

Just Add Power



CISCO SG500 INITIAL SETUP

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Stacking vs. Trunking

Cisco SG500 models have 1 main advantage over Cisco SG300 models: Cisco SG500 models support stacking. According to the Cisco SG500 data sheet ([Cisco SG500 Series Stackable Managed Switches](#)), up to **8 units** and up to **416 ports** can be managed in a single stacked system. For differences between the Cisco SG500 and SG500X, please see Cisco's website: www.cisco.com.

Trunk Connection

When 2 or more switches are trunked together they act as separate switches. This means that they have separate MAC addresses, IP addresses, VLANs, MAC-Address Tables, etc. They are able to forward VLAN information from one switch to another while also keeping information for those VLANs separated.

Control systems communicating with trunked switches will need one connection for **EACH** switch in a trunk, as each switch behaves as a completely separate entity and cannot directly influence the configuration of another switch.

Trunking can be done over CatX cable or over SFP modules. Trunk bandwidth is 1 – 10 Gbps, depending on the model of SG500.

Stack Connection

When 2 or more switches are stacked together they act as if they are 1 physical switch. One switch is designated as the "Master" and is used as the configuration point for all of the "Slave" switches in the stack. All information meant for any of the stacked switches is passed to all switches in the stack, regardless of the final destination of the information.

Control systems attempting to communicate with stacked switches need only one connection point: either serial connection to the Master switch in the stack, or a telnet connection through any port on the switch.

Stacking can be done over CatX cable or over SFP modules. Stack bandwidth is 1 – 10 Gbps, depending on the model of SG500.

The benefit of stacking is realized when there are more than 6 Transmitters or more Receivers than one switch can reliably handle. Stacking cables are able to handle much more bandwidth than Cat5e/6 cables. However, the benefit of stacking reaches beyond bandwidth.

Configuring Stacking

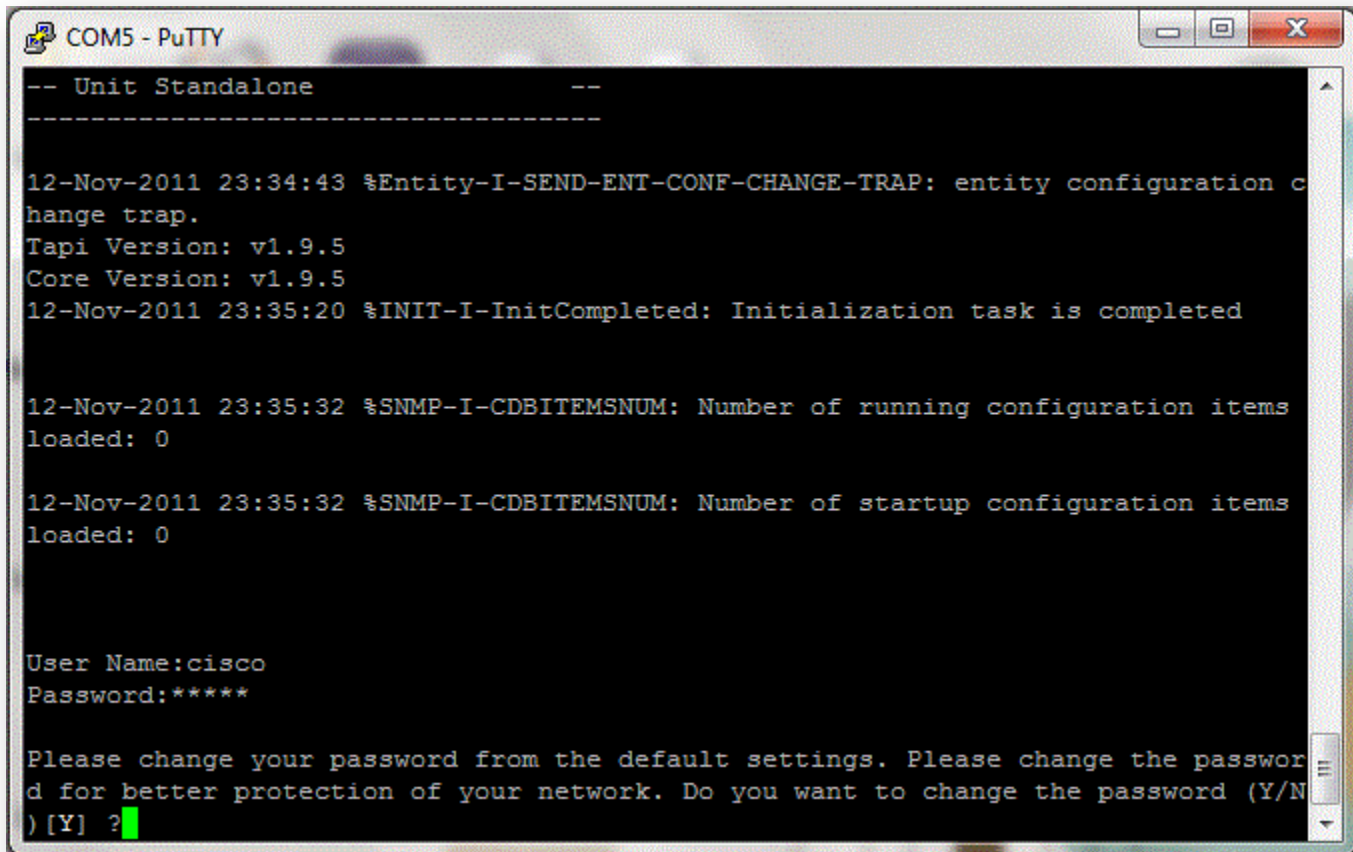
Note: Perform these steps on every switch **BEFORE** attaching the stacking cables.

