



Implementing Avaya Aura[®] Experience Portal on multiple servers

August 2012

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Chapter 1: Avaya-provided server installation

When you purchase the Avaya Aura® Experience Portal bundled server option, Avaya supplies the hardware for each server that will be part of your Experience Portal system. Avaya may also include one or more additional dual in-line memory module (DIMM) cards and Avaya Secure Access Link (SAL) or the Avaya Access Security Gateway (ASG) solution with each server machine.

Install the servers provided at your site and ensure that:

- Any Additional DIMM cards are installed.
- `Eth1`, which is also called `port 2`, is empty and available for use when you connect to this server using a crossover network cable.
- If Avaya Services were to maintain this system, then either the Avaya Secure Access Link (SAL) or the Avaya Access Security Gateway (ASG) solution must be used:
 - To configure the Avaya SAL for remote access, refer to the Avaya SAL documentation.
 - To configure the Avaya ASG for remote access, refer to the Avaya ASG documentation.

Once the servers are configured, install the Avaya Enterprise Linux operating system.

Preparing to connect to Avaya Enterprise Linux using a crossover Ethernet cable

If you install Avaya Enterprise Linux on the server with a remote connection from a laptop, you need to set the configuration options on the laptop so that it can communicate with the server.

Before you begin

Install the Avaya-provided hardware at the customer site.

Ensure that you have the following equipment for the remote connection:

- A laptop with a telnet client and secure shell (SSH) client programs installed.

Note:

Putty is a popular, free program that can function as both a telnet client and as an SSH client.

- A crossover Ethernet (or CAT5) network cable that can connect the laptop to the Services port on the server (Eth1).

Important:

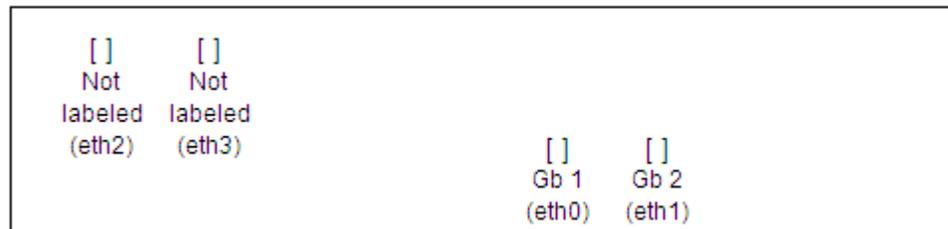
Steps 1, 2, and 3 are not applicable for an upgrade scenario.

Procedure

1. Insert the Enterprise Linux Installer software into the DVD drive.
2. Reboot the server so that it boots from the Enterprise Linux Installer software.
3. Configure your laptop with the following settings:
ipaddress=192.11.13.5
netmask=255.255.255.252
gateway=192.11.13.4
4. Plug in a crossover Ethernet (or CAT5) network cable from the laptop to the temporary Services port (Eth1, also called port 2).

Important:

If you connect to a Dell PowerEdge1950 server (also known as Avaya S8510), the server has two Ethernet ports on the motherboard and two Ethernet ports on a daughter-card. As per the back view of the server, the ports are arranged as follows:



If you install Avaya Enterprise Linux version RH6.0.32-AV17EP6 on a Dell PowerEdge1950 server:

- If you connect to a server that is booted from the Avaya Enterprise Linux DVD for a fresh install, then connect the crossover Ethernet cable to the second Ethernet port on the daughter-card. This port is not labeled on the server. In the figure above, the correct port is labeled eth3.
- If you connect to a server that is booted from the hard disk, such as before an upgrade of Avaya Enterprise Linux, then connect the crossover Ethernet

cable to the second Ethernet port on the motherboard. This port is labeled Gb 2 on the server. In the figure above, the correct port is labeled eth1.

If you install Avaya Enterprise Linux version RH6.2.32-AV04EP6 or later on a Dell PowerEdge 1950 server, always connect the Ethernet cable to port Gb 2 (eth1).

5. To verify link connectivity:

- Enter the `ping 192.11.13.6` command
- Check the LED on the temporary Services port and the LED on the network card of the laptop. These LEDs are green when the link is up and are not lit when the link does not function.

Next steps

Install/Upgrade Avaya Enterprise Linux.

Installing and configuring Avaya Enterprise Linux

Before you begin

Install the Avaya-provided hardware at the customer site.

If you install Avaya Enterprise Linux using a direct connection, ensure that you have a keyboard and monitor connected directly to the server.

If you use a crossover Ethernet connection from a laptop, ensure you have configured the laptop as described in [Preparing to connect to Avaya Enterprise Linux using a crossover Ethernet cable](#) on page 9.

Based on the kind of server you use, have one of the following completed worksheets ready to help answer the questions raised during the installation:

- [Primary EPM server installation worksheet](#) on page 116
- [Auxiliary EPM server installation worksheet](#) on page 121
- [MPP server installation worksheet](#) on page 119

! Important:

Installation of Avaya Enterprise Linux erases any existing data on the server. Ensure that you do not need any old data before you install.

Procedure

1. Insert the Enterprise Linux Installer DVD into the DVD drive.
2. Boot the server from the Enterprise Linux Installer DVD.

3. If you install through the console:

In the Avaya Enterprise Linux installer Welcome screen, type `1` and press `Enter` at the boot prompt to select the **Fresh Install** option.

! Important:

You must enter your selection on the Welcome screen within 60 seconds. Otherwise, the installer searches for an Ethernet crossover connection on the `eth1` interface.

The installer displays the file transfer message, and then the Warning screen.

4. If you install through a crossover Ethernet connection to `eth1`:

- a. On a command line, enter the `ping -t 192.11.13.6` command to determine when the server completes the reboot.
- b. After the server responds to ping, type `Ctrl-C` to stop the ping command.
- c. Open a telnet client, such as PuTTY, and connect to the IP address `192.11.13.6`.

! Important:

You must initiate the telnet session within 5 minutes of the server responding to ping. If you do not initiate the telnet session, the installer ejects the DVD and reboots the server.

*** Note:**

If you want to use the Windows command telnet as the telnet client:

- a. Enter the `telnet` command.
- b. At the Microsoft Telnet> prompt, enter the `set term vt100` command.
- c. At the Microsoft Telnet> prompt, enter the `open 192.11.13.6` command.

The installer displays the file transfer message, and then the Warning screen.

5. On the Warning screen, type `Yes` and press `Enter` to continue with the installation.

*** Note:**

Instead of displaying the Warning screen, the Avaya Enterprise Linux installer may display the **No Disks found! /dev/sda missing** error. To resolve this issue, type `n` and press `Enter` at the **Eject CD/DVD before rebooting** prompt.

The Installer displays the Network-related information screen.

6. On the Network-related information screen, enter the following details:

- **Hostname or FQDN:** Type the hostname of the server.

- **IP Address (eth0)**: Type a static IP address for the server.
 - **SubNetmask** : Type the subnet mask for the server.
 - **Gateway**: Type the IP address of the gateway.
 - **DNS Domain** : Type the domain name where this server resides.
 - **DNS Server 1**: Type the IP address of the first DNS server.
 - **DNS Server 2**: Type the IP address of the second DNS server.
 - **DNS Server 3**: Type the IP address of the third DNS server.
7. Press `Enter`.
The installer displays the network related information that you have specified.
 8. Type `Yes` and press `Enter` to confirm the network related information.
The installer displays the Time Zone selection screen.
 9. Type the required option and press `Enter` to select a region.
The installer displays the list of corresponding time zones.
 10. Type the required option and press `Enter` to select a time zone.
The installer displays the time zone information that you have specified.
 11. Type `c` and press `Enter` to confirm the details.
The installer displays the Date and Time screen.
 12. Specify the date details:
 - day of month
 - month
 - year
 13. Specify the time details:
 - hours
 - **Note:**
Type the hour in 24 hour format.
 - minutes
 14. Press **Enter**.
The installer displays the Date and Time that you have specified.
 15. Type `yes` and press **Enter** to confirm the date and time information.
The installer displays the NTP configuration screen.
 16. Enter the following NTP details:
 - NTP server 1: Type the IP address of the first NTP server.
 - NTP server 2: Type the IP address of the second NTP server.
 - NTP server 3: Type the IP address of the third NTP server.

*** Note:**

You can leave all the NTP server addresses blank as the Experience Portal installer automatically configures NTP on all servers, other than the primary EPM, to synchronize with the primary EPM.

17. Press `Enter`.

The installer displays the NTP information that you have specified.

18. Type `yes` and press **Enter** to confirm the NTP details.

The installer erases all existing data and installs Avaya Enterprise Linux. When the installation is complete, it ejects the DVD and reboots the server.

! Important:

Once the server reboots, you can no longer access the server remotely via telnet. Instead, you must use an SSH client, such as PuTTY. Note that PuTTY can function as an SSH client as well as a telnet client.

19. Remove the Avaya Enterprise Linux DVD from the DVD drive.

20. After the server reboots, log in to Linux on the Experience Portal server.

The Enterprise Linux Installer creates the following accounts:

User name	Group	Purpose
sroot	root	Avaya Services root access
craft	susers	Avaya Services non-root access
cust	susers	Customer non-root access * Note: To enable this account, set your password as mentioned in the next step.
root	root	Customer root access * Note: To enable this account, set your password as mentioned in the next step.

*** Note:**

- The root login is disabled after the installation of Avaya Enterprise Linux. If you need the password for the sroot or craft account, contact Avaya Services.
- You cannot log in directly as a root user except through the console. Log in as a non-root user and switch to a root account using the `su` command.
- If you install through the console, log in to the local Linux console as sroot.

- If you install through a crossover Ethernet connection to eth1:
 - If you install a Dell PowerEdge1950 server (also known as Avaya S8510), move the cross-over cable from the second Ethernet port on the daughter-card to the second Ethernet port on the motherboard (port Gb 2).
 - Use a secure shell (SSH) client, such as PuTTY, to open an SSH connection to the 192.11.13.6 IP address.
 - Log in to Linux as `craft` and enter the `su - sroot` command to change to the user `sroot`.
21. For security reasons, change the passwords for the two Linux customer-related accounts created during the installation.

*** Note:**

If this procedure is performed by an Avaya Services representative, you should either have the customer enter the new passwords, or enter default passwords and inform the customer what passwords you used and that they need to change those passwords as soon as possible.

- a. Enter the `passwd root` command.
- b. Type the password and press `Enter`.
- c. Confirm the password at the prompt.
- d. Enter the `passwd cust` command.
- e. Type the password and press `Enter`.
- f. Confirm the password at the prompt.

Next steps

After you successfully install Avaya Enterprise Linux, you can:

- Perform the software installation prerequisite tasks on this server as described in [Software installation prerequisites overview](#) on page 21.
- Install Avaya Enterprise Linux on another Avaya-provided server by repeating this procedure on that server.
- Install the Experience Portal software as described in the *Implementing Avaya Aura Experience Portal on multiple servers* or *Implementing Avaya Aura Experience Portal on a single server* guide.

Avaya-provided server installation

Chapter 2: Customer-provided operating system installation

If you purchased the Avaya Aura® Experience Portal software-only offer, you are responsible for obtaining and installing Red Hat Enterprise Linux Server Release 6.0. In addition, the Red Hat Enterprise Linux Server Release 6.0 that you install must:

- Run in 32-bit mode.
- Include the `bash` package.

*** Note:**

Be careful when you select additional Linux packages for installation. For example, if you want to install a package, such as the `mod_nss` package in the `Servers/ Web Servers` category, which uses a port required by Voice Portal:

Configure the package to use an alternate port and not use any of the following reserved Voice Portal ports: 80, 443, 8005, 8009, 8080, 8443, and 9443.

