the user EXEC mode

Default Level

14

Usage Guidelines

N/A

Examples

The following example displays information about a link state tracking group.

```
Hostname> enable
Hostname# show link state group

Link State Group:1  Status: Enabled, Down
Up-delay (default 0s): 0(s)
Upstream Interfaces :Gi0/1(Down),Gi0/2(Down)
Downstream Interfaces :Gi0/3(Down)

Link State Group:2  Status: Disabled, Down
Up-delay (default 0s): 0(s)
Upstream Interfaces :
Downstream Interfaces :

(Up):Interface up   (Down):Interface Down   (Dis):Interface disabled
```

Table 1-1Output Fields of the show link state group Command

Field	Description
Link State Group	ID of a link state tracking group
Status	Status of the link state tracking group:

Field	Description
	● **Enabled**: Indicates that the link state tracking group is enabled. ● **Disabled**: Indicates that the link state tracking group is disabled. Working status of the link state tracking group: ● **Up**: Indicates that there is an upstream port with the link in the up status in the tracking group. ● **Down**: Indicates that there is no upstream port with the link in the up status in the tracking group.
Upstream Interfaces	Status of the upstream member port: ● **Up**: Indicates that the port link is in the up status. ● **Down**: Indicates that the port link is in the down status.
Downstream Interfaces	Status of the downstream member port: ● **Dis**: Indicates that the port is in error-disabled status. ● **Up**: Indicates that the port link is in the up status. ● **Down**: Indicates that the port link is in the down status. ● **ERROR**: Indicates that the port status is abnormal.

Notifications

N/A

Platform Description

N/A

Related Commands

N/A