The SG500 allows for up to 8 switches to be stacked together. With eight 52-port switches, this leaves open the possibility for 400 connected devices in a single stack.

- 1) Connect to the switch with the included console cable and create a serial connection to the switch at a baud rate of 115200-8n1.
- 2) Power on the switch and allow it to run through the boot sequence. When it finishes, the prompt will ask for a username and password. Both are "cisco."
- 3) When it asks you to change the password, type "N." This will exit from the initial set-up dialog and put us at the command line interface (CLI).

Not Sure How?

[Serial Connection to Switch](#)



Note: The prompt - `switch6f48fa#` - should always end with '#' in order for configuration to be possible. If at any point the prompt ends with a '>' instead - `switch6f48fa>` - type `enable` and enter the password `cisco` to return to the # prompt.

```
switchb471cc>enable
Password:*****
switchb471cc#
```

- 4) Assign 1 switch as the Stack Master and the order of succession if it fails. At the same time we will also configure the stack ports and speed. If you have fewer than 4 switches, only perform the necessary steps.

- a. Enter into the CLI on the master switch:

```
stack native s3-s4 5g 1 reboot
[y]
[y]
[y]
```

```
StackMaster#stack native s3-s4 5g 1 reboot
Are you sure you want to restart ? (Y/N) [Y] Y
You haven't saved your changes. Are you sure you want to continue ? (Y/N) [N] Y
This command will reset the whole system and disconnect your current session. Do
you want to continue ? (Y/N) [N] █
```

- b. Enter into the CLI on the second switch (the backup master):

```
stack native s3-s4 5g 2 reboot
[y]
[y]
[y]
```

```
StackBackup#stack native s3-s4 5g 2 reboot
Are you sure you want to restart ? (Y/N) [Y] Y
You haven't saved your changes. Are you sure you want to continue ? (Y/N) [N] Y
This command will reset the whole system and disconnect your current session. Do
you want to continue ? (Y/N) [N] █
```

- c. Perform the same operations for all units in the stack, replacing "2" with the appropriate number.
- d. Label the switches appropriately so that the Unit number of each switch is clear.
- 5) Once all switches finish rebooting, they will retain their stack configuration but have all other variables reset. To enable stacking, connect the stacking cables.

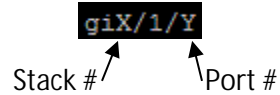


SFP Stacking Cable

Note: If you have more than 2 switches, it is highly recommended to connect them in Ring Topology. This means that switch 1 is connected to switch 2, 2 is connected to 3, 3 is connected to 4, and 4 is connected back to 1. This way, if one stacking cable fails then the stack still functions.

- 6) Once the stacking cables are connected, all switches except the master will reset. If stacking was configured correctly, accessing any of the Slave switches will yield a prompt with only a '>' symbol, and no configuration options except for debug and help. Connect the console cable to the Master switch to perform switch configuration.
- 7) Finished! The Master switch will list all of the ports on the newly stacked switch. Ports are shown in the format X/1/Y, where X is the stack number and Y is the port number on that stack. Type the following command into the CLI to get the report:

show interface status



```
switchb471cc#show int status
```

Port	Type	Duplex	Speed	Neg	Flow ctrl	Link State	Back Pressure	Mdix Mode
gi1/1/1	1G-Copper	--	--	--	--	Down	--	--
gi1/1/2	1G-Copper	--	--	--	--	Down	--	--
gi1/1/3	1G-Copper	--	--	--	--	Down	--	--
gi1/1/4	1G-Copper	--	--	--	--	Down	--	--
gi1/1/5	1G-Copper	--	--	--	--	Down	--	--
gi1/1/6	1G-Copper	--	--	--	--	Down	--	--
gi1/1/7	1G-Copper	--	--	--	--	Down	--	--
gi1/1/8	1G-Copper	--	--	--	--	Down	--	--
gi1/1/9	1G-Copper	--	--	--	--	Down	--	--
gi1/1/10	1G-Copper	--	--	--	--	Down	--	--
gi1/1/11	1G-Copper	--	--	--	--	Down	--	--
gi1/1/12	1G-Copper	--	--	--	--	Down	--	--
gi1/1/13	1G-Copper	--	--	--	--	Down	--	--
gi1/1/14	1G-Copper	--	--	--	--	Down	--	--
gi1/1/15	1G-Copper	--	--	--	--	Down	--	--
gi1/1/16	1G-Copper	--	--	--	--	Down	--	--
gi1/1/17	1G-Copper	--	--	--	--	Down	--	--
gi1/1/18	1G-Copper	--	--	--	--	Down	--	--
gi1/1/19	1G-Copper	--	--	--	--	Down	--	--
gi1/1/20	1G-Copper	--	--	--	--	Down	--	--
gi1/1/21	1G-Copper	--	--	--	--	Down	--	--
gi1/1/22	1G-Copper	--	--	--	--	Down	--	--
gi1/1/23	1G-Copper	--	--	--	--	Down	--	--
gi1/1/24	1G-Copper	--	--	--	--	Down	--	--
gi1/1/25	1G-Combo-C	--	--	--	--	Down	--	--
gi1/1/26	1G-Combo-C	--	--	--	--	Down	--	--
gi2/1/1	1G-Copper	--	--	--	--	Down	--	--
gi2/1/2	1G-Copper	--	--	--	--	Down	--	--
gi2/1/3	1G-Copper	--	--	--	--	Down	--	--
gi2/1/4	1G-Copper	--	--	--	--	Down	--	--
gi2/1/5	1G-Copper	--	--	--	--	Down	--	--
gi2/1/6	1G-Copper	--	--	--	--	Down	--	--
gi2/1/7	1G-Copper	--	--	--	--	Down	--	--
gi2/1/8	1G-Copper	--	--	--	--	Down	--	--
gi2/1/9	1G-Copper	--	--	--	--	Down	--	--
gi2/1/10	1G-Copper	--	--	--	--	Down	--	--
gi2/1/11	1G-Copper	--	--	--	--	Down	--	--
gi2/1/12	1G-Copper	--	--	--	--	Down	--	--
gi2/1/13	1G-Copper	--	--	--	--	Down	--	--

Initial Switch Configuration

A Just Add Power installation is a Right Size™ matrix. This means that there could be any number of Transmitters and Receivers connected to any ports of the SG500. Just Add Power has a recommended setup which will be followed here, but in practice any setup will work.

First, decide whether Layer 2 or Layer 3 control is needed for Just Add Power devices.

Layer 2 – basic matrix switching **ONLY**.

Layer 3 – matrix switching **PLUS** advanced control features of Just Add Power devices: video wall, CEC, RS232, USB, OSD, etc.

Access Mode (Layer 2)

Access Mode (Layer 2) is used for basic matrix switching **ONLY**. This mode can be controlled 2 ways:

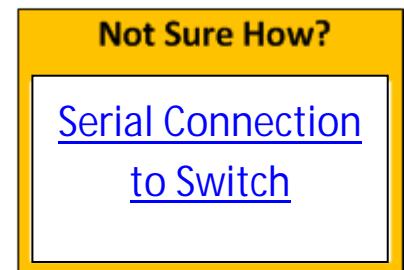
- 1) IP connection to an open port on the switch
- 2) serial connection to the console port on the back of the switch.

The example set-up will include **3 Transmitters** and **5 Receivers**:

- 3 Transmitters are connected to ports 2-4 on Stack 1 (gi1/1/2 to gi1/1/4)
- 5 Receivers are connected to ports 1-5 on Stack switch 2 (gi2/1/1 to gi2/1/5)
- If your installation contains more devices, expand on the steps in this guide to fully configure the installation.

Note: All configuration must be applied to the stack Master. If the stack Master has not been configured yet, please refer to the [Configuring Stacking](#) section above.

- 1) Connect to the switch with the included console cable and create a serial connection to the switch at a baud rate of 115200-8n1.
- 2) Power on the switch and allow it to run through the boot sequence. When it finishes, the prompt will ask for a username and password. Both are "cisco."
- 3) When it asks you to change the password, type "N." This will exit from the initial set-up dialog and put us at the command line interface (CLI).



```
User Name:cisco
Password:*****

Please change your password from the default settings. Please change the password
for better protection of your network. Do you want to change the password (Y/N
) [Y] ?N

switchb471cc#
```

Note: The prompt - **switch6f48fa#** - should always end with '#' in order for configuration to be possible. If at any point the prompt ends with a '>' instead - **switch6f48fa>** - type **enable** and enter the password **cisco** to return to the # prompt.

```
switchb471cc>enable
Password:*****
switchb471cc#
```

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- 4) Create one VLAN per Transmitter. Each Transmitter must have its own VLAN. Since there are 3 Transmitters plugged into ports 2-4 it is easiest to create 3 VLANs numbered 2-4.

```
config
vlan database
vlan 2-4
end
```

```
switchb471cc#
switchb471cc#config
switchb471cc(config)#vlan database
switchb471cc(config-vlan)#vlan 2-4
switchb471cc(config-vlan)#end
switchb471cc#
```

- 5) Put all Just Add Power ports in "access" mode.

