

Interfaces and VLAN Assignment Configuration on 200/300 Series Managed Switches

Objective

Each interface on a switch can be classified as one of several modes. These various modes serve different purposes within a VLAN and can be configured in the *Interface Settings* page. Once configured to a mode, interfaces can then be added as a member of a VLAN. This article explains how to manage the VLAN capabilities of interfaces on the 200/300 Series Managed Switches.

Applicable Devices

- SF/SG 200 and SF/SG 300 Series

Software Version

- 1.3.0.62

Port VLAN Configuration

Configure Interface Settings

Step 1. Log in to the web configuration utility and choose **VLAN Management > Interface Settings**. The *Interface Settings* page opens:

	Entry No.	Interface	Interface VLAN Mode	Administrative PVID	Frame Type	Ingress Filtering
<input type="radio"/>	1	GE1	Trunk	1	Admit All	Enabled
<input type="radio"/>	2	GE2	Trunk	1	Admit All	Enabled
<input type="radio"/>	3	GE3	Trunk	1	Admit All	Enabled
<input type="radio"/>	4	GE4	Trunk	1	Admit All	Enabled
<input type="radio"/>	5	GE5	Trunk	1	Admit All	Enabled
<input type="radio"/>	6	GE6	Trunk	1	Admit All	Enabled
<input type="radio"/>	7	GE7	Trunk	1	Admit All	Enabled

Step 2. Chose an interface from the *Interface Type* drop-down list and then click **Go**.

- Port — A single physical port on the switch.

- LAG — A group of ports used to increase link reliability.

<input type="radio"/>	14	GE14	Trunk	1	Admit All	Enabled
<input type="radio"/>	15	GE15	Trunk	1	Admit All	Enabled
<input type="radio"/>	16	GE16	Trunk	1	Admit All	Enabled
<input type="radio"/>	17	GE17	Trunk	1	Admit All	Enabled
<input checked="" type="radio"/>	18	GE18	Trunk	1	Admit All	Enabled
<input type="radio"/>	19	GE19	Trunk	1	Admit All	Enabled
<input type="radio"/>	20	GE20	Trunk	1	Admit All	Enabled

Copy Settings... Edit...

Step 3. Check the check box of the desired port/LAG and click **Edit**. The *Edit Interface Setting* window appears.

Interface: Port GE18 LAG 1

Interface VLAN Mode: General
 Access
 Trunk
 Customer (The switch will be in Q-in-Q mode when it has one or more customer ports.)

Administrative PVID: (Range: 1 - 4095, Default: 1)

Frame Type: Admit All
 Admit Tagged Only
 Admit Untagged Only

Ingress Filtering: Enable

Step 4. Click the radio button that corresponds to the desired VLAN mode in the *Interface VLAN Mode* field.

- General — Can be a tagged or untagged member of multiple VLANs.
- Access — An untagged member of only one VLAN. If you choose this, skip to [Step 8](#).
- Trunk — Can be a tagged member of multiple VLANs. Can only be an untagged member in at most one VLAN.
- Customer — Places the interface in QinQ mode which allows you to use your own VLAN arrangements. If you choose Customer, skip to [Step 8](#).

Step 5. Enter the administrative VLAN in the *Administrative PVID* field. This is the VLAN that untagged frames are classified as.

Note: Steps 6 and 7 are only available if interface VLAN mode is General.

Step 6. Click the radio button that defines how to handle incoming frames in the *Frame Type* field.

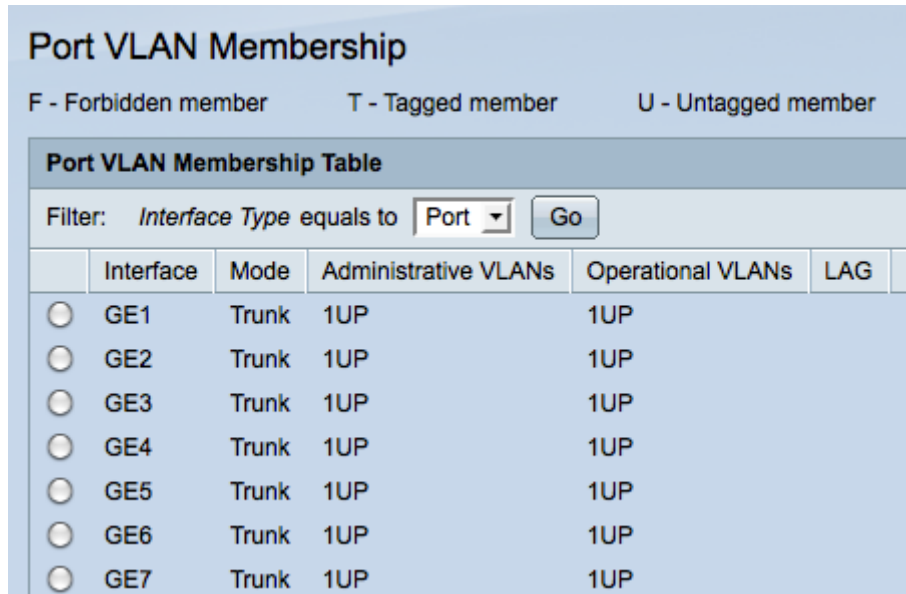
- Admit All — All frames are handled by the switch.
- Admit Tagged Only — Only tagged frames are handled by the switch, all other frames are discarded.
- Admit Untagged Only — Only untagged frames are handled by the switch, all other frames are discarded.

