Installation Guide for the Avaya P550R®, P580, P880, and P882 Multiservice Switches

Version 5.3

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Preface

This guide explains how to install, configure, and operate the Avaya P550R/P580/P880/P882 Multiservice switch family. It also includes information on the Command Line Interface (CLI), information on downloading new operational code to your switch, and an explanation on opening and using the Avaya P550R/P580/P880/P882 Multiservice switch web agent.

Overview of The Contents

This guide contains the following chapters:

Chapter 1, "Unpacking and Installing" — Explains how to unpack and assemble your switch.

Chapter 2, "Initial Configuration" — Explains how to perform the initial configuration of your switch, create user accounts, configure ports, and how to change from Fabric Mode 1 to Fabric Mode 2 and
vise-versa.

Chapter 3, "Specifications" — Provides the specifications for the switch and the various switch devices.

Documentation Feedback

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LSG-C techpubs@avayactc.com

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`http://support.avaya.com/`

Conventions

This document uses the following conventions:

Convention	Represents	Examples
User Input	User entered text.	To create a new password, type `store password owl`
Emphasis	A new term, text emphasis, or a document title.	The system settings are *permanently* saved to NVRAM if you use the store command.
Boldface Text	Menu command or button name.	Select **File**	**Save** to save your current work session. Click **Cancel** to cancel the installation.
System Output	Text displayed by the system.	If you attempt to find the physical location of port 30, the system displays `Unit 2 Port 2`

*** Note:** Provides additional information about a procedure or topic.

CAUTION

Indicates a condition that may damage hardware or software.

WARNING

Indicates a condition that may cause *bodily injury* or *death*. Before working on equipment, ensure that you turn the power off and unplug the equipment in question.

Failure to follow proper safety precautions can result in electrical shock.

Audience

This guide is intended for the following people at your site:

- Network manager or administrator
- Hardware installer

Related Documents

The following documents provide additional information on the P550R/P580/P880/P882 switch family:

Avaya P550R/P880/P882 Switch User Guide - Provides Avaya P550R/P580/P880/P882 switch configuration and operation procedures.

Command Reference Guide for the Avaya P550R/P880/P882 Multiservice Switch, v5.3 - Provides an explanation of the Command Line Interface (CLI) commands that you can use on the Avaya P550/P550R/P580/P880/P882 switch.

Reference Documents

The following documents supply related background information:

- *Internetworking with TCP/IP Volume I* — 3rd Edition, Douglas E. Comer, ISBN 0-13-216987-8.
- *Internet Routing Architectures* — Cisco Press, Bassam Halabi
- *Routing in the Internet* — Christian Huitema, ISBN 0-13-132192-7
- *Interconnections: Bridges and Routers* — Radia Perlman, ISBN 0-201-56332-0

Terminology

Throughout the book, the term **Layer 2** is used to indicate switching capabilities.

The term **Layer 3** refers to the combined ability to switch and route. For example, the name, Multilayer Supervisor Module, indicates a supervisor module that provides switching and routing capabilities.

Technical Support.

To contact Avaya's technical support:

- From the United States:

  1-800-237-0016

- From North America:

  1-800-242-2121

- Outside North America:

  Contact your distributor

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1 Unpacking and Installing

Overview

This chapter describes:

- Unpacking the System
- Selecting a Location
- Installing the Switch
- Upgrading the Application Software

Unpacking the System

The following components are shipped with each Avaya P550R, P580, P880, and P882 switch:

- Chassis, including:
  - Power supply (installed in the switch)
  - Fan tray
  - Supervisor module
  - Blank faceplates
- I/O modules (shipped separately)
- Rack mount kit (rack installation)
- Rubber feet (table top installation)
- Power cords (one for each power supply)
- Cable management bracket
- 10/100 Base-T crossover cable (for connecting to Ethernet Console Port)
- Out-of-Band serial console connection kit, including:
  - Male DCE-to-RJ-45 connector (connects to switch)

  - Female DTE-to-RJ-45 connector (connects to computer)
  - Male DTE-to-RJ-45 null modem connector (connects to a modem)
  - Straight-through RJ-45 cable for connecting between connectors
- Product documentation
- Options (as ordered)

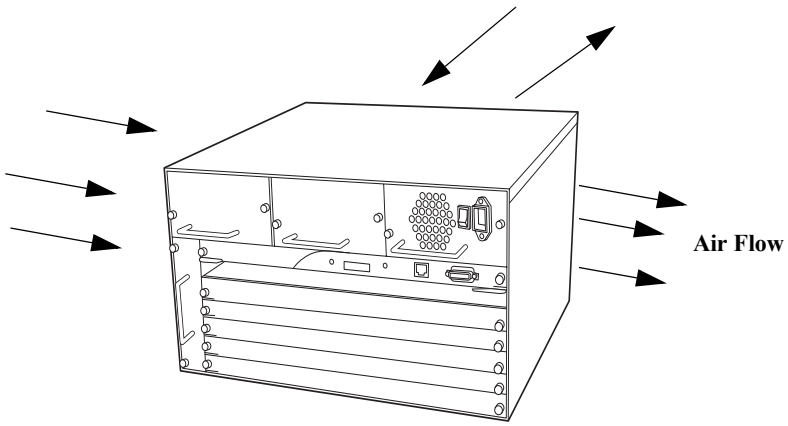
Unpack the shipped items and report any lost or damaged items to your shipping carrier or to your Avaya representative.