Note: Ports are labeled in the format giX/1/Y where X is the stack number and Y is the port number. **giX/1/Y**

Stack # ↗ ↘ Port #

```
config
interface range gil/1/2-4
switchport mode access
interface range gi2/1/1-5
switchport mode access
end
```

```
switchb471cc#config
switchb471cc(config)#interface range gil/1/2-4
switchb471cc(config-if-range)#switchport mode access
switchb471cc(config-if-range)#interface range gi2/1/1-5
switchb471cc(config-if-range)#switchport mode access
switchb471cc(config-if-range)#end
switchb471cc#
```

- 6) Put the Transmitter ports in their appropriate VLANs.

Reminder: the Transmitters are connected to ports 2-4 on Stack 1, so we will put them in VLANs 2-4.

```
config
interface gil/1/2
switchport access vlan 2
interface gil/1/3
switchport access vlan 3
interface gil/1/4
switchport access vlan 4
end
```

```
switchb471cc#config
switchb471cc(config)#interface gil/1/2
switchb471cc(config-if)#switchport access vlan 2
switchb471cc(config-if)#interface gil/1/3
switchb471cc(config-if)#switchport access vlan 3
switchb471cc(config-if)#interface gil/1/4
switchb471cc(config-if)#switchport access vlan 4
switchb471cc(config-if)#end
switchb471cc#
```

- 7) Set the Receivers in ports 1-5 on Stack 2 to automatically be watching the Transmitter in VLAN 2.

```
config
interface range gi2/1/1-5
switchport access vlan 2
end
```

```
switchb471cc#config
switchb471cc(config)#interface range gi2/1/1-5
switchb471cc(config-if-range)#switchport access vlan 2
switchb471cc(config-if-range)#end
switchb471cc#
```

- 8) Enable instant, seamless switching between sources of the same resolution.

```
config
interface range gil/1/2-4
spanning-tree portfast
interface range gi2/1/1-5
spanning-tree portfast
end
```

```
switchb471cc#config
switchb471cc(config)#interface range gil/1/2-4
switchb471cc(config-if-range)#spanning-tree portfast
switchb471cc(config-if-range)#interface range gi2/1/1-5
switchb471cc(config-if-range)#spanning-tree portfast
switchb471cc(config-if-range)#end
switchb471cc#
```


- 9) Save the configuration so that if the switch loses power it reboots correctly.

write
y [to confirm]

```
switchb471cc#write  
Overwrite file [startup-config]... (Y/N) [N] ?Y  
Copy succeeded
```

WARNING: DO NOT change the file name. The only file the switch looks for is [startup-config].

- 10) [Set Optional Parameters](#) if desired.

Congratulations! You have configured your SG500 stacked switch to work with Just Add Power Transmitters and Receivers in Layer 2 mode.

General Mode (Layer 3)

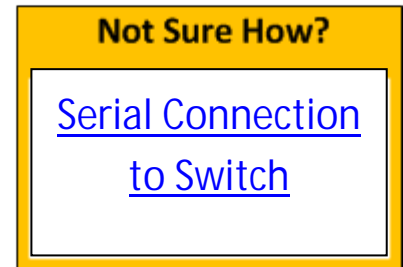
General Mode (Layer 3) is used for matrix switching **PLUS** advanced control features of Just Add Power devices: video wall, CEC, RS232, USB, OSD, etc. This mode can **ONLY** be controlled with an IP connection to an open port.

The example set-up will include **3 Transmitters** and **5 Receivers**:

- 3 Transmitters are connected to ports 2-4 on Stack 1 (gi1/1/2 to gi1/1/4)
- 5 Receivers are connected to ports 1-5 on Stack switch 2 (gi2/1/1 to gi2/1/5)
- If your installation contains more devices, expand on the steps in this guide to fully configure the installation.

Note: All configuration must be applied to the stack Master. If the stack Master has not been configured yet, please refer to the [Configuring Stacking](#) section above.

- 1) Connect to the switch with the included console cable and create a serial connection to the switch at a baud rate of 115200-8n1.
- 2) Power on the switch and allow it to run through the boot sequence. When it finishes, the prompt will ask for a username and password. Both are "cisco."



Note: The prompt - `switch6f48fa#` - should always end with '#' in order for configuration to be possible. If at any point the prompt ends with a '>' instead - `switch6f48fa>` - type `enable` and enter the password `cisco` to return to the # prompt.

```
switchb471cc>enable
Password:****
switchb471cc#
```

- 3) Create one VLAN **per** Transmitter, and one VLAN for **ALL** Receivers. This guide will create VLANs 10-13; VLAN 10 for the Receivers and VLANs 11-13 for the 3 Transmitters.

Note: Just Add Power "best practices" puts all Receivers on VLAN 10 and Transmitters starting on VLAN 11 working upwards. In practice, any VLAN number can be used; VLAN 1 is avoided for management purposes.

```
config
vlan database
vlan 10-13
end
```

```
switchb471cc#config
switchb471cc(config)#vlan database
switchb471cc(config-vlan)#vlan 10-13
switchb471cc(config-vlan)#end
switchb471cc#
```

- 4) Put all Just Add Power ports in general mode.

