

# Layer 3 InterVLAN Routing Configuration on 300 Series Managed Switch

## Objective

The objective of this document is to configure layer 3 InterVLAN routing on 300 switches.

## Applicable Devices

- 300 Series switches

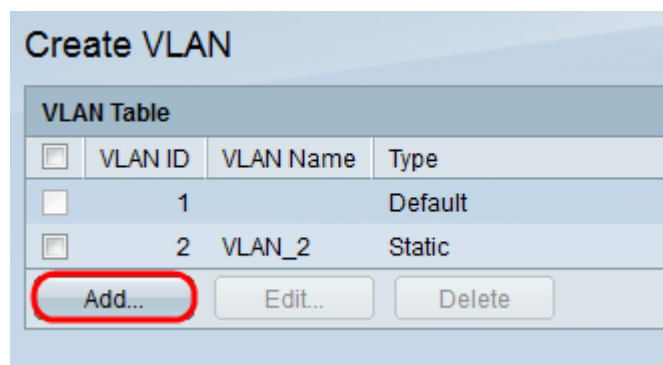
## Step-by-Step Procedure

Prerequisites

1. Make sure Layer3 feature is enabled. For additional information on how to enable Layer 3 Mode on firmware version 1.2.7.76 or earlier, please refer to [How to configure Layer 3 mode for SX300](#). For later firmwares, please refer to [Switching to Layer 3 Mode on the SF/SG 300 Series Switches](#).
2. Make sure you have more than one VLAN configured.

## Create VLANs

Step 1. Use the switch GUI interface to choose **VLAN Management > Create VLAN**.

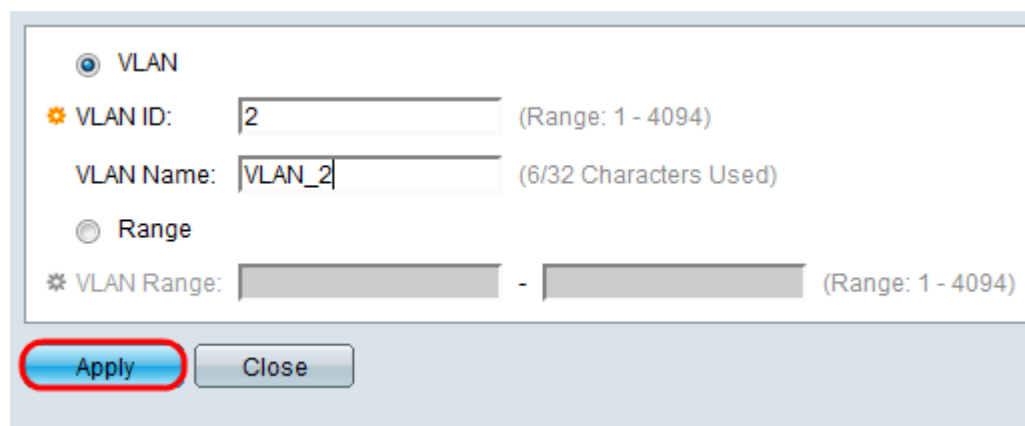


The screenshot shows the 'Create VLAN' configuration page. At the top, there is a 'VLAN Table' with the following entries:

<input type="checkbox"/>	VLAN ID	VLAN Name	Type
<input type="checkbox"/>	1		Default
<input type="checkbox"/>	2	VLAN_2	Static

Below the table are three buttons: 'Add...' (highlighted with a red circle), 'Edit...', and 'Delete'.

Step 2. Click **Add** to create new VLAN and enter VLAN parameters.



The screenshot shows the configuration dialog for a new VLAN. The 'VLAN' radio button is selected. The 'VLAN ID' field contains '2' (Range: 1 - 4094). The 'VLAN Name' field contains 'VLAN\_2' (6/32 Characters Used). The 'Range' radio button is unselected. The 'VLAN Range' field is empty (Range: 1 - 4094). At the bottom, the 'Apply' button is highlighted with a red circle, and the 'Close' button is also visible.

Step 3. To add a single VLAN check **VLAN** radio button and enter the VLAN information. Repeat this step to create other VLANs.

- VLAN ID — VLAN number.
- VLAN Name — VLAN description.

Step 4. To add a range of VLAN check **Range** radio button and enter the range of IP address.

- VLAN Range — VLAN number range.

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

## Assign port to VLAN

Step 1. Use the switch GUI interface to choose **VLAN Management > Port to VLAN**.

**Port to VLAN**

Filter: VLAN ID equals to  AND Interface Type equals to

Interface	GE1	GE2	GE3	GE4	GE5	GE6	GE7	GE8	GE9	GE10	GE11	GE12	GE13	GE14	GE15	GE16
Access	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Trunk	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
General	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Customer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Forbidden	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Excluded	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Tagged	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Untagged	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
PVID	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Interface	GE25	GE26	GE27	GE28
Access	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Trunk	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
General	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Customer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Forbidden	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Excluded	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Tagged	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Untagged	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
PVID	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Step 2. Choose the VLAN ID number from the VLAN ID drop-menu and Interface type from Interface Type menu.

