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# 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
<b>0</b>	Means that the MAC address never ages.
<b>10-1000000</b>	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
<b>dynamic</b>	Dynamically-learned MAC address table
<i>interface-id</i>	Name of an interface
<i>vlan-id</i>	VLAN ID Value range: 1-4094
<b>static</b>	Static MAC address table
<b>brief</b>	Brief information about the MAC address
<b>multicast</b>	Multicast MAC address table
<b>Interface</b>	Interface's MAC address table
<b>Vlan</b>	Vlan mac address table
<b>H.H.H</b>	Specific address
<b>Blackhole</b>	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
```