

Configuration of MAC-Based Groups to VLAN on 300 Series Switches

Objective

A Media Access Control address (MAC address) is a unique identifier given to each network interface. Packets (i.e. messages from a device) can be placed in a VLAN group by their source MAC address. The information in a VLAN group is then sent to a designated VLAN. The 300 Series Managed Switches allow you to define several MAC-based VLAN groups. Once created, these VLAN groups can be assigned to specific ports/LAGs on the switch and forwarded to specific VLANs.

The objective of this document is to show you how to create MAC-based VLAN groups and map them to a specific interface (port/LAG).

Applicable Devices

- SF/SG 300 Series Managed Switches

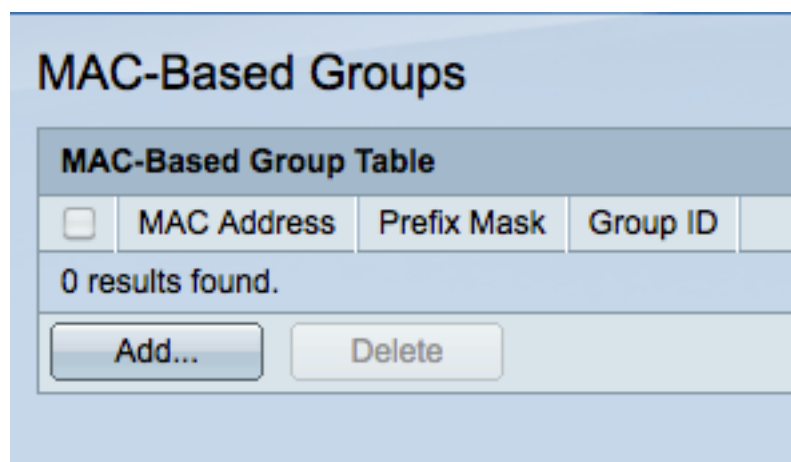
Software Version

- v1.2.7.76

Create MAC-Based VLAN Group

Note: In order to create a MAC-based VLAN group, the switch must be in Layer 2 mode. To change the switch to Layer 2 mode, refer to [System Settings Configuration on 200/300 Series Managed Switches](#).

Step 1. Log in to the web configuration utility and choose **VLAN Management > VLAN Groups > MAC-Based Groups**. The *MAC-Based Groups* page opens.



MAC-Based Group Table			
<input type="checkbox"/>	MAC Address	Prefix Mask	Group ID
0 results found.			
<input type="button" value="Add..."/>		<input type="button" value="Delete"/>	

Step 2. Click **Add** to create a new MAC-based group. The *Add MAC-Based Group* window appears.

MAC Address: 10:10:10:10:10:10
 Prefix Mask: ☒ Host(48) ☐ Length (Range: 9 - 48)
 Group ID: 1234 (Range: 1 - 2147483647)
 Apply Close

Step 3. In the *MAC Address* field, enter a MAC address that you want to configure to a VLAN group.

Step 4. Click the radio button that corresponds to the method you want to use in order to define the *Prefix Mask*. The prefix mask looks at a certain number of bits and then assigns the MAC address to a VLAN group.

- **Host** — The entire MAC address is looked at and put into a group. You can only group MAC addresses one at a time when you use host.
- **Length** — Only a section of the MAC address is looked at (from left to right) and then placed in a group. The lower the length number, the fewer bits are looked at. This means you can assign a large number of MAC addresses to a VLAN group at once. For example, all of the computers in your network are made by the same company.

Step 5. In the *Group ID* field, create and enter a VLAN group ID number with which to identify the MAC-Based VLAN group.

Step 6. Click **Apply** to create the MAC-based group and then click **Close** to exit the *Add MAC-Based Group* window.

Map VLAN Group to VLAN per Interface

Note: You can only map a VLAN group to a port/LAG that is in general mode. To change a port/LAG to general mode, refer to the document [Configure VLAN Interface Settings on 200/300 Managed Switches](#).

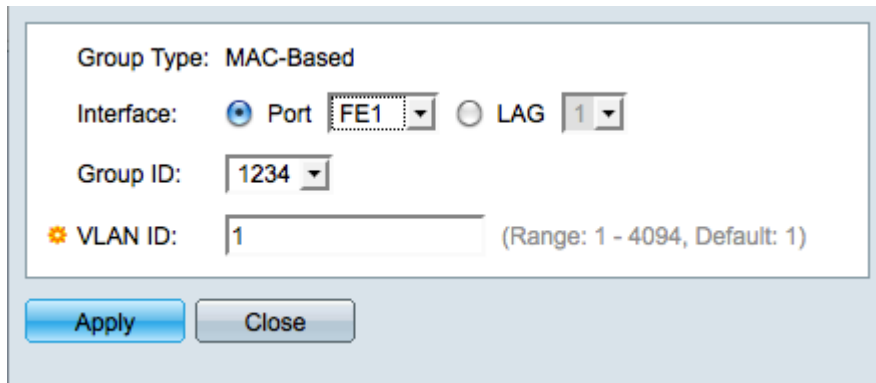
Step 1. Log in to the web configuration utility and choose **VLAN Management > VLAN Groups > MAC-Based Groups to VLAN**. The *MAC-Based Groups to VLAN* page opens.

MAC-Based Groups to VLAN
 Mapping Group to VLAN Table

Interface	Group ID	VLAN ID
0 results found.		

 Add... Edit... Delete

Step 2. Click **Add**. The *Add Group to VLAN Mapping* window appears.



The image shows a configuration window titled "VLAN Mapping". At the top, it says "Group Type: MAC-Based". Below this, the "Interface" field has two radio buttons: "Port" (which is selected) and "LAG". Next to "Port" is a dropdown menu showing "FE1", and next to "LAG" is a dropdown menu showing "1". Below the interface field, the "Group ID" field is a dropdown menu showing "1234". At the bottom, the "VLAN ID" field is a text box containing the number "1", with a note in parentheses: "(Range: 1 - 4094, Default: 1)". At the very bottom of the window are two buttons: "Apply" and "Close".

Step 3. Click the appropriate radio button in the *Interface* field to define an interface, and choose a specific port/LAG from the drop-down list. This interface is mapped to the VLAN group.

- Port — A single physical port on the switch.
- LAG — A bundle of physical ports used to increase bandwidth and provide link redundancy.

Step 4. Choose a VLAN group from the drop-down list in the *Group ID* field. These are the VLAN groups that you created in the previous section.

Step 5. Enter the number of the VLAN to receive the traffic from the VLAN group in the *VLAN ID* field.

Step 6. Click **Apply** to save and then click **Close** to exit the *VLAN Mapping* window.