MAC Address Tables

This chapter contains the following sections:

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- Dynamic Addresses, on page 2
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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.

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**.

Reserved MAC Addresses

When the device receives a frame with a destination MAC address that belongs to a reserved range (per the IEEE standard), the frame can be discarded or bridged. The entry in the Reserved MAC Address Table can either specify the reserved MAC address or the reserved MAC address and a frame type:

To add an entry for a reserved MAC address, proceed as follows:

Step 1 Click **MAC Address Tables** > **Reserved MAC Addresses**.

The reserved MAC addresses are displayed. The fields are described in the Add page, except for the following field:

Protocol—Displays the protocol supported on the device (called Peer),

Step 2 Click **Add**.

Step 3 Enter the values for the following fields:

- MAC Address—Select the MAC address to be reserved.
- Frame Type—Select a frame type based on the following criteria:
  - Ethernet V2—Applies to Ethernet V2 packets with the specific MAC address.
  - LLC—Applies to Logical Link Control (LLC) packets with the specific MAC address.
  - LLC-SNAP—Applies to Logical Link Control/Sub-Network Access Protocol (LLC-SNAP) packets with the specific MAC address.
  - All—Applies to all packets with the specific MAC address.
- Action—Select one of the following actions to be taken upon receiving a packet that matches the selected criteria:
  - Bridge—Forward the packet to all VLAN members
  - Discard—Delete the packet.

Step 4 Click **Apply**. A new MAC address is reserved.