Selecting a Location

The location you select for installing the system hardware must meet the following requirements:

- 19-inch EIA-standard grounded rack or table, with rails, capable of supporting at least 80 kg (182 lb) in a cantilevered application (rails should not deflect or distort). A fully-loaded P550R/P580 switch weighs 60 kg (130 lbs). A fully loaded P880/P882 switch weighs 80 kg (182 lbs).
- At least 2 inches (5.2 cm) on either side of the system, and from the rear of the system, to allow adequate airflow through the system (Figure 1-1).

Figure 1-1. Selecting a Location



- AC power source(s) within 2 m (6 ft.) (separate sources, on separate circuits, if you require maximum fault tolerance)
- Ambient temperature between 0°C and 40°C (32°F to 104°F)
- Relative humidity less than 95%, non-condensing

Installing the Switch

The process for installing the switch is as follows:

1. Preventing Electrostatic Discharge
2. Installing the Chassis
3. Installing the Cable Management Bracket
4. Installing the Modules
5. Installing the Cables
6. Ensuring that You Have Enough Power Available
7. Connecting the Power Supplies
8. Powering On the System

Preventing Electrostatic Discharge

To prevent electrostatic discharge (ESD) from damaging the module components:

1. Always wear a grounded electrostatic discharge (ESD) wrist strap (not supplied) when installing and removing modules from the switch chassis. Ground the other end of the ESD strap by attaching it to the chassis.
2. Ground the chassis. The unit is grounded through the power cord when it is connected between the unit and the primary power source.
3. Lay out the static-dissipative work surface (ESD mat) on a flat surface.

   *** Note:** Avaya does not supply the required ESD mat.

4. Connect the ground cord assembly to the ESD mat and to the ground plug on the switch fan tray.

Installing the Chassis

The system can be installed by:

- Rack Mounting the System
- Installing the System on a Table Top

Rack Mounting the System

To install the switch in a rack:

WARNING

To avoid physical injury, three people are required to safely install the switch in a rack: two to lift the system into place, and a third to screw the system to the rack using a Phillips-head screwdriver. A fully-loaded P550R/P580 switch weighs 60 kg (130 lbs). A fully loaded P880/P882 switch weighs 80 kg (182 lbs).

WARNING

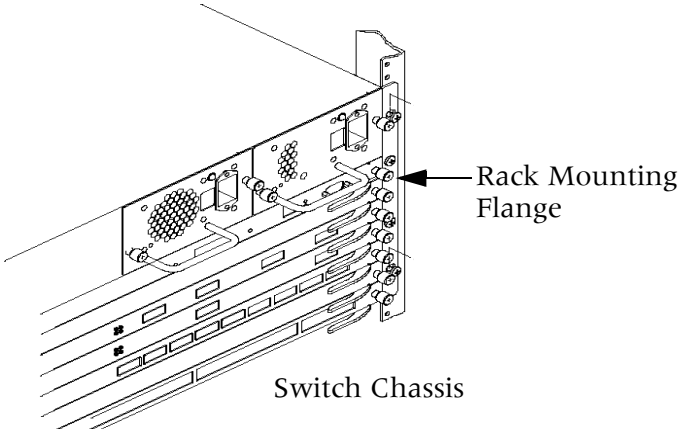
Do not use the handles on the power supplies or fan assembly to lift the system.

1. Install the two rack mount flanges from the rack installation kit to the sides of the switch (Figure 1-2).

*** Note:** The screws and nuts needed to attach the rack mounting flange to the rack are not supplied. It is recommended you use at least four #10 pan head screws to attach the bracket to the rack.

Compare the holes in the rack mount flange against the holes in your rack to ensure they properly line up.

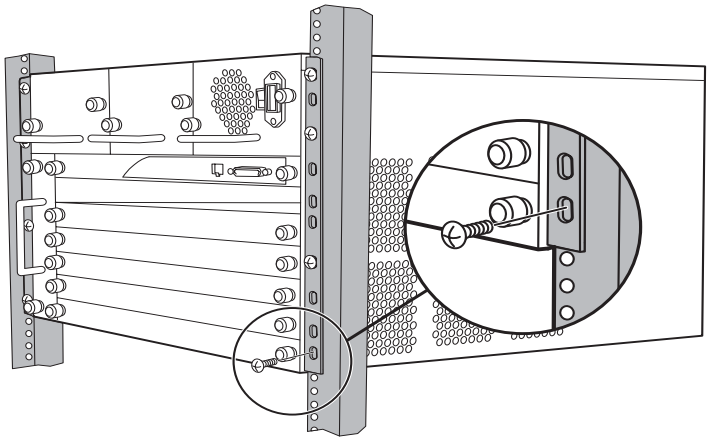
Figure 1-2. Rack Mounting the Switch



*** Note:** The top edge of the rack mounting flange should "split" the 1/2-inch spacing on the rack for proper alignment and use of the rack space.

