# Configure Port Virtual Local Area Network (VLAN) Membership of an Interface on a Switch

## Objective

A Virtual Local Area Network (VLAN) allows you to logically segment a Local Area Network (LAN) into different broadcast domains. In scenarios where sensitive data may be broadcast on a network, VLANs can be created to enhance security by designating a broadcast to a specific VLAN. Only users that belong to a VLAN are able to access and manipulate the data on that VLAN. VLANs can also be used to enhance performance by reducing the need to send broadcasts and multicasts to unnecessary destinations.

A VLAN allows a group of hosts that are not connected to the same switch to communicate as if they were on the same broadcast domain. An interface that has VLAN traffic needs to have the VLANs assigned to that interface, or packets may be dropped. When Generic Attribute Registration Protocol (GARP) VLAN Registration Protocol (GVRP) is enabled for an interface, then VLANs can be dynamically assigned and it is not necessary to manually assign them.

This article provides instructions on how to assign a port to one or more VLANs in the switch.

## Applicable Devices

- Sx250 Series
- Sx350 Series
- SG350X Series
- Sx550X Series

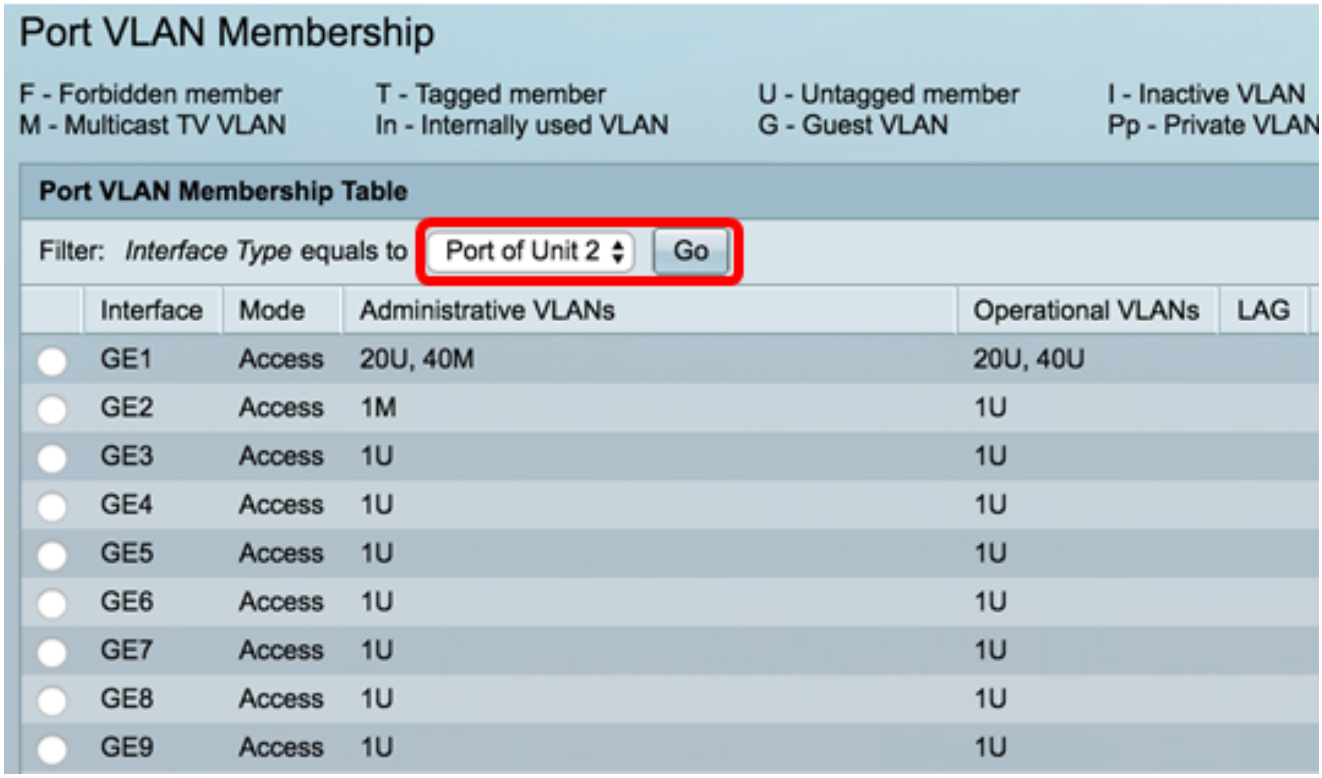
## Software Version

- 2.2.5.68

## Configure VLAN Membership of an Interface

Step 1. Log in to the web-based utility of your switch then choose **VLAN Management > Port VLAN Membership**.

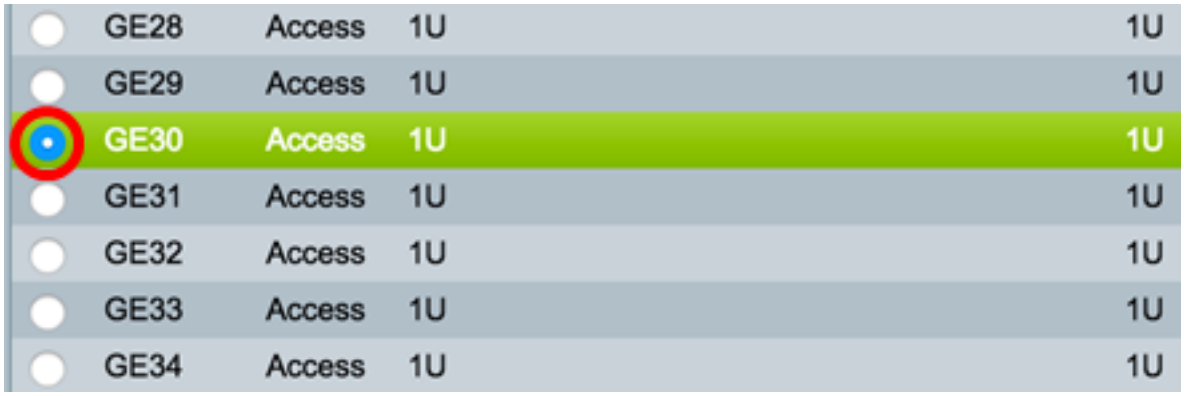

Step 2. Choose the interface type (Port or LAG) and click **Go**. The following fields are displayed for all interfaces of the selected type:




- Interface — Port or LAG ID.
- Mode — Interface VLAN mode that was selected in the Interface Settings page.
- Administrative VLANs — Drop-down list that displays all VLANs of which the interface might be a member.
- Operational VLANs — Drop-down list that displays all VLANs of which the interface is currently a member.
- LAG — If the interface selected is Port, it will display the LAG in which it is a member.

