# CDP Settings on the SG350XG and SG550XG

## **Objective**

The Cisco Discovery Protocol (CDP) is a protocol that is used by Cisco devices to share device information with other connected Cisco devices. This includes type of device, firmware version, IP address, serial number, and other identifying information. CDP settings can be adjusted globally or on an individual port basis on the SG350XG and SG550XG series switches.

The objective of this document is to show you how to configure global and individual CDP settings on the SG350XG and SG550XG.

## **Applicable Devices**

- SG350XG
- SG550XG

### **Software Version**

• v2.0.0.73

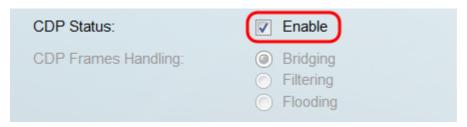
## **CDP Settings**

#### **Global Properties**

Step 1. Log in to the web configuration utility and choose **Administration > Discovery - CDP > Properties**. The *Properties* page opens.

Properties		
CDP Status: CDP Frames Handling:	<ul><li>Enable</li><li>Bridging</li><li>Filtering</li><li>Flooding</li></ul>	
CDP Voice VLAN Advertisement: CDP Mandatory TLVs Validation: CDP Version:	<ul><li>✓ Enable</li><li>─ Version 1</li><li>⑥ Version 2</li></ul>	
CDP Hold Time:	Use Default     User Defined 180	sec (Range: 10 - 255, Default: 180)
CDP Transmission Rate:	Use Default     User Defined 60	sec (Range: 5 - 254, Default: 60)
Device ID Format:	<ul><li>MAC Address</li><li>Serial Number</li><li>Hostname</li></ul>	
Source Interface:	<ul><li> Use Default</li><li> User Defined</li><li>Unit</li></ul>	
Syslog Voice VLAN Mismatch: Syslog Native VLAN Mismatch: Syslog Duplex Mismatch:	<ul><li>✓ Enable</li><li>✓ Enable</li><li>✓ Enable</li></ul>	
Apply Cancel		

Step 2. In the *CDP Status* field, check the **Enable** checkbox to activate CDP on the switch. If you are using the Basic display mode, skip to <u>Step 14</u>. If you enabled CDP, skip to <u>Step 4</u>.



**Note:** The display mode can be changed using the drop-down list in the top-right corner of the web utility.

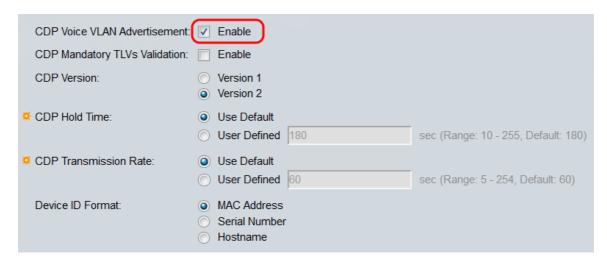
Step 3. In the *CDP Frames Handling* field, select a radio button corresponding to the action you want the switch to take when it receives a CDP packet. This field is only available if CDP is not enabled on the switch. After selecting an option, skip to <u>Step 11</u>.



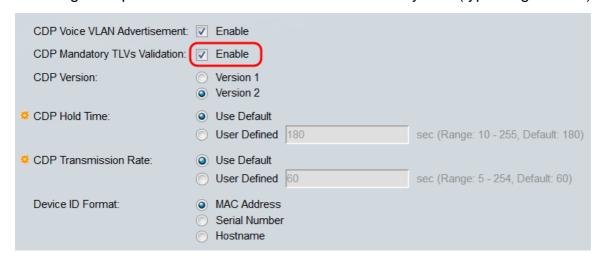
The options are:

- Bridging Forward the packet based on the VLAN.
- Filtering Delete the packet.
- Flooding Forwards all CDP packets to all ports, excluding the port it originated from.

Step 4. In the *CDP Voice VLAN Advertisement* field, check the **Enable** checkbox to have the switch advertise the voice VLAN over CDP on all ports that have CDP enabled and are members of the voice VLAN.



Step 5. In the *CDP Mandatory TLVs Validation* field, check the **Enable** checkbox to discard incoming CDP packets that do not contain the mandatory TLV (type-length-value).



