

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:	<input checked="" type="checkbox"/> Enable
CDP Frames Handling:	<input type="radio"/> Bridging <input type="radio"/> Filtering <input type="radio"/> Flooding
CDP Voice VLAN Advertisement:	<input checked="" type="checkbox"/> Enable
CDP Mandatory TLVs Validation:	<input type="checkbox"/> Enable
CDP Version:	<input type="radio"/> Version 1 <input checked="" type="radio"/> Version 2
CDP Hold Time:	<input checked="" type="radio"/> Use Default <input type="radio"/> User Defined <input type="text" value="180"/> sec (Range: 10 - 255, Default: 180)
CDP Transmission Rate:	<input checked="" type="radio"/> Use Default <input type="radio"/> User Defined <input type="text" value="60"/> sec (Range: 5 - 254, Default: 60)
Device ID Format:	<input checked="" type="radio"/> MAC Address <input type="radio"/> Serial Number <input type="radio"/> Hostname
Source Interface:	<input checked="" type="radio"/> Use Default <input type="radio"/> User Defined
Interface:	Unit <input type="text" value="1"/> Port <input type="text" value="XG1"/>
Syslog Voice VLAN Mismatch:	<input checked="" type="checkbox"/> Enable
Syslog Native VLAN Mismatch:	<input checked="" type="checkbox"/> Enable
Syslog Duplex Mismatch:	<input checked="" type="checkbox"/> Enable

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 [Step 14](#). If you enabled CDP, skip to [Step 4](#).

CDP Status:	<input checked="" type="checkbox"/> Enable
CDP Frames Handling:	<input type="radio"/> Bridging <input type="radio"/> Filtering <input type="radio"/> Flooding

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 [Step 11](#).

CDP Status: Enable

CDP Frames Handling: Bridging
 Filtering
 Flooding

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.

CDP Voice VLAN Advertisement: Enable

CDP Mandatory TLVs Validation: Enable

CDP Version: Version 1
 Version 2

CDP Hold Time: Use Default
 User Defined sec (Range: 10 - 255, Default: 180)

CDP Transmission Rate: Use Default
 User Defined sec (Range: 5 - 254, Default: 60)

Device ID Format: MAC Address
 Serial Number
 Hostname

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).

CDP Voice VLAN Advertisement: Enable

CDP Mandatory TLVs Validation: Enable

CDP Version: Version 1
 Version 2

CDP Hold Time: Use Default
 User Defined sec (Range: 10 - 255, Default: 180)

CDP Transmission Rate: Use Default
 User Defined sec (Range: 5 - 254, Default: 60)

Device ID Format: MAC Address
 Serial Number
 Hostname

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: MAC Address Serial Number Hostname

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: 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 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: Version 1
 Version 2

CDP Hold Time: Use Default
 User Defined sec (Range: 10 - 255, Default: 180)

CDP Transmission Rate: Use Default
 User Defined 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.

Source Interface: Use Default
 User Defined

Interface: Unit Port

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.

Syslog Voice VLAN Mismatch: Enable

Syslog Native VLAN Mismatch: Enable

Syslog Duplex Mismatch: Enable

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

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

Step 14. Click **Apply**.

Properties

CDP Status: Enable

CDP Frames Handling: Bridging
 Filtering
 Flooding

CDP Voice VLAN Advertisement: Enable

CDP Mandatory TLVs Validation: Enable

CDP Version: Version 1
 Version 2

CDP Hold Time: Use Default
 User Defined sec (Range: 10 - 255, Default: 180)

CDP Transmission Rate: Use Default
 User Defined sec (Range: 5 - 254, Default: 60)

