1 MAC Address Commands

Command	Function
clear mac-address-table dynamic	Clear dynamic Media Access Control Address (MAC) address entries.
clear mac-address-table flapping record	Clear the MAC address flapping records.
mac-address-learning (global mode)	Enable the MAC address learning function in global configuration mode.
mac-address-learning (interface mode)	Enable the MAC address learning function in interface configuration mode.
mac-address-table aging-time	Configure the aging time for dynamic MAC address entries.
mac-address-table filtering	Configure a filtering MAC address entry for a specified VLAN.
mac-address-table notification	Enable the MAC address change notification function in global configuration mode.
mac-address-table static	Configure a static MAC address entry.
max-dynamic-mac-count	Configure the upper limit of dynamic MAC addresses learned from a VLAN or an interface.
max-dynamic-mac-count exceed-action	Set the packet forwarding rule to be used after the number of dynamic MAC addresses learned from a VLAN or an interface reaches the upper limit.
show mac-address-learning	Display the MAC address learning capability in interface configuration mode.
show mac-address-table	Display all types of MAC address entries.
show mac-address-table aging-time	Display the aging time of dynamic MAC address entries.
show mac-address-table count	Display statistics about MAC address entries in a MAC address table.
show mac-address-table dynamic	Display dynamic MAC address entries.
show mac-address-table filtering	Display filtering MAC address entries.
show mac-address-table flapping record	Display dynamic MAC address flapping records.

show mac-address-table max-dynamic-mac-count	Display the upper limit of learned dynamic MAC addresses.
show mac-address-table interface	Display static or dynamic MAC address entries for a specified interface.
show mac-address-table notification	Display MAC address change notifications.
show mac-address-table static	Display the static MAC address entries.
show mac-address-table evpn	Display the MAC address entries for an EVPN.
show mac-address-table mlag	Display the MAC address entries for an MLAG.
show mac-address-table vlan	Display all types of MAC address entries for a specified VLAN.
show mac-address-table vsi	Display all types of MAC address entries for a specified VSI.
show mac-address-table vni	Display all types of MAC address entries for a specified VNI.
show mac-address-table all	Display all types of MAC address entries.
snmp trap mac-notification	Enable the MAC address change notification function for an interface.
mac-address-table warning-interval	Configure the interval for reporting MAC address table usage alarms.
mac-address-table warning-threshold	Configure the upper and lower limits for reporting MAC address table usage alarms.
mac-address-table flapping-logging	Enable MAC address flapping detection.
mac-address-table flapping action	Enable the MAC address flapping protection policy.

1.1 clear mac-address-table dynamic

Function

Run the **clear mac-address-table dynamic** command to clear dynamic Media Access Control Address (MAC) address entries.

Syntax

clear mac-address-table dynamic [**address** *mac-address*] [**interface** *interface-type interface-number*] [**vlan** *vlan-id*]

Parameter Description

dynamic: Clears all dynamic MAC address entries.

address *mac-address*: Clears a specified dynamic MAC address entry.

interface *interface-type interface-number*: Clears dynamic MAC addresses on the specified interface.

vlan *vlan-id*: Clears all dynamic MAC addresses in a specified VLAN. *vlan-id*: ID of a specified virtual local area network (VLAN). The value range is from 1 to 4094.

Command Modes

Privileged EXEC mode

Default Level

2

Usage Guidelines

You can use the **show mac-address-table dynamic** command to display all information in a dynamic MAC address table.

Examples

The following example clears all dynamic MAC address entries.

```
Hostname> enable
Hostname# clear mac-address-table dynamic
```

Notifications

N/A

Platform Description

N/A

Related Commands

● **show mac-address-table dynamic**

1.2   clear mac-address-table flapping record

Function

Run the **clear mac-address-table flapping record** command to clear the MAC address flapping records.

Syntax

clear mac-address-table flapping record

Parameter Description

N/A

Command Modes

Privileged EXEC mode

Default Level

2

Usage Guidelines

N/A

Examples

The following example clears the MAC address flapping records.

```
Hostname> enable
Hostname# clear mac-address-table flapping record
```

Notifications

N/A

Platform Description

N/A

Related Commands

N/A

1.3   mac-address-learning (global mode)

Function

Run the **mac-address-learning** command to enable the MAC address learning function in global configuration mode.

Run the **no** form of **mac-address-learning** command to disable the MAC address learning function in global configuration mode.

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

MAC address learning is enabled in global configuration mode by default.

Syntax

mac-address-learning { **enable** | **disable** }

default mac-address-learning

Parameter Description

enable: Enables the MAC address learning function in global configuration mode.

disable: Disables the MAC address learning function in global configuration mode.

Command Modes

Global configuration mode

Default Level

14

Usage Guidelines

When the MAC address learning function is enabled in global configuration mode, the status of the MAC address learning function on an interface is subject to the configuration of the interface. When the MAC address learning function is disabled in global configuration mode, all interfaces do not learn MAC addresses.

Examples

The following example disables MAC address learning in global configuration mode.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# mac-address-learning disable
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

- **mac-address-learning (interface mode)**

1.4 mac-address-learning (interface mode)

Function

Run the **mac-address-learning** command to enable the MAC address learning function in interface configuration mode.

Run the **no** form of this command to disable the MAC address learning function in interface configuration mode.

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

The MAC address learning function is enabled in interface configuration mode by default.

Syntax

    mac-address-learning

    no mac-address-learning

    default mac-address-learning

Parameter Description

    N/A

Command Modes

    Interface configuration mode

Default Level

    14

Usage Guidelines

    Do not disable the MAC address learning function on an interface where the security function is enabled. If the MAC address learning function is disabled, the security function becomes unavailable on the interface.

    If you run the **default interface** command in global configuration mode for an interface that includes L2 sub-interfaces, it is forbidden to restore the MAC address learning function on the interface to the default configuration.

