ARP Configuration on the SG350XG and SG550XG

Objective

Address Resolution Protocol (ARP) is an important network protocol that converts IP addresses into MAC addresses. It accomplishes this by broadcasting a request for MAC addresses from devices that are using the specified IP addresses, and stores the replies in a local ARP table to be referenced later. There are two kinds of addresses that can be held in the ARP table: static and dynamic addresses. A dynamic address is an address that has been added to the table automatically by ARP, and a static address is one that has been entered in manually.

The SG350XG and SG550XG allow you to add, edit, and delete ARP table entries, as well as adjust the amount of time entries stay on the table before being deleted automatically.

The objective of this document is to show you how to configure ARP on the SG350XG and SG550XG.

Applicable Devices

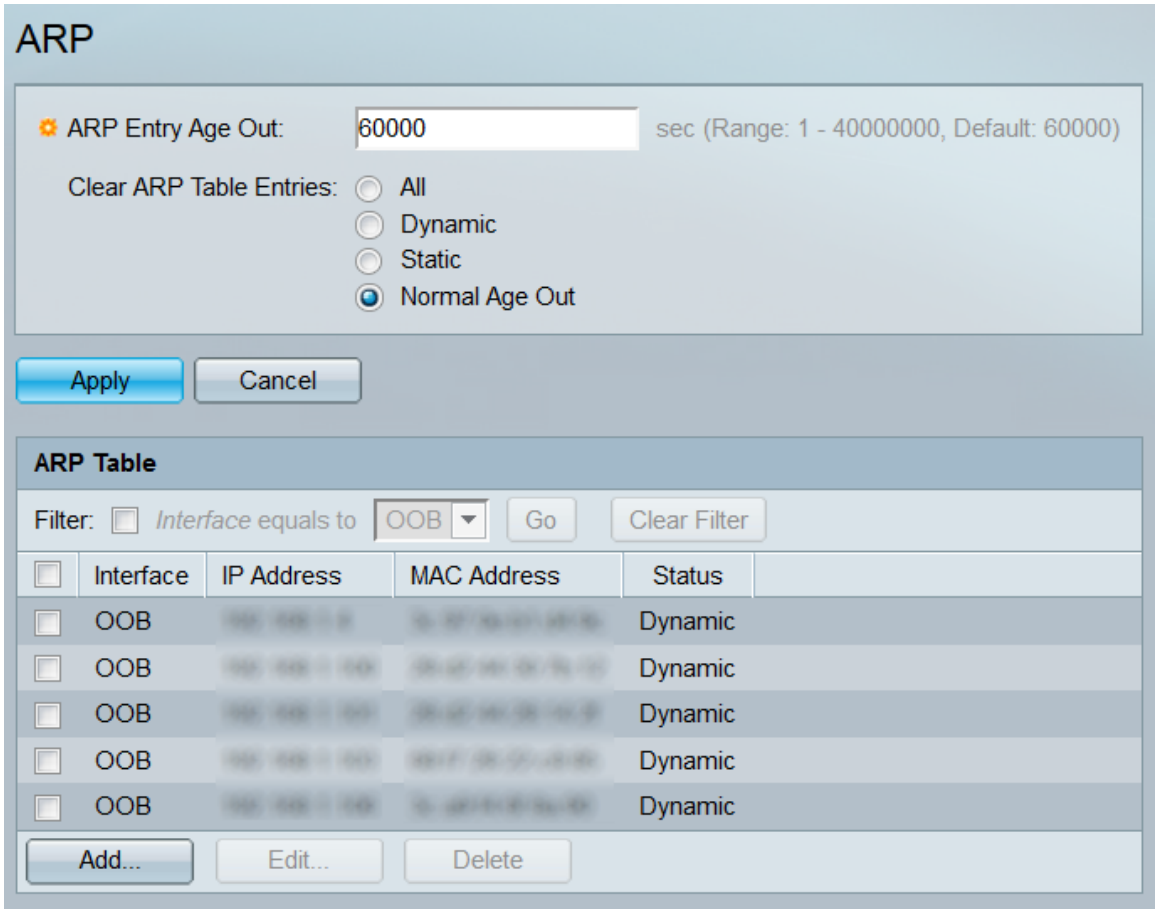
- SG350XG
- SG550XG

Software Version

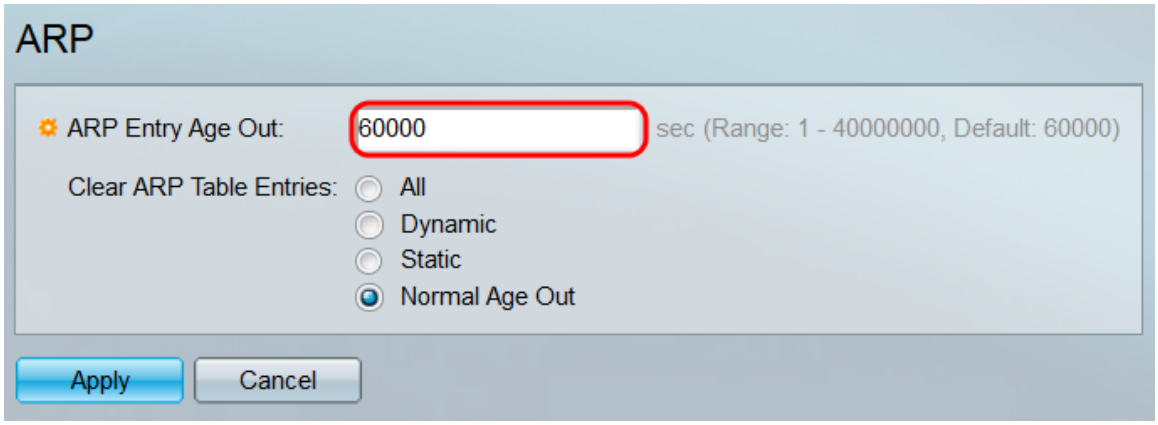
- v2.0.0.73

Configuring ARP

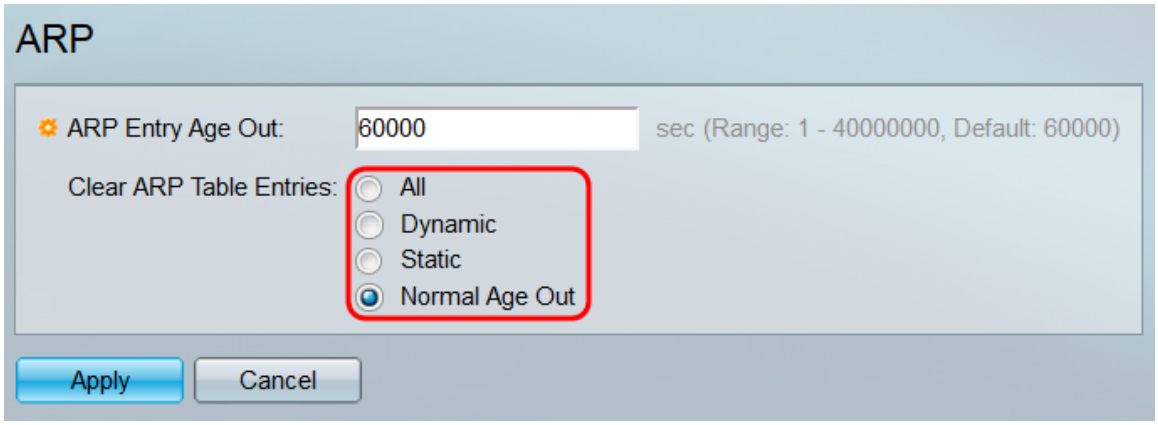
Step 1. Log in to the web configuration utility and choose **IP Configuration > IPv4 Management and Interfaces > ARP**. The *ARP* window opens.



Step 2. In the *ARP Entry Age Out* field, enter the number of seconds that dynamic addresses will remain in the ARP table. A dynamic address will be deleted if it remains in the table for longer than the Age Out time. The range is 1 – 40000000 seconds, with 60000 seconds being the default.



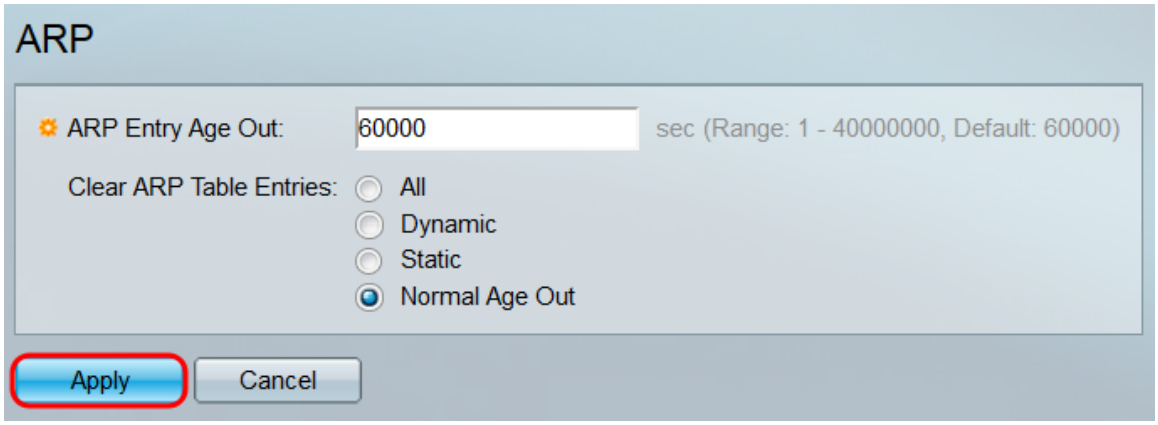
Step 3. In the *Clear ARP Table Entries* field, select a radio button to determine what ARP entries will be cleared from the table.