2. Check that all of the pre-installed components are firmly installed in the chassis. These include:
   - Modules
   - Power supply and fan assemblies
3. Check the rack and shelf to ensure that they are square before installing the chassis.
4. Lift the system into position with one person on each end of the switch.
5. Align the mounting holes on the rack mounting flange mounting ears (identified by a screw icon) to the mounting holes on the rack and secure the chassis to the mounting shelf and rack rails (see Figure 1-3).

Figure 1-3. Mounting Holes on the Rack



Installing the System on a Table Top

To install the switch chassis onto a table top:

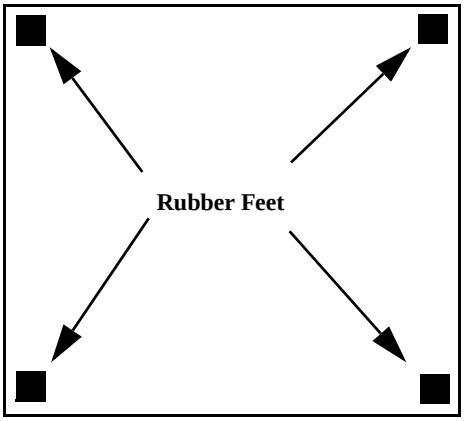
WARNING

To avoid injury, Avaya recommends that two people are required to lift the switch onto a table top. A fully-loaded P550R/P580 switch weighs 60 kg (130 lbs). A fully loaded P880/P882 switch weighs 80 kg (182 lbs).

Do not use the handles on the power supplies or fan assembly to lift the switch chassis.

1. Place the system on a surface that supports at least 60 kg (130 lbs.) for a P550R/P580, or 80 kg (182 lb), for a P880/882.
2. Install the supplied rubber feet to the bottom of the switch, placing the feet about 1.3 cm (1/2 in.) from each corner of the unit in the square recesses provided (Figure 1-4). Clean the surface of any oils or residue before applying the feet.

Figure 1-4. Table Top Installation



3. Check that all of the pre-installed components are firmly installed in the chassis. These include:
   - Modules
   - Power supply and fan assemblies

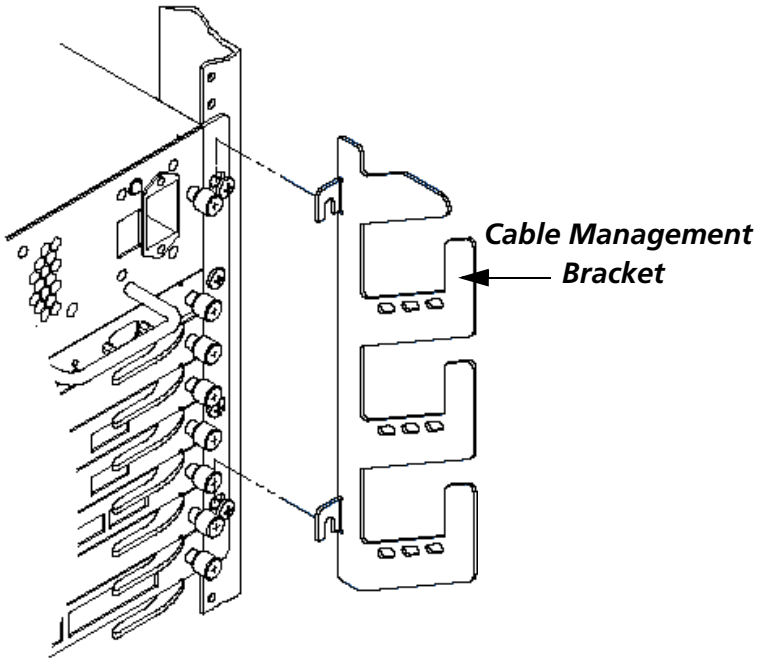
Installing the Cable Management Bracket

The Avaya P550R/P580/P880/P882 switch is shipped with a cable management bracket. The bracket is installed on the right side of the chassis.

To install the Cable management bracket:

1. Remove the plastic piece from the right side of the chassis.
2. Line the bracket up with the ball studs and screw holes and push until it locks into place (Figure 1-5).

Figure 1-5. Installing the Cable Management Bracket



3. Tighten the rack-mount pan head screws.
4. Thread the cables through the bracket to secure.

Installing the Modules

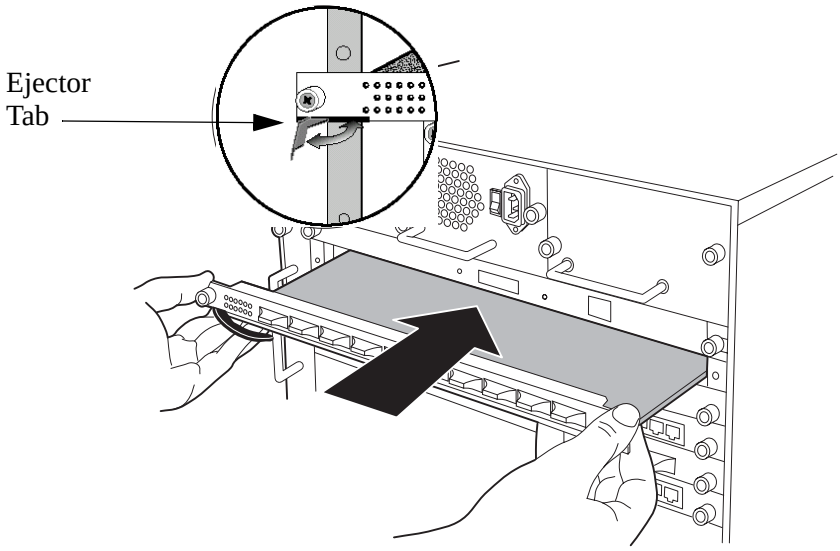
To install modules into the switch chassis:

1. Carefully remove each module from its shipping carton. Leave the module wrapped in its antistatic bag.

   *** Note:** Refer to Preventing Electrostatic Discharge earlier in this chapter before removing the module from the antistatic bag.