Examples

    The following example disables the MAC address learning function on TenGigabitEthernet 0/1.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# interface tenGigabitEthernet 0/1
Hostname(config-if-TenGigabitEthernet 0/1)# no mac-address-learning
```

Notifications

    N/A

Common Errors

    N/A

Platform Description

    N/A

Related Commands

- **mac-address-learning (global mode)**

1.5   mac-address-table aging-time

Function

Run the **mac-address-table aging-time** command to configure the aging time for dynamic MAC address entries.

Run the **no** form of this command to restore the default configuration.

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

The aging time for dynamic MAC address entries is 300 seconds by default.

Syntax

mac-address-table aging-time *time*

no mac-address-table aging-time

default mac-address-table aging-time

Parameter Description

time: Aging time of dynamic MAC address entries, in seconds. The value ranges from 10 to 1000000. The value **0** indicates no aging.

Command Modes

Global configuration mode

Default Level

14

Examples

The following example sets the aging time of dynamic MAC address entries to 400s.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# mac-address-table aging-time 400
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

- **show mac-address-table aging-time**

1.6 mac-address-table filtering

Function

Run the **mac-address-table filtering** command to configure a filtering MAC address entry for a specified VLAN.

Run the **no** form of this command to delete a filtering MAC address entry.

Run the **default** form of this command to delete a filtering MAC address entry.

No filtering MAC address entry is configured by default.

Syntax

mac-address-table filtering *mac-address* **vlan** *vlan-id*

no mac-address-table filtering *mac-address* **vlan** *vlan-id*

default mac-address-table filtering *mac-address* **vlan** *vlan-id*

Parameter Description

mac-address: Filtering MAC address entry.

vlan *vlan-id*: Specifies a VLAN for which MAC addresses are to be filtered out. *vlan-id*: ID of the specified VLAN. The value range is from 1 to 4094.

Command Modes

Global configuration mode

Default Level

14

Usage Guidelines

After this function is configured, packets with the source or destination MAC address matching the MAC address in the filtering MAC address entry are discarded.

You cannot configure a multicast address as a filtering MAC address. You can use the **show mac-address-table filtering** command to display filtering MAC address settings.

Examples

The following example configures the MAC address 0000.0202.0303 as a filtering MAC address entry for VLAN 3.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# mac-address-table filtering 0000.0202.0303 vlan 3
```

Notifications

When an invalid MAC address is configured in a filtering MAC address entry, the following notification will be displayed:

```
Can not set this filter address.
```

Common Errors

N/A

Platform Description

N/A

Related Commands

● **[show mac-address-table filtering](#)**

1.7 mac-address-table notification

Function

Run the **mac-address-table notification** command to enable the MAC address change notification function in global configuration mode.

Run the **no** form of this command to restore the default configuration.

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

The MAC address change notification function is disabled in global configuration mode by default.

Syntax

mac-address-table notification [**interval** *interval* | **history-size** *size*]

no mac-address-table notification [**interval** | **history-size**]

default mac-address-table notification [**interval** | **history-size**]

Parameter Description

interval *interval*: Specifies the interval for sending MAC address Trap messages. The value range is from 1 to 3600 in seconds, and the default value is **1**.

history-size *size*: Specifies the maximum number of entries in the history table for MAC address entry change notifications. The value range is from 1 to 1200, and the default value is **50**.

Command Modes

Global configuration mode

Default Level

14

Usage Guidelines

The MAC address change notification function applies to dynamic MAC address entries and security MAC address entries only. No Trap notification is generated for static MAC address entries and filtering MAC address entries.

You can run the **snmp-server enable traps mac-notification** command in global configuration mode to send MAC address Trap messages to the Network Management Station (NMS).

Examples

The following example enables the MAC address change notification function in global configuration mode, sets the interval for sending MAC address Traps to 40s, and sets the maximum number of MAC address change notification history records to 100.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# mac-address-table notification
Hostname(config)# mac-address-table notification interval 40
Hostname(config)# mac-address-table notification history-size 100
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

- **snmp-server enable traps mac-notification** (network management and monitoring/SNMP)

- **snmp-server host** (network management and monitoring/SNMP)

- **snmp trap mac-notification**

1.8 mac-address-table static

Function

Run the **mac-address-table static** command to configure a static MAC address entry.

Run the **no** form of this command to delete a static MAC address entry.

Run the **default** form of this command to delete a static MAC address entry.

No static MAC address entry is configured by default.

Syntax

mac-address-table static *mac-address* **vlan** *vlan-id* **interface** *interface-type interface-number*

no mac-address-table static *mac-address* **vlan** *vlan-id* **interface** *interface-type interface-number*

default mac-address-table static *mac-address* **vlan** *vlan-id* **interface** *interface-type interface-number*

Parameter Description

mac-address: Destination MAC address in a static MAC address entry.

vlan *vlan-id*: Specifies a VLAN to which an egress interface belongs. *vlan-id*: ID of the specified VLAN. The value range is from 1 to 4094.

interface *interface-type interface-number*: Specifies an egress interface for packets whose MAC address matches the static MAC address entry.

Command Modes

Global configuration mode

Default Level

14

Usage Guidelines

Static MAC addresses have the same function as learned dynamic MAC addresses. Compared with dynamic MAC addresses, static MAC addresses never age and they must be manually configured and deleted. Static MAC addresses are not cleared after device reset. You can use the **show mac-address-table static** command to display static MAC address table settings.

You cannot configure a multicast address as a static MAC address.

Examples

The following example configures a static MAC address entry and sets the destination MAC address to 00e1-00e2-00e3 and the egress interface to TenGigabitEthernet 0/1 in VLAN 2.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# mac-address static 00e1-00e2-00e3 vlan 2 interface
TenGigabitEthernet 0/1
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

● **show mac-address-table static**

1.9 max-dynamic-mac-count

Function

Run the **max-dynamic-mac-count** command to configure the upper limit of dynamic MAC addresses learned from a VLAN or an interface.

Run the **no** form of this command to restore the default configuration.

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

No upper limit of dynamic MAC addresses learned from a VLAN or an interface is configured by default.

Syntax

max-dynamic-mac-count *count*

no max-dynamic-mac-count

default max-dynamic-mac-count

Parameter Description

count: Upper limit of dynamic MAC addresses learned from a specified VLAN or interface. The value range is from 1 to 65535.

Command Modes

VLAN configuration mode

Interface configuration mode

Default Level

14

Usage Guidelines

After you run this command, the device will disable the MAC address learning function for the interface or VLAN if the number of dynamic MAC addresses learned from the interface or VLAN reaches the upper limit.

If the number of MAC addresses learned from the interface or VLAN is greater than the upper limit, the device will stop learning MAC addresses from the interface or VLAN and will not start learning again until the number drops below the limit as aged addresses entries are deleted.

