

MAC Address Table Attribute Configuration

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Chapter 1 Configuring MAC Address Attribute

1.1 MAC Address Configuration Task List

- Configuring Static Mac Address
- Configuring Mac Address Aging Time
- Configuring blackhole Mac Address
- Displaying Mac Address Table
- Clearing Dynamic Mac Address

1.2 MAC address Configuration Task

1.2.1 Configuring Static Mac Address

Static MAC address entries are MAC address entries that do not age by the switch and can only be deleted manually. According to the actual requirements during the operation process, you can add and delete a static MAC address. Use the following command in privileged level to add and delete a static MAC address.

| Command | Purpose |
|---|--|
| configure | Enters the global configuration mode. |
| [no] mac address-table static mac-addr vlan vlan-id interface interface-id | Adds/deletes a static MAC address entry. Mac-addr indicates the MAC address. Vlan-id indicates the VLAN number. Valid value is from 1~4094. Interface-id indicates the interface name. |
| exit | Returns to EXEC mode. |
| write | Saves configuration. |

1.2.2 Configuring MAC Address Aging Time

When a dynamic MAC address is not used during the specified aging time, the switch will delete this MAC address from the MAC address table. The aging time of the switch MAC address can be configured in terms of needs. The default aging time is 300 seconds.

Configure the aging time of MAC address in the privileged mode as follows:

| Command | Purpose |
|------------------|--------------------------------------|
| configure | Enters the global configuration mode |

| | |
|--|---|
| mac address-table aging-time [0 10-1000000] | Configures the aging time of MAC address. 0 indicates no-age of the MAC address. Valid value is from 10 to 1000000 in seconds. |
| exit | Returns to the management mode. |
| write | Saves configuration. |

1.2.3 Displaying blackhole Mac Address

Blackhole MAC address table entries refer to those entries that are not allowed to communicate and can only be manually deleted. Blackhole MAC addresses can be added and removed according to the actual needs of the use of the switch. Configure the following commands to add and remove a blackhole MAC address:

| Command | Purpose |
|---|--|
| config | Enters the global configuration mode |
| [no] mac address-table blackhole <i>mac-addr</i> vlan <i>vlan-id</i> | Adds/deletes a blackhole MAC address entry. mac-addr indicates the MAC address. Vlan-id indicates the VLAN number. Valid value is from 1~4094. |
| exit | Returns to the management mode. |
| write | Saves configuration. |

1.2.4 Displaying MAC Address Table

Since debugging and management are required in operation process, we want to know content of the switch MAC address table. Use the show command to display content of the switch MAC address table.

| Command | Purpose |
|--|--|
| show mac address-table [dynamic interface <i>interface-id</i> vlan <i>vlan-id</i>] static brief multicast interface <i>interface-id</i> vlan <i>vlan-id</i> H.H.H blackhole] | Dynamic indicates the MAC address that acquires dynamically. Interface-id indicates the interface name. Vlan-id indicates the VLAN number. Valid value is from 1 to 4094. Static indicates the static MAC address table. Brief indicates the brief information of the MAC address. Multicast indicates multicast MAC address table. Interface indicates interface MAC address table. Vlan indicates MAC address table in VLAN. H.H.H indicates specific address. Blackhole indicates BLACKHOLE MAC address table. |

1.2.5 Clearing Dynamic MAC Address

The acquired MAC addresses need to be cleared in some circumstances.

Use the following command to delete a dynamic MAC address in privileged mode:

| Command | Purpose |
|---|---|
| clear mac address-table dynamic [address <i>mac-addr</i> interface <i>interface-id</i> vlan <i>vlan-id</i>] | Deletes a dynamic MAC address entry. Dynamic indicates the MAC address that dynamically acquires. Mac-addr is the MAC address. Interface-id indicates the interface name. Vlan-id indicates the VLAN number. Valid value is from 1 to 4094. |