MAC Address Table Attribute Configuration

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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 Configring VLAN-shared MAC Address

When a port is configured with the VLAN-shared MAC address, the MAC address learned by the port will be shared by all VLAN, that is, other VLANs will learn the MAC address too.

Perform the following steps in privileged mode to configure the MAC address shared by VLANs.

Command	Purpose
configure	Enters the global configuration mode.
interface q0/1	Enters the to-be-configured interface.
switchport shared-learning	Configures the MAC address shared by VLAN.
exit	Returns to the global configuration mode.
exit	Returns to the management mode.
write	Saves configuration.

1.2.4 Displaying MAC Address

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** interface-id | **vlan** vlan-id] | **static**}	Displays content of the MAC address table.
	Dynamic indicates the MAC address that acquires dynamically.
	Vlan-id indicates the VLAN number. Valid value is from 1 to 4094.
	Interface-id indicates the interface name.
	Static indicates the static 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 *mac-addr* | **interface** *interface-id* | **vlan** *vlan-id*]	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.