You can run the **show mac-address-table max-dynamic-mac-count** command to display the upper limit of dynamic MAC addresses learned from the interface or VLAN and the learning result.

If you run the **default interface** command in global configuration mode for an interface that includes L2 subinterfaces, the upper limit of the MAC addresses learned from the interface cannot be restored to the default configuration.

Examples

The following example sets the upper limit of MAC addresses learned from VLAN 1 to 160.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# vlan 1
Hostname(config-vlan)# max-dynamic-mac-count 160
```

The following example sets the upper limit of MAC addresses learned from tenGigabitEthernet 0/1 to 160.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# interface tenGigabitEthernet 0/1
Hostname(config-if-TenGigabitEthernet 0/1)# max-dynamic-mac-count 160
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

- **[max-dynamic-mac-count exceed-action](#)**

- **[show mac-address-table max-dynamic-mac-count](#)**

1.10   max-dynamic-mac-count exceed-action

Function

Run the **max-dynamic-mac-count exceed-action** command to set the packet forwarding rule to be used after the number of dynamic MAC addresses learned from a VLAN or an interface reaches the upper limit.

Run the **no** form of this command to restore the default configuration.

By default, the device can continue forwarding packets whose source MAC address does not exist in the MAC address entries of the device when the number of learned MAC addresses reaches the upper limit.

Syntax

max-dynamic-mac-count exceed-action { *forward* | *discard* }

no max-dynamic-mac-count exceed-action { *forward* | *discard* }

Parameter Description

forward: The device can continue forwarding packets whose source MAC address does not exist in the MAC address entries of the device after the number of learned dynamic MAC addresses reaches the upper limit, without learning the source MAC address.

discard: The device discards packets whose source MAC address does not exist in the MAC address entries of the device after the number of learned dynamic MAC addresses reaches the upper limit.

Command Modes

VLAN configuration mode

Interface configuration mode

Default Level

14

Usage Guidelines

Run the command to determine whether to forward packets whose source MAC addresses are not in the MAC address table after the number of MAC addresses reaches the upper limit.

If you run the **default interface** command in global configuration mode for an interface that includes L2 subinterfaces, the packet forwarding rule applied to the interface cannot be restored to the default configuration.

Examples

The following example sets the upper limit of MAC addresses learned from VLAN 1 to 160 and enables forwarding of packets in this VLAN even when the number of MAC addresses learned from the VLAN reaches 160.

```
Hostname> enable
```

```
Hostname# configure terminal
Hostname(config)# vlan 1
Hostname(config-vlan)# max-dynamic-mac-count 160
Hostname(config-vlan)# max-dynamic-mac-count exceed-action forward
```

The following example sets the upper limit of MAC addresses learned from TenGigabitEthernet 0/1 to 160 and enables forwarding of packets on this interface even when the number of MAC addresses learned from the interface reaches 160.

```
Hostname> enable
Hostname#configure terminal
Hostname(config)# interface tenGigabitEthernet 0/1
Hostname(config-if-TenGigabitEthernet 0/1)# max-dynamic-mac-count 160
Hostname(config-if-TenGigabitEthernet 0/1)# max-dynamic-mac-count exceed-action
forward
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

- **max-dynamic-mac-count**
- **show mac-address-table max-dynamic-mac-count**

1.11   show mac-address-learning

Function

Run the **show mac-address-learning** command to display the MAC address learning capability in interface configuration mode.

Syntax

show mac-address-learning

Parameter Description

N/A

Command Modes

All modes except the user EXEC mode

Default Level

2

Usage Guidelines

N/A

Examples

The following example displays the MAC address learning capability in interface configuration mode.

```
Hostname> enable
Hostname# show mac-address-learning
TenGigabitEthernet 0/0      learning ability: disable
TenGigabitEthernet 0/1      learning ability: enable
TenGigabitEthernet 0/2      learning ability: enable
TenGigabitEthernet 0/3      learning ability: enable
```

Table 1-1Output Fields of the show mac-address-learning Command

Field	Description
Interface type interface number	Interface type and interface name
learning ability	MAC address learning capability in interface configuration mode: ● **enable**: The MAC address learning function of an interface is enabled and the device can learn dynamic MAC addresses from this interface. ● **disable**: The MAC address learning function of an interface is disabled and the device cannot learn dynamic MAC addresses from this interface.

Notifications

N/A

Platform Description

N/A

Related Commands

N/A

1.12   show mac-address-table

Function

Run the **show mac-address-table** command to display all types of MAC address entries.

Syntax

show mac-address-table [**address** *mac-address*] [[**vlan** *vlan-id*] [**interface** *interface-type interface-number*] | **vsi** *vsi-id* | **vni** *vni-id*]

Parameter Description

address *mac-address*: Displays the MAC address entry of a specified MAC address.

vlan *vlan-id*: Displays the MAC address entries for a specified VLAN. *vlan-id*: ID of the specified VLAN. The value range is from 1 to 4094.

interface *interface-type interface-number*: Displays the MAC address entries for a specified interface.

vsi-id: Displays the MAC address entries for a specified virtual switch interface (VSI). *vsi-id*: ID of the specified VSI. The value range is from 1 to 2147483647.

vni-id: Displays the MAC address entries for a specified virtual network interface (VNI). *vni-id:*-id: ID of the specified VNI. The value range is from 1 to 16777215.

Command Modes

All modes except the user EXEC mode

Default Level

2

Usage Guidelines

You can use this command to display all types of MAC address entries for a specified VLAN, interface, VSI, and VNI.

