Address Resolution Protocol (ARP) Configuration on the 200/300 Series Managed Switches

Objectives

ARP (Address Resolution Protocol) is used to keep track of all devices that are directly connected to the switch. The switch maintains an ARP table which has the IP Address and MAC Address of each device connected to the switch. When a packet needs to be routed to a certain device, the switch looks up the device's IP Address in its ARP Table to obtain the MAC Address of the destination device. The ARP table gives useful information about the different devices connected. In case the switch can't tell if a device is connected or not, the ARP table can help to determine this issue. Also, you can manually add devices to the ARP table, which gives more security to the network as you keep track of which devices are part of the ARP table.

This article explains how to configure ARP and also how to view and add devices to the ARP table on the 200/300 Series Managed Switches.

Applicable Devices

• SF/SG 200 and SF/SG 300 Series

Software Version

• 1.3.0.62

ARP Configuration

Step 1. Log in to the web configuration utility and choose **IP Configuration > ARP**. The *ARP* page opens:

Step 2. In the ARP Entry Age Out field, enter the time, in seconds, an address remains in the ARP table after which the entry is automatically removed from the ARP table.

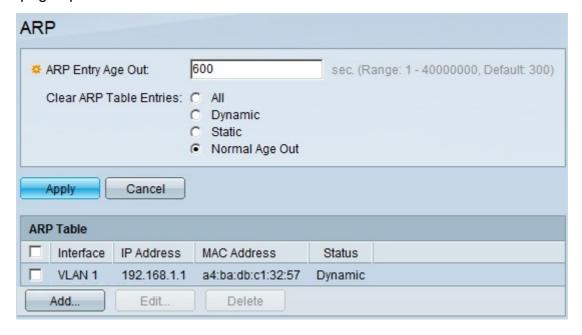Step 3. In the Clear ARP Table Entries field, click one of the following:

- All — Deletes dynamic and static entries in the ARP table.
- Dynamic — Deletes only dynamic entries in the ARP table.
- Static — Deletes only Static entries in the ARP table.
- Normal Aged Out — Deletes dynamic entries based on the ARP Entry Age Out time.

Step 4. Click **Apply**.

ARP Table

This section explains the ARP table and how to add an entry to it.

Step 1. Log in to the web configuration utility and choose **IP Configuration > ARP**. The *ARP* page opens:
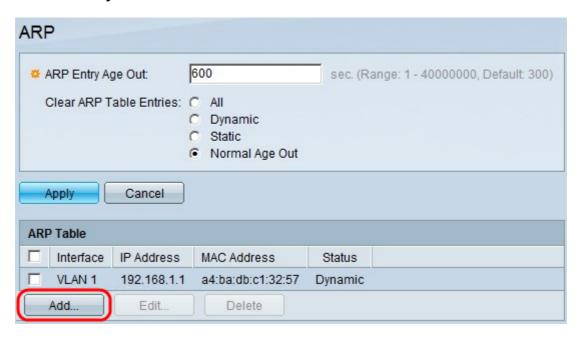

Under ARP Table, you can see the information about the devices the switch has access to.
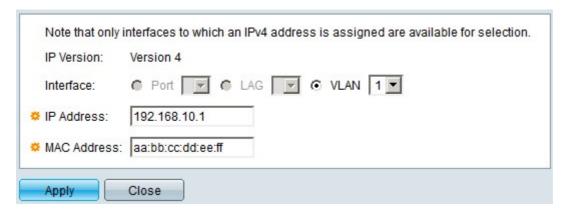
There are four parameters:

- Interface — Shows the type of interface to which the device is connected.
- IP Address — Shows the current IP address of the device.
- MAC Address — Shows the MAC address of the device.
- Status — Shows whether the device is added to the ARP table with a dynamic or static address.

Note: To add an entry in the ARP table, refer to the subsection *Add an Entry*. To edit an entry in the ARP table, refer to the subsection *Edit an Entry*.

Add an Entry

Step 1. Click **Add** to add an entry to the ARP Table. The *Add ARP* windows appear.

Step 2. In the Interface field, click one of the following:

- Port — This option lets you choose a specific port. choose the desired port from the Port drop-down list.
- LAG — This option lets you choose a specific Link Aggregation Group (LAG). Choose the desired LAG from the LAG drop-down list.
- VLAN — This option lets you choose a specific Virtual Local Area Network (VLAN). Choose the desired VLAN from the VLAN drop-down list.

Note: The options shown in the Interface field are only for switches with Layer 3 mode

enabled. For switches with only Layer 2 functionality, the interface field will always be assigned to the default management VLAN.

Step 3. In the IP Address field, enter the IP address of the device you want to add to the ARP table.
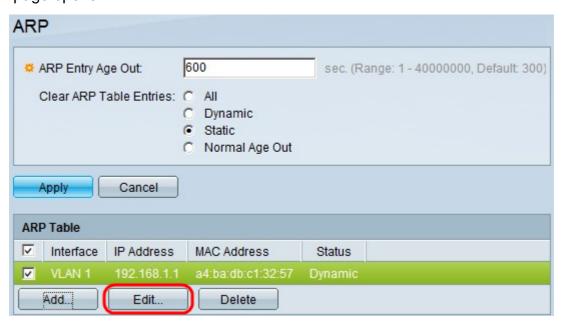
Step 4. In the MAC Address field, enter the MAC address of the device you want to add to the ARP table.

Step 5. Click **Apply** to save your configuration.

Edit an ARP Entry

This section explains how to edit the properties of a specific ARP entry, on the 200/300 Series Managed Switches.

Step 1. Log in to the web configuration utility and choose **IP Configuration > ARP**. The *ARP* page opens:

Step 2. Under the ARP Table section, check the check box of the ARP entry you wish to edit, and then click **Edit**. The *Edit ARP* window appears.

Step 3. In the IP Address drop-down list, choose an available IP address for the device.

Step 4. In the Status field, Click **Dynamic** if you are using a dynamic IP address. Otherwise, click **Static** if the entry is added with a static IP address.

Step 5. Click **Apply** to save your configuration.

Step 6. (Optional) To delete an ARP entry, check the check box of the ARP entry you wish to delete, and click **Delete**.