Step 6. In the *CDP Version* field, select a radio button to choose which version of CDP to use (**Version 1** or **Version 2**).

CDP Voice VLAN Advertisement:	✓ Enable	
CDP Mandatory TLVs Validation:	✓ Enable	
CDP Version:	Version 1 Version 2	
CDP Hold Time:	Use Default	_
	User Defined 180	sec (Range: 10 - 255, Default: 180)
CDP Transmission Rate:	Use Default	
	User Defined 60	sec (Range: 5 - 254, Default: 60)
Device ID Format:	<ul><li>MAC Address</li><li>Serial Number</li><li>Hostname</li></ul>	

Step 7. In the *CDP Hold Time* field, select a radio button to determine the amount of time CDP packets are held before being discarded. Select **Use Default** to use the default amount of time (180 seconds) or **User Defined** to specify a custom amount of time between 10 – 255 seconds.

CDP Voice VLAN Advertisement:	▼ Enable	
CDP Mandatory TLVs Validation:		
CDP Version:	Version 1 Version 2	
CDP Hold Time:	Use Default     User Defined 180	sec (Range: 10 - 255, Default: 180)
CDP Transmission Rate:	Use Default     User Defined 60	sec (Range: 5 - 254, Default: 60)
Device ID Format:	MAC Address     Serial Number     Hostname	

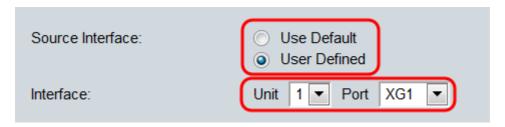
Step 8. In the *CDP Transmission Rate* field, select a radio button to determine the transmission rate of CDP packets in seconds. Select **Use Default** to use the default amount of time (60 seconds) or **User Defined** to specify a custom amount of time between 5-254 seconds.

CDP Voice VLAN Advertisement:	✓ Enable	
CDP Mandatory TLVs Validation:	▼ Enable	
CDP Version:	Version 1 Version 2	
CDP Hold Time:	Use Default User Defined 180	sec (Range: 10 - 255, Default: 180)
CDP Transmission Rate:	Use Default User Defined 60	sec (Range: 5 - 254, Default: 60)
Device ID Format:	MAC Address     Serial Number     Hostname	

Step 9. In the *Device ID Format* field, select a radio button to determine what the format of the device ID will be. Select **MAC Address** to use the switch's MAC address as the device ID, **Serial Number** to use the serial number, or **Hostname** to use the hostname.

CDP Voice VLAN Advertisement:	✓ Enable	
CDP Mandatory TLVs Validation:	▼ Enable	
CDP Version:	<ul><li>Version 1</li><li>Version 2</li></ul>	
CDP Hold Time:	Use Default	
	User Defined 180	sec (Range: 10 - 255, Default: 180)
CDP Transmission Rate:	Use Default	
	User Defined 60	sec (Range: 5 - 254, Default: 60)
Device ID Format:	MAC Address	
	Serial Number	
	○ Hostname	

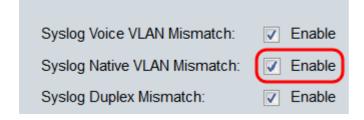
Step 10. In the *Source Interface* field, select a radio button to determine what IP address will be put in the TLV field of outgoing CDP packets. Select **Use Default** to use the IP address of the outgoing interface, or **User Defined** to choose an interface (the selected interface's IP address will be used) from the drop-down lists in the *Interface* field.



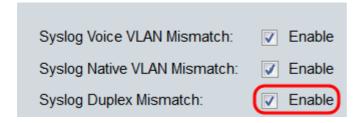
Step 11. In the *Syslog Voice VLAN Mismatch* field, check the **Enable** checkbox to send a syslog message when a voice VLAN mismatch is detected. A VLAN mismatch is when VLAN information in an incoming frame does not match the local device's advertised capabilities.