Note: Ports are labeled in the format giX/1/Y where X is the stack number and Y is the port number. `giX/1/Y`

Stack # ↗ ↖ Port #

```
config
interface range gi1/1/2-4
switchport mode general
interface range gi2/1/1-5
switchport mode general
end
```

```
switchb471cc#config
switchb471cc(config)#interface range gi1/1/2-4
switchb471cc(config-if-range)#switchport mode general
switchb471cc(config-if-range)#interface range gi2/1/1-5
switchb471cc(config-if-range)#switchport mode general
switchb471cc(config-if-range)#end
switchb471cc#
```

- 5) Put each Transmitter port in their own VLAN and the Receiver VLAN (10).

```
config
interface gi1/1/2
switchport general allowed vlan add 10,11 untagged
switchport general pvid 11
interface gi1/1/3
switchport general allowed vlan add 10,12 untagged
switchport general pvid 12
interface gi1/1/4
switchport general allowed vlan add 10,13 untagged
switchport general pvid 13
end
```

```
switchb471cc#config
switchb471cc(config)#interface gi1/1/2
switchb471cc(config-if)#switchport general allowed vlan add 10,11 untagged
switchb471cc(config-if)#switchport general pvid 11
switchb471cc(config-if)#interface gi1/1/3
switchb471cc(config-if)#switchport general allowed vlan add 10,12 untagged
switchb471cc(config-if)#switchport general pvid 12
switchb471cc(config-if)#interface gi1/1/4
switchb471cc(config-if)#switchport general allowed vlan add 10,13 untagged
switchb471cc(config-if)#switchport general pvid 13
switchb471cc(config-if)#end
switchb471cc#
```

- 6) Set the Receivers in ports 1-5 on Stack 2 in their native VLAN (10) and to automatically watch the Transmitter in VLAN 11.

```
config
interface range gi2/1/1-5
switchport general allowed vlan add 10,11 untagged
switchport general pvid 10
end
```

```
switchb471cc#config
switchb471cc(config)#interface range gi2/1/1-5
switchb471cc(config-if-range)#switchport general allowed vlan add 10,11 untagged
switchb471cc(config-if-range)#switchport general pvid 10
switchb471cc(config-if-range)#end
switchb471cc#
```

- 7) Enable instant, seamless switching between sources of the same resolution.

```
config
interface range gi1/1/2-4
spanning-tree portfast
interface range gi2/1/1-5
spanning-tree portfast
end
```

```
switchb471cc#config
switchb471cc(config)#interface range gi1/1/2-4
switchb471cc(config-if-range)#spanning-tree portfast
switchb471cc(config-if-range)#interface range gi2/1/1-5
switchb471cc(config-if-range)#spanning-tree portfast
switchb471cc(config-if-range)#end
switchb471cc#
```

- 8) Save the configuration so that if the switch loses power it reboots correctly.

write
y [to confirm]

```
switchb471cc#write
Overwrite file [startup-config]... (Y/N) [N] ?Y
Copy succeeded
```

WARNING: DO NOT change the file name. The only file the switch looks for is [startup-config].

- 9) [Set Optional Parameters](#) if desired.

Congratulations! You have configured your SG500 stacked switch to work with Just Add Power Transmitters and Receivers in Layer 3 mode.

Set Optional Parameters

Disable Login

If the username and password are enabled on the switch, every new serial connection will require authentication. This has caused issues in the past with control systems that cannot detect when a username and password are requested. It is suggested to disable login credentials for systems where security isn't an issue.

```
config
aaa authentication enable default none
aaa authentication login default none
end
write
Y
```

```
switchb471cc#
switchb471cc#config
switchb471cc(config)#aaa authentication enable default none
switchb471cc(config)#aaa authentication login default none
switchb471cc(config)#end
switchb471cc#write
Overwrite file [startup-config]... (Y/N) [N] ?Y
Copy succeeded
switchb471cc#
```

Remove Connection Timeout

When the connection is idle, it will eventually revert back to an unconnected state. Disabling the unconnected state can prevent issues with some control systems from occurring.

```
config
line telnet
exec-timeout 0
line console
exec-timeout 0
end
write
Y
```

```
switchb471cc#
switchb471cc#config
switchb471cc(config)#line telnet
switchb471cc(config-line)#exec-timeout 0
switchb471cc(config-line)#line console
switchb471cc(config-line)#exec-timeout 0
switchb471cc(config-line)#end
switchb471cc#write
Overwrite file [startup-config]... (Y/N) [N] ?Y
Copy succeeded
switchb471cc#
```

Enable Telnet

If you would prefer to control your switch through telnet instead of RS232 on the console port, telnet must be enabled and an IP address must be given to the switch.