For details about obtaining Red Hat Enterprise Linux Server Release 6.0, go to the Red Hat website, <http://www.redhat.com>.

For hardware requirements, see the *Minimum server machine hardware requirements* topic in the *Planning for Avaya Aura® Experience Portal* guide. If you have already installed Red Hat Enterprise Linux Server Release 6.0 and want to verify that you have the correct RPM versions, see [Identifying RPM issues](#) on page 99.

*** Note:**

Before installing Red Hat Enterprise Linux Server Release 6.0 for the software-only offer, you must install and integrate any new hardware into your network.

Installing Red Hat Enterprise Linux Server 6.0

Before you begin

Depending on how this server is going to be used, have one of the following completed worksheets ready to help answer the questions raised during the installation:

- [Primary EPM server installation worksheet](#) on page 116
- [Auxiliary EPM server installation worksheet](#) on page 121
- [MPP server installation worksheet](#) on page 119

Make sure to disable Firewall and set SELinux to permissive.

About this task

The default values given during Release 6.0 32 bit or later installation are generally suitable from an Experience Portal perspective. There are a few instances, however, where you must select values other than the default. The following steps are guidelines to installing Red Hat Enterprise Linux Server 6.0 and provide explicit instructions for making selections when the default values are not suitable.

Procedure

1. Reboot the server so that it boots from the Red Hat Enterprise Linux Server 6.0 media.
The system displays the **install/upgrade** option on the screen.
2. Select the **install/upgrade** option.
3. Select English as the language to use during the installation process.
4. Select the Keyboard option.
5. Select **Basic Storage Devices** to install Red Hat Enterprise Linux.
6. Select the **Fresh Installation** option.
7. Enter a hostname for the system.
8. When configuring the network:
 - a. Ensure that `eth0` (the main Ethernet interface) is enabled.
 - b. Select **Connect automatically** to start the connection automatically when the system boots.
 - c. Edit the network configuration and enter network information according to the worksheet.
 - d. Enter values for the gateway and primary DNS.
 - e. Add Search Domains.
9. Specify the applicable timezone.

10. When entering the root password, use the value given in the installation worksheet.
11. Select the **Use All Space** option on the partitioning screen.
12. Ensure that **Basic Server**, the default installation, is selected.
13. **(Optional) (Optional)** Select the **Customize now** option on the screen to customize the package set further.

*** Note:**

For languages other than English, press the **Customize now** button and install the preferred language.

14. Complete the Release 6.0 32 bit or later installation and reboot the system.
15. After the system reboots, several post-installation configuration steps need to be completed.
 - Set the system clock.
 - Create a non-root account. Make sure you use the account information in the worksheet that have you selected in the *Prerequisites* section above.

*** Note:**

After the Experience Portal software is installed, you will no longer be able to log in remotely as root. Instead, when connecting remotely you must use a non-root account to log in and then change to `root` using the `su` command.

16. If you have purchased a maintenance agreement with Avaya services and this server will be the primary EPM server, you must configure Avaya Secure Access Link (SAL) or Avaya Access Security Gateway (ASG) solution. For more information, see the *Minimum server machine hardware requirements* topic in the *Planning for Avaya Aura® Experience Portal* guide.

Next steps

After you successfully install Release 6.0 32 bit or later, you can:

- Perform the software installation prerequisite tasks on this server as described in [Software installation prerequisites overview](#) on page 21.
- Install Release 6.0 32 bit or later on another customer-provided server by repeating this procedure on that server.

Customer-provided operating system installation

Chapter 3: Experience Portal software installation prerequisites

Software installation prerequisites overview

Complete these tasks before you install the Avaya Aura[®] Experience Portal software on the server.

✓	Description
	Make sure that the hard drive is partitioned properly in order to create sufficient space for Experience Portal software installation. For more information, see <i>Partition requirements for hard drive</i> in the Planning guide.
	Make sure that you have access to the Avaya Aura [®] Experience Portal site-specific licensing information from Avaya, as described in the <i>License Requirements</i> topic in the <i>Planning for Avaya Aura[®] Experience Portal</i> guide.
	Verify that you can access all of the target systems using at least one of the following methods: <ul style="list-style-type: none">• _____ A computer on the customer's network that has an SSH client to reach the target system• _____ A keyboard, monitor, and mouse, attached directly to the target system• _____ A cross-over cable that connects a second computer that has a keyboard, monitor, mouse, and an SSH client.
	Disable any firewall or anti-virus software on the target systems.
	Check to see if there are any Experience Portal patches available on the Avaya online support Web site, http://support.avaya.com . If there are, download those patches before you begin the installation.
	Verify that all servers are running the correct version of Avaya Enterprise Linux or Red Hat Enterprise Linux as described in Verifying the Linux version number on page 22.
	Verify that all servers can communicate with one another as described in Verifying server communication worksheet on page 23.
	Make sure that none of the mount points are stale or hung. For details, see Checking for stale or hung mount points on page 29.

✓	Description
	<p>Verify that the time is synchronized between all the Experience Portal servers. For details, see Verifying server time synchronization on page 29.</p> <p>! Important:</p> <p>If the time is not properly synchronized between the EPM and MPP servers, the upgrade process could hang.</p>

Verifying the Linux version number

Procedure

1. On the Experience Portal server, log in to Linux as any user.
 2. If you are using:
 - Avaya Enterprise Linux, enter the `swversion` command.

The result should state that it is version RH6.0.32-AV17EP6 or later. If this version is not correct, contact Avaya technical support.
 - Red Hat Enterprise Linux, enter the `cat /etc/issue` command.

The result should be Release 6.0 32 bit or later. If you have an earlier version of Red Hat, you must update the system.
- + Tip:**
- If you are not sure which operating system a server is using, enter the `swversion` command. If the command returns information about your operating system, the server is running Avaya Enterprise Linux.
3. If you are using Red Hat Enterprise Linux, enter the `rpm -aq | grep redhat-release` command to ensure that the Linux build version is correct.
The result should state that it is build `redhat-release-server-6Server-6.0.0.37.el6.i686`. If this build is not correct, please obtain the latest 6.0 build from Red Hat.

Related topics:

[Windows operating system installation](#)

Verifying server communication worksheet

Complete these tasks to ensure that all Experience Portal servers can communicate with each other and with all external servers.

✓	Description
	Verify that the primary EPM server can communicate with all servers as described in Verifying communication between the primary EPM server and all other servers on page 23.
	Verify that the MPP servers can communicate with all servers as described in Verifying communication between the primary EPM server and all other servers on page 23.
	If you plan to configure an EPM server, verify that the EPM server can communicate with all servers as described in Optional: Verifying communication between the auxiliary EPM server and all other servers on page 27.

Related topics:

[Verifying communication between the primary EPM server and all other servers](#) on page 23

[Verifying communication between the MPP servers and all other servers](#) on page 25

[Optional: Verifying communication between the auxiliary EPM server and all other servers](#) on page 27

[Manually mapping hostnames to connect the primary EPM with other servers](#) on page 28

Verifying communication between the primary EPM server and all other servers

About this task

The planned primary EPM server must have a static IP address and hostname, and it must be able to communicate with all other Experience Portal servers using either:

- A Domain Name Server (DNS) to translate hostnames to their corresponding IP addresses
- The `/etc/hosts` file to map the IP addresses and hostnames

! Important:

If the servers cannot communicate with one another, you will encounter installation errors and be forced to rerun the installation.

In addition, the primary EPM server must also be able to communicate with all external servers such as the PBX, application servers, speech servers, and the Communication Manager.

Procedure

1. Log in to Linux on the Experience Portal primary EPM server.
2. Verify the primary EPM server's IP address and hostname:
 - a. Enter the `hostname -i` command.
This command can return more than one IP address including `127.0.0.1`. The IP address of the EPM server is the address other than `127.0.0.1`. If this check fails, you need to manually map the hostnames as described in [Manually mapping hostnames to connect the primary EPM with other servers](#) on page 28.
 - b. Enter the `hostname -s` command.
This command should return the server's hostname and not `localhost`. If this check fails, you need to manually map the hostnames as described in [Manually mapping hostnames to connect the primary EPM with other servers](#) on page 28.
3. Verify that the primary EPM server can communicate with all MPP servers:
 - a. Enter the `ping -c 4 <mpp_hostname>` command, where:
<mpp_hostname> is the hostname of the MPP server you are testing.
 - b. Wait for the system to respond with the contact information.
 - c. If either of this check fails, you need to manually map the hostnames as described in [Manually mapping hostnames to connect the primary EPM with other servers](#) on page 28.
 - d. If your Experience Portal system contains more than one MPP server, repeat this step for each of the MPP servers.
4. If this system is going to have an auxiliary EPM server, verify that the primary EPM server can communicate with the auxiliary EPM server by hostname or IP address:
 - a. Enter the `ping -c 4 <auxiliary_epm_hostname>` command, where:
<auxiliary_epm_hostname> is the hostname of the auxiliary EPM server.
 - b. Wait for the system to respond with the contact information.
 - c. If this check fails, enter the `ping -c 4 <auxiliary_epm_ipaddress>` command, where:
<auxiliary_epm_ipaddress> is the IP address of the auxiliary EPM server.
 - d. Wait for the system to respond with the contact information.
 - e. If both of these checks fail, you need to manually map the hostnames.
5. Verify that the primary EPM server can communicate with the external servers by hostname or IP address:
 - a. Enter the `ping -c 4 <server_hostname>` command, where:

`<server_hostname>` is the hostname of the one of the following external components attached to your Experience Portal system:

- A PBX server.
 - An application server.
 - A speech server.
 - Communication Manager.
 - Avaya SIP Enablement Services.
- b. Wait for the system to respond with the contact information.
 - c. If this check fails, enter the `ping -c 4 <server_ipaddress>` command, where:

`<server_ipaddress>` is the IP address of the server whose hostname you specified in the previous `ping` command.
 - d. Wait for the system to respond with the contact information.
 - e. If both of these checks fail, you need to manually map the hostnames as described in [Manually mapping hostnames to connect the primary EPM with other servers](#) on page 28.
 - f. Repeat this procedure for each external server in your Experience Portal system.

Verifying communication between the MPP servers and all other servers

About this task

All planned Experience Portal servers must be able to communicate with each other using either:

- A Domain Name Server (DNS) to translate hostnames to their corresponding IP addresses
- The `/etc/hosts` file to map the IP addresses and hostnames

! Important:

If the servers cannot communicate with one another, you will encounter installation errors and be forced to rerun the installation.

In addition, the servers must also be able to communicate with all external servers such as the PBX, application servers, speech servers, and the Communication Manager.

