

VLAN Creation on Sx500 Series Stackable Switches

Objective

VLAN Creation on a switch allows you to make separate broadcast domains on a switch. The broadcast domains can associate with one another with the help of a Layer 3 device such as a router. A VLAN is mainly used to form groups among the hosts regardless of where the hosts are physically present. Thus, a VLAN improves security with the help of group formation among the hosts. When you create a VLAN, it has no effect until the VLAN is attached to at least one port either manually or dynamically.

This article explains how to create a new VLAN and assign ports to it on the Sx500 Series Stackable Switches.

Applicable Devices

- Sx500 Series Stackable Switches

Software Version

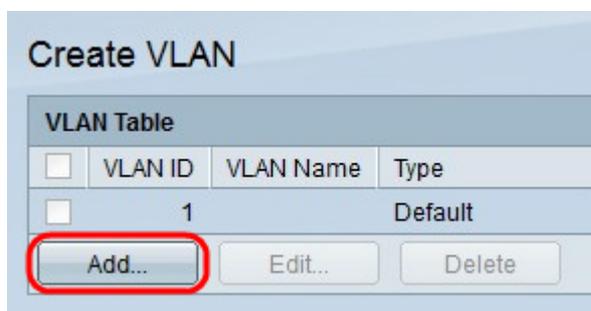
- 1.3.0.62

Steps to Create a VLAN

VLAN Creation requires two configurations to be completed. The first is the creation of the VLAN and the second is assigning ports to the VLAN.

VLAN Creation

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



Step 2. Click **Add** to add a new VLAN. The *Add/Edit* window appears.

VLAN
 * VLAN ID: (Range: 2 - 4094)
 VLAN Name: (6/32 Characters Used)
 Range
 * VLAN Range: - (Range: 2 - 4094)

Step 3. VLAN can be added in two different methods. Click the radio button that corresponds to the desired method:

- VLAN — Use this method to create a specific VLAN.
- Range — Use this method to create a range of VLANs.

VLAN
 * VLAN ID: (Range: 2 - 4094)
 VLAN Name: (6/32 Characters Used)
 Range
 * VLAN Range: - (Range: 2 - 4094)

Step 4. If VLAN is clicked in Step 3, enter the VLAN ID in the VLAN ID field.

Step 5. If VLAN is clicked in Step 3, enter the name for the VLAN in the VLAN Name field.

VLAN
 * VLAN ID: (Range: 2 - 4094)
 VLAN Name: (0/32 Characters Used)
 Range
 * VLAN Range: - (Range: 2 - 4094)

Step 6. If Range is clicked in Step 3, enter the range of the VLAN in the VLAN Range field.

Note: Only up to 100 VLANs can be created at a time.

Step 7. Click **Apply**.

Assign Ports to VLAN

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

Port VLAN Membership

F - Forbidden member T - Tagged member U - Untagged member

Port VLAN Membership Table

Filter: *Interface Type* equals to

	Interface	Mode	Administrative VLANs	Operational VLANs	LAG
<input type="radio"/>	FE1	Trunk	1UP	1UP	
<input type="radio"/>	FE2	Trunk	1UP	1UP	
<input type="radio"/>	FE3	Trunk	1UP	1UP	
<input type="radio"/>	FE4	Trunk	1UP	1UP	
<input type="radio"/>	FE5	Trunk	1UP	1UP	

The Port VLAN Membership Table displays the following information:

- Interface — The name of the port or LAG.
- Mode — The VLAN mode for the interface.
 - Trunk — This interface carries traffic for all VLANs.
 - Access — This interface only carries traffic for specific VLAN.
- Administrative VLANs — The unique identifier of the VLAN to which the interface is attached.
- Operational VLANs — The unique identifier of the VLANs of which the interface is a member.
- LAG — The name of the LAG of which this port is a member. This field does not show up if you choose LAG in Step 2.

Step 2. Choose the type of interface you wish to add to the VLAN from the Filter drop-down list and click **Go**.