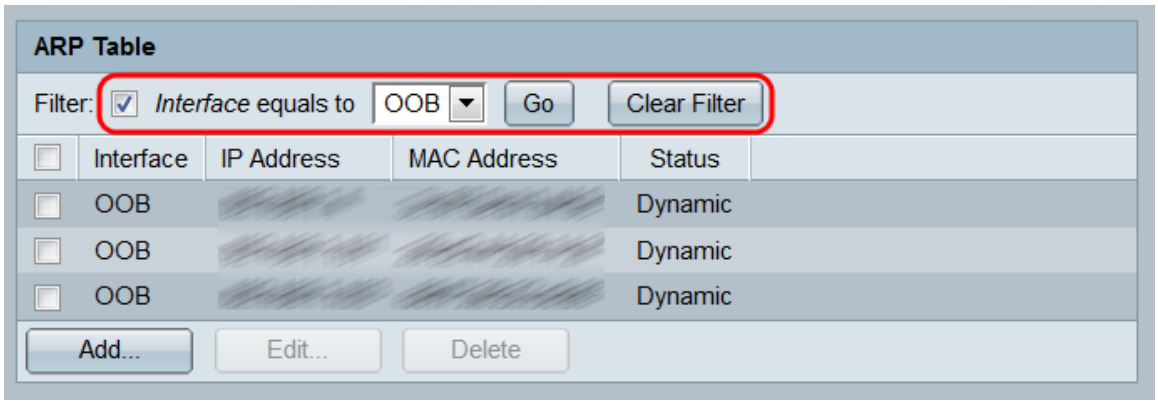
The options are:

- All – Deletes every entry from the ARP table.
- Dynamic – Deletes every dynamic address from the ARP table.
- Static – Deletes every static address from the ARP table.
- Normal Age Out – Deletes every dynamic address that has aged out according to the ARP Entry Age Out time.

Step 4. Click **Apply**. The settings are applied to the running configuration file. Any required entry deletions will occur at this time.



Step 5. The *ARP Table* displays all of the ARP entries currently on the switch. The entries can also be filtered by checking the *Filter:* checkbox at the top of the table, selecting the type of interface to filter by, and clicking **Go**. You can also click **Clear Filter** to reset the filter.

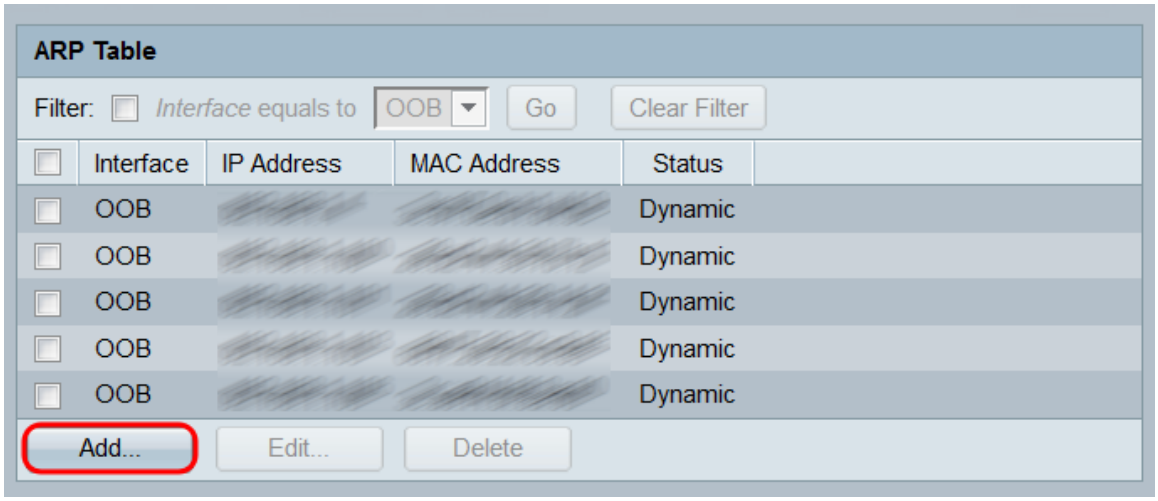


Each entry displays the following information:

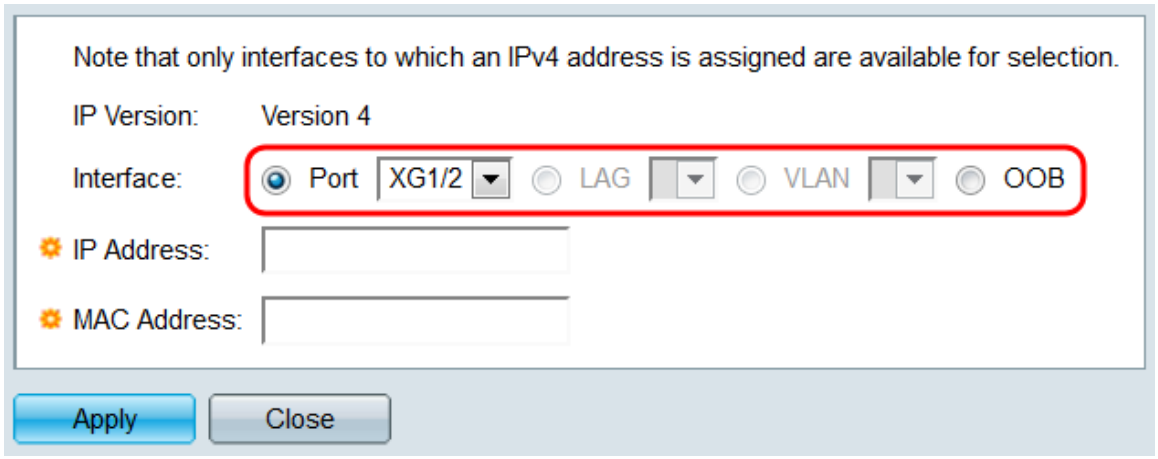
- Interface – The IPv4 interface directly connected to the IP subnet where the IP device resides.
- IP Address – The IP address of the IP device.

- MAC Address – The MAC address of the IP device.
- Status – Indicates whether the entry was manually entered (Static) or learned automatically through ARP (Dynamic).

Step 6. To add a new static entry to the table, click the **Add…** button. The *Add ARP*window opens.



Step 7. In the *Interface* field, select a radio button to choose an IPv4 interface. Make sure to select the interface that is connected to the IP subnet that has the device you wish to add to the ARP table.

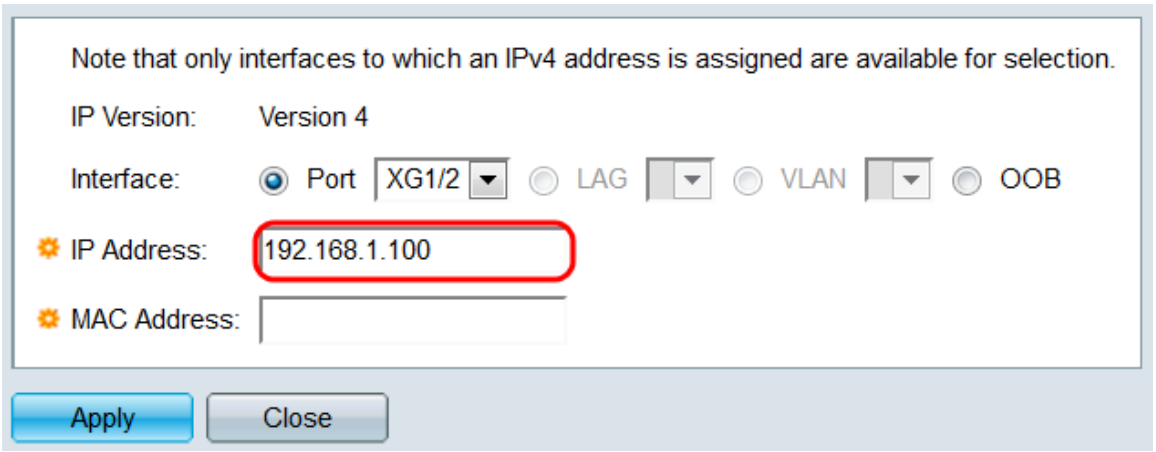


The options are:

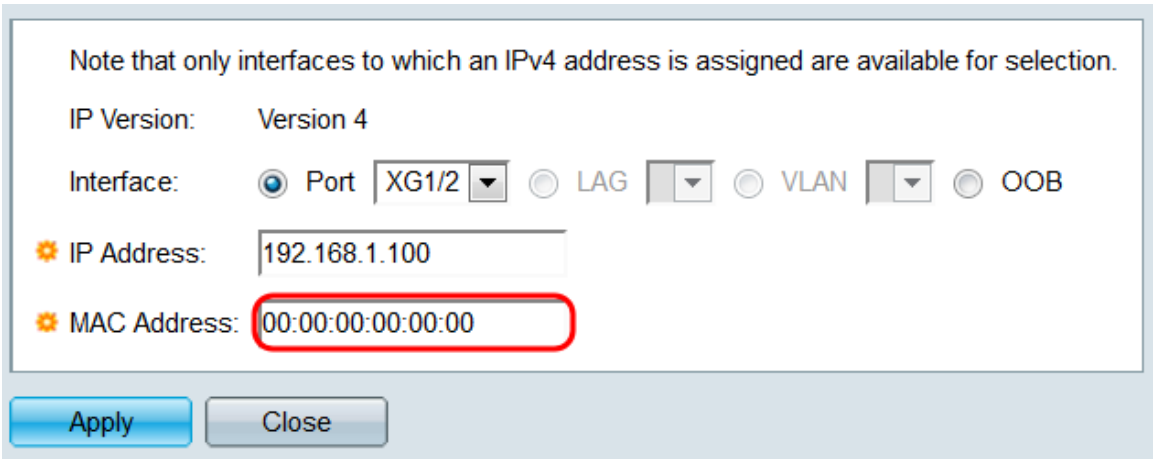
- Port – Select a port on the switch that has been configured with an IP address.
- LAG – Select a LAG that has been configured with an IP address.
- VLAN – Select a VLAN that has been configured with an IP address.
- OOB – Select the OOB port.

Note: Only interfaces that have been assigned an IPv4 address will be available.

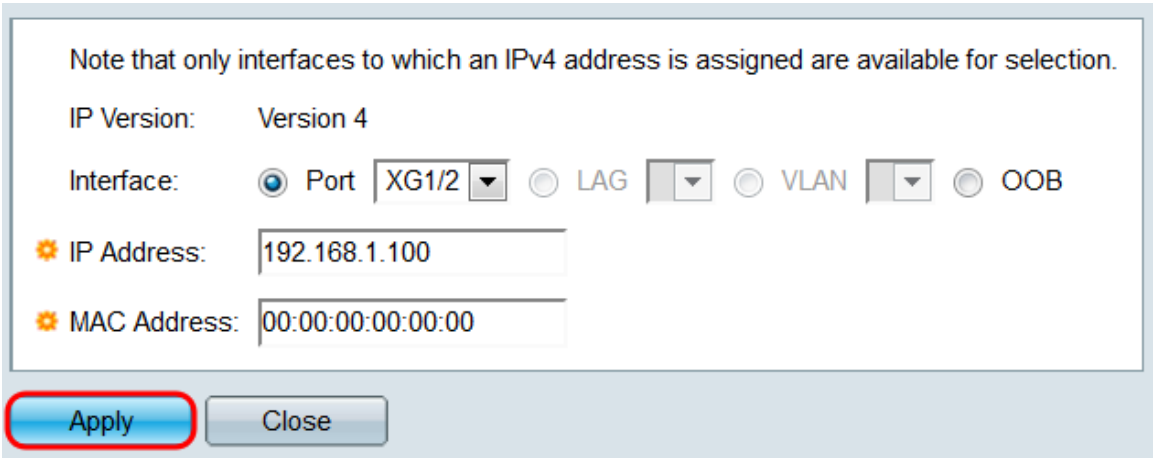
Step 8. In the *IP Address* field, enter the IPv4 address of the device you want to add to the ARP table.



Step 9. In the *MAC Address* field, enter the MAC address of the device you want to add to the ARP table.



Step 10. Click **Apply**. The device is added to the ARP table.



Step 11. Existing entries in the *ARP Table* can be edited or deleted by checking their corresponding checkbox(s) and clicking the **Edit…** or **Delete** buttons, respectively.