3 Verify power supply unit (PSU) specifications

Optionally order a redundant PSU to provide redundancy, load sharing, and add Power over Ethernet Plus (PoE+) budget power on PWR+ models.

VSP 4000 AC power specifications

(VSP 4850GTS and VSP 4850GTS-PWR+):

Note: Both the 300W and 1000W AC power supplies use the IEC 60320 C16 AC power cord connector.

<table>
<thead>
<tr>
<th>VSP model</th>
<th>Primary PSU</th>
<th>Redundant PSU (to be ordered if required)</th>
</tr>
</thead>
<tbody>
<tr>
<td>VSP 4850GTS</td>
<td>300W AC power supply (replacement order code: AL1905708-E5)</td>
<td>300W AC power supply (order code: AL1905708-E5)</td>
</tr>
<tr>
<td>VSP 4850GTS-PWR+</td>
<td>1000W AC PoE+ power supply (replacement order code: AL1905721-E6)</td>
<td>1000W AC power supply (order code: AL1905721-E6)</td>
</tr>
</tbody>
</table>

PoE+ specifications:

Maximum PoE+ Wattage:
- 855W with one power supply
- 1485W with two power supplies

Average PoE+ Wattage on 50 port models:
- 15.4W (802.3af) — 1 power supply
- 31.8W (802.3at) — 2 power supplies

The VSP 4850GTS/PWR+ can support 802.3af 15.4W on each port with one power supply installed. PoE+ power reduces to an average of 17.8W on each port with two power supplies. It can support 802.3at 32.4W on each port with two power supplies installed.

4 (Optional) Install redundant power supply unit

The VSP 4000 Series switch supports two field-replaceable power supplies. One power supply is installed. You can optionally install a redundant power supply. The VSP 4000 switch comes in AC and DC power variants.

Use this procedure to 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.

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 shown below:

3. Verify that each power supply is fully seated in the slot. Secure the power supply with the two thumb screws.

Note: The switch chassis can prevent an incorrect installation of a power supply. If you insert a power supply upside down, it will not fully insert and the thumb screws will not engage.

4. After you install a power supply, proceed with connecting AC power.

5 Mount the VSP 4000 switch

a. Table or Shelf mounting

If you mount the VSP 4000 switch on a table or shelf, attach the rubber feet to the device as indicated. The surface must support the combined weight of the switch and attached cables (from 15 to 20 pounds [7 to 9 kilograms]).

Set the device on a flat surface near an AC power source, making sure there is at least 2 inches (5.1 cm) of space on all sides for proper air flow, and at least 5 inches (12.7 cm) at the back for power cord clearance.

b. Rack mounting

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

Ensure that the equipment rack is stable and securely attached to a permanent structure.

2. Ground the rack to the same grounding electrode used by the power service in the area. The ground path must be permanent and must not exceed 1 ohm of resistance from the rack to the grounding electrode. AVAYA recommends using a filter or surge suppressor.

Mount the switch:
1. Remove the screws that hold the USB cover for rack mounting, but do not remove the USB device from the slot. This can seriously affect switch operation and may even cause the switch to not boot up. Ensure that the USB device is inserted at all times, with the USB cover on.

2. Attach a bracket to each side of the switch using the #2 Phillips screw-driver as illustrated. The bracket goes over the USB cover.

3. Slide the switch into the rack as illustrated. Insert and tighten the rack-mount screws.

For more details on installing the VSP 4000 Series, see Installing the Avaya Virtual Services Platform 4000 VSP4850GTS Series (NN46251-300).
Commissioning the VSP 4000

1. Connect the console cable to the VSP 4000

Console port cabling specifications:

Ensure the use of Category 5E or higher specification cabling for 1 Gbps/1000 Mbps operation. RJ-45 console port cables are as follows:

<table>
<thead>
<tr>
<th>PEC Code</th>
<th>Name</th>
<th>Short Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AL2011020-EE</td>
<td>Avaya RJ-45/DB-9 CONSOLE CABLE</td>
<td>The VSP 4000 has an RJ-45 female connector, 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 appropriate. The maximum length for the console port cable is 25 feet (8.3 meters).</td>
</tr>
<tr>
<td>AL2011020-EE</td>
<td>AVAYA 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>
<tr>
<td>AL2011021-EE</td>
<td>AVAYA BLUE DB-9 MALE TO RJ-45 ADAPTOR</td>
<td>Converts DB-9 FEMALE to RJ-45 serial port. This adapter can be used to convert DB-9 of AL2011013-EE console cable to RJ-45.</td>
</tr>
</tbody>
</table>

On your VSP 4000 switch, the console port is the RJ-45 port outlined with a blue border on the front of your switch (note orientation). Use an RJ-45 to DB-9 cable to connect the switch console port to your management terminal. Use adaptors to provide different connection options. The maximum length of a console cable is 25 feet (8.3 meters). The following tables describe the RJ-45 and DB-9 console port pin-out information. You can use the pin-out information to verify or create a console cable for use with your maintenance terminal.

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)</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Receive Data (RXD)</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Data terminal ready (not used)</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Signal ground (GND)</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Not used</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Request to send (not used)</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Not used</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Ring indicator (not used)</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 with pin 8</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Transmit data (TXD) — mandatory</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Carrier detect (DCD) — mandatory</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Ground (GND) — mandatory</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Receive data (RXD) — 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 with pin 1</td>
<td></td>
</tr>
</tbody>
</table>

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 Avaya.

1. Create a VLAN:

```
VSP-4850GTS-PWR+:1(config)#ip address 10.20.0.1/24
VSP-4850GTS-PWR+:1(config)#interface vlan 20
VSP-4850GTS-PWR+:1(config)#vlan members add 20 1/4
```

2. Add VLAN members:

```
VSP-4850GTS-PWR+:1(config)#ip address 10.20.0.2/24
VSP-4850GTS-PWR+:1(config)#ip address 10.20.0.3/24
```

3. Configure a management IP interface for the VLAN (for example, 47.17.123.85):

```
VSP-4850GTS-PWR+:1(config)#interface vlan 20
```

For more information, go to [http://support.avaya.com](http://support.avaya.com) and download the following VSP 4000 guides:

- Regulatory Information (NN46251-105)
- Locating the latest software and product Release Notes (NN46251-106)
- Installation (NN46251-300)
- Quick Start Configuration, NN47227-102
- Release Notes (NN47227-401)
- Administration (NN47227-600)

For more information on this and other administration procedures, see [Administrating VSP Operating System Software (NN47227-600)](http://support.avaya.com).

Recommended reading

- Administration (NN47227-600)
- Quick Start Configuration, NN47227-102
- Installation (NN46251-300)
- Locating the latest software and product Release Notes (NN46251-106)
- Regulatory Information (NN46251-105)
- Documentation Reference, NN47227-100
- [http://support.avaya.com](http://support.avaya.com)
- Facility R1 to Video R2: A guide to the installation and operation of the VSP System (AVAYA)
- [http://support.avaya.com](http://support.avaya.com)