Syslog Voice VLAN Mismatch:	▼ Enable
Syslog Native VLAN Mismatch:	✓ Enable
Syslog Duplex Mismatch:	Enable

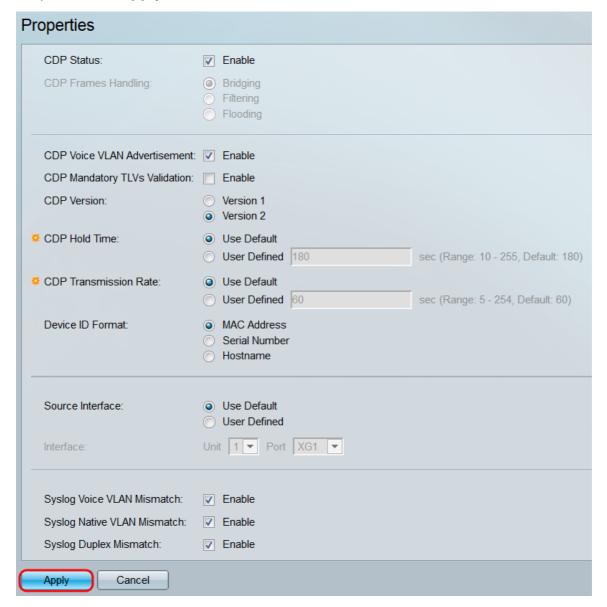
Step 12. In the *Syslog Native VLAN Mismatch* field, check the **Enable** checkbox to send a syslog message when a native VLAN mismatch is detected.



Step 13. In the *Syslog Duplex Mismatch* field, check the **Enable** checkbox to send a syslog message when a duplex mismatch is detected.

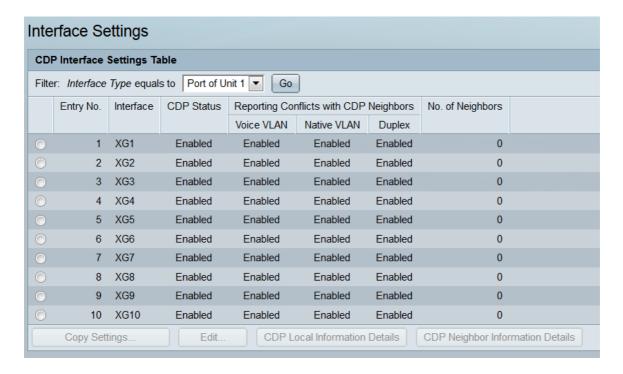


Step 14. Click Apply.



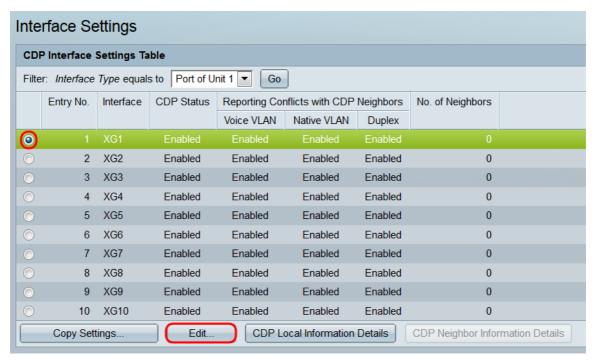
#### **Interface Properties**

Step 1. Log in to the web configuration utility and choose **Administration > Discovery – CDP > Interface Settings**. The *Interface Settings* page opens.



**Note:** This page is only available in advanced display mode. The display mode can be changed with the drop-down list in the top right corner of the web utility.

Step 2. In the *CDP Interface Settings Table*, select the radio button of the interface you want to configure and click the **Edit...** button. The *Edit CDP Interface Settings* window opens.

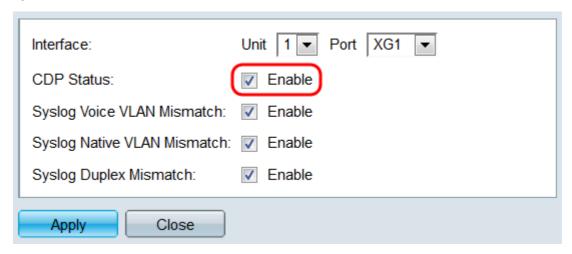


**Note:** If the switch is part of a stack, you can display the interfaces of other units in the stack by using the drop-down list at the top of the table.