Procedure

1. Log in to Linux on the Experience Portal MPP server.

2. Verify that the MPP server can communicate with the EPM server by hostname or IP address:
 - a. Enter the `ping -c 4 <epm_hostname>` command, where:
`<epm_hostname>` is the hostname of the EPM server.
 - b. Wait for the system to respond with the contact information.
 - c. If this check fails, enter the `ping -c 4 <epm_ipaddress>` command, where:
`<epm_ipaddress>` is the IP address of the EPM server.
 - d. Wait for the system to respond with the contact information.
 - e. If both of these checks fail, you need to manually map the hostnames as described in [Manually mapping hostnames to connect the primary EPM with other servers](#) on page 28.
 - f. If your Experience Portal system contains a auxiliary EPM server, repeat this step for the auxiliary EPM server.
 3. Verify that the MPP server can communicate with the external servers by hostname or IP address:
 - a. Enter the `ping -c 4 <server_hostname>` command, where:
`<server_hostname>` is the hostname of the one of the following external components attached to your Experience Portal system:
 - A PBX server.
 - An application server.
 - A speech server.
 - Communication Manager.
 - Avaya SIP Enablement Services.
 - b. Wait for the system to respond with the contact information.
 - c. If this check fails, enter the `ping -c 4 <server_ipaddress>` command, where:
`<server_ipaddress>` is the IP address of the server whose hostname you specified in the previous `ping` command.
 - d. Wait for the system to respond with the contact information.
 - e. If both of these checks fail, you need to manually map the hostnames as described in [Manually mapping hostnames to connect the primary EPM with other servers](#) on page 28.
 - f. Repeat this procedure for each external server in your Experience Portal system.
 4. If you have additional MPP servers in your Experience Portal system, repeat this procedure for each MPP server.
-

Optional: Verifying communication between the auxiliary EPM server and all other servers

About this task

All planned Experience Portal servers must be able to communicate with each other using either:

- A Domain Name Server (DNS) to translate hostnames to their corresponding IP addresses
- The `/etc/hosts` file to map the IP addresses and hostnames

! Important:

If the servers cannot communicate with one another, you will encounter installation errors and be forced to rerun the installation.

In addition, the EPM server must also be able to communicate with all external servers such as the PBX, application servers, speech servers, and the Communication Manager.

Procedure

1. Log in to Linux on the auxiliary EPM server.
2. Verify that the auxiliary EPM server can communicate with all MPP servers:
 - a. Enter the `ping -c 4 <mpp_hostname>` command, where:
`<mpp_hostname>` is the hostname of the MPP server you are testing.
 - b. Wait for the system to respond with the contact information.
 - c. If either of this check fails, you need to manually map the hostnames as described in [Manually mapping hostnames to connect the primary EPM with other servers](#) on page 28.
 - d. If your Experience Portal system contains more than one MPP server, repeat this step for each of the MPP servers.
3. Verify that the auxiliary EPM server can communicate with the external servers:
 - a. Enter the `ping -c 4 <server_hostname>` command, where:
`<server_hostname>` is the hostname of the one of the following external components attached to your Experience Portal system:
 - A PBX server.
 - An application server.
 - A speech server.
 - Communication Manager.
 - Avaya SIP Enablement Services.
 - b. Wait for the system to respond with the contact information.

- c. If this check fails, enter the `ping -c 4 <server_ipaddress>` command, where:
`<server_ipaddress>` is the IP address of the server whose hostname you specified in the previous `ping` command.
- d. Wait for the system to respond with the contact information.
- e. If both of these checks fail, you need to manually map the hostnames as described in [Manually mapping hostnames to connect the primary EPM with other servers](#) on page 28.
- f. Repeat this procedure for each external server in your Experience Portal system.

Manually mapping hostnames to connect the primary EPM with other servers

About this task

To manually map hostnames to IP addresses without a DNS, you need to edit the `/etc/hosts` file on the planned primary EPM server so that it includes an entry for each of the servers in the Experience Portal system.

Procedure

1. Log into Linux on the planned primary EPM server.
2. Back up the original file prior to editing it by entering the `cp /etc/hosts /etc/hosts.bak` command.
3. With the ASCII text editor of your choice, open the `/etc/hosts` file.
4. Make sure that the first line contains `127.0.0.1 localhost localhost.localdomain`, with the IP address and hostnames separated by spaces or tabs.
5. Create a new line for each server in the Experience Portal system using the format `IP_address hostname1 hostname2...` where:

`IP_address` is the IP address of a server in the Experience Portal system and `hostname1 hostname2...` is one or more hostnames, separated by tabs or spaces, to associate with the IP address.

You should have one entry for each of the following components used in your Experience Portal system:

- All MPP servers.
- The auxiliary EPM server, if one is planned for this Experience Portal system.

- All PBX servers.
- All application servers.
- All speech servers.
- Communication Manager.
- Avaya SIP Enablement Services.

6. Save and close the file.

Example

The following shows a properly-formatted `/etc/hosts` file with two MPP servers:

```
127.0.0.1      localhost    localhost.localdomain    #Required first line
123.123.123.122  vpms_server_hostname    #Primary EPM server IP
addy and hostname
123.123.123.123  first_mpp    first_ mpp.domainname.com    #First MPP server
123.123.123.124  second_ mpp    second_ mpp.domainname.com    #Second MPP server
```

Checking for stale or hung mount points

If you have any file systems mounted on your Experience Portal servers, check that none of these mounts points are stale or hung. Stale or hung mount points can cause RPM installations to hang while installing the Experience Portal software.

Procedure

1. On the Experience Portal server, log in to Linux as any user.
2. Enter the `df` command.
If the server:
 - Responds to this command, then the mount points are working.
 - Does not return right away, then a mount point is stale or hung. Enter the `umount` command to unmount any stale or hung mount points.

Verifying server time synchronization

About this task

If the EPM and MPP software is going to be installed on separate servers, it is extremely important that the time be synchronized across those servers. Experience Portal automatically

configures the Network Time Protocol (NTP) software that synchronizes the servers, but for it to work effectively:

- The time synchronization must be relatively close before the Experience Portal software is installed or upgraded. Otherwise the installation process may not complete successfully.
- If there is a difference, the time on all planned MPP servers should lag behind that of the planned EPM server so that the NTP software has to set the time on the MPP servers ahead a small amount instead of trying to adjust the time backwards.

*** Note:**

While Experience Portal only requires that the EPM and MPP servers be synchronized, you must also synchronize all of the servers that Experience Portal connects to, including the application server, any speech servers, and the PBX. For more information, see [External time sources](#) on page 85.

Procedure

1. On each Experience Portal server, at roughly at the same time, enter the `date` command.
2. Verify that all Experience Portal servers report times within a few seconds of each other. If there is a time difference, verify that the planned MPP servers lag behind the planned EPM server.
For example, an MPP server time of 2:10:00 and a EPM server time of 2:10:03 is acceptable.
3. If one or more servers are off by more than a few seconds, set the appropriate date and time by entering the `date MMDDhhmmYY.ss` command, where `MMDDhhmmYY.ss` is the two-digit month, day, hour, minute, year, and seconds you want to set based on the 24-hour clock.
For example, to set the date to 2:15:35 p.m. on March 31, 2008, you would enter `date 0331141508.35`.

Time Synchronization between the external database and EPM servers

If you connect an Experience Portal system to an external database, you must synchronize the time so that the time is the same across all servers. While Experience Portal only requires that the EPM and AMS server time be synchronized, make sure that you also synchronize all of the servers that Experience Portal connects to. For more information, see the *External time sources* topic in the *Implementing Avaya Aura® Experience Portal on multiple servers* guide.

Chapter 4: Installing the EPM and MPP software on different servers

Installing the EPM software on the primary EPM server

All Avaya Aura® Experience Portal systems require a primary EPM server running the Experience Portal Manager (EPM) software.

Before you begin

- Complete the [Primary EPM server installation worksheet](#) on page 116 and have it available to help answer the questions raised during the installation.
- Before you install the software, read the Experience Portal release notes on the Experience Portal installation DVD under *Documentation*. These release notes contain information about the product that is not included in the formal documentation set.
- Download any patches for Avaya Aura® Experience Portal Release 6.0 from the Avaya Support Web site at <http://support.avaya.com>.
- Make sure you have the physical Experience Portal installation DVD that was shipped with the Experience Portal product, or that you know where on the network the Experience Portal installation files reside.

Procedure

1. Log into the server on which you want to install the primary EPM software.
If you are an Avaya Services representative, and are using Avaya Enterprise Linux or if the Avaya Service accounts are installed on this server:
 - Log in to the local Linux console as `sroot`.
 - Or log in remotely as a non-root user and then change the user to `sroot` by entering the `su - sroot` command.Otherwise, log in to Linux locally as root, or log in remotely as a non-root user and then change the user to root by entering the `su -` command.
2. Insert the Avaya Aura® Experience Portal 6.0 software installation DVD into the DVD drive of the server.

Tip:

These instructions assume that you are going to access the Experience Portal installation DVD by mounting the appropriate DVD drive on the target system. If

you want to access the installation DVD files from a shared network directory or a local directory, you can copy the files from the Experience Portal installation DVD to that directory. However, that directory needs to be readable by all users on the system because the Experience Portal installation script changes users during execution. If the directory is only readable by the root or `sroot` user, the installation script will encounter errors and will not complete successfully.

3. Mount the Avaya Aura® Experience Portal 6.0 software installation DVD. The `mount` command depends on the server's hardware and operating system.

- If you are working with Avaya Enterprise Linux, mount the DVD by entering the `mount /mnt/cdrom` command, where `/mnt/cdrom` is the mount point typically associated with the DVD drive in the `fstab` file.
- If you are working with Red Hat Enterprise Linux Server 6.0, to mount the DVD:
 - Enter the `mkdir /media/cdrom` command.

 **Note:**

This command is required only if the `/mnt/cdrom` mount point is not created.

- Enter the `mount /dev/cdrom /media/cdrom` command.

 **Warning:**

When Red Hat Enterprise Linux Server 6.0 automatically mounts the DVD, the files on the DVD are not executable. You must manually mount the Experience Portal installation DVD using the commands shown above.

If the `mount` commands shown above do not work, consult your server documentation for the appropriate `mount` command.

4. Change to the mount point directory.
5. Enter the `bash installvp` command and press `Enter` to start the installation script.

 **Important:**

When choosing installation options, be sure to wait for the next prompt before pressing a key. The installation stores your key presses in a buffer and enters all of them after the current processing completes. For example, if you press the `Enter` key repeatedly while the system is performing its prerequisite checks, you may unintentionally skip options you want to change. If that happens, use the **Previous** option on any screen to go back and change your earlier choices.

6. On the Installation Destination screen, if you want to:
 - Use the default `/opt/Avaya/ExperiencePortal` installation directory, press `Enter`.

- Change the directory, type the new installation directory name and press `Enter` to change the displayed directory.

Specify an absolute directory path containing only standard English alphanumeric characters and the symbols / (forward slash), _ (underscore), - (hyphen), ~ (tilde), or . (period).

7. Press `Enter` to move to the next screen.
8. On the Experience Portal Feature Selection screen, press `Enter` to accept the default installation options of **EPM** and **Documentation**.
9. Press `Enter` to move to the next screen.
10. On the Version Confirmation screen, verify that:
 - The **Install Type** says **Full Install** for all selected features.
 - The **New Version** column indicates that you are installing release 6.0.
11. Press `Enter` to move to the next screen.
12. Read through the end user license agreement.
13. On the final End User License Agreement page, type `1` and press `Enter` to select option **1 - I accept the terms of the license agreement**.
The screen refreshes with **1 - I accept the terms of the license agreement** as the selected option.
14. Press `Enter` to accept the agreement.
15. Press `Enter` to move to the next screen.
Experience Portal automatically starts the Prerequisite Checker, which analyzes your system's hardware and operating system configuration.
16. After the configuration analysis is complete, the Prerequisite Checker displays a message stating whether all prerequisite checks passed followed by the first Prerequisite Status page. Press `Enter` to view the rest of the Prerequisite Status pages.
If any prerequisite installations fail, examine the Prerequisite Status pages carefully to determine which checks failed. You must correct these issues before you can continue with this procedure.
17. When all prerequisite checks pass, press `Enter` to move to the next screen.
Experience Portal automatically starts the Prerequisite Installer, which attempts to install the required software on the Experience Portal server.
18. After the Prerequisite Installer completes installing the required software, it displays a message stating whether all prerequisite installs were successful followed by the first Installation Status page. Press `Enter` to view the rest of the Installation Status pages.