Examples

The following example displays the MAC address entry corresponding to the MAC address 00d0.f800.1001.

```
Hostname> enable
Hostname # show mac-address-table address 00d0.f800.1001
Vlan        MAC Address         Type     Interface              Live Time
------  ---------------- -------- ------------------ ---- -------------
1           00d0.f800.1001      STATIC   TenGigabitEthernet 0/1
```
The following example displays all MAC address entries.

```
Hostname> enable
Hostname# show mac-address-table
Vlan        MAC Address         Type     Interface              Live Time
------  ---------------- -------- ------------------ ---- -------------
1           00d0.f800.1001      STATIC   TenGigabitEthernet 0/1  -
1           00d0.f800.1002      DYNAMIC  TenGigabitEthernet 0/1  1d 00:21:22
1           00d0.f800.1003      OTHER    TenGigabitEthernet 0/1  -
1           00d0.f800.1004      FILTER   Not available          -
```

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

Field	Description
Vlan	VLAN to which the MAC address belongs.
MAC Address	MAC address
Type	Type of the MAC address: ● **STATIC**: static MAC address ● **DYNAMIC**: dynamic MAC address

	• **FILTER**: filtering MAC address • **OTHER**: MAC address of a user authenticated via 802.1X, MAB, or Web-based authentication
Interface	Interface to which the MAC address belongs
Live Time	Keep-alive time of the MAC address

The following example displays the MAC address entries that contain the source MAC address 1234.2222.3333 in VSI 1.

```
Hostname> enable
Hostname# show mac-address-table address 1234.2222.3333 vsi 1
VLAN/VSI/VNI   MAC Address          Type      Learned-From          Live Time
-------------- ------------------- ------- -------------------- -------------
-/1/-          1234.2222.3333       STATIC    TenGigabitEthernet 0/1   -
```

Table 1-2Output Fields of the show mac-address-table vsi/vni Command

Field	Description
VLAN/VSI/VNI	VLAN/VSI/VNI to which the MAC address belongs
MAC Address	MAC address
Type	Type of the MAC address: • **STATIC**: static MAC address • **DYNAMIC**: dynamic MAC address • **FILTER**: filtering MAC address • **OTHER**: MAC address of a user authenticated via 802.1X, MAB, or Web-based authentication
Learned-From	Interface to which the MAC address belongs
Live Time	Keep-alive time of the MAC address

Notifications

N/A

Platform Description

N/A

Related Commands

N/A

1.13   show mac-address-table aging-time

Function

Run the **show mac-address-table aging-time** command to display the aging time of dynamic MAC address entries.

Syntax

> **show mac-address-table aging-time**

Parameter Description

> N/A

Command Modes

> All modes except the user EXEC mode

Default Level

> 2

Usage Guidelines

> N/A

Examples

> The following example displays the aging time of dynamic MAC address entries.

```
Hostname> enable
Hostname# show mac-address-table aging-time
Aging time    : 300
```

Table 1-1Output Fields of the show mac-address-table aging-time Command

Field	Description
Aging time	Aging time

Notifications

> N/A

Platform Description

> N/A

Related Commands

> ● **mac-address-table aging-time**

1.14   show mac-address-table count

Function

> Run the **show mac-address-table count** command to display statistics about MAC address entries in a MAC address table.

Syntax

> **show mac-address-table count** [**interface** *interface-type interface-number* | **vlan** *vlan-id*]

Parameter Description

interface *interface-type interface-number*: Displays statistics about all MAC address entries for a specified interface.

vlan *vlan-id*: Displays statistics about all MAC address entries for a specified VLAN. *vlan-id*: ID of the specified VLAN. The value range is from 1 to 4094.

Command Modes

All modes except the user EXEC mode

Default Level

2

Usage Guidelines

If you do not specify any parameter in this command, statistics about all MAC address entries are displayed.

Examples

The following example displays the numbers of various types of MAC address entries.

```
Hostname> enable
Hostname# show mac-address-table count
Dynamic Address Count  : 1
EVPN    Address Count  : 0
MLAG    Address Count  : 0
Static  Address Count  : 1
Filtering Address Count: 1
Other   Address Count  : 0
Total Mac Addresses    : 3
Total Mac Address Space Available: 63997
```

The following example displays the number of MAC address entries for VLAN 1.

```
Hostname> enable
Hostname# show mac-address-table count vlan 1
Dynamic Address Count  : 7
Static  Address Count  : 0
Filter  Address Count  : 0
Other   Address Count  : 0
Total Mac Addresses    : 7
```

The following example displays the number of MAC address entries for TenGigabitEthernet 0/1.

```
Hostname> enable
Hostname# show mac-address-table count interface tenGigabitEthernet 0/1
Dynamic Address Count  : 10
Static  Address Count  : 0
Filter  Address Count  : 0
Other   Address Count  : 0
Total Mac Addresses    : 10
```

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

Field	Description
Dynamic Address Count	Number of dynamic MAC addresses
Static Address Count	Number of static MAC addresses
Filter Address Count	Number of filtering MAC addresses
Other Address Count	MAC address of a user authenticated via 802.1X, MAB, or WEB authentication
EVPN Address Count	Number of EVPN MAC addresses
MLAG Address Count	Number of MLAG MAC addresses
Total Mac Addresses	Total number of MAC addresses

Notifications

N/A

Platform Description

N/A

Related Commands

N/A

1.15   show mac-address-table dynamic

Function

Run the **show mac-address-table dynamic** command to display dynamic MAC address entries.

Syntax

show mac-address-table dynamic [**address** *mac-address*] [**vlan** *vlan-id*] [**interface** *interface-type interface-number*]

Parameter Description

address *mac-address*: Displays a specified dynamic MAC address entry.

vlan *vlan-id*: Displays all dynamic MAC addresses for a specified VLAN. *vlan-id*: ID of the specified VLAN. The value range is from 1 to 4094.

interface *interface-type interface-number*: Displays all dynamic MAC addresses for a specified interface.

Command Modes

All modes except the user EXEC mode

Default Level

2

Usage Guidelines

If you do not specify any parameter in this command, all dynamic MAC address entries are displayed.

Examples

The following example displays all dynamic MAC address entries.

```
Hostname> enable
Hostname# show mac-address-table dynamic
Vlan      MAC Address       Type      Interface          Live Time
------  ----------------  --------  ------------------  --------------
1      0000.0000.0001     DYNAMIC   TenGigabitEthernet 0/1  1d 00:18:00
1      0001.960c.a740     DYNAMIC   TenGigabitEthernet 0/1  1d 00:21:22
1      0007.95c7.dff9     DYNAMIC   tTenGigabitEthernet 0/1  1d 00:31:30
1      0007.95cf.eee0     DYNAMIC   TenGigabitEthernet 0/1  1d 00:35:40
1      0007.95cf.f41f     DYNAMIC   TenGigabitEthernet 0/1  1d 00:48:45
1      0009.b715.d400     DYNAMIC   TenGigabitEthernet 0/1  1d 00:52:55
1      0050.bade.63c4     DYNAMIC   TenGigabitEthernet 0/1  1d 00:55:56
```

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

Field	Description
Vlan	VLAN to which the MAC address belongs.
MAC Address	MAC address
Type	Type of the MAC address.
Interface	Interface to which the MAC address belongs
Live Time	Keep-alive time of the MAC address

Notifications

N/A

Platform Description

N/A

Related Commands

N/A

1.16   show mac-address-table filtering

Function

Run the **show mac-address-table filtering** command to display filtering MAC address entries.