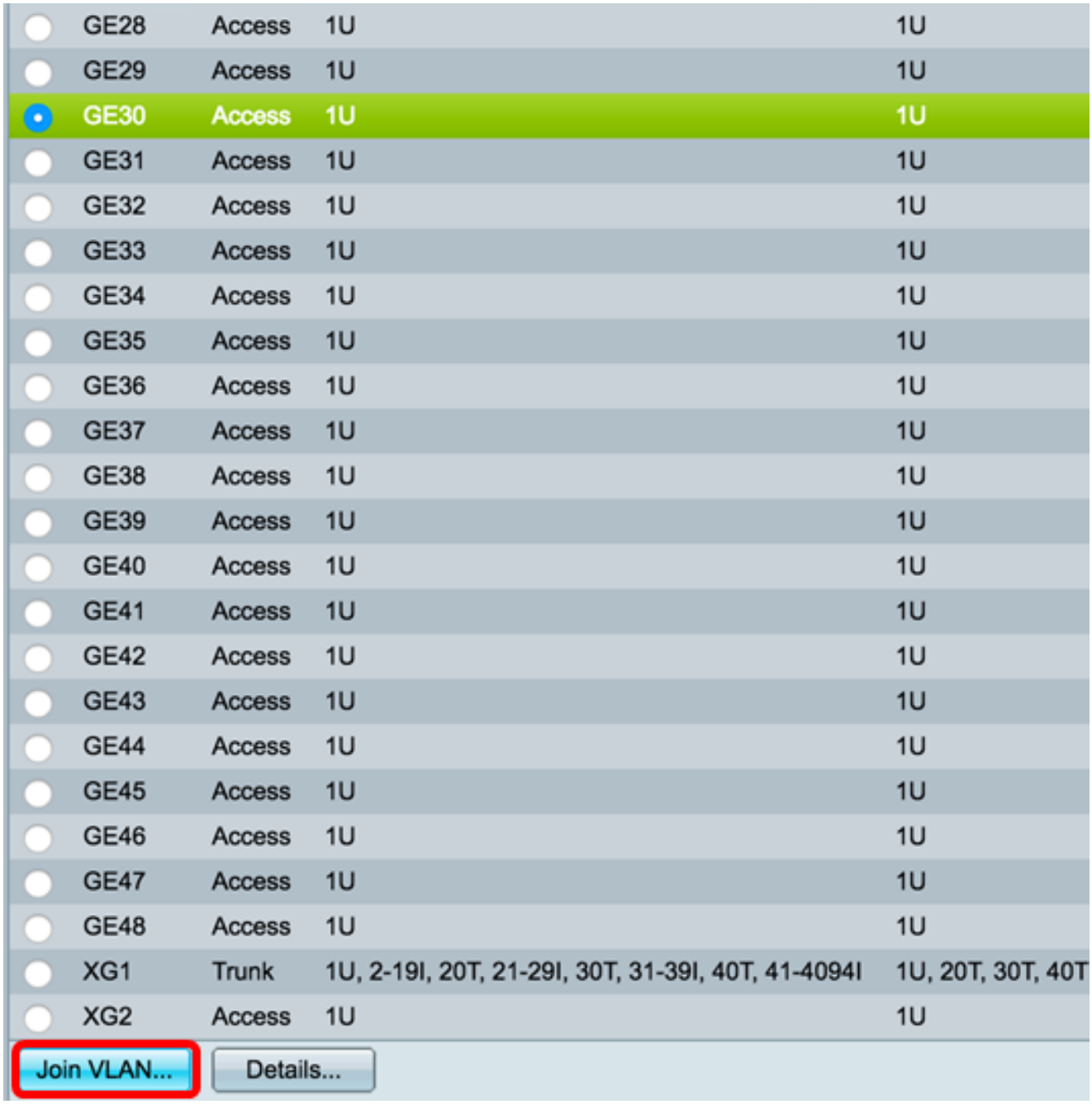
**Note:** In this example, Port of Unit 2 is chosen.

Step 3. Click the radio button of a port that you want to configure.

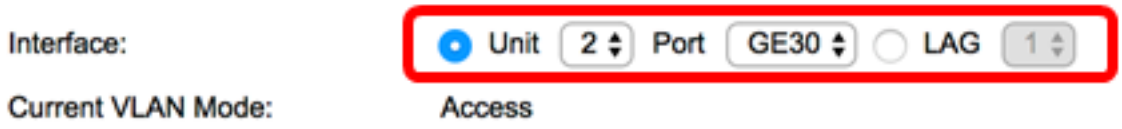



**Note:** In this example, GE30 is chosen.

Step 4. Scroll down to the bottom of the page then click the **Join VLAN** button.

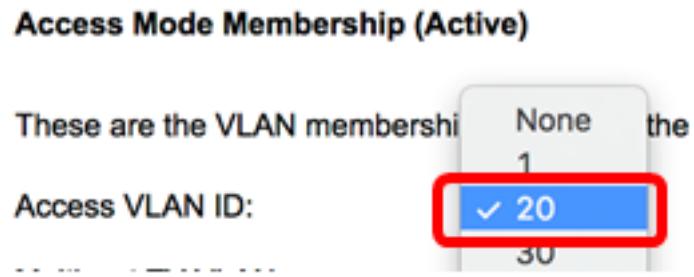



Step 5. Make sure the correct Port or LAG is chosen in the Interface area.