Device ID Format: MAC Address
 Serial Number
 Hostname

Source Interface: Use Default
 User Defined

Interface: Unit Port

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

Interface Properties

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

Interface Settings

CDP Interface Settings Table

Filter: *Interface Type* equals to

	Entry No.	Interface	CDP Status	Reporting Conflicts with CDP Neighbors			No. of Neighbors
				Voice VLAN	Native VLAN	Duplex	
<input type="radio"/>	1	XG1	Enabled	Enabled	Enabled	Enabled	0
<input type="radio"/>	2	XG2	Enabled	Enabled	Enabled	Enabled	0
<input type="radio"/>	3	XG3	Enabled	Enabled	Enabled	Enabled	0
<input type="radio"/>	4	XG4	Enabled	Enabled	Enabled	Enabled	0
<input type="radio"/>	5	XG5	Enabled	Enabled	Enabled	Enabled	0
<input type="radio"/>	6	XG6	Enabled	Enabled	Enabled	Enabled	0
<input type="radio"/>	7	XG7	Enabled	Enabled	Enabled	Enabled	0
<input type="radio"/>	8	XG8	Enabled	Enabled	Enabled	Enabled	0
<input type="radio"/>	9	XG9	Enabled	Enabled	Enabled	Enabled	0
<input type="radio"/>	10	XG10	Enabled	Enabled	Enabled	Enabled	0

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.

Interface Settings

CDP Interface Settings Table

Filter: *Interface Type* equals to

	Entry No.	Interface	CDP Status	Reporting Conflicts with CDP Neighbors			No. of Neighbors
				Voice VLAN	Native VLAN	Duplex	
<input checked="" type="radio"/>	1	XG1	Enabled	Enabled	Enabled	Enabled	0
<input type="radio"/>	2	XG2	Enabled	Enabled	Enabled	Enabled	0
<input type="radio"/>	3	XG3	Enabled	Enabled	Enabled	Enabled	0
<input type="radio"/>	4	XG4	Enabled	Enabled	Enabled	Enabled	0
<input type="radio"/>	5	XG5	Enabled	Enabled	Enabled	Enabled	0
<input type="radio"/>	6	XG6	Enabled	Enabled	Enabled	Enabled	0
<input type="radio"/>	7	XG7	Enabled	Enabled	Enabled	Enabled	0
<input type="radio"/>	8	XG8	Enabled	Enabled	Enabled	Enabled	0
<input type="radio"/>	9	XG9	Enabled	Enabled	Enabled	Enabled	0
<input type="radio"/>	10	XG10	Enabled	Enabled	Enabled	Enabled	0

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: Enable

Syslog Native VLAN Mismatch: Enable

Syslog Duplex Mismatch: Enable

Apply Close

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

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 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 Port

CDP Status: Enable

Syslog Voice VLAN Mismatch: Enable

Syslog Native VLAN Mismatch: Enable

Syslog Duplex Mismatch: Enable

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.

Interface: Unit Port

CDP Status: Enable

Syslog Voice VLAN Mismatch: Enable

Syslog Native VLAN Mismatch: Enable

Syslog Duplex Mismatch: Enable

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.

Interface: Unit Port

CDP Status: Enable

Syslog Voice VLAN Mismatch: Enable

Syslog Native VLAN Mismatch: Enable

Syslog Duplex Mismatch: Enable

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.

Interface Settings

CDP Interface Settings Table							
Filter: <i>Interface Type</i> equals to <input type="text" value="Port of Unit 1"/> <input type="button" value="Go"/>							
	Entry No.	Interface	CDP Status	Reporting Conflicts with CDP Neighbors			No. of Neighbors
				Voice VLAN	Native VLAN	Duplex	
<input checked="" type="radio"/>	1	XG1	Enabled	Enabled	Enabled	Enabled	0
<input type="radio"/>	2	XG2	Enabled	Enabled	Enabled	Enabled	0
<input type="radio"/>	3	XG3	Enabled	Enabled	Enabled	Enabled	0
<input type="radio"/>	4	XG4	Enabled	Enabled	Enabled	Enabled	0
<input type="radio"/>	5	XG5	Enabled	Enabled	Enabled	Enabled	0
<input type="radio"/>	6	XG6	Enabled	Enabled	Enabled	Enabled	0
<input type="radio"/>	7	XG7	Enabled	Enabled	Enabled	Enabled	0
<input type="radio"/>	8	XG8	Enabled	Enabled	Enabled	Enabled	0
<input type="radio"/>	9	XG9	Enabled	Enabled	Enabled	Enabled	0
<input type="radio"/>	10	XG10	Enabled	Enabled	Enabled	Enabled	0

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.

Copy configuration from entry 1 (XG1)
to: (Example: 1,3,5-10 or: XG1,XG3-XG5)

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

Copy configuration from entry 1 (XG1)
to: (Example: 1,3,5-10 or: XG1,XG3-XG5)