Troubleshoot Smartports on your Sx250, Sx350, SG350X, or Sx550X Series Switch

Objective:

The objective of this document is to show how to identify, troubleshoot, and disable the Smartport feature if is causing problems with your switch.

Applicable Devices | Software Version

- Sx250 Series | 2.5.7
- Sx350 Series | 2.5.7
- SG350X Series | 2.5.7
- Sx550X Series | 2.5.7

This article will answer the following questions

- Do I have the Smartport feature enabled?
- What if I have the Smartport feature enabled, but it doesn’t seem to be working?
- How do I disable the Smartport feature?

Introduction

Did you know that Sx250, Sx350, SG350X, and Sx550 switches include a Smartport feature?

This Smartport feature applies a preconfigured setup to that switch port based on the type of device that is trying to connect. Auto Smartport lets the switch apply these configurations to interfaces automatically when it detects the device.

Smartports have preset configurations for the following:

- Printer
- Desktop
- Guest
- Server
- Host
- IP Camera
- IP Phone
- IP Phone + Desktop
- Switch
- Router
- Wireless Access Points

Smartports can be a huge time-saver for you, but there may be circumstances where you need to change settings. In some instances, it might be easier to just disable the Smartport feature and move on! Not sure? Check this article out for more details.

First things first, let’s figure out if you have the Smartport feature enabled.

Do I have the Smartport feature enabled?

The short answer, it depends!

If you have firmware version 2.5.7 and earlier, the Smartport feature is **enabled** by default. So, unless you changed this setting, it is enabled.

If you have a 2.4.5.47 (or earlier) firmware version and you upgrade to the latest (February 2021) 2.5.7 version (or later when available), the default setting will remain with the Smartport feature **enabled** unless you have manually disabled this feature.

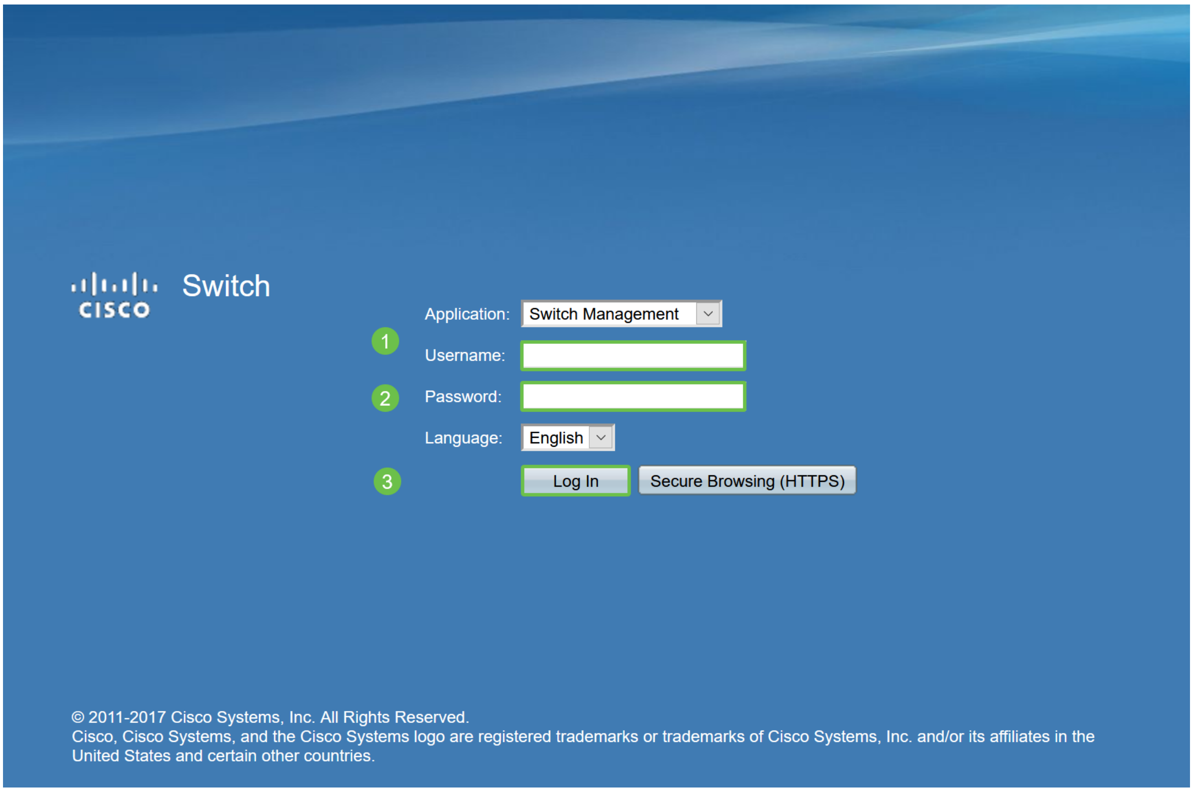
If you purchase a switch that has the 2.5.7 firmware version (or later), the firmware will have the Smartport feature **disabled** by default. This change was made because some customers didn't necessarily want to use the Smartport feature or it was causing an issue with connectivity and customers didn't realize it was enabled.