Example: Set the IP on VLAN 1 to 192.168.1.200 with a subnet mask of 255.255.255.0.

```
config
ip telnet server
interface vlan 1
ip address 192.168.1.200 255.255.255.0
end
write
Y
```

```
switchb471cc#config
switchb471cc(config)#ip telnet server
switchb471cc(config)#interface vlan 2
switchb471cc(config-if)#ip address 192.168.1.200 255.255.255.0
switchb471cc(config-if)#end
switchb471cc#write
Overwrite file [startup-config]... (Y/N) [N] ?Y
Copy succeeded
switchb471cc#
```

Note: In General Mode (Layer 3), VLAN 1 cannot be used for routing. Just Add Power recommends creating VLAN 2 and using VLAN 2 as the control port for telnet.

Switching Sources

Access Mode (Layer 2)

A Receiver is always watching the Transmitter that it shares a VLAN with. There cannot be two Transmitters in the same VLAN, so in order to change what a Receiver is watching we must swap it into a different VLAN.

Example: To set the Receiver in port 4 on Switch 2 to watch the Transmitter in VLAN 3.

```
enable
config
interface gi2/1/4
switchport access vlan 3
end
```

```
SwitchMaster#enable
% Unrecognized command
SwitchMaster#config
SwitchMaster(config)#interface gi2/1/4
SwitchMaster(config-if)#switchport access vlan 3
SwitchMaster(config-if)#exit
SwitchMaster(config)#exit
```

Note: If the switch loses power, when it finishes rebooting the Receiver in port 4 will reset to watching VLAN 2, since that is the default. If you want to make VLAN 3 the default for this Receiver, then add the write command to save.

General Mode (Layer 3)

A Receiver is always watching the Transmitter that it shares a VLAN with. There cannot be two Transmitters in the same VLAN, so in order to change what a Receiver is watching we must swap it into a different VLAN.

Example: To set the Receiver in port 4 on Switch 2 to watch the Transmitter in VLAN 12.

```
config
interface gi2/1/4
switchport general allowed vlan remove 11-99
switchport general allowed vlan add 10,12 untagged
switchport general pvid 10
end
```

```
switchb471cc#config
switchb471cc(config)#interface gi2/1/4
switchb471cc(config-if)#switchport general allowed vlan remove 11-99
switchb471cc(config-if)#switchport general allowed vlan add 10,12 untagged
switchb471cc(config-if)#switchport general pvid 10
switchb471cc(config-if)#end
switchb471cc#
```

Note: If the switch loses power, when it finishes rebooting the Receiver in port 4 will reset to watching VLAN 11, since that is the default. If you want to make VLAN 12 the default for this Receiver, then add the write command to save.

Example Running Configuration

Access Mode (Layer 2)

If you want to check your work, type this command:

```
show running-config
```

The resulting output (after you hit the Space Bar a couple of times) should look almost exactly like what is shown below for a 3-source, 5-display switch configuration.

```
SwitchMaster#show running-config
vlan database
vlan 2-4
exit
voice vlan oui-table add 0001e3 Siemens_AG_phone_____
voice vlan oui-table add 00036b Cisco_phone_____
voice vlan oui-table add 00096e Avaya_____
voice vlan oui-table add 000fe2 H3C_Aolynk_____
voice vlan oui-table add 0060b9 Philips_and_NEC_AG_phone_____
voice vlan oui-table add 00d01e Pingtel_phone_____
voice vlan oui-table add 00e075 Polycom/Veritel_phone___
voice vlan oui-table add 00e0bb 3Com_phone_____
hostname SwitchMaster
line console
exec-timeout 0
exit
line telnet
exec-timeout 0
exit
aaa authentication enable default none
aaa authentication login default none
no snmp-server server
!
interface gigabitethernet1/1/2
 spanning-tree portfast
 switchport mode access
 switchport access vlan 2
!
interface gigabitethernet1/1/3
 spanning-tree portfast
 switchport mode access
 switchport access vlan 3
!
interface gigabitethernet1/1/4
 spanning-tree portfast
 switchport mode access
 switchport access vlan 4
!
interface gigabitethernet2/1/1
 spanning-tree portfast
 switchport mode access
 switchport access vlan 2
!
```

```
interface gigabitethernet2/1/2
 spanning-tree portfast
 switchport mode access
 switchport access vlan 2
!
interface gigabitethernet2/1/3
 spanning-tree portfast
 switchport mode access
 switchport access vlan 2
!
interface gigabitethernet2/1/4
 spanning-tree portfast
 switchport mode access
 switchport access vlan 2
!
interface gigabitethernet2/1/5
 spanning-tree portfast
 switchport mode access
 switchport access vlan 2
!
```


General Mode (Layer 3)