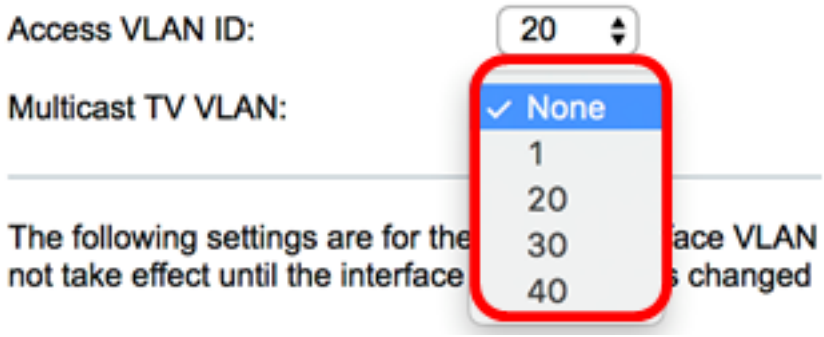

**Note:** The Current VLAN Mode displays the port VLAN mode that was chosen in the Interface Settings page. In this example, the mode is set to Access. To learn more about how to configure this feature, click here for instructions.

Step 6. Choose an access VLAN ID from the drop-down list. When the port is in Access mode, it will be a member of the Access VLAN. The default value is 1.




**Note:** In this example, VLAN 20 is chosen.

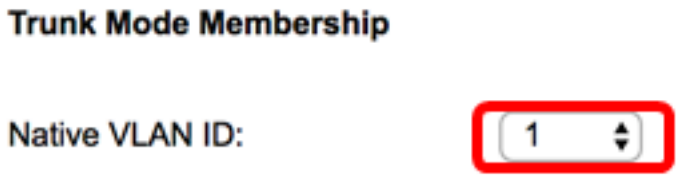
Step 7. Choose a multicast TV VLAN from the drop-down list. When the port is in Access mode, it will be a member of the Multicast TV VLAN. The default value is None.




**Note:** This option is not available on Sx250 switches.

The following settings are for the inactive interface VLAN modes. These effects will be saved, but will not take effect until the interface VLAN mode is changed in the VLAN Interface Settings page. To learn more about how to configure this feature, click here for instructions.

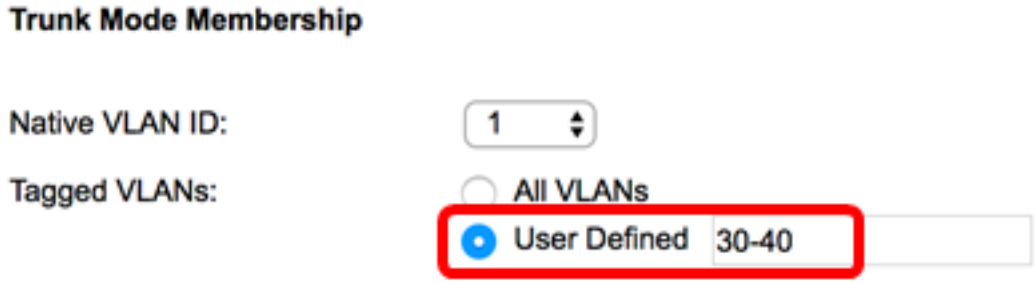
Step 8. Choose a native VLAN ID from the drop-down list. When the port is in Trunk mode, it will be a member of the Native VLAN. The default value is 1.




Step 9. When the port is in Trunk mode, it will be a member of the Tagged VLANs. Choose from the following options:

- All VLANs — When the port is in Trunk mode, it will be a member of all VLANs.

- User Defined — When the port is in Trunk mode, it will be a member of the VLANs that are entered in this field.