If any prerequisite installations fail, examine the Installation Status pages carefully to determine which installations failed. You must correct these issues before you can continue with this procedure.

19. When all prerequisites are successfully installed, press `Enter` to move to the next screen.
20. On the EPM Type screen, press `Enter` to accept the default option **1 - Primary EPM**.
21. Press `Enter` to move to the next screen.
22. On the EPM Administrator screen:

- a. Type the name you want to use for a EPM user account that will have access to all Experience Portal management functions and press `Enter`.

The Experience Portal administrator uses this account to log in to the EPM Web interface to administer the Experience Portal system. The account is assigned the Administration user role as well as the Auditor and User Manager user roles. For details, see the *User Roles* topic in the *Administering Avaya Aura[®] Experience Portal* guide.

- b. Type the password for this account and press `Enter`.

*** Note:**

All passwords you enter during the installation must:

- Be at least eight characters in length.
- Contain at least one alphabetic character and one digit.
- Not be the same as the associated user name.

- c. To confirm the password, type the password again and press `Enter`.

23. Press `Enter` to move to the next screen.
24. On the Database Logins screen, type a password for the postgres user account and press `Enter`.

The EPM server uses this account to log in to the Experience Portal database to store and retrieve data and to install new updates or patches. The database administrator can use this account to log in to the local `VoicePortal` database and perform database administration tasks.

25. To confirm the password, type the password again and press `Enter`.
26. You can create a PostgreSQL database user account that can read the report data in the Experience Portal database. If you:

- Want to create the report reader database account:

- i. Type `1` and press `Enter`.
- ii. Press `Enter` to confirm your selection.

- iii. To display the account name in square brackets ([]), press `Enter` at the installation prompt. Otherwise, type a unique user name for the account and press `Enter`.
 - iv. Type a password for the account and press `Enter`.
 - v. Confirm the password by typing it again and pressing `Enter`.
- Do not want to create the report reader account:
 - i. Verify that option **2 - No** is selected. If it is not selected, type 2 and press `Enter`.
 - ii. Press `Enter` to confirm your selection.

*** Note:**

This user account can only read those tables in the Experience Portal database that store report data. Speech application developers can use this account to log in to the database to create custom reports using any SQL-enabled report generation tool.

27. Press `Enter` to move to the next screen.
28. On the Database Login for Auxiliary EPM screen, you can specify whether you want to create a PostgreSQL user account for the optional auxiliary EPM server. This account allows the auxiliary EPM server limited access to the main Experience Portal database, and it is required if you plan to configure an auxiliary EPM server.
 - If you want to create the auxiliary EPM login account:
 - i. Type 1 and press `Enter`.
 - ii. Press `Enter` to confirm your selection.
 - iii. To display the account name in square brackets ([]), press `Enter` at the installation prompt. Otherwise, type a unique user name for the account and press `Enter`.
 - iv. Type a password for the account and press `Enter`.
 - v. Confirm the password by typing it again and pressing `Enter`.
 - If you do not want to create the auxiliary EPM account:
 - i. Verify that option **2 - No** is selected. If it is not selected, type 2 and press `Enter`.
 - ii. Press `Enter` to confirm your selection.
29. Press `Enter` to move to the next screen.
30. On the Product ID screen, type the Product ID created with the Automatic Registration Tool (ART) for this Experience Portal system and press `Enter`.

The notification feature uses the Product ID to generate SNMP traps. SNMP traps are unsolicited notifications of significant events from an SNMP agent, which resides on a managed network device, to an SNMP manager.

31. Press `Enter` to move to the next screen.
32. Experience Portal uses SSL protocol to establish a secure connection between its servers. This connection requires a security certificate that can be created by Experience Portal or purchased from a third-party company. On the Security Certificate screen:
 - If you want Experience Portal to create a security certificate:
 - i. Verify that option **1 - Create a new certificate for this server** is selected. If not, type `1` and press `Enter`.
 - ii. Press `Enter` to confirm that selection.
 - If you want Experience Portal to use a certificate from a company such as VeriSign, you can import the certificate as long as the certificate is in PKCS12 format and the certificate resides on the local server or on a locally accessible NFS-mounted drive. To do so:
 - i. Verify that option **2 - Import a certificate from a specified location** is selected. If not, type `2` and press `Enter`.
 - ii. Press `Enter` to confirm that selection.
 - iii. Type the full file path and name of the security certificate and press `Enter`.

The screen displays the location that you entered for your verification.
 - iv. Type the password for the security certificate and press `Enter`.
33. Press `Enter` to move to the next screen.
34. On the Security Certificate Verification screen, verify the security certificate and press `Enter` to move to the next screen.

+ Tip:

You may want to record the fingerprint information from this security certificate. During MPP software installation, you are presented with the public key retrieved from the EPM server for verification. The fingerprint information from the public key should match the fingerprint information from the EPM security certificate.

35. On the Pre Installation Summary screen, verify the installation information and press `Enter` to install the Experience Portal software. Experience Portal displays the Installation Progress screen and begins installing the software. During the install, it displays messages indicating its progress.

The installation process can appear completed or stopped even though it is still processing and installing the software. Wait until Experience Portal displays the Post Installation Summary screen.

36. On the Post Installation Summary screen, verify that the **Installation Progress Bar** has reached 100% and that the message `...done installing feature_name` appears for each feature that you selected on the Experience Portal Feature Selection screen.

*** Note:**

If the **Installation Progress Bar** on the Installation Progress screen stops at 25% and the Post Installation Summary screen states that no summary information could be found, see [Installation Progress Bar stops at 25% completed](#) on page 101.

37. Press `Enter` to end the installation script.
During the installation process, Experience Portal creates several log files that you can use to verify what happened during installation. When the installation process is complete, Experience Portal moves these logs to the standard log directory and displays the exact path on the screen. For more information, see [Installation log files](#) on page 93.
38. To unmount and eject the DVD:
 - a. Change directories to anything outside the mount point. For example, you could enter the `cd /` command to change to the root directory.
 - b. Unmount the DVD as described in your server documentation.
 - c. To eject the Experience Portal installation DVD, press the button on the DVD drive or enter the `eject` command.
39. Load the environment variables created during the installation by logging out of Linux and then logging back in as a non-root user. To do so:
 - a. Log out the Linux system.
 - b. Log back in to Linux by entering a non-root user name and password at the prompts.
 - c. Log back in as root or `sroot`. To do so:
 - If you are working with Avaya Enterprise Linux, enter the `su - sroot` command.
 - If you are working with Red Hat Enterprise Linux Server 6.0, enter the `su -` command.
40. Check the status of the `vpms` service by entering the `service vpms status` command.
If the `vpms` service is running properly, the command displays the messages indicating that the `tomcat`, `SL`, and `ActiveMQ` services are all running. It ends with the message: `Overall Status: VPMS is running.`

Next steps

- Install any required patches you downloaded from the Avaya online support Web site, <http://support.avaya.com>.
- Install the MPP software on the MPP servers as described in [MPP software installation](#) on page 38.
- For security reasons, change the password of the EPM user account created during the installation as described in the *Changing your account password* topic in the *Administering Avaya Aura® Experience Portal* guide. The Experience Portal administrator uses this account to log in to the EPM web interface to administer the Experience Portal system.

Install the MPP software

MPP software installation

When you install the primary EPM software, Experience Portal automatically records the name and location of the primary EPM server. It then adds that information into a file that can be used to install the MPP software on a server without further user input. Therefore, after you have installed the EPM software there are two MPP installation options.

Interactive MPP install

On each server, you launch the Experience Portal installation program and answer the prompts as they are displayed, just as you did for the EPM software installation. For details, see [Installing the MPP software interactively](#) on page 39.

Silent MPP install

On each server, you copy the installation files to a local directory on the MPP and run the silent install utility. No prompts are displayed, but any error messages are displayed at the end of the install process and all messages are recorded in the installation log files.

By default, the silent installer:

- Uses the default installation directory `/opt/Avaya/ExperiencePortal`.
- Specifies the IP address of the server on which you installed the primary EPM software to be the server from which the MPP should download its public key.
- Generates a new security certificate for the MPP.

*** Note:**

You can change these options before running the silent installer, but if you do so, you are responsible for saving the customized install file in case you need to reinstall at a later date.

For details, see [Installing the MPP software without user input](#) on page 45.

Installing the MPP software interactively

Before you begin

- Make sure you have installed the EPM software on the primary EPM server as described in [Installing the EPM software on the primary EPM server](#) on page 31.
- Complete the [MPP server installation worksheet](#) on page 119 and have it available to help answer the questions raised during the installation.
- Download any patches for Avaya Aura® Experience Portal Release 6.0 from the Avaya Support Web site at <http://support.avaya.com>.
- Make sure you have the physical Experience Portal installation DVD that was shipped with the Experience Portal product, or that you know where on the network the Experience Portal installation files reside.

Procedure

1. Log into the server on which you want to install the MPP software.
If you are an Avaya Services representative, and are using Avaya Enterprise Linux or if the Avaya Service accounts are installed on this server:
 - Log in to the local Linux console as `sroot`.
 - Or log in remotely as a non-root user and then change the user to `sroot` by entering the `su - sroot` command.Otherwise, log in to Linux locally as root, or log in remotely as a non-root user and then change the user to root by entering the `su -` command.
2. Insert the Avaya Aura® Experience Portal 6.0 software installation DVD into the DVD drive of the server.

Tip:

These instructions assume that you are going to access the Experience Portal installation DVD by mounting the appropriate DVD drive on the target system. If you want to access the installation DVD files from a shared network directory or a local directory, you can copy the files from the Experience Portal installation DVD to that directory. However, that directory needs to be readable by all users on the system because the Experience Portal installation script changes users during execution. If the directory is only readable by the root or `sroot` user, the installation script will encounter errors and will not complete successfully. You also need to ensure the directory name does not contain spaces. If there are spaces in the directory name, the installation script will encounter errors and will not complete successfully.

3. Mount the Avaya Aura® Experience Portal 6.0 software installation DVD. The `mount` command depends on the server's hardware and operating system.

- If you are working with Avaya Enterprise Linux, mount the DVD by entering the `mount /mnt/cdrom` command, where `/mnt/cdrom` is the mount point typically associated with the DVD drive in the `fstab` file.
- If you are working with Red Hat Enterprise Linux Server 6.0, to mount the DVD:
 - Enter the `mkdir /media/cdrom` command.

 **Note:**

This command is required only if the `/mnt/cdrom` mount point is not created.

- Enter the `mount /dev/cdrom /media/cdrom` command.

 **Warning:**

When Red Hat Enterprise Linux Server 6.0 automatically mounts the DVD, the files on the DVD are not executable. You must manually mount the Experience Portal installation DVD using the commands shown above.

If the `mount` commands shown above do not work, consult your server documentation for the appropriate `mount` command.

4. Change to the mount point directory.
5. Enter the `bash installvp` command and press `Enter` to start the installation script.

 **Important:**

When choosing installation options, be sure to wait for the next prompt before pressing a key. The installation stores your key presses in a buffer and enters all of them after the current processing completes. For example, if you press the `Enter` key repeatedly while the system is performing its prerequisite checks, you may unintentionally skip options you want to change. If that happens, use the **Previous** option on any screen to go back and change your earlier choices.

6. On the Installation Destination screen, if you want to:
 - Use the default `/opt/Avaya/ExperiencePortal` installation directory, press `Enter`.
 - Change the directory, type the new installation directory name and press `Enter` to change the displayed directory.