Step 7. Check the *Ingress Filtering* check box to discard all frames that arrive on the interface that belong to a VLAN that the interface is not a member of.

[Step 8](#). Click **Apply** to save your changes and then click **Close** to exit the *Edit Interface Setting* window.

Assign VLAN to Ports

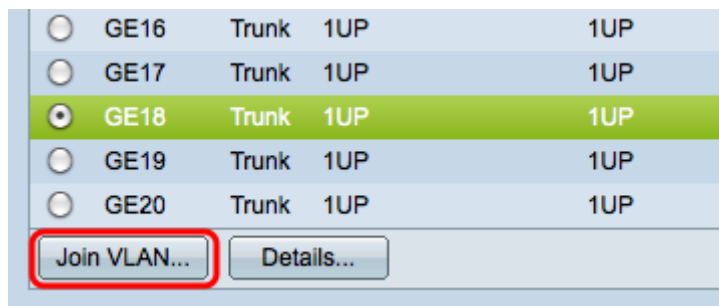
Step 1. Log in to the web configuration utility and choose **VLAN Management > Port VLAN Membership**. The *Port VLAN Membership* page opens:



The screenshot shows the 'Port VLAN Membership' page. At the top, there are three legends: 'F - Forbidden member', 'T - Tagged member', and 'U - Untagged member'. Below this is a 'Port VLAN Membership Table' with a filter set to 'Interface Type equals to Port'. The table lists seven interfaces (GE1 to GE7), all in 'Trunk' mode, with '1UP' in both 'Administrative VLANs' and 'Operational VLANs' columns. Each row has a radio button to its left.

	Interface	Mode	Administrative VLANs	Operational VLANs	LAG
<input type="radio"/>	GE1	Trunk	1UP	1UP	
<input type="radio"/>	GE2	Trunk	1UP	1UP	
<input type="radio"/>	GE3	Trunk	1UP	1UP	
<input type="radio"/>	GE4	Trunk	1UP	1UP	
<input type="radio"/>	GE5	Trunk	1UP	1UP	
<input type="radio"/>	GE6	Trunk	1UP	1UP	
<input type="radio"/>	GE7	Trunk	1UP	1UP	

Step 2. Click the radio button of the port you would like to add to the VLAN.



The screenshot shows a portion of the 'Port VLAN Membership' page. It lists ports GE16 through GE20. Port GE18 is selected, indicated by a filled radio button and a green highlight. Below the table, the 'Join VLAN...' button is circled in red.

<input type="radio"/>	GE16	Trunk	1UP	1UP
<input type="radio"/>	GE17	Trunk	1UP	1UP
<input checked="" type="radio"/>	GE18	Trunk	1UP	1UP
<input type="radio"/>	GE19	Trunk	1UP	1UP
<input type="radio"/>	GE20	Trunk	1UP	1UP

Step 3. Click **Join VLAN**. The *Join VLAN* window appears.

Interface: Port GE18 LAG 1

Mode: Trunk

Select VLAN:

2
3

1UP

F - Forbidden member, T - Tagged member, U - Untagged member, P - PVID, M - Multicast TV VLAN

Tagging:

Forbidden
 Excluded
 Tagged
 Untagged
 Multicast TV VLAN
 PVID

Apply Close

Step 4. In the *Select VLAN* list, choose one of the available VLANs.

Step 5. Click the **Add** button to add the chosen VLAN to the port.

Step 6. In the *Tagging* field, choose one of the following:

- Forbidden — The interface is not allowed to join the VLAN. The interface will be assigned to the internal VLAN 4095.
- Excluded —The interface is not a member of the VLAN but can join through GVRP.
- Tagged — The interface joins the VLAN as a tagged member. Tagged members attach a VLAN tag to each frame they send.
- Untagged — The interface joins the VLAN as an untagged member. Untagged members do not attach a VLAN tag to the frames.
- Multicast TV VLAN — The interface will be used for Digital TV purposes through the use of multicast IP.
- PVID —The PVID of the interface becomes the VID of the VLAN.

Note: Not all tagging options are available for all interface modes.

Step 7. Click **Apply** to save your settings.