Step 3. Click **Go** to see the VLAN membership status of the selected port.

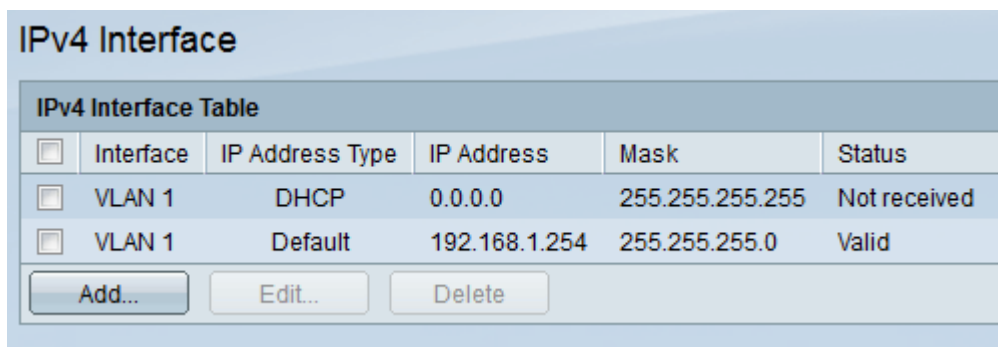
Step 4. Choose from interface type from radio buttons.

- Access — The interface is untagged member of single VLAN.
- Trunk — The interface is not a member of specific tagged VLAN.
- General — The interface supports tagged and untagged one or more VLANs.

Step 5. Click **Apply** to save

## Configure InterVLAN routing

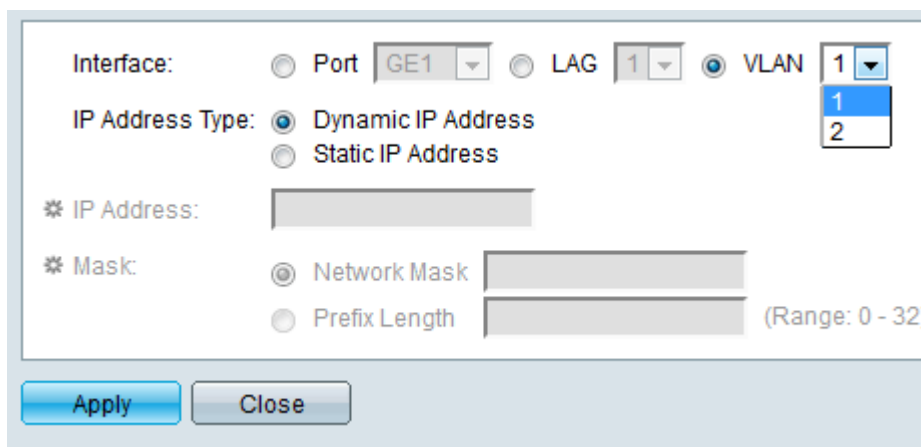
Step 1. Use the switch GUI interface choose **IP Configuration > Management and IP interfaces > IPv4 Interface**. IPv4 Interface pages opens.



The screenshot shows the 'IPv4 Interface' configuration page. At the top, there is a table titled 'IPv4 Interface Table' with columns for 'Interface', 'IP Address Type', 'IP Address', 'Mask', and 'Status'. Below the table are three buttons: 'Add...', 'Edit...', and 'Delete'.

<input type="checkbox"/>	Interface	IP Address Type	IP Address	Mask	Status
<input type="checkbox"/>	VLAN 1	DHCP	0.0.0.0	255.255.255.255	Not received
<input type="checkbox"/>	VLAN 1	Default	192.168.1.254	255.255.255.0	Valid

Step 2. Click **Add** to assign IP address for VLANs.



The screenshot shows the 'IPv4 Interface' configuration dialog box. It has several fields and options:

- Interface:** Radio buttons for 'Port', 'LAG', and 'VLAN'. 'VLAN' is selected. There are dropdown menus for 'GE1', '1', and '1'.
- IP Address Type:** Radio buttons for 'Dynamic IP Address' (selected) and 'Static IP Address'.
- \* IP Address:** A text input field.
- \* Mask:** Radio buttons for 'Network Mask' (selected) and 'Prefix Length'. There are text input fields for both, and a note '(Range: 0 - 32)' next to the Prefix Length field.
- Buttons for 'Apply' and 'Close' at the bottom.

Step 3. Check **VLAN** and select VLAN ID number from the drop down menu.

Step 4. Assign IP address for the VLANs.

- IP Address Type — How IP address will be assigned.
  - Dynamic IP Address — DHCP dynamic IP address assignment.
  - Static IP address — Manually configured IP address assignment.

Step 5. Click **Apply** to Save.