**Note:** In this example, User Defined is chosen and VLANs 30-40 are used.

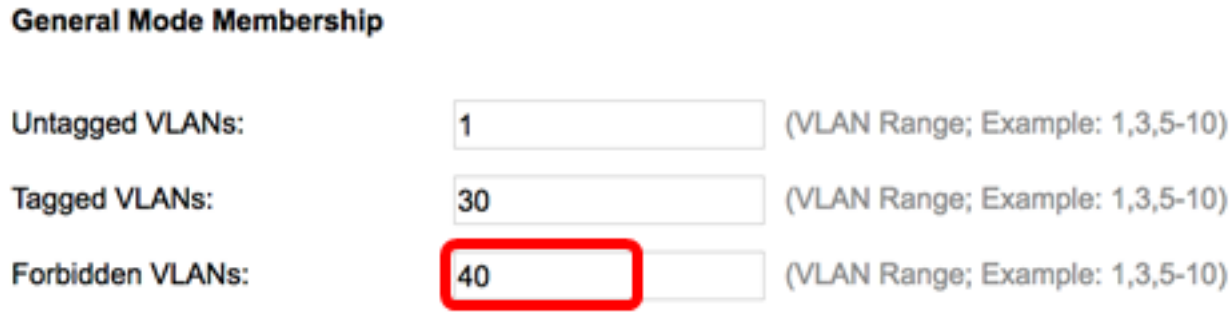
Step 10. Enter the VLAN ID in the *Untagged VLANs* field. When the port is in General mode, it will be an untagged member of this VLAN.


**Note:** In this example, VLAN 1 is used.

Step 11. Enter the VLAN ID in the *Tagged VLANs* field. When the port is in General mode, it will be a tagged member of this VLAN.

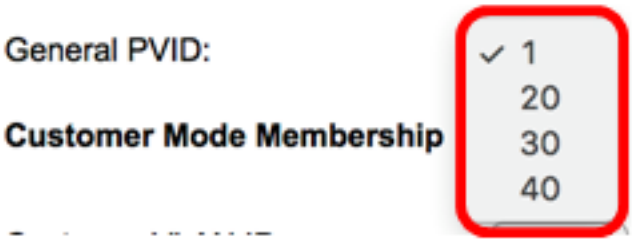

**Note:** In this example, VLAN 30 is used.

Step 12. Enter the VLAN ID in the *Forbidden VLANs* field. When the port is in General mode, the interface is not allowed to join the VLAN even from GVRP registration. When a port is not a member of any other VLAN, enabling this option on the port makes the port part of internal VLAN 4095 which is a reserved VLAN ID (VID).

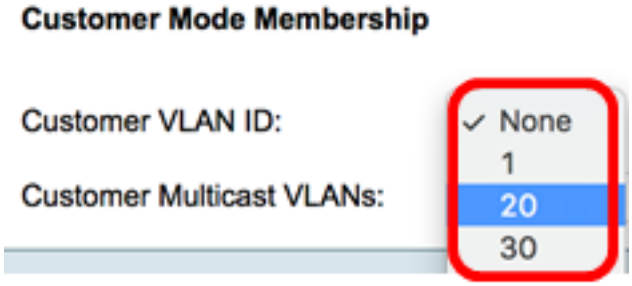



**Note:** In this example, VLAN 40 is used.

Step 13. Choose a VLAN ID from the General PVID drop-down list. When the port is in General mode, it will be a member of these VLANs. The default value is 1.