Specify an absolute directory path containing only standard English alphanumeric characters and the symbols `/` (forward slash), `_` (underscore), `-` (hyphen), `~` (tilde), or `.` (period).

7. On the Installation Destination screen, press `Enter` to upgrade the software in the same location as the previous release.

! Important:

You must not change the installation directory when upgrading to a new release.

8. Press `Enter` to move to the next screen.
9. On the Experience Portal Feature Selection screen:
 - a. Type `1` and press `Enter` to clear **EPM**.
The screen refreshes with only **Documentation** selected.
 - b. Type `2` and press `Enter` to select **MPP**.
The screen refreshes with both **MPP** and **Documentation** selected.
 - c. Press `Enter` to confirm your selections.
10. Press `Enter` to move to the next screen.
11. On the Version Confirmation screen, verify that the **New Version** column indicates that you are about to install release 6.0 of the MPP software.
12. Press `Enter` to move to the next screen.
13. Read through the end user license agreement.
14. On the final End User License Agreement page, type `1` and press `Enter` to select option **1 - I accept the terms of the license agreement**.
The screen refreshes with **1 - I accept the terms of the license agreement** as the selected option.
15. Press `Enter` to accept the agreement.
16. Press `Enter` to move to the next screen.
Experience Portal automatically starts the Prerequisite Checker, which analyzes your system's hardware and operating system configuration.
17. After the configuration analysis is complete, the Prerequisite Checker displays a message stating whether all prerequisite checks passed followed by the first Prerequisite Status page. Press `Enter` to view the rest of the Prerequisite Status pages.

If any prerequisite installations fail, examine the Prerequisite Status pages carefully to determine which checks failed. You must correct these issues before you can continue with this procedure.
18. When all prerequisite checks pass, press `Enter` to move to the next screen.
Experience Portal automatically starts the Prerequisite Installer, which attempts to install the required software on the Experience Portal server.
19. After the Prerequisite Installer completes installing the required software, it displays a message stating whether all prerequisite installs were successful followed by the first Installation Status page. Press `Enter` to view the rest of the Installation Status pages.

If any prerequisite installations fail, examine the Installation Status pages carefully to determine which installations failed. You must correct these issues before you can continue with this procedure.

20. When all prerequisites are successfully installed, press `Enter` to move to the next screen.
21. On the Primary EPM Server Location screen, type the hostname or IP address of the primary EPM server and press `Enter`.
22. Press `Enter` to move to the next screen.
23. On the Public Key Verification screen, if you recorded the fingerprint information from the EPM security certificate during the primary EPM software installation, compare it to the Public Key fingerprint information presented in this screen. The fingerprint information from Public Key should match the fingerprint information from the EPM security certificate.
If the public key could not be downloaded, see [MPP could not import EPM key](#) on page 104.
24. Press `Enter` to move to the next screen.
25. Experience Portal uses SSL protocol to establish a secure connection between its servers. This connection requires a security certificate that can be created by Experience Portal or purchased from a third-party company. On the Security Certificate screen:
 - If you want Experience Portal to create a security certificate:
 - i. Verify that option **1 - Create a new certificate for this server** is selected. If not, type `1` and press `Enter`.
 - ii. Press `Enter` to confirm that selection.
 - If you want Experience Portal to use a certificate from a company such as VeriSign, you can import the certificate as long as the certificate is in PKCS12 format and the certificate resides on the local server or on a locally accessible NFS-mounted drive. To do so:
 - i. Verify that option **2 - Import a certificate from a specified location** is selected. If not, type `2` and press `Enter`.
 - ii. Press `Enter` to confirm that selection.
 - iii. Type the full file path and name of the security certificate and press `Enter`.

The screen displays the location that you entered for your verification.
 - iv. Type the password for the security certificate and press `Enter`.
26. Press `Enter` to move to the next screen.

27. On the Security Certificate Verification screen, verify the security certificate and press `Enter` to move to the next screen.

+ Tip:

When you add the MPP to Experience Portal through the EPM, the EPM displays the MPP security certificate. You should record the fingerprint information from this security certificate so that you can compare it to the one displayed in the EPM.

28. On the Pre Installation Summary screen, verify the installation information and press `Enter` to install the Experience Portal software.

Experience Portal displays the Installation Progress screen and begins installing the software. During the install, it displays messages indicating its progress.

The installation process can appear completed or stopped even though it is still processing and installing the software. Wait until Experience Portal displays the Post Installation Summary screen.

29. On the Post Installation Summary screen, verify that the **Installation Progress Bar** has reached 100% and that the message `...done installing feature_name` appears for each feature that you selected on the Experience Portal Feature Selection screen.

*** Note:**

If the **Installation Progress Bar** on the Installation Progress screen stops at 25% and the Post Installation Summary screen states that no summary information could be found, see [Installation Progress Bar stops at 25% completed](#) on page 101.

30. Press `Enter` to end the installation script.
During the installation process, Experience Portal creates several log files that you can use to verify what happened during installation. When the installation process is complete, Experience Portal moves these logs to the standard log directory and displays the exact path on the screen. For more information, see [Installation log files](#) on page 93.
31. Enter the `/sbin/service mpp status` command to verify that the MPP system manager is running.
The MPP server returns the message `mppsysmgr (pid <pid>) is running`, where `<pid>` is the process id.
32. To unmount and eject the DVD:
 - a. Change directories to anything outside the mount point. For example, you could enter the `cd /` command to change to the root directory.
 - b. Unmount the DVD as described in your server documentation.
 - c. To eject the Experience Portal installation DVD, press the button on the DVD drive or enter the `eject` command.

33. Load the environment variables created during the installation by logging out of Linux and then logging back in as a non-root user. To do so:
 - a. Log out the Linux system.
 - b. Log back in to Linux by entering a non-root user name and password at the prompts.
 - c. Log back in as root or `sroot`. To do so:
 - If you are working with Avaya Enterprise Linux, enter the `su - sroot` command.
 - If you are working with Red Hat Enterprise Linux Server 6.0, enter the `su -` command.
34. To verify that NTP is operating properly on the MPP enter the `/usr/sbin/ntpq -np` command.

A status message similar to the following is displayed:

```
remote refid st t when poll reach delay offset jitter
=====
123.123.123.123 127.127.1.0 6 u 23 64 1 0.354 0.361 0.004
```

Make sure that:

- The remote IP address points to the primary EPM server.
- The jitter value is *not* 4000.

Next steps

- Install any required patches you downloaded from the Avaya online support Web site, <http://support.avaya.com>.
- If desired, install the MPP software on another server machine by repeating this procedure on that machine.
- If desired, install the auxiliary EPM software as described in [Optional: Installing the EPM software on auxiliary EPM server](#) on page 53.
- If the Experience Portal software has been installed on all server machines, configure and test the Experience Portal system as described in [Avaya Aura Experience Portal basic system configuration overview](#) on page 61.

Installing the MPP software without user input

Before you begin

If you want to change any of the default installation options for all MPPs, edit the default MPP answer file as described in [Customizing the MPP silent install file for all MPPs](#) on page 48. You can change the:

- Security certificate setting to specify that the MPP should use a 3rd party certificate instead of one generated by Experience Portal.
- Installation directory (default: `/opt/Avaya/ExperiencePortal`).
- IP address of the primary EPM server.

About this task

Note:

To install the MPP software silently, you need to copy the installation files to the MPP or any other accessible file server. If you are using Red Hat Enterprise Linux Server 6.0, you can share the appropriate directory on the EPM server with your MPP servers instead of copying the files. This option does not work with Avaya Enterprise Linux because network shares cannot be created with that operating system.

In order to work with all operating systems, these instructions assume that you are copying the files directly to the MPP. If you are sharing the EPM directory or using a file server, make the necessary adjustments to this procedure.

Procedure

1. Log in to Linux on the Experience Portal MPP server.
If you are an Avaya Services representative, and are using Avaya Enterprise Linux or if the Avaya Service accounts are installed on this server:
 - Log in to the local Linux console as `sroot`.
 - Or log in remotely as a non-root user and then change the user to `sroot` by entering the `su - sroot` command.Otherwise, log in to Linux locally as root, or log in remotely as a non-root user and then change the user to root by entering the `su -` command.
2. Make sure that the local directory into which you want to copy the files already exists. If not, create it.
You can create a directory using the following command: `mkdir /opt/<directory_name>`.

*** Note:**

Ensure that the directory name does not contain spaces. If there are spaces in the directory name, the installation script will encounter errors and will not complete successfully.

3. Copy the installation files from the EPM server to the MPP with a utility such as SCP.

If you are using SCP, enter the `scp -rp`

`<NON_ROOT_USER>@<EPM_HOSTNAME>:/opt/Avaya/InstallAgent/download/<ISO_Name>.iso /opt/<directory_name>` command, where:

- `<NON_ROOT_USER>` is the name of a non-root user account on the EPM server
- `<EPM_HOSTNAME>` is the hostname or IP address of the EPM server
- `/opt/Avaya/InstallAgent/download/` is the directory in which the EPM software is installed.
- `<ISO_NAME>.iso` is the name of the ISO file to be transferred.
- `<directory_name>` is the name of the local directory that you have created.

For example, `scp -rp NonRoot@EPM_HOSTNAME:/opt/Avaya/InstallAgent/download/5.0.0.0.2501.iso/opt/<directory_name>`

The message for authenticity of host and the RSA key fingerprint is displayed if you are using `scp` with this host for the first time.

For example:

The authenticity of host '`<host_IP_address>` (`<host_IP_address>`)' can't be established. RSA key fingerprint is `b9:de:40:81:62:7d:ba:ba:13:a1:e6:fa:69:8c:72:f1`.

4. Select **Yes** to continue connecting. The following message is displayed:

```
Warning: Permanently added 'host IP address' (RSA) to the list of known hosts.
```

5. Enter the non root user password.
6. Create a local directory using the `mkdir /opt/mppanswerfile` command.
7. Copy the mppanswerfile from the EPM server to the MPP. You can use a utility such as SCP.
For example: `scp -rp <Non_Root_USER>@<EPM_HOSTNAME>:/opt/Avaya/ExperiencePortal/VPMS/share/mppanswerfile /opt/mppanswerfile`
8. Enter the non root user password.
9. Create a directory where you want to mount the ISO image.
For example, enter the `cd/opt/<directory_name>` command.
10. Enter the `/mount<directory_name>` command to mount the ISO image.

11. Enter the `bash silentinstallmpp /opt/mppanswerfile/mppanswerfile` command to start the installation script.

As the script proceeds, it produces messages similar to the following:

```
Starting silent install for Avaya Aura Experience Portal MPP. This will
take several minutes to complete. Please wait...
The Avaya Aura Experience Portal installation has completed. Review the
following information. If there are errors or warnings, then please review
the installation logs.
Installing Documentation...
...done installing Documentation
Installing MPP...
...done installing MPP
Moving installation logs to: /opt/Avaya/ExperiencePortal/logs/
<install_log_directory>
```

12. Load the environment variables created during the installation by logging out of Linux and then logging back in as a non-root user. To do so:
- Log out the Linux system.
 - Log back in to Linux by entering a non-root user name and password at the prompts.
 - Log back in as root or `sroot`. To do so:
 - If you are working with Avaya Enterprise Linux, enter the `su - sroot` command.
 - If you are working with Red Hat Enterprise Linux Server 6.0, enter the `su -` command.
13. To verify that NTP is operating properly on the MPP enter the `/usr/sbin/ntpq -np` command.