Port VLAN Membership

F - Forbidden member T - Tagged member U - Untagged member

Port VLAN Membership Table

Filter: *Interface Type* equals to

	Interface	Mode	Administrative VLANs	Operational VLANs	LAG
<input checked="" type="radio"/>	FE1	Trunk	1UP	1UP	
<input type="radio"/>	FE2	Trunk	1UP	1UP	
<input type="radio"/>	FE3	Trunk	1UP	1UP	
<input type="radio"/>	FE4	Trunk	1UP	1UP	
<input type="radio"/>	FE5	Trunk	1UP	1UP	

Step 3. Click the radio button next to the port or LAG you would like to assign to a VLAN.

<input type="radio"/>	FE47	Trunk	1UP	1UP
<input type="radio"/>	FE48	Trunk	1UP	1UP
<input type="radio"/>	GE3	Trunk	1UP	1UP
<input type="radio"/>	GE4	Trunk	1UP	1UP
<input type="button" value="Join VLAN..."/>		<input type="button" value="Details..."/>		

Step 4. Click **Join VLAN** at the bottom of the page.

Interface: Unit/Slot 1/2 Port FE24 LAG 1

Mode: Trunk

Select VLAN:

3 4 5 6 7 | 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

Step 5. (Optional) In the Interface field, click the radio button that corresponds with the type of interface you want to add to the VLAN. Then choose the specific interface from the appropriate drop-down list.

- Port — From the Unit/Slot and Port drop-down lists choose the port to configure. This will only affect the single port chosen.
- Lag — From the LAG drop down list; choose the LAG to configure. This will affect the group of ports defined in the LAG configuration.

Note: The Mode field displays the port VLAN mode that is chosen from **VLAN Management > Interface Settings**. Please refer to the article [VLAN Interface Settings Configuration on Sx500 Series Stackable Switches](#) for this configuration.

Interface: Unit/Slot Port LAG

Mode: Trunk

Select VLAN:

3	>	1UP
4		
5		
6		
7		

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

Note: All ports are assigned to the default VLAN (usually VLAN 1). This may appear in the Selected VLAN list if it is tagged, but it cannot be moved since the reverse is not possible.

Step 6. To assign a port to a VLAN, choose the VLAN ID from the left list in the Select VLAN field and click the > button.

Step 7. (Optional) To remove a port from a VLAN, choose the VLAN ID from the right list in the Select VLAN field and click the < button.

Interface: Unit/Slot Port LAG

Mode: Trunk

Select VLAN:

4	>	1UP
5		3T
6		
7		
8		

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 8. Choose one of the following tagging/PVID options for the interface from the Tagging field.

Note: Generic Attribute Registration Protocol (GARP) VLAN Registration Protocol (GVRP) allows VLAN configuration information to be passed to other switches. This allows you to only configure one switch, and all your other switches are configured dynamically.

- Forbidden — The interface is not allowed to join the VLAN even from GVRP registration. If the port is not a member of any other VLAN, this option makes the port a part of internal VLAN 4095.
- Excluded — The interface is not a member of the VLAN. This is the default for all ports and LAGs. The port can join the VLAN through GVRP registration.
- Tagged — The port is tagged. This inserts the VLAN ID into packet headers so that when information is sent from switch to switch, the VLAN from which the packet originated can be identified. Information from untagged packets can occasionally be lost when it is transferred through a proxy or other switch that does not support VLAN tagging.
- Untagged — The port is untagged. Use this option when the switch is not connected to any other proxy or switch.
- Multicast TV VLAN — The interface can supply Multicast transmissions to Layer 2 subscribers but not replicate the Multicast transmissions for all VLANs.
- PVID — Port PVID is set to the VLAN. If the interface is in access mode or trunk mode, the switch makes the interface an untagged member of the VLAN. If the interface is in general mode, VLAN membership must be configured manually.

Step 9. Click **Apply**.

Related Articles

[Voice VLAN Properties](#)

[Configuration Multicast Group to VLAN](#)

[VLAN Protocol-Based Groups to VLAN Configuration](#)

[ARP Inspection VLAN Settings Configuration](#)

[VLAN Protocol-Based Groups to VLAN Configuration](#)

[VLAN Protocol-Based Groups](#)

[Configuration of Customer Port Multicast VLAN Membership](#)