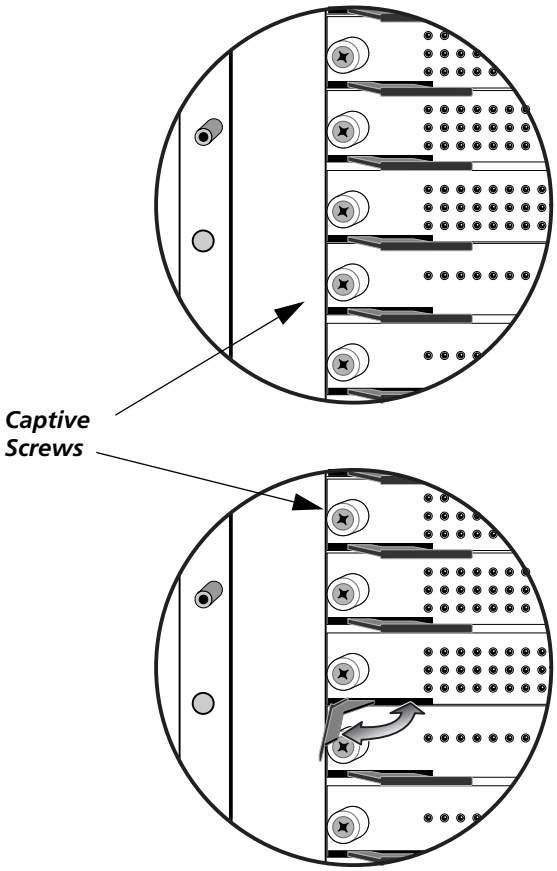
2. Carefully remove the module from the antistatic bag.
3. Open the Ejector Tabs (see Figure 1-6).

Figure 1-6. Inserting the Modules



4. Insert the module into the chassis (Figure 1-6).
5. Push on the center of the module until it is fully seated into the backplane.
6. Close the ejector tabs.

Figure 1-7. Using the Ejectors



7. Tighten the captive screws (see Figure 2-7).

CAUTION

Ensure that all adjacent modules are seated and the captive screws are secured. Failure to do this may result in difficulty installing other modules into the chassis.

Installing the Cables

The following cable types are used with the P550R/P580/P880/P882 switches:

- Fiber cables with SC or MT-RJ type connectors

- Straight-through Category 5 cables with male RJ-45 connectors (end station/NIC (network interface card) card connections). All I/O ports are crossed over internally so you can use straight-through cables to attach to end stations
- Crossover cables with male RJ-45 connectors (switch-to-switch connections)

Table 1-1 lists the pin numbers and associated signals for the RJ45 10/100Base-T Port.

Table 1-1. Pinouts for RJ45 10/100 Base-T Port

Pin #	Signal Description
1	Receive data (+)
2	Receive data (-)
3	Transmit data (+)
4	Not used
5	Not used
6	Transmit data (-)
7	Not used
8	Not used
N/A	N/A

Table 1-2 lists the pin numbers and associated signals for the RS-232 DB-9 Female Console Port.

***Table 1-2.* Pinouts for RS-232 DB-9 Female Console Port DCE**

Pin #	Signal Description
1	DCD (output)
2	RX (input)
3	TX (output)
4	DTR (input)
5	SGD (ground)
6	DSR (output)
7	RTS (input)
8	CTS (output)
9	RI (not used)

CAUTION

To prevent equipment damage, do not use the standard crossover adapter, part number CUS-41-1146, to connect the Annex Cat 5 cable to the supervisor module when you are connecting a MicroAnnex communications server to a Avaya Switch supervisor module (especially the P880 supervisor module). A short between two serial handshake options may exist. Shorting these handshake lines on the transceiver (part number Maxim MAX3243E) used on the P880 supervisor module causes the device to oscillate in and out of device shutdown. This affects serial data transmission and may also cause permanent damage to the transceivers on the supervisor module and the attached device. Avaya recommends you heed the following rules for connecting the Annex Cat 5 cable.

- When connecting an Annex box to the Avaya P550/P550R/ P580/P880/P882 Multiservice switch supervisor module, use an adapter with the pin assignments listed in Table 1-3**:**

Table 1-3. Adapter Pin Assignments

Pin	Signal	Pin	Destination
1	RTS	**7**	To DCE
2	DTR	**4**	To DCE
3	TD	**3**	To DCE
4	DCD	**1**	To DTE
5	RD	**2**	To DTE
6	GND	**5**	
7	DSR	**6**	To DTE
8	CTS	**8**	To DTE

- Do not use the CUS-41-1146 crossover adapter to connect a modem (or other DCE device) to a supervisor module
- Do not connect a supervisor module to a DCE device with a straight through cable or adapter.
- The DCE output data carrier detect (DCD) is not connected on the supervisor module.