Syntax

show mac-address-table filtering [**address** *mac-address*] [**vlan** *vlan-id* | **vni** *vni-id* | **vsi** *vsi-id*]

Parameter Description

mac-address: Specified filtering MAC address.

vlan *vlan-id*: Displays a filtering MAC address for a specified VLAN. *vlan-id*: ID of the specified VLAN. The value range is from 1 to 4094.

vni-id: ID of a specified VNI for which filtering MAC addresses are to be displayed. The value range is from 1 to 16777215.

vsi-id: ID of a specified VSI for which filtering MAC addresses are to be displayed. The value range is from 1 to 2147483647.

Command Modes

All modes except the user EXEC mode

Default Level

2

Usage Guidelines

N/A

Examples

The following example displays the MAC address filtering table.

```
Hostname> enable
Hostname# show mac-address-table filtering
Vlan        MAC Address         Type    Interface            Live Time
---------- ------------------ ------- -------------------- -------------
1           0000.2222.2222      FILTER  Not available        -
```

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

Field	Description
Vlan	VLAN to which the MAC address belongs.
MAC Address	MAC address
Type	Type of the MAC address.
Interface	Interface to which the MAC address belongs
Live Time	Keep-alive time of the MAC address

Notifications

N/A

Platform Description

N/A

Related Commands

N/A

1.17   show mac-address-table flapping record

Function

Run the **show mac-address-table flapping record** command to display dynamic MAC address flapping records.

Syntax

show mac-address-table flapping record

Parameter Description

N/A

Command Modes

All modes except the user EXEC mode

Default Level

2

Usage Guidelines

You can use the **mac-address-table flapping-logging** command to enable the MAC address flapping detection function and then use the **show mac-address-table flapping record** command to display the MAC address flapping records.

Examples

The following example displays the dynamic MAC address flapping records.

```
Hostname> enable
Hostname# show mac-address-table flapping record
 Mac address flapping detect status       : on
 Mac address flapping detect interval     : 1s
 Mac address flapping syslog supress time : 1800s
 Mac address flapping record max count    : 300
 Mac address flapping record total count  : 5
Move-Time              VLAN MAC-Address    Original-Port Move-Ports    Status
-----------------------------------------------------------------------------
 2020.11.14 12:10:46  1    0001.1111.1111 te0/2          te0/1
Normal
 2020.11.14 12:10:58  1    0001.1111.1111 te0/1          te0/2
Normal
 2020.11.14 12:11:1   1    0001.1111.1111 te0/2          te0/1
Normal
 2020.11.14 12:11:11  1    0001.1111.1111 te0/1          te0/2
Normal
```

```
 2020.11.14 12:11:13   1     0001.1111.1111 te0/2              te0/1
Normal
```

Table 1-1Output Fields of the show mac-address-table flapping record Command

Field	Description
Move-Time	Specifies the time at which the dynamic MAC address flapping occurs.
VLAN	Specifies the VLAN where the dynamic MAC address flapping occurs.
MAC-Address	MAC address
Original-Port	Specifies the interface from which the dynamic MAC address is learned before MAC address flapping.
Move-Ports	Specifies the interface from which the dynamic MAC address is learned after MAC address flapping.
Status	Specifies the currently valid flapping protection policy. ● **Normal**: No flapping protection policy is set. ● **ERR-DOWN**: The interface is disabled after MAC address flapping.

Notifications

N/A

Platform Description

N/A

Related Commands

● **mac-address-table flapping-logging**

1.18   show mac-address-table max-dynamic-mac-count

Function

Run the **show mac-address-table max-dynamic-mac-count** command to display the upper limit of learned dynamic MAC addresses.

Syntax

show mac-address-table max-dynamic-mac-count { **interface** *interface-type interface-number* | **vlan** *vlan-id* }

Parameter Description

interface *interface-type interface-number*: Displays the upper limit of dynamic MAC addresses learned from a specified interface.

vlan *vlan-id*: Displays the upper limit of dynamic MAC addresses learned from a specified VLAN. *vlan-id*: ID of the specified VLAN. The value range is from 1 to 4094.

Command Modes

All modes except the user EXEC mode

Default Level

2

Usage Guidelines

N/A

Examples

The following example displays the dynamic MAC address learning results of all VLANs for which an upper limit of learned dynamic MAC addresses is specified.

```
Hostname> enable
Hostname# show mac-address-table max-dynamic-mac-count vlan
Vlan Limit   MAC count Learning
---- ------ ---------- ------
1    160        6        YES
```

The following example displays the dynamic MAC address learning result of VLAN 1.

```
Hostname> enable
Hostname# show mac-address-table max-dynamic-mac-count vlan 1
Vlan Limit   MAC count Learning
---- ------ ---------- ------
1    160        6        YES
```

The following example displays the dynamic MAC address learning results of all interfaces for which an upper limit of learned dynamic MAC addresses is specified.

```
Hostname> enable
Hostname# show mac-address-table max-dynamic-mac-count interface
Interface              Limit   MAC count Learning
---- ------ ---------- ------
TenGigabitEthernet 0/1     160      6        YES
```

The following example displays the dynamic MAC address learning result of TenGigabitEthernet 0/1.

```
Hostname> enable
Hostname# show mac-address-table max-dynamic-mac-count interface
tenGigabitEthernet 0/1
Interface              Limit   MAC count Learning
---- ------ ---------- ------
TenGigabitEthernet 0/1    160      6        YES
```

Table 1-1Output Fields of the show mac-address-table max-dynamic-mac-count Command

Field	Description
Vlan	VLAN ID
Interface	Interface name
Limit	Upper limit of learned MAC addresses

Field	Description
MAC count	Number of dynamic MAC addresses learned from the current VLAN
Learning	Status of the MAC address learning function for an interface or a VLAN ● **YES**: enabled ● **NO**: disabled

Notifications

N/A

Platform Description

N/A

Related Commands

N/A

1.19   show mac-address-table interface

Function

Run the **show mac-address-table interface** command to display static or dynamic MAC address entries for a specified interface.