If you aren't sure if you have the feature enabled, you can check. Navigate to **Smartport > Properties**. At this location, you can view the Smartport settings or simply disable the feature if you choose.

If you would like detailed steps for upgrading firmware, check out the article Upgrade Firmware on a Switch.

What if I have the Smartport feature enabled, but it doesn't seem to be working?

To check these possible issues, log into the Web User Interface (UI) of the switch.



Application: Switch Management

Language: English

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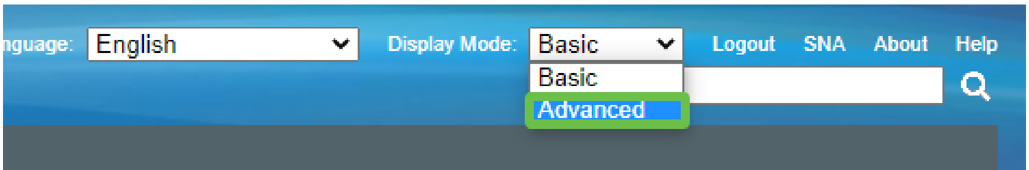
Once in the Web UI, change Display Mode from *Basic* to *Advanced*. This is located in the top-right corner of your screen.



nguage: English

Display Mode: Basic

Check the discovery protocol settings

The switch requires Cisco Discovery Protocol (CDP) and/or Layer Link Discovery Protocol (LLDP) to be enabled. These protocols share identification information between connecting devices or network equipment, which enables a device to advertise the type of device, operating system version, IP address, configuration, and capabilities to the switch. CDP, designed by Cisco, may have also been adopted by other manufacturers. If enabled on third-party equipment it could also be discovered by the Cisco switch. Both CDP and LLDP are enabled by default, so unless you manually changed it, you can move on to the next section.

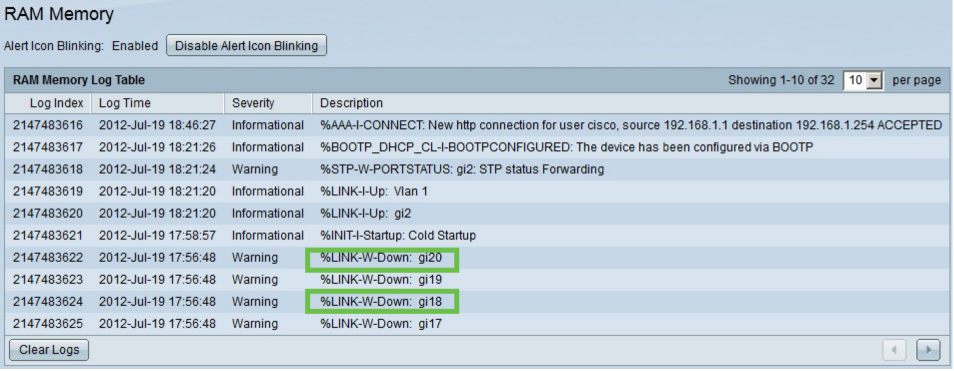
If you need to manually change CDP and LLDP back to enabled, you should restart your equipment to see if the Smartport feature is now working. You can check these under the *Administration* tab. If that fixes your issue, congratulations!

If a device is not clearly identified by either CDP or LLDP, you might want to disable the Smartport feature to clear away issues. Click to jump to the disable Smartports section of this article.

Check Port Configurations

Step 1

Go to **Administration > Logs > RAM Memory**. Check the device logs. Look for port locking placed to classic lock or any entries that did not result from a configuration that you set. Also, look for any entries that may place ports as *Disabled* or *Down*.