Recommended Cable Distances

Avaya recommends the following cable distance guidelines, which are based on IEEE 802.3z standard.

*** Note:** Tables 1-4 through 1-6 describe the maximum link distances for Gigabit, 100Mb, and 10/100 Mb links. When building half-duplex networks using Ethernet repeaters, you must also consider maximum network diameter, which is not discussed in this document

Table 1-4. Maximum Fiber Link Distances for Gigabit Links

Fiber Cable Description		Maximum Cable Length
1310 nm	50 micron multimode	550 m
	62.5 micron multimode	550 m
	Singlemode fiber	5 km
850 nm	50 micron multimode	500 m
	62.5 micron multimode	260 m
1550 nm	Singlemode Fiber	80 km

Table 1-5. Maximum Fiber Link Distances for 100 Mb/s Links

Fiber Cable Description	Maximum Cable Length
Half-duplex connection	412 m
Full-duplex connection	2 km

Table 1-6. Maximum Copper Cable Lengths for 10/100/1000Base-Tx

Cable Description	Maximum Cable Length
Category 5 twisted pair cable	100 m

Ensuring that You Have Enough Power Available

Each power supply powers approximately three I/O modules in the P550R or P580, and 8 I/O modules in the P880/P882. It takes two power supplies to power a full chassis. Using three power supplies ensures that the system has fault-tolerant load-sharing power capabilities.

Refer to Table 1-7 to get the precise power values for the switch devices:

Table 1-7. Power Values for Switch Devices

Switch Device	Power Added/Used
Power Supply: P550R/P580 P580/P882	 300 W 700 W
Backplane Elements: P550R/P580 P880/882	 60 W 150 W
20-Port 10/100 Module	- 70 W
L3 Supervisor Module	- 45 W
2-Port Gigabit Module (L2/L3)	- 35 W
4-Port Gigabit Module	- 55 W
10-Port 100Base-FX Module (L2)	- 50 W
10-Port 100Base-FX Module (L3)	- 60 W
12-Port 10/100Base-TX Module (L3)	- 70 W
24-Port 100 Base-TX Module	- 60 W
24-Port 100 Base-FX Ethernet Module	- 65 W
4-Port Copper Gigabit Module	- 50 W
8-Port Copper Gigabit Module	- 65 W
48-Port 10/100 Ethernet Module with TELCO Conceders	- 70 W
4-Port GBIC Module	- 45W
8-Port GBIC Module	- 75W

*** Note:** See the instruction sheet included with the power supply for power supply installation instructions.

Connecting the Power Supplies

Check for the following before connecting the power cords:

- Make sure that all of the power supplies are seated firmly, with the captive screws tightened.
- Make sure that all of the ON/OFF switches on the power supplies are OFF.
- If you are using multiple power supplies to ensure fault tolerance, make sure that there is a dedicated power circuit available for each supply. The separate power sources help ensure operation when the power source itself fails.

To connect the power supplies:

1. Plug the power cord into each power supply.
2. Plug the power cord into an AC outlet.

*** Note:** Refer to the DC power supply documentation if you are installing DC power supplies.

Powering On the System

To power on the system:

1. Check all power connections.
2. Turn on each power supply by switching on the power switches on each supply.

Power-On Sequence

As the system powers on:

- The supervisor module displays switch information on a 31-character LED front panel
- Port LEDs will cycle from yellow to normal operating status as the system continues through its power-on diagnostics, if the modules operate properly.

Refer to Table 1-8 for an explanation of the front panel LEDs:

*** Note:** Refer to the section *"Interpreting Front Panel LED Displays"* in Chapter 17, Monitoring the Avaya Switch, in the Avaya P550R/P580/P880/P882 MultiService Switch User Guide for more detailed information about the front panel LEDs.

Table 1-8. Module Front Panel LED Display Interpretations

Module...	LED...	Behavior...	Indicates...
All Modules	Module Status	Solid green	Normal operation.
		Flashing yellow	Diagnostic failure.
		Solid Yellow	Diagnostic in Process
		Off	Module not operational or not receiving power.
Gigabit Modules	TX and RX	Flashing yellow	Port sending/receiving traffic.
		Off	Port not sending/receiving traffic.
	Port	Solid green	Port enabled with link up.
		Flashing green	Port disabled with link up.
		Flashing yellow	Hardware failure.
		Off	No link.
	HD/FD	Solid green	Full-duplex operation negotiated.
		Flashing yellow	Hardware failure.
		Off	No link.
10/100 Modules	Port	Solid green, with yellow flash	Port enabled and sending and receiving traffic. Traffic indicated by yellow flashes.
		Flashing green	Port disabled with link up.
		Flashing yellow	Hardware failure.
		Off	No link.

Post Power-on Configuration

The system is now fully operational as an 802.1d spanning tree-compliant bridge. All ports are assigned to a single VLAN (virtual local area network):

- All ports can send traffic to all other ports in the system without using a router
- The system is a single flood domain, so all broadcast, multicast, and unknown unicast traffic will be forwarded to all ports in the system.

