



CHAPTER 5

Troubleshooting the Installation

This chapter describes how to troubleshoot the installation of VSPAs and SSC-600s on the Catalyst 6500 Series switch. This chapter contains the following sections:

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Troubleshooting

The table in this section describes troubleshooting the SSC-600s and VSPAs. Possible problems, observations and comments, and solutions are indicated for the following troubleshooting symptoms:

- SSC-600 transitions repeatedly from on to off
- SSC-600 is deactivated
- SSC-600 is activated, VSPA is deactivated

SSC-600 Transitions Repeatedly From On to Off

Possible Problem	Observations and Comments	Solutions
SSC-600 is booting up; this is normal operation.	SSC-600 STATUS LED alternates green, orange, or off.	Wait 30 seconds until the boot process completes and the STATUS LED stays green.
SSC-600 does not go beyond the bootup stage.	SSC-600 STATUS LED transitions continue and alternates green, orange, or off.	Follow the recommended action for the displayed error message.
SSC-600 FPGA is not up to date.	During SSC-600 initialization, the need to update the FPGA is automatically detected.	Follow the system prompts to update the FPGA image. If the SSC-600 is cycling because of an FPD problem, the most likely cause is a FPD failure or that the FPD package file is not present. For more information about performing FPD upgrades, refer to the “Upgrading Field-Programmable Devices” chapter in the <i>Cisco VPN Services Port Adapter Configuration Guide</i> .

SSC-600 Is Deactivated

Possible Problem	Observations and Comments	Solutions
Insufficient power is available from the chassis.	Error message indicating that power was denied to the VSPA. Enter the show power command to determine how much power is reserved or available in the chassis. Output of the show module slot command indicates that power was denied to the VSPA. SSC-600 STATUS LED is off.	Upgrade the chassis power. Remove other modules in chassis to make more power available.
Chassis is not running the minimum Cisco IOS software release.	Error message indicating that the SSC-600 is not supported by this release. SSC-600 STATUS LED is off.	Upgrade the system software to a Cisco IOS software release that supports your hardware.
SSC-600 has exceeded the maximum temperature threshold.	Error message indicating a temperature alarm on the SSC-600. SSC-600 STATUS LED is off.	Make sure that blank plates are installed to cover any empty slots and subslots.

SSC-600 Is Activated, VSPA Is Deactivated

Possible Problem	Observations and Comments	Solutions
VSPA is booting up; this is normal operation.	VSPA STATUS LED is orange.	Wait 3 minutes until the boot process completes and the STATUS LED stays green.
VSPA is not fully seated in the SSC-600.	Output of the show diag slot command. VSPA STATUS LED is off.	Follow this procedure: <ul style="list-style-type: none"> Remove the VSPA from the SSC-600. Inspect the SSC-600 and the VSPA. Verify there are no bent pins or parts and that there is nothing lodged in the two devices that could prevent a good connection. Insert the VSPA in the SSC-600 by sliding the VSPA all the way into the SSC-600 until the VSPA is firmly seated in the VSPA interface connector. Make sure the captive installation screws are tightened snugly. Do not over-tighten these screws.
VSPA is not supported on the SSC-600.	Error message indicating the VSPA is not supported. Output of the show module slot command. VSPA STATUS LED is off.	Install a VSPA supported by the SSC-600.

SSC-600 Is Activated, VSPA Is Deactivated (continued)

Possible Problem	Observations and Comments	Solutions
VSPA is not at the minimum hardware revision level.	Error message indicating the VSPA is not at the minimum FPGA revision level. Output of the show hw-module subslot fpd command. Output of the show diag slot command. VSPA STATUS LED is off.	Follow the FPD upgrade process to update the FPGA. For more information about performing FPD upgrades, refer to the <i>Catalyst 6500 Release 12.2SXH and Later Software Configuration Guide</i> .
Chassis is not running the minimum Cisco IOS software release.	Error message indicating the VSPA is not supported by this release. VSPA STATUS LED is off.	Upgrade the system software to a Cisco IOS software release that supports your hardware.
VSPA has exceeded the maximum temperature threshold.	Error message indicating a temperature alarm on the VSPA. VSPA STATUS LED is off.	Make sure that blank plates are installed to cover any empty slots and subslots.

Interpreting System Error Messages

The system software sends system messages to the console during operation, indicating status and error conditions. If you connect to the system by Telnet instead of by a console connection, you must use the **show logging** command to view system messages.

To view the explanations and recommended actions for the Catalyst 6500 Series switch error messages, refer to the *Cisco IOS Release 12.2SX System Message Guide* at the following URL:

http://www.cisco.com/en/US/docs/ios/12_2sx/system/messages/122sxsms.html

You can also refer to the Cisco Error Message Decoder Tool at the following URL:

http://www.cisco.com/en/US/support/tsd_most_requested_tools.html

You must be a registered user on Cisco.com to access the Cisco Error Message Decoder Tool.

Packing the VSPA for Shipment

This section provides instructions for packing an VSPA for shipment. Before beginning this procedure, you should have the following original Cisco Systems packaging materials:

- Thermoform container (transparent plastic-molded clamshell)
- Carton



Caution

Use Cisco Systems original packaging for the shipment of all VSPAs. Failure to properly use Cisco Systems packaging can result in damage or loss of product.

**Warning**

During this procedure, wear grounding wrist straps to avoid ESD damage to the card. Do not directly touch the backplane with your hand or any metal tool, or you could shock yourself. Statement 94

**Note**

These instructions assume that the VSPA has been removed from the chassis according to the recommended procedures specified in this guide.

To pack the VSPA for shipment, follow these steps:

Step 1

Open the Thermoform container and place the VSPA into the appropriate cavity.

**Caution**

Always handle the VSPA by the carrier edges and handle; never touch the VSPA components or connector pins.

Step 2

Close the Thermoform container. Be sure to lock the snaps securely.

Step 3

Check that the Thermoform container is fully closed. Apply tape or a label closure over the opening to ensure that the container stays closed during shipping.

Step 4

Place the Thermoform container into the carton.

Step 5

Close the carton.

Step 6

Apply tape over the carton flap to ensure that the carton stays closed during shipping.

Packing the SSC-600 for Shipment

This section provides instructions for packing the SSC-600 for shipment. Before beginning this procedure, you should have the following original Cisco Systems packaging materials:

- Static-shielding bag
- Smaller inner carton
- Larger exterior carton
- Two foam packing cushions

**Caution**

Use Cisco Systems original packaging for the shipment of all SSC-600s. Failure to properly use Cisco Systems packaging can result in damage or loss of product.

**Warning**

During this procedure, wear grounding wrist straps to avoid ESD damage to the card. Do not directly touch the backplane with your hand or any metal tool, or you could shock yourself. Statement 94

**Note**

These instructions assume that the SSC-600 has been removed from the chassis according to the recommended procedures specified in this guide.

To pack the SSC-600 for shipment, follow these steps:

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- Step 1** Insert the SSC-600 into the static-shielding bag.
 - Step 2** Insert the bagged SSC-600 into the smaller inner carton. Be careful to position the SSC-600 so that the bottom motherboard lip is held by the packaging cutout.
 - Step 3** Close the smaller inner carton and tape the sides closed.
 - Step 4** Place the sealed smaller inner carton containing the SSC-600 into the two foam packing cushions (they only fit one way).
 - Step 5** Place the sealed smaller inner carton and packing cushions into the larger exterior carton, and seal the larger exterior carton with tape for shipment.
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