Syntax

show mac-address-table interface *interface-type interface-number*

Parameter Description

interface *interface-type interface-number*: Displays the MAC address entries for a specified interface.

Command Modes

All modes except the user EXEC mode

Default Level

2

Usage Guidelines

You can use this command to display all static and dynamic MAC address entries for a specified interface.

Examples

The following example displays all MAC addresses for TenGigabitEthernet 0/1.

```
Hostname> enable
Hostname# show mac-address-table interface tenGigabitEthernet 0/1
Vlan        MAC Address            Type      Interface           Live Time
--------- ------------------ ------- ------------------- --------------
```

```
1              00d0.f800.1001         STATIC    tTenGigabitEthernet 0/1 -
1              00d0.f800.1002         STATIC    TenGigabitEthernet 0/1 -
1              00d0.f800.1003         STATIC    TenGigabitEthernet 0/1 -
1              00d0.f800.1004         STATIC    TenGigabitEthernet 0/1 -
```

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

Field	Description
Vlan	VLAN to which the MAC address belongs.
MAC Address	MAC address
Type	Type of the MAC address: ● **STATIC**: static MAC address entry ● **DYNAMIC**: dynamic MAC address entry
Interface	Interface to which the MAC address belongs
Live Time	Keep-alive time of the MAC address

Notifications

N/A

Platform Description

N/A

Related Commands

N/A

1.20   show mac-address-table notification

Function

Run the **show mac-address-table notification** command to display MAC address change notifications.

Syntax

show mac-address-table notification [**interface** [*interface-type interface-number*] | **history**]

Parameter Description

interface *interface-type interface-number*: Displays configurations of the MAC address change notification function for a specified interface. If no interface is specified, the configurations of the MAC address change notification function for all interfaces are displayed.

history: Displays the history table for MAC address change notifications.

Command Modes

All modes except the user EXEC mode

Default Level

2

Usage Guidelines

If you do not specify any parameter in this command, the global configurations of the MAC address change notification function are displayed.

Examples

The following example displays the global configurations of the MAC address change notification function.

```
Hostname> enable
Hostname# show mac-address-table notification
MAC Notification Feature : Enabled
Interval(Sec): 300
Maximum History Size : 50
Current History Size : 0
```

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

Field	Description
Interval(Sec)	Interval for generating MAC address change notifications
Maximum History Size	Maximum number of entries in the history table for MAC address change notifications.
Current History Size	Number of current records in the history table for MAC address change notifications.

The following example displays the configurations of the MAC address change notification function for TenGigabitEthernet 0/1.

```
Hostname> enable
Hostname# show mac-address-table notification interface tenGigabitEthernet 0/1
Interface             MAC Added Trap     MAC Removed Trap
-------------------- ----------------- --------------------
TenGigabitEthernet 0/1   Enabled              Enabled
```

Table 1-2Output Fields of the show mac-address-table notification interface Command

Field	Description
Interface	Interface name
MAC Added Trap	Status of the MAC address addition notification function ● **Enabled**: enabled. ● **Disabled**: disabled.
MAC Removed Trap	Status of the MAC address deletion notification function. ● **Enabled**: enabled.

Field	Description
	● **Disabled**: disabled.

Notifications

N/A

Platform Description

N/A

Related Commands

N/A

1.21   show mac-address-table static

Function

Run the **show mac-address-table static** command to display the static MAC address entries.

Syntax

show mac-address-table static [**address** *mac-address*] [**interface** *interface-type interface-number*] [**vlan** *vlan-id*]

Parameter Description

mac-address: Displays the static MAC address entry of a specified MAC address.

interface *interface-type interface-number*: Displays the MAC address entries for a specified interface.

vlan *vlan-id*: Displays the static MAC address entries for a specified VLAN. *vlan-id*: ID of the specified VLAN. The value range is from 1 to 4094.

Command Modes

All modes except the user EXEC mode

Default Level

2

Usage Guidelines

If you do not specify any parameter in this command, all static MAC address entries are displayed.

Examples

The following example displays all static MAC address entries.

```
Hostname> enable
Hostname# show mac-address-table static
Vlan    MAC Address      Type        Interface               Live Time
------ ---------------- ---------- -------------------------------
1       00d0.f800.1001   STATIC      tTenGigabitEthernet 0/1   -
1       00d0.f800.1002   STATIC      TenGigabitEthernet 0/1    -
```

```
1        00d0.f800.1003   STATIC       TenGigabitEthernet 0/1   -
```

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

Field	Description
Vlan	VLAN to which the MAC address belongs.
MAC Address	MAC address
Type	Type of the MAC address.
Interface	Interface to which the MAC address belongs
Live Time	Keep-alive time of the MAC address

Notifications

N/A

Platform Description

N/A

Related Commands

N/A

1.22   show mac-address-table evpn

Function

Run the **show mac-address-table evpn** command to display the MAC address entries for an EVPN.

Syntax

show mac-address-table evpn

Parameter Description

N/A

Command Modes

All modes except the user EXEC mode

Default Level

2

Usage Guidelines

N/A

Examples

The following example displays MAC address information for an EVPN.

```
Hostname> enable
```

```
Hostname# show mac-address-table evpn

VLAN/VSI/VNI   MAC Address      Type      Learned-From           Live Time

------------- -------------- -------- -------------------- -------------

-/1           0026.8b06.64d6    DYNAMIC  TenGigabitEthernet 0/3   0d 16:06:23

-/1           4236.3234.3766    STATIC   TenGigabitEthernet 0/3   -
```

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

Field	Description
VLAN/VSI/VNI	VLAN/VSI/VNI to which the MAC address belongs
MAC Address	MAC address
Type	Type of the MAC address: ● **STATIC**: static MAC address ● **DYNAMIC**: dynamic MAC address
Learned-From	Interface to which the MAC address belongs
Live Time	Keep-alive time of the MAC address

Notifications

N/A

Platform Description

N/A

Related Commands

N/A

1.23   show mac-address-table mlag

Function

Run the **show mac-address-table mlag** command to display the MAC address entries for an MLAG.