Upgrading the Application Software

Upgrading the application software involves the following steps:

1. Backing Up the Current Software
2. Backing Up the Previous Configuration
3. Downloading Application Software
4. Setting the Startup Image
5. Synchronizing the Active and Standby Supervisor Modules
6. Resetting the Active Supervisor
7. Resetting the Standby Supervisor
8. Verifying the Upgrade

For information on how to perform this task, see Appendix A, "Upgrading the Application Software," in the *Avaya P550R, P580, P880, and P882 Multiservice Switch User Guide, Version 5.3*.

2 Initial Configuration

Overview

This chapter provides the following initial configuration information that is pertinent to both layer 2 and layer 3 modules:

- Terminal Settings
- Initial Configuration of the Supervisor Module
- Changing Fabric Modes

Terminal Settings

To complete initial switch setup, you need a PC or video terminal with a connection to the serial port on the supervisor module. Refer to Table 2-1 for the required terminal settings to communicate with the switch.

Table 2-1. Terminal Settings

Baud Rate	Stop Bits	Data Bits	Flow Control	Parity
9,600	1	8	Xon/Xoff	None

Initial Configuration of the Supervisor Module

Initial switch configuration includes the following process:

- Connect your PC to the switch Supervisor Module
- Assign the Supervisor Module an IP address and a subnetwork mask
- Attach an out-of-band cable to the Supervisor Module
- Log into the switch Web Agent.

Assigning the Supervisor Module an IP Address and Subnetwork Mask

To assign the supervisor module an IP address and subnetwork mask:

1. Attach a serial cable from your PC's serial port to the supervisor module's serial port on the front panel (Figure 2-1). The serial cable must be a 9-pin straight-through male-to-female serial cable (refer to "Switch Features," earlier in this guide for pinout information).
2. Run a terminal emulation program (HyperTerminal, for example) on your PC. Ensure that the terminal settings match those listed in Table 2-1.
3. Turn the switch on. The switch displays startup messages in the terminal emulation program similar to the following:

```
Booting the operational system, please wait
....

Initializing the file subsystem ... done
Initializing the event subsystem ... done
Initializing the agent subsystem ... done
Initializing the platform ... done
Initializing the switch subsystem ... done
```

```
Starting up threads ...
    Periodic Task
    Event
    Network Interface
    Switch Interface
    Telnet Processes
    Ping Process
    Module Manager
    Address Table Aging
    Multicast Pruning
    Front Panel Display
    Download
    Fans Poller
    Power Supplies Poller
    VTP Snooping
    Redundant Controller/Element Poller Task
    Command Line Parser

Powering up modules
Module 1 Powered
    Waiting for power cycle to complete
Module 2 Powered
     .
     .
     .


Initializing the module subsystem ... done

System initialization complete.

Configuring system from Startup Config file
[/nvram/startup.txt] ... done
Boot process complete - system is now
operational.
Creating Startup Config file [/nvram/
startup.txt] ... done

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Avaya Inc. Cajun Switch Agent v5.3.0
Press Ctrl-P for previous command, Ctrl-N for
next command,? for help.

Login:
```

*** Note:** All information that you enter at the Login and Password prompts is case sensitive.

4. Enter **root** at the **Login** prompt. The password prompt displays:

   ```
   Password:
   ```

5. Enter **root** at the **Password** prompt. This is the default password. The command line interface prompt displays:

   ```
   cajun >
   ```

6. Enter **`enable.`** The prompt redisplays as follows:

   ```
   cajun >#
   ```

7. Enter `configure.` This changes the command mode to configure mode so that you can use the `setup` command. The prompt redisplays as follows:

   ```
   cajun (configure)#
   ```

8. Enter `setup.` This initiates a series of queries. Answer each query as follows:

   a. When prompted to change the super user password, press **Enter** to accept the default answer of **Yes**.

b. Enter your **old password**. The system then prompts you for a new password. The default password is root.

c. Enter your **new password**, then re-enter the new password to verify your choice.

d. Enter the **IP address** for the switch manager's Ethernet console.

e. Enter the **subnet mask** for the network's IP address.

f. Enter the **default gateway** for the switch. The setup command sessions displays (Figure 2-1).

Figure 2-1. Example of Setup Command Display

```
Welcome to Switch Setup. The brief series of questions that
follows will help you to configure this switch. After completing
this process, you will be able to manage the switch using:

 - the switch-based HTTP server
 - the Element Management System.

Text in [] is the default answer for each question. To accept
the default, press ENTER.


Would you like to change the super user password [Yes]? Y

Old Password: xxxx
New Password: xxxx
Re-type New Password: xxxx
User password changed successfully

What do you want the switch manager's console
Ethernet IP Address to be [0.0.0.0]? 10.0.0.1

What is the subnet mask for your network's
IP address [0.0.0.0]? 255.255.255.0

What is the IP address of the default gateway for this network segment [0.0.0.0]?

You can now connect to the switch using the front-panel
out-of-band 10Base-T connection. This allows you to log in
using either the embedded web agent or the EMS.

See the Installation and Operation guides for instruction on establishing additional IP
network connections.
```

9. Connect an out-of-band cable to the 10/100Base-T port on the layer 3 supervisor module front panel (Figure 3-2).

   Refer to Table 2-2 for the 10/100 Base-T crossover path cable pinouts.