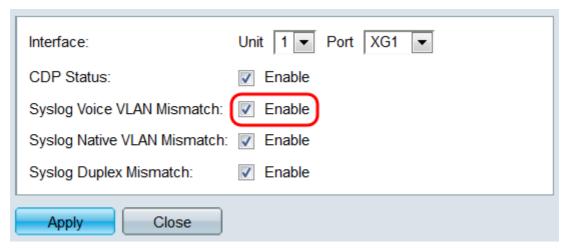
Step 3. The *Interface* field displays the port selected in the *CDP Interface Settings Table*. You can use the *Unit* and *Port* drop-down lists to select another unit and port to configure, respectively.

Interface: Unit 1 ▼ Port XG1 ▼	
CDP Status: Enable	
Syslog Voice VLAN Mismatch:	
Syslog Native VLAN Mismatch: VENable	
Syslog Duplex Mismatch:   Enable	
Apply Close	

Step 4. In the *CDP Status* field, check the **Enable** checkbox to enable CDP on the port specified.



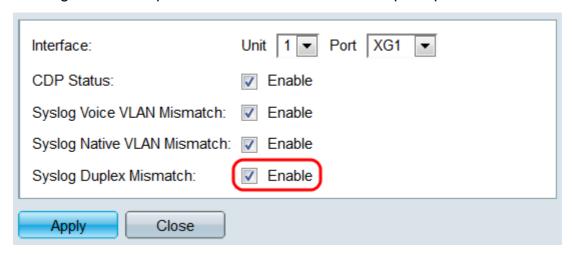
Step 5. In the *Syslog Voice VLAN Mismatch* field, check the **Enable** checkbox to send a syslog message when a voice VLAN mismatch is detected on the port specified. A VLAN mismatch is when VLAN information in an incoming frame does not match the local device's advertised capabilities.



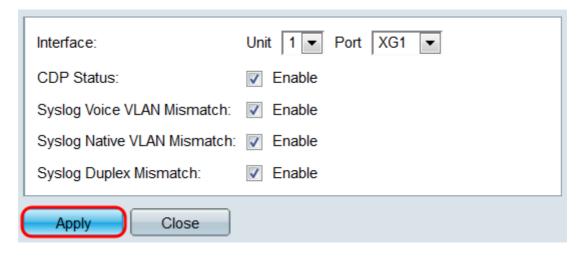
Step 6. In the *Syslog Native VLAN Mismatch* field, check the **Enable** checkbox to send a syslog message when a native VLAN mismatch is detected on the port specified.

Interface:	Unit 1 ▼ Port XG1 ▼
CDP Status:	Enable
Syslog Voice VLAN Mismatch:	Enable
Syslog Native VLAN Mismatch:	▼ Enable
Syslog Duplex Mismatch:	✓ Enable
Apply Close	

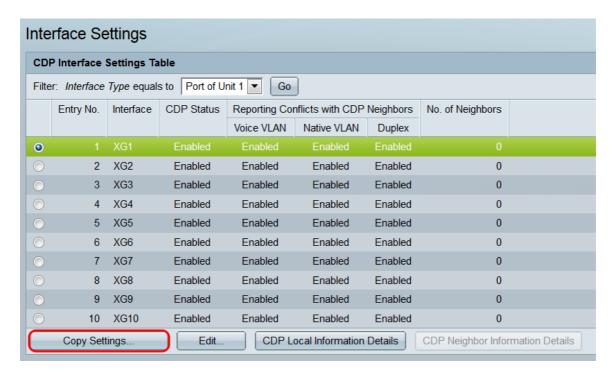
Step 7. In the *Syslog Duplex Mismatch* field, check the **Enable** checkbox to send a syslog message when a duplex mismatch is detected on the port specified.



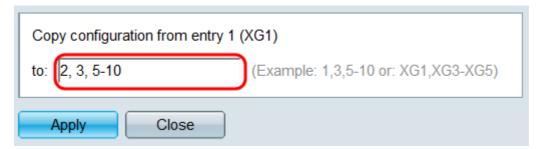
Step 8. Click **Apply**. The changes will be applied to the port specified. You can use the *Interface* field to configure another port without returning to the *Interface Settings* page.



Step 9. To quickly copy a port's settings to another port or ports, select its radio button and click the **Copy Settings...** button. The *Copy Settings* window opens.



Step 10. In the text field, enter the port or ports (separated by commas) that you want to copy the specified port's settings to. You can also enter a range of ports.



Step 11. Click **Apply**. The settings are copied.