If you want to check your work, type this command:

```
show running-config
```

The resulting output (after you hit the Space Bar a couple of times) should look almost exactly like what is shown below for a 3-source, 5-display switch configuration.

```
switchb471cc#show running-config
config-file-header
switchb471cc
v1.3.0.62 / R750_NIK_1_3_647_260
CLI v1.0
set system mode router queues-mode 4

file SSD indicator encrypted
@
ssid-control-start
ssid config
ssid file passphrase control unrestricted
no ssid file integrity control
ssid-control-end cb0a3fdb1f3a1af4e4430033719968c0
!
vlan database
vlan 2,10-13
exit
voice vlan oui-table add 0001e3 Siemens_AG_phone_____
voice vlan oui-table add 00036b Cisco_phone_____
voice vlan oui-table add 00096e Avaya_____
voice vlan oui-table add 000fe2 H3C_Aolynk_____
voice vlan oui-table add 0060b9 Philips_and_NEC_AG_phone
voice vlan oui-table add 00d01e Pingtel_phone_____
voice vlan oui-table add 00e075 Polycom/Veritel_phone___
voice vlan oui-table add 00e0bb 3Com_phone_____
bonjour interface range vlan 1
hostname switchb471cc
line console
exec-timeout 0
exit
line telnet
exec-timeout 0
exit
aaa authentication enable default none
aaa authentication login default none
ip telnet server
!
interface vlan 2
 ip address 192.168.1.200 255.255.255.0
!
interface gigabitethernet1/1/2
 switchport mode general
 switchport general allowed vlan add 10-11 untagged
 switchport general pvid 11
!
interface gigabitethernet1/1/3
 switchport mode general
```

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```
switchport general allowed vlan add 10,12 untagged
switchport general pvid 12
!
interface gigabitethernet1/1/4
switchport mode general
switchport general allowed vlan add 10,13 untagged
switchport general pvid 13
!
interface gigabitethernet2/1/1
switchport mode general
switchport general allowed vlan add 10-11 untagged
switchport general pvid 10
!
interface gigabitethernet2/1/2
switchport mode general
switchport general allowed vlan add 10-11 untagged
switchport general pvid 10
!
interface gigabitethernet2/1/3
switchport mode general
switchport general allowed vlan add 10-11 untagged
switchport general pvid 10
!
interface gigabitethernet2/1/4
switchport mode general
switchport general allowed vlan add 10-11 untagged
switchport general pvid 10
!
interface gigabitethernet2/1/5
switchport mode general
switchport general allowed vlan add 10-11 untagged
switchport general pvid 10
!
exit
```

Troubleshooting

- 1) The switch lost power in the middle of configuration.

None of the commands that were entered were saved, so you must restart the configuration at the beginning.

- 2) The switch I'm using already has a configuration, and I want to reset it to default.

Enter the following CLI commands to reset your switch to the default settings:

```
delete startup-config
y
reload
y
y
```

```
switchcd63d5#enable
% Unrecognized command
switchcd63d5#delete startup-config
Delete startup-config [y/n]? y
switchcd63d5#12-Nov-2011 23:38:24 %FILE-I-DELETE: File Delete -
/startup-config
switchcd63d5#reload
This command will reset the whole system and disconnect your current session. Do
you want to continue ? (Y/N)[N]
```

Not Sure How?

Serial Connection to Switch

- 1) Download PuTTY, a terminal emulator. Any other terminal emulation program will work, but this guide uses PuTTY.
- 2) Connect to the console port (Figure 2) of the SG500 switch with the included console cable (Figure 3).



Console Port

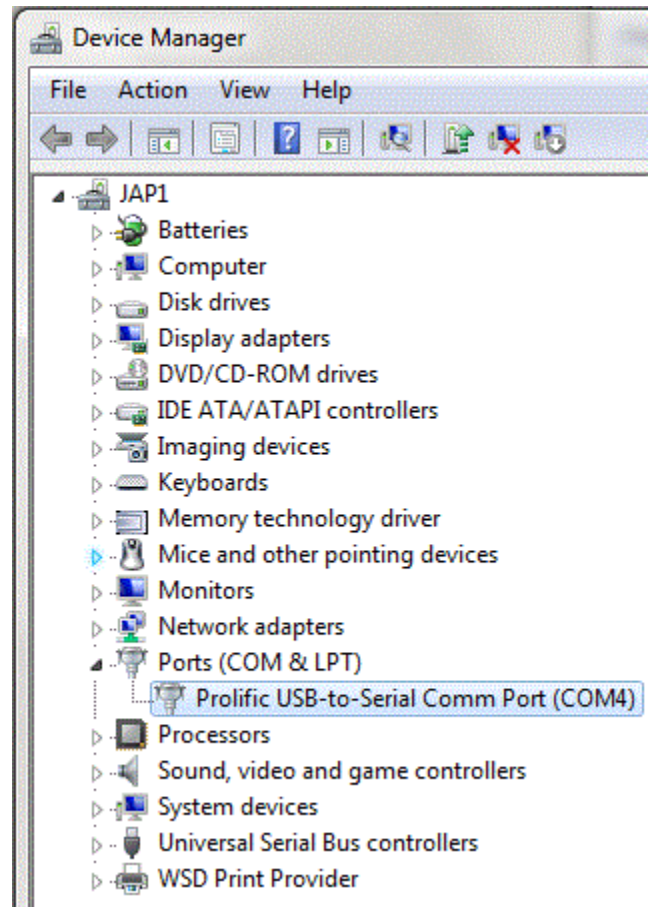


Console Cable

Note: If there is not a COM port on the computer, an RS232-to-USB converter is needed. Once the converter is plugged into a USB port, go into the Device Manager. Select "Ports" to see which COM port the RS232-to-USB device is using.

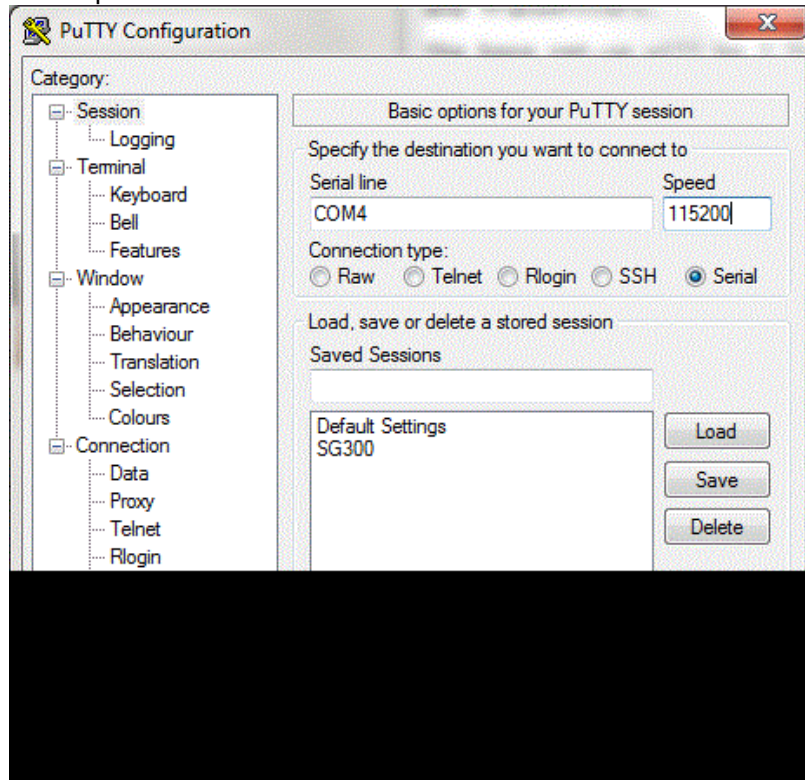


RS232-to-USB Converter

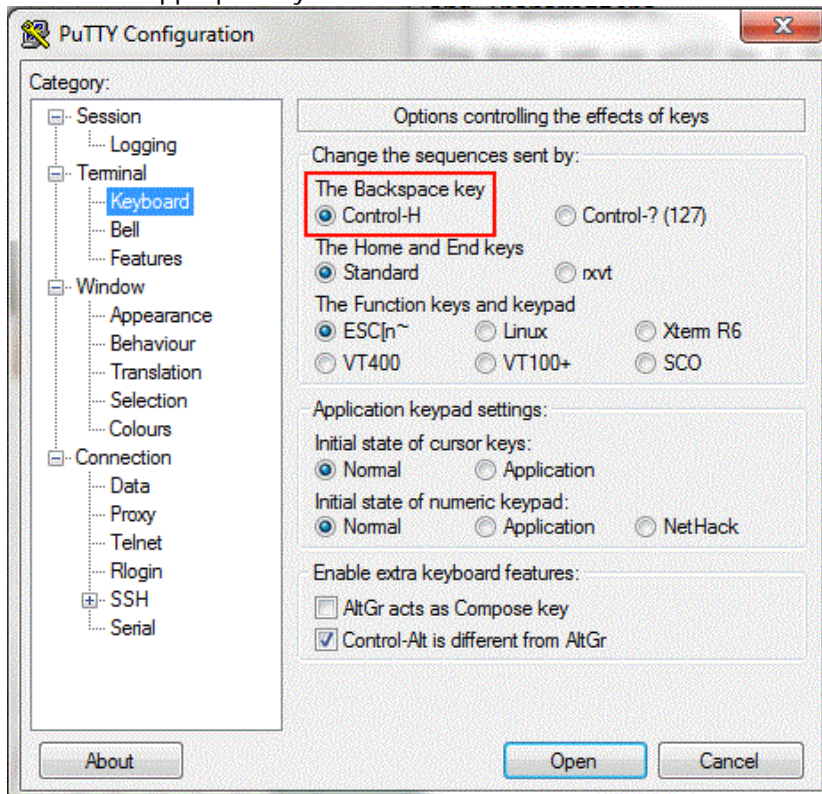


Device Manager

- 3) Open PuTTY, select Serial as the Connection Type, set serial line to the correct COM port (the diagram shows COM4) and set Speed to 115200.



- 4) In the "Keyboard" menu on the left side, change the Backspace key to Control-H. This allows the backspace key to function appropriately.



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