Figure 2-2. Avaya P550R Multiservice Switch

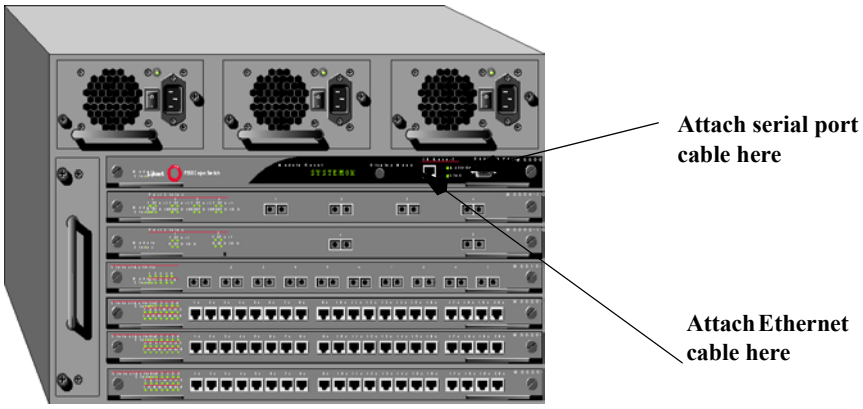


Table 2-2. Pinouts for 10/100 Base-T Crossover Patch Cables

Pin #	Color	Pin #	Color
1	WO	3	WG
2	O	6	G
3	WG	1	WO
4	B	4	B
5	WB	5	WB
6	G	2	O
7	WBr	7	WBr
8	Br	8	Br

After you have connected the out-of-band 10Base-T cable to the appropriate port on the supervisor front panel, log in to the switch using a Web browser, as described in Logging in to the Web Agent.

Logging in to the Web Agent

Although the Web Agent supports any frames-capable browser, the system has been qualified with the following browsers:

- Netscape Navigator 4.5 or later
- Microsoft Internet Explorer 3.0 or later

To log in to the Web Agent:

1. Start your browser.
2. Enter the **URL** for the switch you want to manage (for example: http://127.255.255.0).

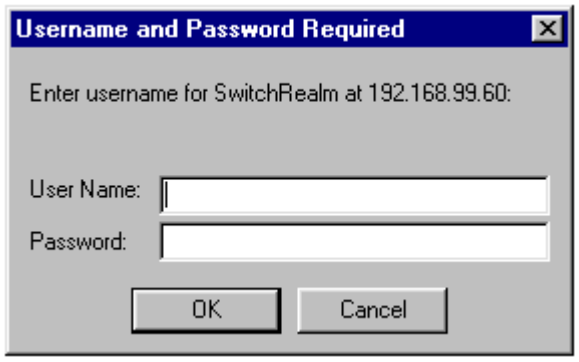
   *** Note:** Remember that each interface to the supervisor module (console or inband) has a separate IP address. For Layer 3, this location can be that of any of the router interfaces.

3. Press **Enter**. The login window opens (Figure 2-3):

Figure 2-3. Login Window

4. Select **Login. The Username and Password** dialog box opens (Figure 2-4):

Figure 2-4. Username and Password Dialog Box



5. Enter a valid **user name**. The default super user name is **root**.

6. Enter your **password**. (This is the password you changed in step 8 of "Assigning the Supervisor Module an IP Address and Subnetwork Mask" earlier in this chapter)

Setting Up User Accounts

You can set up user accounts using either the web agent or the CLI.

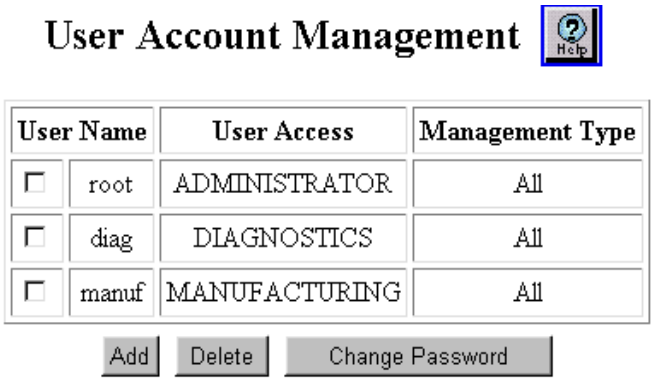
Setting Up User Accounts Using the Web Agent

To set up a user account using the web agent:

1. Log in to the switch from your Web browser (refer to the "*Logging in to the Web Agent*" earlier in this chapter).

2. Select **User Logins** from the System/Administration group on the web agent window. The **User Account Management** dialog box opens (Figure 2-5)

Figure 2-5. User Account Management Dialog Box



3. Select **Add**. The **Add User Account** dialog box opens (Figure 2-6):

Figure 2-6. Add User Account Dialog Box

4. Enter a **user name** for the account in the **User Name** field.
5. Enter a **password** for the account in the **Password** field.
6. Re-enter the **same password** in the **Re-enter Password** field.

