



Avaya

Virtual Services Platform 4000 4850GTS Series Quick Install Guide

This document provides information and instructions to install and commission a factory-supplied Avaya Virtual Services Platform 4000 switch. You can download all documents referenced in this guide at www.avaya.com/support.

1 Before you start

- Confirm that you have the following tools and cables:
- Phillips #2 screwdriver
 - Console cable to match the console connector on the switch (DB-9 or RJ-45)
 - ESD cable

2 Unpack the equipment and verify package content

Note: Observe ESD precautions when unpacking.

1. Avaya Virtual Services Platform (VSP) 4000 Series switch
2. Rack-mounting hardware that includes:
 - a. Rack-mount brackets
 - b. Screws to attach brackets to the switch
 - c. Screws to attach the switch to the equipment rack
3. Rubber footpads
4. AC power cord with an **IEC 60320 C16 connector**. (**Note:** A power cord is not included for the A variant of the switch.)
5. Documentation - The Installation manual (NN46251-300), the Quick Install guide (this document) and the China RoHS paper.

3 Verify power supply unit (PSU) specifications

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

VSP 4000 model	Primary PSU	Redundant PSU (to be ordered if required)
VSP 4850 GTS	300w AC power supply (replacement order code: AL1905?08-E5)	300w AC power supply (order code: AL1905?08-E5) Note: The seventh character (?) of the switch order number must be replaced with the proper letter to indicate desired product nationalization. <ul style="list-style-type: none"> • “A”: No power cord included. • “B”: Includes European “Schuko” power cord common in Austria, Belgium, Finland, France, Germany, The Netherlands, Norway, and Sweden. • “C”: Includes power cord commonly used in the United Kingdom and Ireland. • “D”: Includes power cord commonly used in Japan. • “E”: Includes North American power cord. • “F”: Includes Australian power cord.
VSP 4850 GTS-PWR+	1000w AC PoE+ power supply (replacement order code: AL1905?21-E6)	1000w AC power supply (order code: AL1905?21-E6)

PoE+ specifications:

Maximum PoE+ Wattage:

- 855W with one power supply
- 1855W with two power supplies

Average PoE+ Wattage on 50 port models:

- 15.4W (802.3af)
- 17.8W (802.3at) — 1 power supply
- 32.4W (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 one power supply. It can support 802.3at 32.4W on each port with two power supplies installed.

VSP 4000 DC power specification (VSP 4850GTS):

VSP 4000 model	Primary PSU	Redundant PSU
VSP 4850 GTS DC	300w DC power supply (replacement order code: AL1905?05-E5)	300w DC power supply (order code: AL1905?05-E5)

DC Power supply specifications:

- Input voltage: 48 V DC
- Input current: 10 A
- Output voltage: 12 V DC
- Output current 25 A

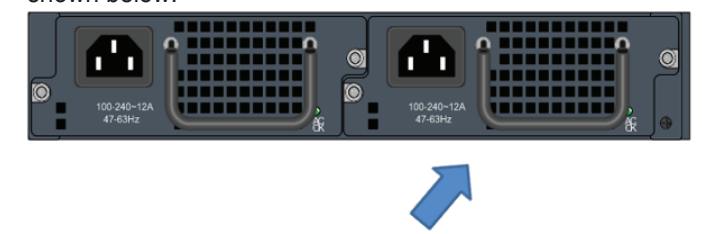
4 (Optional) Install redundant power supply unit

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:



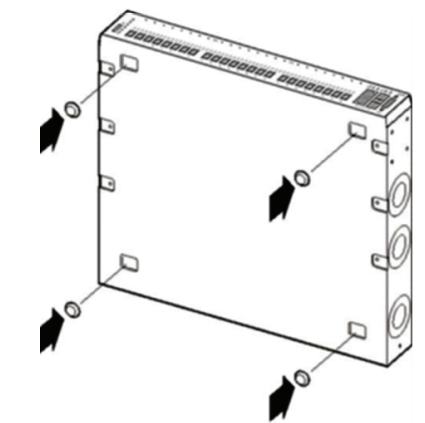
3. Verify that each power supply is fully seated in the slot. Secure the power supply with the two thumb screws.
- Note:** The switch chassis can prevent an incorrect installation of a power supply. If you insert a power supply upside down, it will not fully insert and the thumb screws will not engage.
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 and 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.



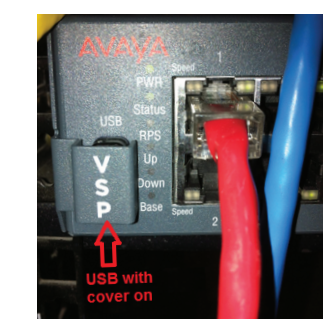
b. Rack mounting

Prepare the rack:

1. Provide the equivalent of one rack 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.

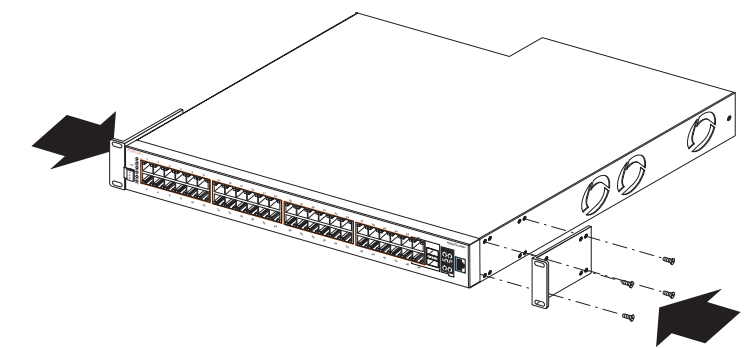
Mount the switch:

1. Remove the screws that hold the USB cover for rack mounting, but do not remove the USB cover.

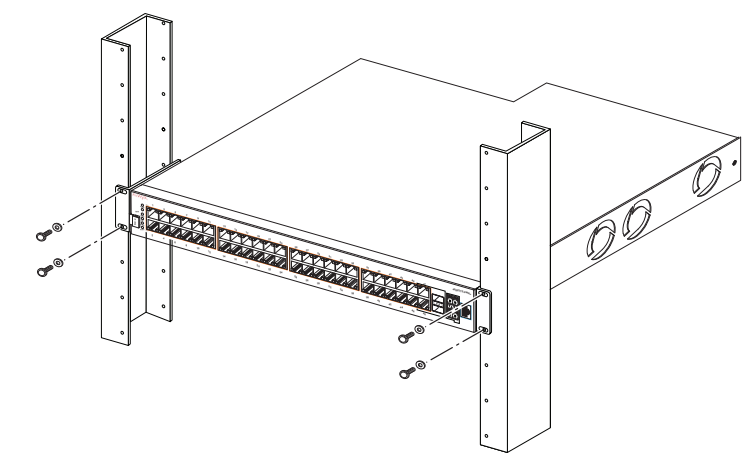


Caution: Do not remove the USB device from the slot. This can seriously affect switch operation and may even cause the switch to not boot up. Ensure that the USB device is inserted at all times, with the USB cover on.

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.



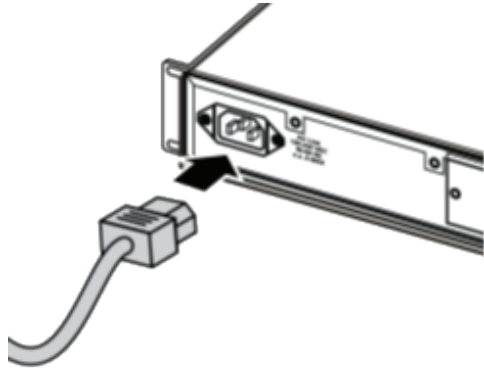
For more details on installing the VSP 4000 Series, see *Avaya VSP 4000 Installation* (NN46251-300).

6 Power Up

1. Connect the AC power cord to the back of the switch, and then plug the other end of the cord into an AC 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 4000 Series switch and the power receptacle type in your country.

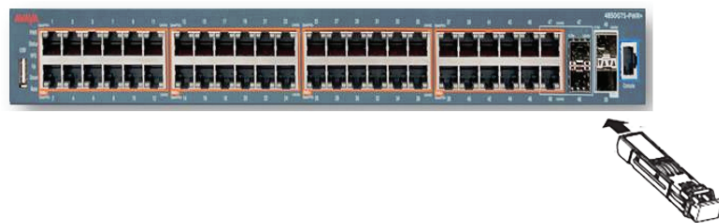


2. Check the front-panel LEDs as the device powers on to be sure the PWR LED is lit. If not, check if the power cord is plugged in correctly. The switch will power on immediately when it is connected to a suitable AC power.

7 Install SFP and SFP+ transceivers

Note: Before installing, ensure the switch is up and running, and 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 network configuration.
3. Grasp the transceiver 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.



Commissioning the VSP 4000

1 Connect the console cable to the VSP 4000

Console port cabling specifications:

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

PEC Code	Name	Short Description
AL2011022-E6	Avaya RJ-45/DB-9 CONSOLE CABLE	The VSP 4000 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 appropriate. The maximum length for the console port cable is 25 feet (8.3 meters).
AL2011020-E6	AVAYA RED DB-9 FEMALE TO RJ-45 ADAPTOR	Converts DB-9 MALE to RJ-45 serial port. The adaptor 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.
AL2011021-E6	AVAYA BLUE DB-9 FEMALE TO RJ-45 ADAPTOR	Converts DB-9 FEMALE to RJ-45 serial port. This adaptor can be used to convert DB-9 of AL2011013-E6 console cable to RJ-45.

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

Connector	Pin Number	Signal
	1	Carrier detect (not used)
	2	Transmit Data (TXD)
	3	Receive Data (RXD)
	4	Data terminal ready (not used)
	5	Signal ground (GND)
	6	Not used
	7	Request to send (not used)
	8	Not used
	9	Ring indicator (not used)

RJ-45 Console port pin assignments

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

1. Connect the console cable from the terminal to the console port of the switch to allow initial configuration. Any terminal or PC with the appropriate terminal emulator can be used as the management station.
2. Set the terminal protocol on the terminal or terminal emulation program to VT100 or VT100/ANSI.
3. Connect to the switch using the terminal or terminal emulation application.

Terminal emulation settings

Property	Value
Baud Rate	9600 bps
Data Bits	8
Stop Bits	1
Parity	None
Flow Control	None

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)#vlan
create 20 name Avaya type port
2. Add VLAN members:
VSP-4850GTS-PWR+:1(config)#vlan members add 20 1-4
3. Configure a management IP interface for the VLAN (for example, 47.17.123.85)
VSP-4850GTS-PWR+:1(config)#interface vlan 20
VSP-4850GTS-PWR+:1(config)#ip address
47.17.123.85 255.255.255.0

Recommended reading

For more information, go to <http://support.avaya.com> and download the following VSP 4000 guides:

- Regulatory Information and Locating the Document (NN46251-105)
- Documentation Roadmap (NN46251-100)
- Installation (NN46251-300)
- Quick Start (NN46251-102)
- Release Notes (NN46251-401)

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