Syntax

show mac-address-table mlag

Parameter Description

N/A

Command Modes

All modes except the user EXEC mode

Default Level

2

Usage Guidelines

N/A

Examples

The following example displays MAC address entries for an MLAG.

```
Hostname> enable
Hostname# show mac-address-table mlag

VLAN/VSI/VNI   MAC Address          Type     Learned-From            Live Time
-------------- -------------- -------- ----------------------- -------------
-/1/-          0026.8b06.64d6       DYNAMIC  TenGigabitEthernet 0/3   0d
16:06:23
-/1/-          4236.3234.3831       STATIC   TenGigabitEthernet 0/3   -
```

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

Field	Description
VLAN/VSI/VNI	VLAN/VSI/VNI to which the MAC address belongs
MAC Address	MAC address
Type	Type of the MAC address: ● **STATIC**: static MAC address ● **DYNAMIC**: dynamic MAC address
Learned-From	Interface to which the MAC address belongs
Live Time	Keep-alive time of the MAC address

Notifications

N/A

Platform Description

N/A

Related Commands

N/A

1.24   show mac-address-table vlan

Function

Run the **show mac-address-table vlan** command to display all types of MAC address entries for a specified VLAN.

Syntax

show mac-address-table vlan [*vlan-id*] [**interface** *interface-type interface-number*]

Parameter Description

vlan *vlan-id*: Displays the MAC address entries for a specified VLAN. *vlan-id*: ID of the specified VLAN. The value range is from 1 to 4094.

interface *interface-type interface-number*: Displays the MAC address entries for a specified interface. If you do not specify this parameter, the MAC address entries for a specified VLAN on all interfaces are displayed.

Command Modes

All modes except the user EXEC mode

Default Level

2

Usage Guidelines

N/A

Examples

The following example displays all types of MAC address entries for VLAN 1.

```
Hostname> enable
Hostname# show mac-address-table vlan 1
Vlan    MAC Address      Type        Interface                Live Time
------ -------------- ---------- ------------------------ -------------
1       00d0.f800.1001  STATIC      TenGigabitEthernet 0/1     -
1       00d0.f800.1002  STATIC      TenGigabitEthernet 0/1     -
1       00d0.f800.1003  STATIC      TenGigabitEthernet 0/1     -
```

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

Field	Description
Vlan	VLAN to which the MAC address belongs.
MAC Address	MAC address
Type	Type of the MAC address: ● **STATIC**: static MAC address ● **DYNAMIC**: dynamic MAC address
Interface	Interface to which the MAC address belongs
Live Time	Keep-alive time of the MAC address

Notifications

N/A

Platform Description

N/A

Related Commands

N/A

1.25   show mac-address-table vsi

Function

Run the **show mac-address-table vsi** command to display all types of MAC address entries for a specified VSI.

Syntax

show mac-address-table vsi *vsi-id*

Parameter Description

vsi-id: ID of a VSI for which MAC address entries are to be displayed. The value range is from 1 to 2147483647.

Command Modes

All modes except the user EXEC mode

Default Level

2

Usage Guidelines

N/A

Examples

The following example displays all types of MAC address entries for VSI 1.

```
Hostname> enable
Hostname# show mac-address-table vsi 1
VLAN/VSI/VNI   MAC Address          Type     Learned-From                     Live
Time
------------- ------------------ ------- -------------------------
------------
/1/-          1234.2222.3333       STATIC   TenGigabitEthernet 0/1           -
```

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

Field	Description
VLAN/VSI/VNI	VLAN/VSI/VNI to which the MAC address belongs
MAC Address	MAC address
Type	Type of the MAC address: ● **STATIC**: static MAC address ● **DYNAMIC**: dynamic MAC address
Learned-From	Interface to which the MAC address belongs

Field	Description
Live Time	Keep-alive time of the MAC address

Notifications

N/A

Platform Description

N/A

Related Commands

N/A

1.26   show mac-address-table vni

Function

Run the **show mac-address-table vni** command to display all types of MAC address entries for a specified VNI.

Syntax

show mac-address-table vni *vni-id*

Parameter Description

vni-id: ID of a specified VNI for which the MAC address entries are to be displayed. The value range is from 1 to 16777215.

Command Modes

All modes except the user EXEC mode

Default Level

2

Usage Guidelines

N/A

Examples

The following example displays all types of MAC address entries for VNI 1.

```
Hostname> enable
Hostname# show mac-address-table vni 1
VLAN/VSI/VNI   MAC Address       Type     Learned-From            Live Time
------------- ---------------- ------- ---------------------- -------------
-/1           0026.8b06.64d6   DYNAMIC  TenGigabitEthernet 0/3    0d 16:06:23
```

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

Field	Description
VLAN/VSI/VNI	VLAN/VSI/VNI to which the MAC address belongs
MAC Address	MAC address
Type	Type of the MAC address: ● **STATIC**: static MAC address ● **DYNAMIC**: dynamic MAC address
Learned-From	Interface to which the MAC address belongs
Live Time	Keep-alive time of the MAC address

Notifications

N/A

Platform Description

N/A

Related Commands

N/A

1.27   show mac-address-table all

Function

Run the **show mac-address-table all** command to display all types of MAC address entries.

Syntax

show mac-address-table all

Parameter Description

N/A

Command Modes

All modes except the user EXEC mode

Default Level

2

Usage Guidelines

N/A

Examples

The following example displays all types of MAC address entries.

```
Hostname> enable
```

```
Hostname# show mac-address-table all
VLAN/VSI/VNI   MAC Address          Type     Learned-From          Live Time
------------- -------------------- ------- -------------------- --------------
-/1           0026.8b06.64d6       DYNAMIC  TenGigabitEthernet 0/3    0d
16:06:23
1/-           0000.2692.0000       DYNAMIC  TenGigabitEthernet 0/15   0d
08:01:25
1/-           0012.3247.48ae       DYNAMIC  TenGigabitEthernet 0/15   0d
08:02:40
1/-           001a.a968.e78c       DYNAMIC  TenGigabitEthernet 0/15   0d
06:21:27
1/-           0023.24e3.f694       DYNAMIC  TenGigabitEthernet 0/15   0d
08:00:34
```

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

Field	Description
VLAN/VSI/VNI	VLAN/VSI/VNI to which the MAC address belongs
MAC Address	MAC address
Type	Type of the MAC address: ● **STATIC**: static MAC address ● **DYNAMIC**: dynamic MAC address
Learned-From	Interface to which the MAC address belongs
Live Time	Keep-alive time of the MAC address

Notifications

N/A

Platform Description

N/A

Related Commands

N/A

1.28   snmp trap mac-notification

Function

Run the **snmp trap mac-notification** command to enable the MAC address change notification function for an interface.