RAM Memory

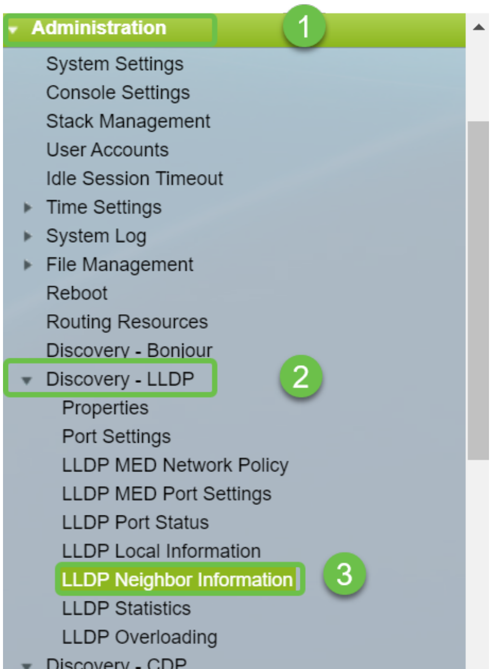
Alert Icon Blinking: Enabled

RAM Memory Log Table — Showing 1-10 of 32, 10 per page

Log Index	Log Time	Severity	Description
2147483616	2012-Jul-19 18:46:27	Informational	%AAA-I-CONNECT: New http connection for user cisco, source 192.168.1.1 destination 192.168.1.254 ACCEPTED
2147483617	2012-Jul-19 18:21:26	Informational	%BOOTP_DHCP_CL-I-BOOTPCONFIGURED: The device has been configured via BOOTP
2147483618	2012-Jul-19 18:21:24	Warning	%STP-W-PORTSTATUS: gi2: STP status Forwarding
2147483619	2012-Jul-19 18:21:20	Informational	%LINK-I-Up: Vlan 1
2147483620	2012-Jul-19 18:21:20	Informational	%LINK-I-Up: gi2
2147483621	2012-Jul-19 17:58:57	Informational	%INIT-I-Startup: Cold Startup
2147483622	2012-Jul-19 17:56:48	Warning	%LINK-W-Down: gi20
2147483623	2012-Jul-19 17:56:48	Warning	%LINK-W-Down: gi19
2147483624	2012-Jul-19 17:56:48	Warning	%LINK-W-Down: gi18
2147483625	2012-Jul-19 17:56:48	Warning	%LINK-W-Down: gi17

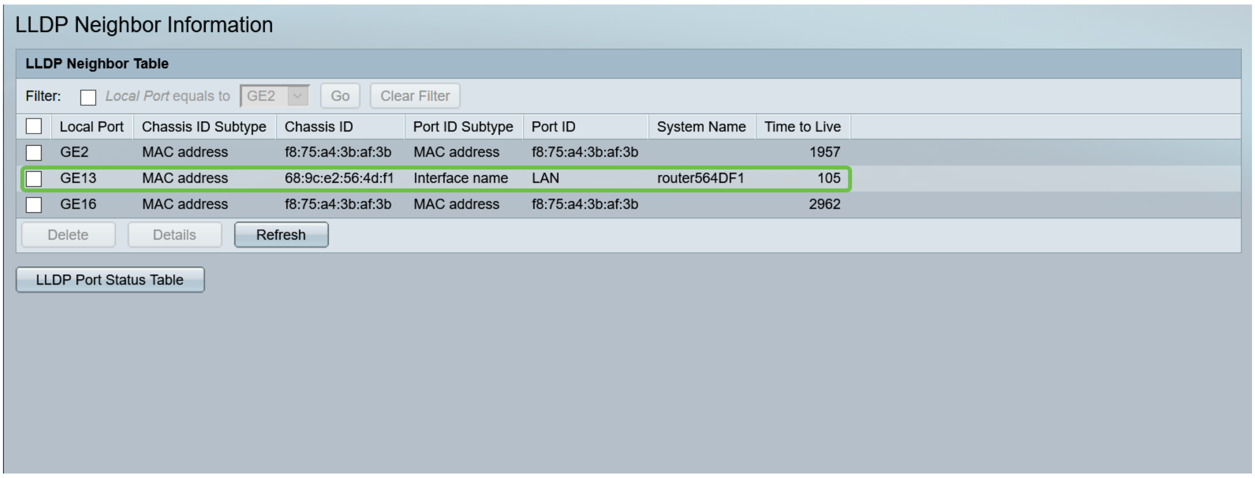
Step 2

Navigate to **Administration > Discovery LLDP neighbor > LLDP Neighbor Information**.



Step 3

Check devices that may or may not be Cisco devices connected to your switch. Verify they are the correct devices and that the IP addresses are correct.



