Quick Install Guide

Virtual Services Platform
4450GSX Series switch

This document provides information and instructions to install and commission a factory-supplied Extreme Networks Virtual Services Platform 4000 4450GSX Series switch. You can download all documents referenced in this guide at http://www.extremenetworks.com/support/documentation/

1. Before you start

Confirm that you have the following tools and cables:
- Phillips #2 screwdriver
- Console cable
- Electrostatic discharge (ESD) cable

2. Unpack the equipment and verify package content

Note: Observe ESD precautions when unpacking.

3. Verify power supply unit (PSU) specifications

The VSP 4450GSX Series switch supports two field-replaceable AC or DC PSUs. One PSU is supplied with the chassis that can fully power the VSP 4000 system. The AC PSU can fully power the system including all PoE+ ports.

Optionally order a redundant PSU for redundancy and load sharing.

VSP 4450GSX-PWR+ AC power specifications

<table>
<thead>
<tr>
<th>Primary PSU</th>
<th>Redundant PSU (to be ordered if required)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1000-watt AC PoE+ power supply</td>
<td>1000-watt AC power supply</td>
</tr>
<tr>
<td>(replacement order code: AL1905A421-ES)</td>
<td>(order code: AL1905A421-ES)</td>
</tr>
</tbody>
</table>

PoE specifications:
- Maximum PoE+ Wattage:
  - 885 watts with one power supply
  - 1155 watts with two power supplies

Average PoE+ Wattage per port (12 PoE+ ports):
- 15.4 watts (802.3af) - 1 power supply installed
- 32.4 watts (802.3at) - 1 power supply installed

Note: Power cords must be ordered separately. For more information about power cords, see Installing Virtual Services Platform 4450GSX Series.

4. (Optional) Install redundant PSU

Use this procedure to optionally install a redundant power supply.

Note: The switch ships with a filler panel in the second power supply position. This filler panel must stay in place if you do not intend to install a second power supply. Each power supply bay must be populated with either a cover or a power supply for proper air-flow management.

1. If a blanking plate covers the required power supply slot, remove the blanking plate before attempting to insert the power supply.
2. Insert the power supply into a rear power supply slot as illustrated.
3. Verify that each power supply is fully seated in the slot. Secure the power supply with the two thumb screws.

4. After you install a power supply, connect AC or DC power.

5. Mount the VSP 4450GSX Series switch

Caution: To protect the VSP 4450GSX Series switch against ESD damage, do the following before you connect the data cables to the device:
- Use antistatic wrist straps. Ensure that the strap has good skin contact. Do not remove the wrist or ankle strap until the installation is complete.
- Ensure that you properly ground work surfaces and equipment racks.
- Avoid contact between equipment and clothing.
- Avoid touching the connector pins.

b. Rack mounting

Prepare the rack:
1. Allocate 1U of vertical space for each switch in an EIA or IEC-standard 19-inch (48.2-centimeter) equipment rack.

2. Mount the switch:
1. Attach an L-bracket to each side of the switch using the #2 Phillips screwdriver as illustrated.
2. Slide the switch into the rack as illustrated. Insert and tighten the rack-mount screws.

For more details on installing the VSP 4000, see Installing the Virtual Services Platform.
6 Power up

1. Connect the power cord to the back of the switch, and then plug the other end of the cord into a power outlet.

Note: You will need two power cords if you have installed a redundant PSU.

Warning: You must use a power cord set approved for the VSP 4450GSX Series switch and the power receptacle type in your country.

2. Check the front-panel LEDs as the device powers on to be sure the PWR LED is lit. If not, check whether the power cord is plugged in correctly. The switch will power on immediately when it is connected to a suitable power source.

7 Install SFP and SFP+ transceivers

Note: Before installing, ensure that the VSP 4450GSX Series switch is operating normally. Verify that the SFP or SFP+ transceivers and network cabling support your network configuration.

1. Remove the transceiver from the protective packaging.

2. Verify that the transceiver is the correct model for the transceivers and network cabling support your network configuration.