A status message similar to the following is displayed:

```
remote refid st t when poll reach delay offset jitter
=====
123.123.123.123 127.127.1.0 6 u 23 64 1 0.354 0.361 0.004
```

Make sure that:

- The remote IP address points to the primary EPM server.
 - The jitter value is *not* 4000.
14. After the installation has completed, you can either delete the local directory into which you copied the installation files or leave those files on the server in case you need to reinstall the MPP.
15. If this is the last MPP server in the Experience Portal system, you can delete the files in the `$AVAYA_HOME/EPM/share` directory on the EPM server, especially if you have saved the relevant installation files to the MPP server.

! Important:

If you leave the files on the EPM or MPP servers and you have included secure information such as the password for a third-party certificate in the MPP answer

file, verify that you secure the local installation directory so that only root or sroot users have access to those files.

Next steps

- Install any required patches you downloaded from the Avaya online support Web site, <http://support.avaya.com>.
- If desired, install the MPP software on another server machine by repeating this procedure on that machine.
- If desired, install the auxiliary EPM software as described in [Optional: Installing the EPM software on auxiliary EPM server](#) on page 53.
- If the Experience Portal software has been installed on all server machines, configure and test the Experience Portal system as described in [Avaya Aura Experience Portal basic system configuration overview](#) on page 61.

Customizing the MPP silent install file for all MPPs

Follow this procedure to change the default options specified in the MPP installation answer file created by the EPM for all MPPs.

About this task

+ Tip:

If you want to change the install file for a specific MPP, you should do that after you copy the installation files to the MPP. For details, see .

Procedure

1. Log in to Linux on the Experience Portal MPP server.
If you are an Avaya Services representative, and are using Avaya Enterprise Linux or if the Avaya Service accounts are installed on this server:
 - Log in to the local Linux console as sroot.
 - Or log in remotely as a non-root user and then change the user to sroot by entering the `su - sroot` command.Otherwise, log in to Linux locally as root, or log in remotely as a non-root user and then change the user to root by entering the `su -` command.
2. Change to the share directory by entering the `cd $AVAYA_HOME/EPM/share` command, where `$AVAYA_HOME` is the environment variable pointing to the name of the installation directory specified during the EPM software installation. The default variable definition is `/opt/Avaya/ExperiencePortal`.
3. Make a back up copy of the original MPP answer file by entering the `cp mppanswerfile mppanswerfile_original` command.

4. Open `mppanswerfile` in an ASCII editor.
 5. Change the information as appropriate. Verify that you read the instructions in the file carefully before you change any of the information or the installation will not run properly.
 6. Save and close the file.
-

Authorizing the EPM to upgrade the MPP

About this task

You need to execute the `DownloadPK.bash` command on the MPP servers to authorize the EPM to perform MPP upgrades from the Software Upgrade page in Experience Portal. This command downloads the public key of the EPM and adds it to the MPP server's authorized key list.

* Note:

Execute this command only if you want to use the Software Upgrade feature in EPM.

Procedure

1. Log into the MPP server.
If you are an Avaya Services representative, and are using Avaya Enterprise Linux or if the Avaya Service accounts are installed on this server:
 - Log in to the local Linux console as `sroot`.
 - Or log in remotely as a non-root user and then change the user to `sroot` by entering the `su - sroot` command.

Otherwise, log in to Linux locally as root, or log in remotely as a non-root user and then change the user to root by entering the `su -` command.

2. Enter the `cd /opt/Avaya/InstallAgent/bin` command.
3. Enter the `./DownloadPK.bash <EPM_Hostname, or EPM IP address>` command.

This command retrieves the public key from the EPM. The public key authorizes the EPM to upgrade the MPP.

As the script proceeds, it produces messages similar to the following:

```
[root@mlvoiceportal-a4 bin]# ./DownloadPK.bash mlvoiceportal-a18 % Total %
Received % Xferd Average Speed Time Time Time Current Dload Upload Total
Spent Left Speed 100 404 100 404 0 0 63592 0 ---:---:-- ---:---:-- ---:---:-- 0
```

4. Verify the public key and press `Enter` to add the public key to the authorized key list.
-

User accounts created during Experience Portal software installation

During Experience Portal software installation, the following user accounts are created for use on various systems to support Experience Portal operation and management.

System	User name	Password	Purpose
EPM Web interface	User defined	User defined	The Experience Portal administrator uses this account to administer and configure the Experience Portal system.
PostgreSQL on the primary and optional auxiliary EPM server	postgres	User defined	<p>EPM uses this account to log in to the Experience Portal database to store and retrieve data.</p> <p>The database administrator uses this account to access the Experience Portal database to install new updates or patches and perform database backups.</p> <p>* Note:</p> <p>If you make changes to the Experience Portal database, the EPM might not function properly, and data might be lost. You must then reinstall the EPM software.</p>
PostgreSQL on the primary and optional auxiliary EPM server	User defined Default user name is: reportwriter	User defined	This user account can only read those tables in the Experience Portal database that store report data. Speech application developers can use this account to log in to the database to create custom reports using any SQL-enabled report generation tool.
PostgreSQL on the optional auxiliary EPM server	User defined Default user name is: report	User defined	This user account can only change the data in the tables that store report data in the Experience Portal database on the auxiliary EPM server.
Linux on the EPM server	postgres	User defined	Used to run the <code>psql</code> tool for interactive database access and internally used to run database processes.

User accounts created during Experience Portal software installation

System	User name	Password	Purpose
			<p> Note:</p> <p>If you make manual changes to the Experience Portal database, the EPM might not function properly, and data might be lost. You must reinstall the EPM software.</p>
Linux on the EPM and MPP servers	avayavp	Login disabled	Used internally to run some Experience Portal processes.
	apache (UCID 48)	Login disabled	This account is created when the httpd RPM is installed and it is used by the Apache server.

Installing the EPM and MPP software on different servers

Chapter 5: Optional: Installing the EPM software on auxiliary EPM server

The Avaya Aura® Experience Portal system may include one or more auxiliary EPM servers running the Experience Portal Manager software. The auxiliary EPM server handles Application Interface web service requests, shares Application Logging web service requests when the Primary EPM is in service, and handles all requests when the Primary EPM is down.

Before you begin

- Complete the [Auxiliary EPM server installation worksheet](#) on page 121 and have it available to help answer the questions raised during the installation.
- Download any patches for Avaya Aura® Experience Portal Release 6.0 from the Avaya Support Web site at <http://support.avaya.com>.
- Install the EPM software on the primary EPM server as described in [Installing the EPM software on the primary EPM server](#) on page 31.
- Make sure you have the physical Experience Portal installation DVD that was shipped with the Experience Portal product, or that you know where on the network the Experience Portal installation files reside.

Procedure

1. Log into the server on which you want to install the auxiliary EPM software.

If you are an Avaya Services representative, and are using Avaya Enterprise Linux or if the Avaya Service accounts are installed on this server:

- Log in to the local Linux console as `sroot`.
- Or log in remotely as a non-root user and then change the user to `sroot` by entering the `su - sroot` command.

Otherwise, log in to Linux locally as `root`, or log in remotely as a non-root user and then change the user to `root` by entering the `su -` command.

2. Insert the Avaya Aura® Experience Portal 6.0 software installation DVD into the DVD drive of the server.

Tip:

These instructions assume that you are going to access the Experience Portal installation DVD by mounting the appropriate DVD drive on the target system. If you want to access the installation DVD files from a shared network directory or a local directory, you can copy the files from the Experience Portal installation DVD to that directory. However, that directory needs to be readable by all users on the system because the Experience Portal installation

script changes users during execution. If the directory is only readable by the root or `sroot` user, the installation script will encounter errors and will not complete successfully.

3. Mount the Avaya Aura[®] Experience Portal 6.0 software installation DVD. The `mount` command depends on the server's hardware and operating system.

- If you are working with Avaya Enterprise Linux, mount the DVD by entering the `mount /mnt/cdrom` command, where `/mnt/cdrom` is the mount point typically associated with the DVD drive in the `fstab` file.

- If you are working with Red Hat Enterprise Linux Server 6.0, to mount the DVD:

- Enter the `mkdir /media/cdrom` command.

 **Note:**

This command is required only if the `/mnt/cdrom` mount point is not created.

- Enter the `mount /dev/cdrom /media/cdrom` command.

 **Warning:**

When Red Hat Enterprise Linux Server 6.0 automatically mounts the DVD, the files on the DVD are not executable. You must manually mount the Experience Portal installation DVD using the commands shown above.

If the `mount` commands shown above do not work, consult your server documentation for the appropriate `mount` command.

4. Change to the mount point directory.
5. Enter the `bash installvp` command and press `Enter` to start the installation script.

 **Important:**

When choosing installation options, be sure to wait for the next prompt before pressing a key. The installation stores your key presses in a buffer and enters all of them after the current processing completes. For example, if you press the `Enter` key repeatedly while the system is performing its prerequisite checks, you may unintentionally skip options you want to change. If that happens, use the **Previous** option on any screen to go back and change your earlier choices.

6. On the Installation Destination screen, if you want to:
 - Use the default `/opt/Avaya/ExperiencePortal` installation directory, press `Enter`.
 - Change the directory, type the new installation directory name and press `Enter` to change the displayed directory.

Specify an absolute directory path containing only standard English alphanumeric characters and the symbols `/` (forward slash), `_` (underscore), `-` (hyphen), `~` (tilde), or `.` (period).

7. Press `Enter` to move to the next screen.

8. On the Experience Portal Feature Selection screen, press `Enter` to accept the default installation options of **EPM** and **Documentation**.
9. Press `Enter` to move to the next screen.
10. On the Version Confirmation screen, verify that:
 - The **Install Type** says **Full Install** for all selected features.
 - The **New Version** column indicates that you are installing release 6.0.
11. Press `Enter` to move to the next screen.
12. Read through the end user license agreement.
13. On the final End User License Agreement page, type `1` and press `Enter` to select option **1 - I accept the terms of the license agreement**.
The screen refreshes with **1 - I accept the terms of the license agreement** as the selected option.
14. Press `Enter` to accept the agreement.
15. Press `Enter` to move to the next screen.
Experience Portal automatically starts the Prerequisite Checker, which analyzes your system's hardware and operating system configuration.
16. After the configuration analysis is complete, the Prerequisite Checker displays a message stating whether all prerequisite checks passed followed by the first Prerequisite Status page. Press `Enter` to view the rest of the Prerequisite Status pages.

If any prerequisite installations fail, examine the Prerequisite Status pages carefully to determine which checks failed. You must correct these issues before you can continue with this procedure.
17. When all prerequisite checks pass, press `Enter` to move to the next screen.
Experience Portal automatically starts the Prerequisite Installer, which attempts to install the required software on the Experience Portal server.
18. After the Prerequisite Installer completes installing the required software, it displays a message stating whether all prerequisite installs were successful followed by the first Installation Status page. Press `Enter` to view the rest of the Installation Status pages.

If any prerequisite installations fail, examine the Installation Status pages carefully to determine which installations failed. You must correct these issues before you can continue with this procedure.
19. When all prerequisites are successfully installed, press `Enter` to move to the next screen.
20. On the EPM Type screen:
 - a. Type `2` and press `Enter` to select **Auxiliary EPM**.
The screen refreshes with **Auxiliary EPM** selected.
 - b. Press `Enter` to confirm your selection.
21. Press `Enter` to move to the next screen.