LLDP Neighbor Information

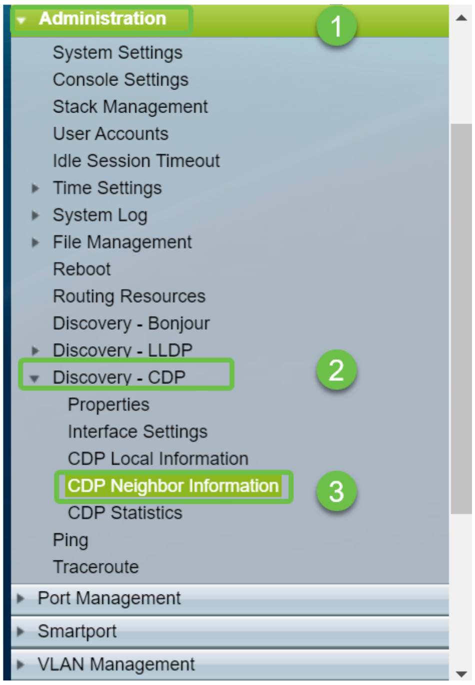
LLDP Neighbor Table

Filter: □ *Local Port* equals to GE2

□	Local Port	Chassis ID Subtype	Chassis ID	Port ID Subtype	Port ID	System Name	Time to Live
□	GE2	MAC address	f8:75:a4:3b:af:3b	MAC address	f8:75:a4:3b:af:3b		1957
□	GE13	MAC address	68:9c:e2:56:4d:f1	Interface name	LAN	router564DF1	105
□	GE16	MAC address	f8:75:a4:3b:af:3b	MAC address	f8:75:a4:3b:af:3b		2962

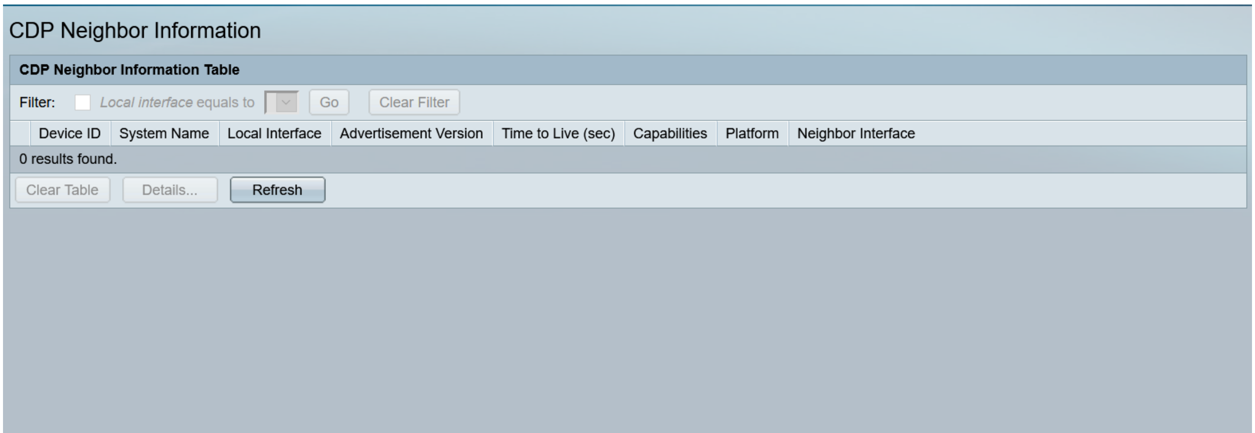
Step 4

Go to **Administration > Discovery CDP > CDP Neighbor Information**.



Step 5

Check any available CDP information. If you are still having connectivity issues, follow the steps in the next section to disable the Smartport feature.



CDP Neighbor Information

CDP Neighbor Information Table

Filter: □ *Local interface* equals to

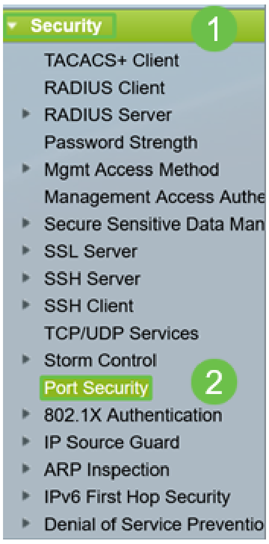
Device ID	System Name	Local Interface	Advertisement Version	Time to Live (sec)	Capabilities	Platform	Neighbor Interface

0 results found.