7. From the **Access Type** pull-down menu, select an access type (Table 2-3).

Table 2-3. Access Type Pull Down Menus Options

User Level	Can	Cannot
User (READ_ONLY)	View switch configuration settings and statistics.	View user accounts and community strings. Change switch configurations.
Manager (READ_WRITE)	View *and set* switch configuration settings, and view statistics.	View user accounts and community strings.
Administrator (ADMINISTRATOR)	View and set all switch parameters.	N/A

8. Click **APPLY** to save your changes, or **CANCEL** to restore previous settings.

Changing Fabric Modes

This section explains how to change an Avaya P580/P882 switch from Fabric 1 mode to Fabric 2 mode and vice-versa.

*** Note:** You can use the following procedures to change Fabric modes only on a P580/P882 Switch with an 80-series supervisor module.

Changing from Fabric 1 Mode to Fabric 2 Mode

To change your Avaya P580/P882 Multiservice switch from Fabric 1 mode to Fabric 2 mode:

1. Telnet to the switch.
2. Type **enable** (**en**) at the Cajun switch prompt to enter enable mode. The enable mode prompt displays:

   ```
   Cajun #
   ```

3. Type **configure** to enter configure mode. The configure prompt displays:

   ```
   Cajun (configure)#
   ```

4. Type the following command to change your switch from Cajun mode 1 to Cajun mode 2:

```
Cajun (configure)# set Fabric_mode 2
```

There will be a prompt asking you to reboot the P580/P880/P882 Multiservice switch. The switch will be in Fabric 2 mode after it reboots.

*** Note:** With redundant supervisor modules, each supervisor module must be changed individually. Supervisor modules must run in the same fabric mode to function properly.

Changing from Fabric 2 Mode to Fabric 1 Mode

To change your Avaya P580/P882 Multiservice switch from Fabric 2 mode to Fabric 1 mode:

1. Telnet to the switch.
2. Type **enable** (**en**) at the Cajun switch prompt to enter enable mode. The enable mode prompt displays:

```
Cajun #
```

3. Type **configure** to enter configure mode. The configure prompt displays:

```
Cajun (configure)#
```

4. Type the following command to change your switch from Fabric 2 mode to Fabric 1 mode:

```
Cajun (configure)# set Fabric_mode 2
```

There will be a prompt asking you to reboot the Avaya P580/P882 Multiservice switch. The switch will be in Fabric 1 mode after it reboots.

*** Note:** With redundant supervisor modules, each supervisor module must be changed individually. Supervisor modules must run in the same fabric mode to function properly.

3 Specifications

This chapter provides the following information:

FCC Compliance

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference
2. This device must accept any interference received, including interference that may cause undesired operation.

This Class A digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet apparell numérique de la classe A respecte toutes les exigences du Régelment sur le matériel brouilleur du Canada.

WARNING

This is a class A product. In a domestic environment, this product may cause radio interference, in which case you may be required to take adequate measures.

Laser Safety Information

*** Note:** This notice applies to devices that contain optical transceiver media modules installed.

The transceivers used in this product are Class 1 Laser Products. This product complies with 21 CFR Chapter 1, Subchapter J.

Any use other than that specified herein may result in hazardous laser radiation exposure.

Unterminated optical receptacles may emit laser radiation. Do not view with optical instruments.

This product complies with IEC 60825-1, *Safety of Laser Products*, Class 1 Laser Product.

Operating and Physical Specifications

Operating Temperature (Sea Level): 0° to 40° C

Storage Temperature (Sea Level): -20° to 80° C

Relative Humidity: 5% to 95% noncondensing

Physical Dimensions:

P550R/P580 - 17.5" W x 18" D x 10.5" H (44.45 cm W x 45.72 cm D x 26.67 cm H)

P880/P882 - 17.25″ W x 18″ D x 25″ H (43.815 cm W x 45.72 cm D x 63.5 cm H)

Weight: Fully loaded P550R/P580 - 60 kg (130 lbs)

Fully loaded P880/P882 - 80 kg (182 lbs)

Power Specifications

AC input voltage: 100-240 VAC @ +6%, -10%

Frequency: 50 - 60 Hz

Maximum Power Consumption:

P5xx - 8.0 A @ 120V, 4.0 A @ 240 V

P88x - 10 A @ 120 V, 5.5 A @ 240 V

Refer to Table 3-1 for the precise power values for the various switch devices:

Table 3-1. Power Values for Switch Devices

Switch Device	Power Added/Used
Power Supply: P550R/P580 P580/P882	 300 W 700 W
Backplane Elements	- 50 W
20-Port 10/100 Module	- 70 W
Supervisor Module	- 45 W
2-Port Gigabit Module (L2/L3)	- 35 W
4-Port Gigabit Module	- 55 W
10-Port 100Base-FX Module (L2)	- 50 W
10-Port 100Base-FX Module (L3)	- 60 W
12-Port 10/100Base-TX Module (L3)	- 70 W
24-Port 100 Base-TX Module	- 60 W
24-Port 100 Base-FX Ethernet Module	- 65 W
4-Port Copper Gigabit Module	- 50 W
8-Port Copper Gigabit Module	- 65 W
48-Port 10/100 Ethernet Module with TELCO Conceders	- 70 W
4-Port GBIC Module	- 45W
8-Port GBIC Module	- 75W