22. On the Primary EPM Server Location screen, type the hostname or IP address of the primary EPM server and press `Enter`.
23. Press `Enter` to move to the next screen.
24. On the Public Key Verification screen, if you recorded the fingerprint information from the EPM security certificate during the primary EPM software installation, compare it to the Public Key fingerprint information presented in this screen. The fingerprint information from Public Key should match the fingerprint information from the EPM security certificate.
If the public key could not be downloaded, see [MPP could not import EPM key](#) on page 104.
25. Press `Enter` to move to the next screen.
26. On the Database Login Check for Auxiliary EPM screen, type the password for the user you specified for the auxiliary EPM to access the external Experience Portal database user when you installed the EPM software on the primary server and press `Enter`.
27. Press `Enter` to move to the next screen.
Experience Portal makes sure that it can contact the primary EPM server, and that the password you entered matches the one specified when the primary server was installed. If the connection can be established and the password is correct, Experience Portal continues to the next screen.
28. On the Database Logins screen, type a password for the postgres user account and press `Enter`.
The EPM server uses this account to log in to the Experience Portal database to store and retrieve data and to install new updates or patches. The database administrator can use this account to log in to the local `VoicePortal` database and perform database administration tasks.
29. To confirm the password, type the password again and press `Enter`.
30. You can create a PostgreSQL database user account on the auxiliary EPM server that can read the report data in the Experience Portal database. If you:
 - Want to create the report reader database account:
 - i. Type `1` and press `Enter`.
 - ii. Press `Enter` to confirm your selection.
 - iii. To display the account name in square brackets (`[]`), press `Enter` at the installation prompt. Otherwise, type a unique user name for the account and press `Enter`.
 - iv. Type a password for the account and press `Enter`.
 - v. Confirm the password by typing it again and pressing `Enter`.
 - Do not want to create the report reader account:
 - i. Verify that option **2 - No** is selected. If it is not selected, type `2` and press `Enter`.

- ii. Press `Enter` to confirm your selection.

*** Note:**

This user account can only read those tables in the Experience Portal database that store report data. You should create this account if you plan to set up an external database on this server that is shared by multiple Experience Portal systems and you want to create custom reports for the database using an SQL-enabled report generation tool.

31. Press `Enter` to move to the next screen.
32. You can create a PostgreSQL database user account on the auxiliary EPM server that can allow external systems to write report data into the Experience Portal database on this server.

You should create this account if you plan to set up an external database on this server that is shared by multiple Experience Portal systems.

- If you want to create the report writer database account:
 - i. Type `1` and press `Enter`.
 - ii. Press `Enter` to confirm your selection.
 - iii. To display the account name in square brackets (`[]`), press `Enter` at the installation prompt. Otherwise, type a unique user name for the account and press `Enter`.
 - iv. Type a password for the account and press `Enter`.
 - v. Confirm the password by typing it again and pressing `Enter`.
- If you do not want to create the report writer account, press `Enter`.

*** Note:**

This user account can only change the data in the tables that store report data in the Experience Portal database on the auxiliary EPM server.

33. Press `Enter` to move to the next screen.
34. Experience Portal uses SSL protocol to establish a secure connection between its servers. This connection requires a security certificate that can be created by Experience Portal or purchased from a third-party company. On the Security Certificate screen:

- If you want Experience Portal to create a security certificate:
 - i. Verify that option **1 - Create a new certificate for this server** is selected. If not, type `1` and press `Enter`.
 - ii. Press `Enter` to confirm that selection.
- If you want Experience Portal to use a certificate from a company such as VeriSign, you can import the certificate as long as the certificate is in PKCS12 format and the certificate resides on the local server or on a locally accessible NFS-mounted drive. To do so:

- i. Verify that option **2 - Import a certificate from a specified location** is selected. If not, type `2` and press `Enter`.
- ii. Press `Enter` to confirm that selection.
- iii. Type the full file path and name of the security certificate and press `Enter`.
The screen displays the location that you entered for your verification.
- iv. Type the password for the security certificate and press `Enter`.

35. Press `Enter` to move to the next screen.

36. On the Security Certificate Verification screen, verify the security certificate and press `Enter` to move to the next screen.

+ Tip:

When you add the auxiliary EPM to Experience Portal through the EPM, the EPM displays the auxiliary EPM's security certificate. You should record the fingerprint information from this security certificate so that you can compare it to the one displayed in the EPM.

37. On the Pre Installation Summary screen, verify the installation information and press `Enter` to install the Experience Portal software.
Experience Portal displays the Installation Progress screen and begins installing the software. During the install, it displays messages indicating its progress.

The installation process can appear completed or stopped even though it is still processing and installing the software. Wait until Experience Portal displays the Post Installation Summary screen.

38. On the Post Installation Summary screen, verify that the **Installation Progress Bar** has reached 100% and that the message `...done installing feature_name` appears for each feature that you selected on the Experience Portal Feature Selection screen.

*** Note:**

If the **Installation Progress Bar** on the Installation Progress screen stops at 25% and the Post Installation Summary screen states that no summary information could be found, see [Installation Progress Bar stops at 25% completed](#) on page 101.

39. Press `Enter` to end the installation script.

During the installation process, Experience Portal creates several log files that you can use to verify what happened during installation. When the installation process is complete, Experience Portal moves these logs to the standard log directory and displays the exact path on the screen. For more information, see [Installation log files](#) on page 93.

40. To unmount and eject the DVD:

- a. Change directories to anything outside the mount point. For example, you could enter the `cd /` command to change to the root directory.
- b. Unmount the DVD as described in your server documentation.
- c. To eject the Experience Portal installation DVD, press the button on the DVD drive or enter the `eject` command.

41. Load the environment variables created during the installation by logging out of Linux and then logging back in as a non-root user. To do so:
 - a. Log out the Linux system.
 - b. Log back in to Linux by entering a non-root user name and password at the prompts.
 - c. Log back in as root or `sroot`. To do so:
 - If you are working with Avaya Enterprise Linux, enter the `su - sroot` command.
 - If you are working with Red Hat Enterprise Linux Server 6.0, enter the `su -` command.
42. Check the status of the `vpms` service by entering the `service vpms status` command. If the `vpms` service is running properly, the command displays the messages indicating that the `tomcat`, `SL`, and `ActiveMQ` services are all running. It ends with the message: Overall Status: VPMS is running.

Next steps

- Install any required patches you downloaded from the Avaya online support Web site, <http://support.avaya.com>.
- If the Experience Portal software has been installed on all server machines, configure and test the Experience Portal system as described in [Avaya Aura Experience Portal basic system configuration overview](#) on page 61.

Optional: Installing the EPM software on auxiliary EPM server

Chapter 6: Configuring and initializing the Avaya Aura Experience Portal system

Avaya Aura[®] Experience Portal basic system configuration overview

After you install the Experience Portal Manager (EPM) and at least one Media Processing Platform (MPP), you can configure and test a basic Avaya Aura[®] Experience Portal system. After the basic system has passed the tests, you can configure the optional Experience Portal features as desired.

! Important:

Because these steps build on each other, you must complete them in the order given or you may encounter errors during the procedures.

Step	Description	✓
1	Have the completed installation worksheets ready to help answer the questions raised during the configuration. For a list of the available worksheets, see Installation worksheets for the Avaya Aura Experience Portal dedicated server configuration on page 115.	
2	If the customer plans to have their system maintained by Avaya Services, set up the Avaya Services access requirements as described in: <ul style="list-style-type: none">• Configuring the Avaya Service accounts on page 63	
3	Log onto the EPM Web interface. If you are an Avaya Services representative, log in as described in Logging into the EPM Web interface using the Avaya Services init account on page 65.	

Step	Description	✓
	<p>+ Tip:</p> <p>Once you have logged in, you can get help with any of the remaining tasks by clicking the Help button on the appropriate EPM web page.</p>	
4	<p>Install the Experience Portal license file as described in Installing the license file on page 66.</p> <p>* Note:</p> <p>There is a 30 day grace period after installation during which Experience Portal provides 10 telephony ports. After the grace period expires, the Experience Portal system automatically stops processing calls.</p>	
5	<p>Add at least one Voice over IP (VoIP) H.323 or SIP connection as described in Adding H.323 connections on page 68 or Adding a SIP connection on page 69.</p>	
6	<p>Add all of the installed MPP servers as described in Adding the MPP servers on page 69.</p>	
7	<p>If desired, add one or more Automatic Speech Recognition (ASR) servers as described in Adding ASR servers on page 70.</p>	
8	<p>If desired, add one or more Text-to-Speech (TTS) servers as described in Adding TTS servers on page 70.</p>	
9	<p>If you installed the EPM software on the optional auxiliary EPM server, add it to the Experience Portal system as described in Optional: Adding the auxiliary EPM server on page 70.</p>	
10	<p>Add the Experience Portal test application as described in Adding the Experience Portal test application on page 72.</p>	
11	<p>Start all MPPs in the Experience Portal system as described in Starting all MPP servers on page 71.</p>	
12	<p>Test the basic system by running the sample application as described in Running the sample application on page 74.</p>	
13	<p>If desired, test each MPP server individually as described in the <i>Testing an individual MPP</i> topic in the <i>Upgrading from Avaya Aura® Experience Portal 4.0 or 4.1 to Release 5.0</i> guide.</p>	
14	<p>If desired, connect the EPM server to an external time source so that all servers in the Experience Portal system stay properly synchronized as described in External time sources on page 85.</p>	
15	<p>The EPM can accept input in non-English languages if desired. If you are using Red Hat Enterprise Linux, the languages need to be installed with the operating system. If you are using Avaya</p>	

Step	Description	✓
	Enterprise Linux, you can configure it to accept input in Chinese, Japanese, or Korean as described in: <ul style="list-style-type: none"> • Configuring Chinese on Avaya Enterprise Linux on page 87 • Configuring Japanese on Avaya Enterprise Linux on page 88 • Configuring Korean on Avaya Enterprise Linux on page 90 	
16	If you want to enable organization level access in Experience Portal, execute the <code>EnableOrganizations</code> command as described in the <i>Configuring organization level access in Avaya Aura® Experience Portal</i> section of the <i>Administering Avaya Aura® Experience Portal</i> guide.	

Configuring the Avaya Service accounts

Before you begin

Make sure you have the Avaya Service Account authentication file generated by the Authentication File System (AFS) tool.

! Important:

After you run this script, customers using Avaya Enterprise Linux cannot log into the `sroot` account and therefore must use the `root` account. Before you run this script, log in as `root` to make sure that the password for the `root` account has been properly set. For more information, see [Installing and configuring Avaya Enterprise Linux](#) on page 11.

* Note:

- When running the AFS tool, be sure to select **New System – Product: Avaya Aura Experience Portal Release: 6.x** to generate the AFS file. This step is required for Experience Portal fresh install or for upgrade from Voice Portal 5.x to Avaya Aura® Experience Portal 6.0.
- If an AFS file resides in the server prior to upgrade, it needs to be removed manually.

To delete the existing installed AFS file, execute the following command on the server console: `rm -f /etc/asg/lacfile`.

Procedure

1. Log into Linux on the Experience Portal server. If you are using:
 - Avaya Enterprise Linux or if the Avaya Service accounts have already been installed on this server, log in to Linux locally as `root`, or log in remotely as a

non-root user and then change the user to root by entering the `su -` command.