Check Port Security

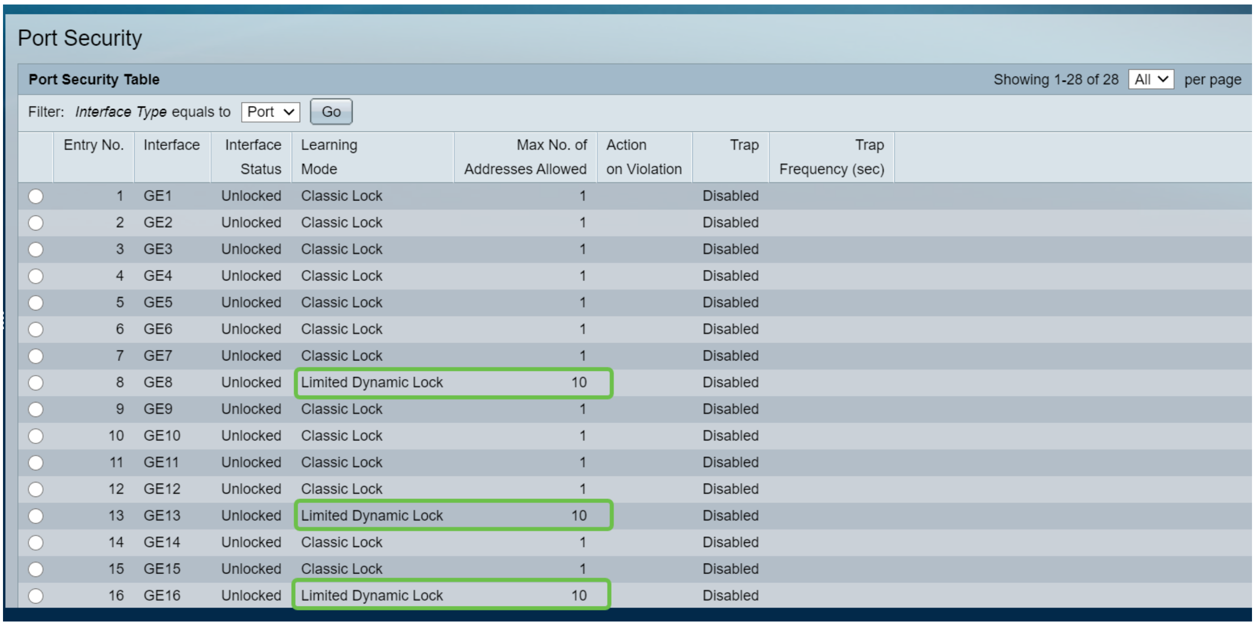
Step 1

Navigate to **Security > Port Security**.



Step 2

On the *Port Security* page, check for any ports that are not on *Classic Lock*. Classic Lock is the default for each port. Any port that is not on *Classic Lock* has a limit on the number of devices on that port, which can cause disconnections. If you did not configure the setting, you can follow the steps to disable Smartports to fix this issue.


Port Security

Port Security Table — Showing 1-28 of 28 All per page

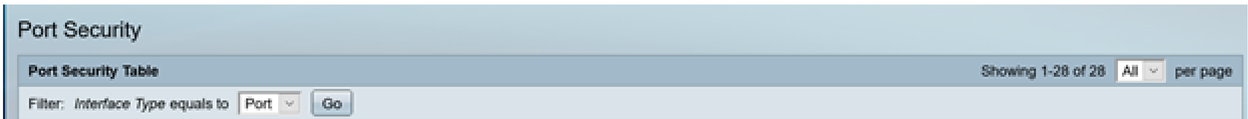
Filter: *Interface Type* equals to Port Go

	Entry No.	Interface	Interface Status	Learning Mode	Max No. of Addresses Allowed	Action on Violation	Trap	Trap Frequency (sec)
○	1	GE1	Unlocked	Classic Lock	1		Disabled	
○	2	GE2	Unlocked	Classic Lock	1		Disabled	
○	3	GE3	Unlocked	Classic Lock	1		Disabled	
○	4	GE4	Unlocked	Classic Lock	1		Disabled	
○	5	GE5	Unlocked	Classic Lock	1		Disabled	
○	6	GE6	Unlocked	Classic Lock	1		Disabled	
○	7	GE7	Unlocked	Classic Lock	1		Disabled	
○	8	GE8	Unlocked	Limited Dynamic Lock	10		Disabled	
○	9	GE9	Unlocked	Classic Lock	1		Disabled	
○	10	GE10	Unlocked	Classic Lock	1		Disabled	
○	11	GE11	Unlocked	Classic Lock	1		Disabled	
○	12	GE12	Unlocked	Classic Lock	1		Disabled	
○	13	GE13	Unlocked	Limited Dynamic Lock	10		Disabled	
○	14	GE14	Unlocked	Classic Lock	1		Disabled	
○	15	GE15	Unlocked	Classic Lock	1		Disabled	
○	16	GE16	Unlocked	Limited Dynamic Lock	10		Disabled	

Step 3

Navigate back to *Port Security* and verify all ports are back to *Classic Lock* and verify connectivity with devices in your network.