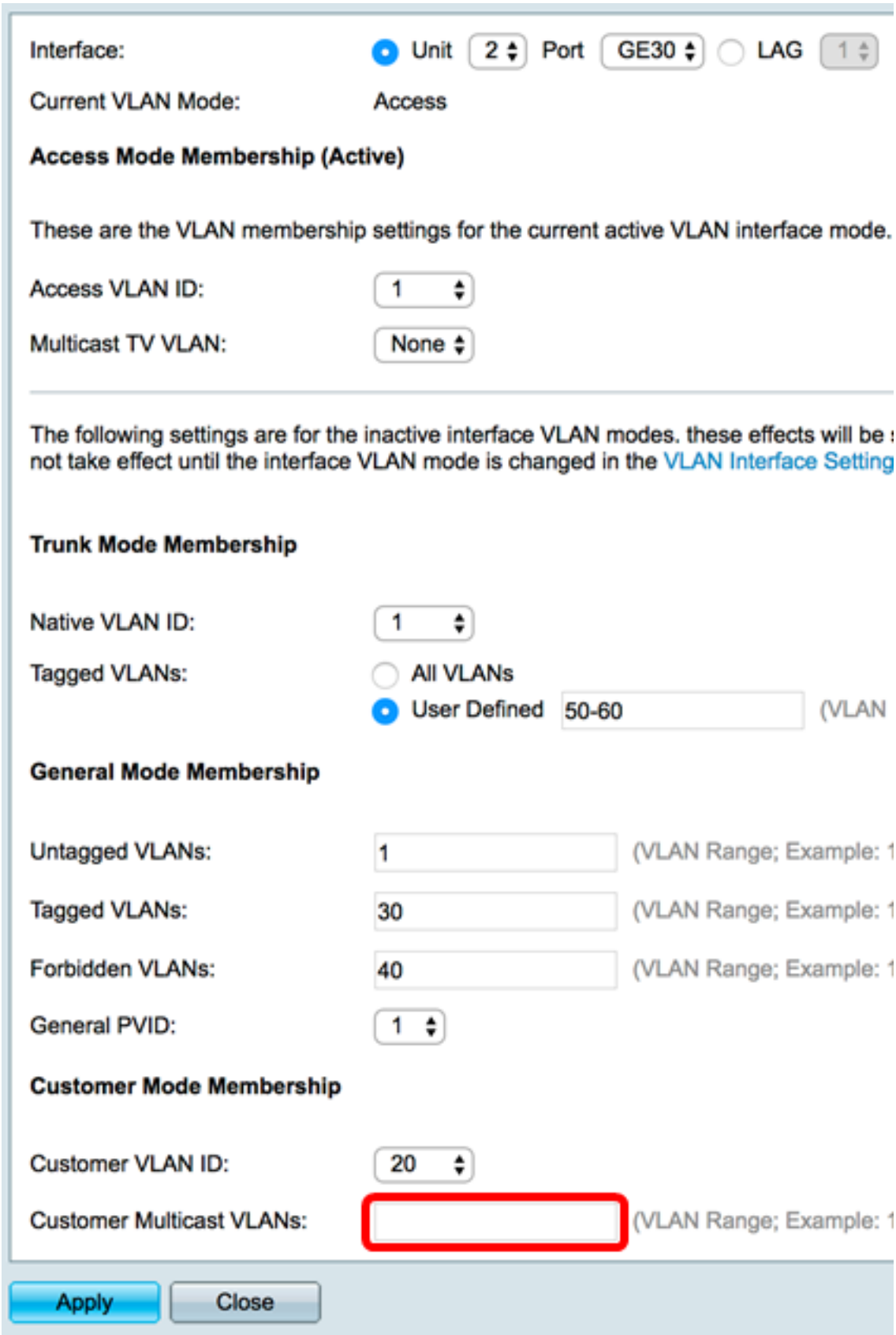

Step 14. (Optional) Choose a VLAN ID from the Customer VLAN ID drop-down list. When the port is in Customer mode, it will be a member of this VLAN.




**Note:** In this example, VLAN 20 is chosen.

Step 15. (Optional) Enter the VLAN ID in the *Customer Multicast VLANs* field. When the port is in Customer mode, it will be a member of this Multicast TV VLAN.

**Note:** This option is not available on Sx250 switches.




**Note:** In this example, no VLAN ID is entered.

Step 16. Click **Apply** then click **Close**.

Step 17. (Optional) Click **Save** to save settings to the startup configuration file.


You should now have successfully assigned a port to one or more VLANs in the switch.