Run the **no** form of this command to disable the MAC address change notification function.

Run the **default** form of this command to disable the MAC address change notification function.

The MAC address change notification function is disabled by default.

Syntax

snmp trap mac-notification { **added** | **removed** }

no snmp trap mac-notification { **added** | **removed** }

default snmp trap mac-notification { **added** | **removed** }

Parameter Description

added: Enables the MAC address addition notification function.

removed: Enables the MAC address deletion notification function.

Command Modes

Interface configuration mode

Default Level

14

Usage Guidelines

After the MAC address change notification function is enabled on a device, the device generates a MAC address change notification message when the device learns a new MAC address or has aged a learned MAC address.

You can run the **show mac-address-table notification** command to display configurations of the MAC address change notification function.

Examples

The following example enables the Trap notification message function on TenGigabitEthernet 0/1 for sending a notification message upon MAC address addition.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# interface tenGigabitEthernet 0/1
Hostname(config-if-TenGigabitEthernet 0/1)# snmp trap mac-notification added
```

The following example enables the Trap notification message function on TenGigabitEthernet 0/1 for sending a notification message upon MAC address deletion.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# interface tenGigabitEthernet 0/1
Hostname(config-if-TenGigabitEthernet 0/1)# snmp trap mac-notification removed
```

Notifications

N/A

Platform Description

N/A

Related Commands

● **snmp-server enable traps mac-notification** (network management and monitoring/SNMP)

- **snmp-server host** (network management and monitoring/SNMP)

- **mac-address-table notification**

1.29   mac-address-table warning-interval

Function

Run the **mac-address-table warning-interval** command to configure the interval for reporting MAC address table usage alarms.

Run the **no** form of this command to restore the default configuration.

Run the **default** form of this command to restore the alarm interval to the default value.

The interval for reporting MAC address table usage alarms is 3600s (one hour) by default.

Syntax

mac-address-table warning-interval *interval*

no mac-address-table warning-interval

default mac-address-table warning-interval

Parameter Description

interval: Alarm interval. The value is **0** or ranges from 10 to 7200. The value **0** indicates that the MAC address table usage alarm function is disabled.

Command Modes

Global configuration mode

Default Level

14

Usage Guidelines

N/A

Examples

The following example sets the interval for reporting MAC address table usage alarms to 1800s.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# mac-address-table warning-interval 1800
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.30 mac-address-table warning-threshold

Function

Run the **mac-address-table warning-threshold** command to configure the upper and lower limits for reporting MAC address table usage alarms.

Run the **no** form of this command to restore the default configuration.

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

By default, the upper and lower limits for reporting MAC address table usage alarms are 80% and 70%, respectively.

Syntax

mac-address-table warning-threshold upper-limit *upper-limit-value* **lower-limit** *lower-limit-value*

no mac-address-table warning-threshold

default mac-address-table warning-threshold

Parameter Description

upper-limit-value: Upper limit for reporting MAC address table usage alarms. The value range is from 1 to 100.

lower-limit-value: Lower limit for reporting MAC address table usage alarms. The value range is from 1 to 100.

Command Modes

Global configuration mode

Default Level

14

Usage Guidelines

The value of *lower-limit-value* must be smaller than that of *upper-limit-value*.

If an alarm indicating that the usage exceeds the upper limit is reported, the MAC address table usage exceeds the normal standard. In this case, you are advised to offload the network traffic or expand the capacity.

Examples

The following example sets the upper and lower limits for reporting MAC address table usage alarms to 90% and 30%, respectively.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# mac-address-table warning-threshold upper-limit 90 lower-limit
30
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.31   mac-address-table flapping-logging

Function

Run the **mac-address-table flapping-logging** command to enable MAC address flapping detection.

Run the **no** form or the **default** form of this command to disable MAC address flapping detection.

MAC address flapping detection is disabled by default.

Syntax

mac-address-table flapping-logging

no mac-address-table flapping-logging

default mac-address-table flapping-logging

Parameter Description

N/A

Command Modes

Global configuration mode

Default Level

14

Usage Guidelines

By enabling MAC address flapping detection, you can effectively monitor MAC address flapping events on the L2 network. Each time a MAC address flapping event occurs, the device reports a log alarm message.

Examples

The following example enables MAC address flapping detection.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# mac-address-table flapping-logging
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

- **[mac-address-table flapping action](#)**

1.32　mac-address-table flapping action

Function

Run the **mac-address-table flapping action** command to enable the MAC address flapping protection policy.

Run the **no** form of this command to disable the MAC address flapping protection policy.

Run the **default** form of this command to disable the MAC address flapping protection policy.

The MAC address flapping protection policy is disabled by default.

Syntax

mac-address-table flapping action { **error-down** | **priority** *priority-number* }

no mac-address-table flapping action { **error-down** | **priority** }

default mac-address-table flapping action { **error-down** | **priority** }

Parameter Description

error-down: Specifies the policy applied to an interface: disabling an interface when a MAC address flapping event occurs on this interface.

priority *priotiry-number*: Specifies the priority of the error-down policy on an interface. The value range is from 0 to 5, and the default value is **0**. A larger value means a higher priority.

Command Modes

Interface configuration mode

Default Level

14

Usage Guidelines

This function takes effect only when MAC address flapping detection is enabled.

When the device detects a MAC address flapping event between two interfaces with different priorities, the device reports an alarm message and disables the low-priority interface.

If you run the **default interface** command in global configuration mode for an interface that includes L2 subinterfaces, the MAC flapping protection policy applied to the interface is restored to the default configuration.

Examples

The following example enables MAC address flapping detection and disables TenGigabitEthernet 0/1 when a MAC address flapping event occurs in this interface.

```
Hostname> enable
```

```
Hostname# configure terminal
Hostname(config)# mac-address-table flapping-logging
Hostname(config)# interface tenGigabitEthernet 0/1
Hostname(config-if-TenGigabitEthernet 0/1)# mac-address-table flapping action
error-down
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

● **mac-address-table flapping-logging**