If you experienced any disconnections or Internet problems, verify connectivity has returned. If this did not fix your port issues, you may want to disable the Smartport feature as detailed in the next section of this article.


Port Security

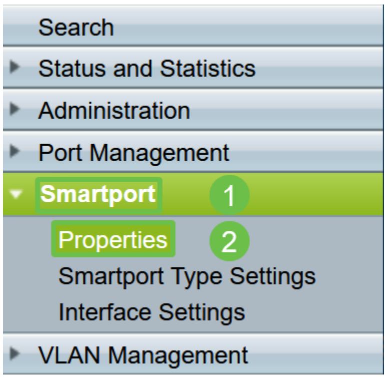
Port Security Table — Showing 1-28 of 28 All per page

Filter: *Interface Type* equals to Port Go

How do I disable the Smartport feature?

Step 1

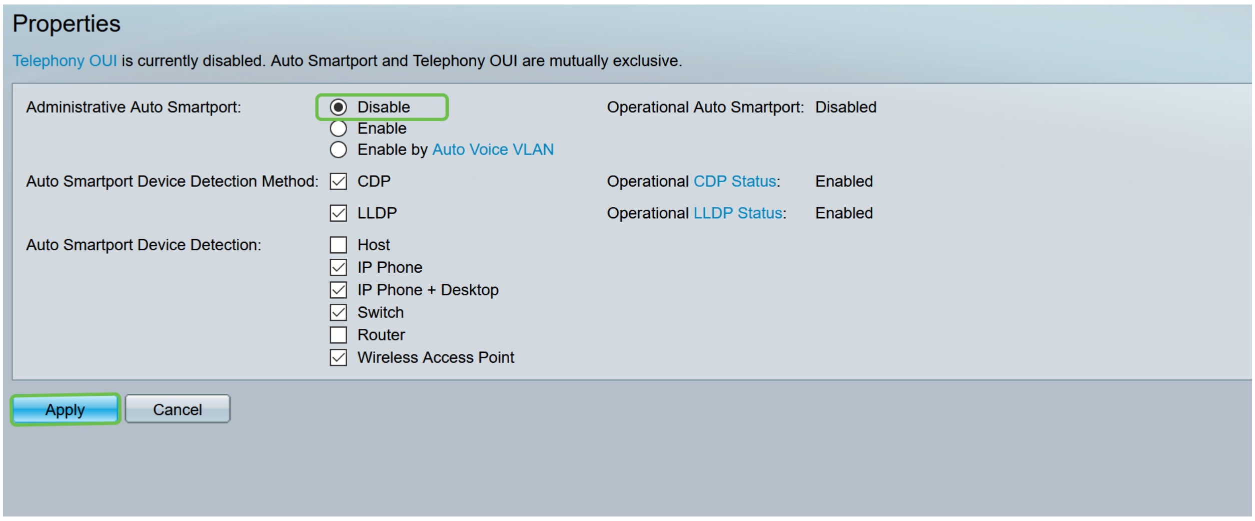
Choose **Smartport > Properties**.



Step 2

Select *Disable* next to *Administrative Auto Smartport*, to disable the Smartport feature globally on the switch. Click the **Apply** button.

This will disable the Smartport on all interfaces but will not affect manual VLAN configurations.



Properties

Telephony OUI is currently disabled. Auto Smartport and Telephony OUI are mutually exclusive.

Administrative Auto Smartport: ● Disable ○ Enable ○ Enable by Auto Voice VLAN

Operational Auto Smartport: Disabled

Auto Smartport Device Detection Method: ☑ CDP ☑ LLDP

Operational CDP Status: Enabled

Operational LLDP Status: Enabled

Auto Smartport Device Detection: □ Host ☑ IP Phone ☑ IP Phone + Desktop ☑ Switch □ Router ☑ Wireless Access Point

Conclusion:

Nice work, you were able to troubleshoot and disable the Smartport feature!