PoE+ Series Switches MAC Address Table Configuration Guide

Models: S3150-8T2FP
S3260-8T2FP
S3260-16T4FP
S3400-24T4FP
S3400-48T4SP

Contents

1. MAC Address Table Configuration

1.1 MAC Address Configuration Task List

This chapter is to describe the functions of configuring MAC address table on the switch as follow:

- Configuring static MAC address
- Configuring MAC address aging time
- Configuring black hole MAC address
- Displaying MAC address table
- Removing dynamic MAC address

1.2 MAC Address Configuration Tasks

1.2.1 Configuring Static MAC Address

A static MAC address table entry refers to the one that can not be aged by the switch. It only can be deleted manually. Static MAC address can be added or deleted according to the requirements when switches are in use. Enter privilege mode and use the following steps to add or delete a static MAC address.

Command	Purpose
config	Enters the global configuration mode.
[no] mac address-table static mac-addr vlan vlan-id interface interface-id	Add/delete a static MAC address entry. The mac-addr specifiesMACaddress; vlan-id means VLAN number, the effective range is1~4094; The interface-id is a port name.
exit	Goes back to the EXEC mode.
write	Saves the settings.

1.2.2 Configuring MAC Address Aging Time

When a dynamic MAC address is not used within a specified aging time, the switch will delete it from MAC address table. The MAC aging time of a switch can be set according to actual needs and the default aging time is 300 seconds.
Enter EXEC mode, use steps as follow to configure the aging time of MAC address.

Command	Purpose
config	Enters the global configuration mode.
mac address-table aging-time [0 | 10-1000000]	Sets the aging time of theMACaddress table. 0 means the address does not age; The range of MAC address aging time is 10 to 1,000,000 seconds.
exit	Goes back to the EXEC mode.
write	Saves the settings.

1.2.3 Configuring Black Hole MAC

The black hole MAC address entries mean those MAC address entries that cannot communicate but only be removed manually. Black hole MAC address can be added or deleted according to the requirements when switches are in use. Enter EXEC mode and use the following steps to add or delete a static MAC address.

Command	Purpose
config	Enters the global configuration mode.
[no] mac address-table blackholemac-addr vlan vlan-id	Add/delete a black hole MAC address entry. The mac-addr specifiesMACaddress; vlan-id means VLAN number, the effective range is1~4094;
exit	Goes back to the EXEC mode.
write	Saves the settings.

1.2.4　Displaying MAC Address Table

When using switches, we expect to know the information about MAC address table in need of debugging or management. Use show to display MAC address table.

Command	Purpose
show mac address-table [dynamic [interface interface-id | vlan vlan-id] | static | brief | multicast | interface interface-id | vlan vlan-id | H.H.H | blackhole]	Dynamic, specify the MAC address dynamically learned. The interface-id is the interface name. vlan-id 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 MAC address;

1.2.5　Removing Dynamic MAC Address

In some cases, it is necessary to clear up the MAC address which switch has learned.

Enter the privileged mode and use the following commands to delete a dynamic MAC address.

Command	Purpose
clear mac address-table dynamic [address mac-addr | interface interface-id | vlan vlan-id]	Delete a dynamic MAC address entry. dynamic means the MAC address which is learned dynamically. mac-addr means a MAC address. The interface-id is the interface name. The vlan-id isVLANnumber, The value range is 1 to 4094;