
MAC Address Configuration Commands

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Chapter 1 MAC Address Configuration Commands

1.1 MAC Address Configuration Commands

1.1.1 mac address-table static

Syntax

To add a static MAC address, run `mac address-table static mac-addr vlan vlan-id interface interface-id`. To cancel the static MAC address, run `no mac address-table static mac-addr vlan vlan-id interface interface-id`.

`mac address-table static mac-addr vlan vlan-id interface interface-id`

[no] mac address-table static *mac-addr* **vlan** *vlan-id* **interface** *interface-id*

Parameters

| Parameter | Description |
|---------------------|--|
| <i>mac-addr</i> | MAC address Value range: H.H.H |
| <i>vlan-id</i> | A VLAN that the MAC address belongs to Value range: 1-4094 |
| <i>interface-id</i> | Physical port that the MAC address belongs to. |

Default Value

None

Usage Guidelines

This command is configured in global configuration mode.

Example

The following example shows how to bind MAC address 0004.5600.67ab to port g0/2 of VLAN1.

```
Switch_config# mac address-table static 0004.5600.67ab vlan 1 interface g0/2
```

1.1.2 mac address-table aging-time

Syntax

To configure the aging time of the MAC address table, run the following command.

mac address-table aging-time [0 | 10-1000000]

Parameters

| Parameters | Description |
|-------------------|--|
| 0 | Means that the MAC address never ages. |
| 10-1000000 | Aging time of the MAC address whose unit is second |

Default Value

300s

Usage Guidelines

This command is configured in global configuration mode.

Example

The following example shows how to set the aging time of the MAC address to 100 seconds.

```
Switch_config# mac address-table aging-time 100
```

1.1.3 mac address-table blackhole

Syntax

To add or delete a black hole MAC address, run the following command.

[no] mac address-table blackhole*mac-addr* **vlan** *vlan-id*

Parameters

| Parameters | Description |
|-----------------|--|
| <i>mac-addr</i> | MAC address Value range: H.H.H |
| <i>vlan-id</i> | A VLAN that the MAC address belongs to Value range: 1-4094 |

Default Value

None

Usage Guidelines

This command is configured in global configuration mode.

Example

The following example shows how to configure the address 0004.5600.67ab to the black hole mac on VLAN1.

```
Switch_config# mac address-table blackhole 0004.5600.67ab vlan 1
```

1.1.4 show mac address-table

Syntax

To display the MAC address table of the switch, run the following command.

```
show mac address-table [dynamic [interface interface-id | vlan vlan-id] | static | brief | multicast | interface interface-id | vlan vlan-id | H.H.H | blackhole]
```

Parameters

| Parameters | Description |
|---------------------|---|
| dynamic | Dynamically-learned MAC address table |
| <i>interface-id</i> | Name of an interface |
| <i>vlan-id</i> | VLAN ID Value range: 1-4094 |
| static | Static MAC address table |
| brief | Brief information about the MAC address |
| multicast | Multicast MAC address table |
| Interface | Interface's MAC address table |
| Vlan | Vlan mac address table |
| H.H.H | Specific address |
| Blackhole | Blackhole MAC address; |

Default Value

None

Usage Guidelines

This command is used to display the MAC address table.

Example

The following example shows how to display all dynamic MAC address tables.

```
Switch_config#show mac address-table
```

```
Mac Address Table (Total 2)
```

```
-----
```

| Vlan | Mac Address | Type | Ports |
|------|----------------|---------|-------|
| ---- | ----- | ---- | ---- |
| 1 | 0026.5a7c.fad3 | DYNAMIC | g0/2 |
| 1 | 0000.0000.0004 | DYNAMIC | g0/2 |

1.1.5 clear mac address-table

Syntax

To delete the dynamic MAC address, run the following command.

```
clear mac address-table dynamic [address mac-addr | interface interface-id | vlan vlan-id]
```

Parameters

| Parameters | Description |
|---------------------|---------------------------------|
| <i>mac-addr</i> | MAC address Value range: H.H.H |
| <i>interface-id</i> | Means a name of a L2 interface. |
| <i>vlan-id</i> | VLAN ID Value range: 1-4094 |

Default Value

None

Usage Guidelines

This command is used in EXEC mode.

Example

The following example shows how to clear all dynamically-learned MAC addresses on interface g0/2.

```
Switch# clear mac address-table dynamic interface g0/2
```