3. Grasp the transceiver (SFP/SFP+) between your thumb and forefinger.

4. Insert the transceiver into the proper SFP/SFP+ slot on the switch as illustrated. Apply a light pressure to the transceiver until it clicks and locks into position in the slot.

1 Connect the console cable to the VSP 4450GSX Series

Console port cabling specifications

Ensure the use of Category SE or higher specification cabling for 1 Gbps/1000 Mbps operation. RJ-45 console port cables and their Product Engineering Codes (PEC) are as follows:

<table>
<thead>
<tr>
<th>Product Number</th>
<th>Name</th>
<th>Short Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AL201022-68</td>
<td>RJ-45/DB-9 CONSOLE CABLE</td>
<td>The VSP 4450GSX Series has an RJ-45 female connector, so a serial cable with RJ-45 connectors, or a serial cable with a DB-9 female connector on one end and an RJ-45 on the other is required.</td>
</tr>
<tr>
<td>AL201022-69</td>
<td>RED DB-9 FEMALE TO RJ-45 ADAPTOR</td>
<td>Converts DB-9 male to RJ-45 serial port. The adapter can be used for PC or device with DB-9 male console port. Also, can be used with Category 5 RJ-45 straight cable to provide console connection.</td>
</tr>
</tbody>
</table>

For more information on this and other administration procedures, see Administering VSP Operating System Software.

Recommended reading

For more information, go to http://www.extremenetworks.com/vsp-port/documentation/ and download the following VSP 4000 guides:

- Regulatory Information
- Locating the latest Software and product Release Notes
- Documentation Reference
- Installation
- Quick Start Configuration
- Release Notes
- Administration

2 Configure an in-band VLAN and a management IP interface for the VLAN

Note: In the following procedure you create a VLAN with ID 20 and name.

1. Create a VLAN:
   VSP-4450GSX:1(config)#vlan create 20 name type port-mstp
   VSP-4450GSX:1(config)#vlan members add 20 1/4
   VSP-4450GSX:1(config)#vlan members add 20 20

2. Add VLAN members:
   VSP-4450GSX:1(config)#vlan members add 20 1/4
   VSP-4450GSX:1(config)#vlan members add 20 20

3. Configure a management IP interface for the VLAN (for example, 192.0.2.2):
   VSP-4450GSX:1(config)#interface vlan 20
   VSP-4450GSX:1(config)#ip address 192.0.2.2 255.255.255.0

DB-9 console port pin assignments

<table>
<thead>
<tr>
<th>Connector</th>
<th>Pin Number</th>
<th>Signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Carrier detect (not used)</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Transmit data (TXD) — mandatory</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Receive data (RXD) — mandatory</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Data terminal ready (DTR) — optional, can swap or link with pin 3</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Ring indicator (not used)</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Data set ready (DSR) — optional</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Data terminal ready (DTR) — optional, can swap or link with pin 3</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Clear to send (CTS) — optional, can swap or link with pin 3</td>
<td></td>
</tr>
</tbody>
</table>

RJ-45 console port pin assignments

<table>
<thead>
<tr>
<th>Connector</th>
<th>Pin Number</th>
<th>Signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ready to send (RTS) — optional</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Data terminal ready (DTR) — optional, can swap or link with pin 3</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Transmit data (TXD) — mandatory</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Receive data (RXD) — mandatory</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Carrier detect (DCD) — optional</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Ground (GND) — mandatory</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Data set ready (DSR) — optional</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Clear to send (CTS) — optional, can swap or link with pin 1</td>
<td></td>
</tr>
</tbody>
</table>

Shutting down the VSP 4450GSX Series

Caution: Before you unplug the power cord, always perform the following shutdown procedure. This procedure flushes any pending data to ensure data integrity.

1. Enter the Privileged EXEC command mode:
   enable

2. Shut down the VSP 4450GSX Series:
   sys shutdown
   When prompted, enter y to confirm the shutdown.

3. Before you unplug the power cord, wait until you see the following message:
   System Halted, OK to turn off power.

For more information on this and other administration procedures, see Administering VSP Operating System Software.