

Mac Address Tables

This chapter contains the following sections:

- Static Addresses, on page 1
- Static Address Filtering, on page 2
- Dynamic Address Settings, on page 2
- Dynamic Addresses, on page 2
- Reserve MAC Address, on page 3

Static Addresses

Static MAC addresses are assigned to a specific physical interface and VLAN on the device. If that address is detected on another interface, it's ignored, and isn't written to the address table.

To define a static address, follow these steps:

Step 1 Click MAC Address Tables > Static Addresses.

The Static Addresses page contains the currently defined static addresses.

- Step 2 Click Add.
- **Step 3** Enter the parameters.
 - VLAN ID—Select the VLAN ID for the port.
 - MAC Address—Enter the interface MAC address.
 - Interface—Select an interface for the entry.
 - Status—Select how the entry is treated. The options are:
 - Permanent—The system never removes this MAC address. If the static MAC address is saved in the Startup Configuration, it's retained after rebooting.
 - Delete on reset—The static MAC address is deleted when the device is reset.
 - Delete on timeout—The MAC address is deleted when aging occurs.
 - Secure—The MAC address is secure when the interface is in classic locked mode.

- **Step 4** Click **Apply**. A new entry appears in the table.
- **Step 5** To delete a static address, click the **Delete** icon and then click **Apply** to save the new settings.

Static Address Filtering

Use the Static Address Filtering page to configure the static MAC address filter profiles so that specific MAC addresses will not be assigned to the specified VLANs on the switch. To define a static MAC address filter profile, complete the following steps:

- **Step 1** Click MAC Address Tables > Static Address Filtering.
- Step 2 Click Add.
- **Step 3** Enter the following information:
 - MAC Address—Enter the MAC address.
 - VLAN ID—Select a VLAN ID. The specified MAC address will not be assigned to this VLAN.
- **Step 4** Click **Apply**. The static MAC address filter profile is added, and the Running Configuration is updated.

Dynamic Address Settings

The Dynamic Address Table (bridging table) contains the MAC addresses acquired by monitoring the source addresses of frames entering the device. To prevent this table from overflowing and to make room for new MAC addresses, an address is deleted if no corresponding traffic is received for a certain period of time known as the aging time.

To configure the aging time for dynamic addresses, follow these steps:

- **Step 1** Click MAC Address Tables > Dynamic Address Settings.
- **Step 2** Enter Aging Time. The aging time is a value between the user-configured value and twice that value minus 1. For example, if you entered 300 seconds, the aging time is between 300 and 599 seconds.
- **Step 3** Click **Apply**. The aging time is updated.

Dynamic Addresses

To query dynamic addresses, follow these steps:

- **Step 1** Click MAC Address Tables > Dynamic Addresses.
- **Step 2** In the Filter block, you can enter the following query criteria:

- VLAN ID—Enter the VLAN ID for which the table is queried.
- MAC Address—Enter the MAC address for which the table is queried.
- Interface—Select the interface for which the table is queried. The query can search for specific ports, or LAGs.
- **Step 3** Click **Go**. The Dynamic MAC Address Table is queried and the results are displayed.
- **Step 4** To delete all of the dynamic MAC addresses. click **Clear Table**.

Reserve MAC Address

When the switch receives a frame using a destination MAC address that belongs to a reserved range (per the IEEE standard), the frame can be discarded or bridged.

Use the Reserved MAC Address page to define the MAC addresses to be reserved and the actions how to deal with the frame.

To reserve a MAC address:

- **Step 1** Click MAC Address Tables > Reserve MAC Addresses.
- Step 2 Click Add.
- **Step 3** Enter the following information:
 - MAC Address—Select the MAC address to be reserved.
 - Action —Select one of the following actions to be taken upon the arriving packet that matches the selected criteria:
 - Bridge—Forwards the packet to all VLAN members.
 - Discard—Deletes the packet
- **Step 4** Click **Apply**. The MAC address is reserved, and the Running Configuration is updated.

Reserve MAC Address