- Red Hat Enterprise Linux Server 6.0, log in to Linux locally as root, or log in remotely as a non-root user and then change the user to root by entering the `su -` command.
2. Copy the Avaya Service Account authentication file to the `/tmp` directory on the server.
 3. Navigate to the `Support/VP-Tools` directory by entering the `cd /opt/Avaya/InstallAgent/bin` command.
 4. Enter the `bash AddServiceAccounts /<authentication_file_path>/authentication_file_name` command, where `authentication_file_path` is the fully-qualified path to the authentication file you copied to the server and `authentication_file_name` is the name of the authentication file you copied to the server.
 5. Press `Enter` to continue adding Avaya service accounts for this system. The following warning message is displayed:

```
Primary EPM found; creating EPM admin user init
Creating EPM service account
Checking System [EP,EP,]
  Added SDResource name=init type=USER desc=
    Added SDPropertyContainer name=Default category=Default desc=
      Added SDProperty name=roles
      Added SDProperty name=createTime
Return value for adding EPM admin user init: 0
Loading file /tmp/AF-7000112969-080808-155712.xml
useradd: warning: the home directory already exists.
Not copying any file from skel directory into it.

Utility has completed. Please review the information above for possible errors
```

*** Note:**

This is an informational message and needs no corrective action.

The `AddServiceAccounts` script changes the following Linux accounts so that you can only log into them using the Avaya Services challenge/response authentication procedure:

User name	Group	Purpose
sroot	root	Avaya Services root access
craft	susers	Avaya Services non-root access

In addition, the script creates the EPM user account `init`, which has Administration, Auditor, and User Manager privileges and uses the same Avaya Services challenge/response authentication procedure.

Next steps

Repeat this procedure for each Experience Portal server on which you want to create the Avaya Service accounts.

Logging into the EPM Web interface using the Avaya Services init account

Procedure

1. Open an Internet Explorer (IE) browser and enter the URL for your Experience Portal system.

The default URL is: `https://EPM-server/VoicePortal`, where *EPM-server* is the hostname or IP address of the system where the primary EPM software is installed.

*** Note:**

Enable TLS security in your IE browser. For more information, see the *Configuring browsers to use TLS security* topic in the *Planning for Avaya Aura® Experience Portal* guide.

2. In the **User Name** field, enter `init`.
3. Click **Submit**.
4. Use the challenge information displayed to generate the appropriate response password for the init account and enter the password in the **Password** field.
5. Click **Logon**.
If you enter the correct password, the system logs you into the EPM. Otherwise the EPM displays an error message and returns you to the **User Name** prompt so that you can enter the correct password.

Logging in to the Experience Portal web interface

The Experience Portal Manager (EPM) web interface is the main interface to the Experience Portal system.

Procedure

1. Open an Internet Explorer browser and enter the URL for your Experience Portal system.

The default URL is: `https://EPM-server/VoicePortal`, where *EPM-server* is the hostname or IP address of the system where the primary EPM software is installed.

*** Note:**

TLS security must be enabled in your IE browser. For more information, see the *Configuring browsers to use TLS security* topic in the *Planning for Avaya Aura® Experience Portal* guide.

2. In the **User Name** field, enter the user name of the EPM Administration account that was created during the installation procedure.
The user name must match the specified Administration account name exactly, including case.
3. Click **Submit**.
4. In the **Password** field, enter the password assigned to the EPM Administration account during the installation procedure.
The password must match the password assigned to the specified user name exactly, including case.
5. Click **Logon**.
If the user name and password:
 - Match what was specified for the Administration account during installation, the EPM displays the Avaya Aura Experience Portal Management System Home page with the Experience Portal version number and **Legal Notice** display text box.
 - Do not match the Administration user account, the EPM displays an error message and returns you to the **User Name** prompt so that you can try again. Be careful when you enter the user name and password a second time, because the EPM will automatically lock the user account out of the system if you specify too many incorrect user name and password combinations.

Installing the license file

A license file is required for Experience Portal operation as it defines the telephony ports and the ASR and TTS connections that you are authorized to use. Avaya sends the Experience Portal license file separately in an e-mail.

Before you begin

If the WebLM server for your installation does *not* reside on the same machine as the Experience Portal EPM server, you need to upgrade the WebLM software to version 4.6 as

described in the file `Support/WebLM/Licensing Installation Instructions.pdf` on the Experience Portal installation DVD.

About this task

* Note:

If you do not receive a license file from Avaya, contact your Avaya representative or Avaya Partner representative.

Procedure

1. Open the e-mail that contains the Experience Portal license file.
2. Detach the license file from the email and store the license file locally on either the WebLM server or on a computer that is accessible to the Experience Portal servers via a network connection.
For example, you can install the license file on any computer from which you can access the EPM Web interface.
3. Log in to the EPM Web interface using an account with the Administration user role.
4. From the EPM main menu, select **Security > Licensing**.
The Licensing page displays the license information and the location of the License server.
5. If the **License Server URL** field is blank or if the location of WebLM has changed, type the location of the license server in this field.
The URL must be in the format `https://WebLM-machine:port_num/WebLM/LicenseServer`, where *WebLM-machine* is the hostname or IP address of the WebLM server and *:port_num* is an optional parameter that consists of a colon followed by the port number for the WebLM server. If WebLM uses the default configuration, specify: 8443 or 52233. If no port number is specified, Experience Portal sets the default to :8443.
6. Click **Verify**.
Your browser opens a separate window displaying the Avaya WebLM page, which contains a **License Administration** link.
7. Click **License Administration**. Your browser displays the Web License Manager Logon page.
8. If this is:
 - A new installation of WebLM:
 - i. Enter the default user name `admin`.
 - ii. Enter the default password `weblmadmin`.
 - iii. Press `Enter` or click the arrow button to log in.

- iv. Complete the Change Password page, making sure that you type `weblmadmin` in the **Current Password** field.
 - v. Click **Submit**.
 - vi. On the Logon page, log in with your new password. Your browser displays the Install License page.
 - An existing installation of WebLM, type your existing user name and password and click **Continue**. Your browser displays the Install License page.
 9. Click **Browse** and locate the Experience Portal license file. After you have located the license file, click **Install**.

WebLM uploads the license file from your computer to the WebLM server and displays the message `License file installed successfully`.
 10. Log out of the Web License Manager and close the Web License Manager page.
 11. Return to the EPM Licensing page and click **Apply**. Click **OK** to confirm the change.
 12. Verify that the new licensing information is correct.
-

Adding H.323 connections

Before you begin

Make sure the switch is configured as described in *Avaya Configuration Note 3910* on the Avaya online support Web site, <http://support.avaya.com>.

Procedure

1. From the EPM main menu, select **System Configuration > VoIP Connections** and go to the H.323 tab.
 2. Click **Add**.
 3. On the Add H.323 Connection page, enter the appropriate information and click **Save**.
 4. Repeat this procedure for each H.323 connection you want to add.
-

Adding a SIP connection

Before you begin

Configure the Avaya Aura Communication Manager with Avaya SIP Enablement Services (SES) enabled. For details, see *Avaya Configuration Note 3911* on the Avaya online support Web site, <http://support.avaya.com>.

Procedure

1. From the EPM main menu, select **System Configuration > VoIP Connections** and go to the SIP tab.
 2. Click **Add**.
 3. On the Add SIP Connection page, enter the appropriate information and click **Save**.
-

Adding the MPP servers

Procedure

1. From the EPM main menu, select **System Configuration > Media Server Server**.
2. On the MPP Server page, click **Add**.
3. On the first Add MPP Server page, enter the appropriate information and click **Continue**.
4. On the second Add MPP Server page, enter the appropriate information and click **Save**.

If you logged in using the init account, make sure you enter the appropriate LDN number for the server in the **LDN** field. If you do not specify an LDN number, Experience Portal uses the default value (000)000-0000.

*** Note:**

Make sure you verify the security certificate displayed in the **MPP Certificate** section and then check the **Trust new certificate** check box. You cannot save the MPP unless this check box has been selected.

5. Repeat this procedure for each additional MPP server you want to add.
-

Adding ASR servers

Procedure

1. From the EPM main menu, select **System Configuration > Speech Servers**.
 2. On the ASR tab of the Speech Servers page, click **Add**.
 3. On the Add ASR Server page, enter the appropriate information and click **Save**.
 4. Repeat this procedure for each ASR server you want to add.
-

Adding TTS servers

Procedure

1. From the EPM main menu, select **System Configuration > Speech Servers**.
 2. On the TTS tab of the Speech Servers page, click **Add**.
 3. On the Add TTS Server page, enter the appropriate information and click **Save**.
 4. Repeat this procedure for each TTS server you want to add.
-

Optional: Adding the auxiliary EPM server

Procedure

1. Log in to the EPM Web interface.
If Avaya Services is maintaining this system and you are an Avaya Services representative, log in to the EPM using the init EPM account created during the EPM software installation.
Otherwise, log in to the EPM using an account with the Administration user role.
2. From the EPM main menu, select **System Configuration > EPM Server**.
3. On the EPM Servers page, click **Add**.
4. On the first Add EPM Server page, enter the appropriate information and click **Continue**.

5. On the second Add EPM Server page, enter the appropriate information.
If you logged in using the init account, make sure that the LDN number specified in the **LDN** field matches the information in the Avaya Services database for this server.
6. When you are finished, click **OK**.

! Important:

Ensure that you configure the Outcall Web Service Authentication on the EPM Settings page after adding an auxiliary EPM.

Starting all MPP servers

Before you begin

Add all of the installed MPP servers as described in [Adding the MPP servers](#) on page 69.

Procedure

1. From the EPM main menu, select **System Management > Media Server Manager**.
2. On the MPP Manager page, make sure that the **Mode** column says **Online** for all servers. If any are shown as **Offline**:
 - a. Click the Selection check box next to each Offline MPP server.
 - b. Click the **Online** button in the **Mode Commands** group and confirm your selection when prompted.
3. Click the Selection check box in the first column header of the MPP server table to select all MPP servers.
4. Click **Start** in the **State Commands** group and confirm your selection when prompted.
Experience Portal starts the MPP servers. This process can take several minutes depending on how many servers there are in your system.
5. After a few minutes, click **Refresh** and verify that, for all MPP servers, the:
 - **Mode** is **Online**.
 - **State** is **Running**.
 - **Config** is **OK**.
6. If desired, make sure that all licensed telephony ports were correctly allocated to the MPP servers:

- a. From the EPM main menu, select **Real-Time Monitoring > Port Distribution**.
- b. On the Port Distribution page, examine the **Mode** and **State** columns.

Next steps

Once the MPP servers start successfully, the Avaya Aura® Experience Portal system is available. You can now test it by running the sample application as described in [Running the sample application](#) on page 74.

Adding the Experience Portal test application

Before you begin

If you want to use Automatic Speech Recognition (ASR) resources, make sure that one or more ASR servers have been added to the system.

If you want to use Text-to-Speech (TTS) resources, make sure that one or more TTS servers have been added to the system.

About this task

You can use the sample application that is installed with Experience Portal in order to test how this system handles telephony resource requests. If you run the sample application as a:

- VoiceXML application, Experience Portal uses the default CCXML page installed on the MPP server to provide basic CCXML controls. The VoiceXML application tests:
 - ASR resources.
 - TTS resources.
 - Bridge transfers.
 - Blind transfers.
 - Supervised transfers.
 - Several audio prompt formats.
 - Audio prompt recording and playback.
- CCXML application, Experience Portal uses a more advanced CCXML page that provides all the functionality of the VoiceXML application and allows you to test the following CCXML features:
 - Call conferencing.
 - Call classification.
 - Call merge for calls using a SIP connection.

Procedure

1. From the EPM main menu, select **System Configuration > Applications**.
2. On the Applications page, click **Add**.
The EPM displays the Add Application page.
3. In the **Name** field, type the name you want to use to identify this application on the system. After you save the application, this name cannot be changed.
For example, type `Test_App`.
4. If you want to run the sample application as a:

Application type	Required parameters
VoiceXML application	In the MIME Type field, select VoiceXML . In the VoiceXML URL field, type <code>http://MPP_Identifier/mpp/misc/avptestapp/intro.vxml</code> , where <i>MPP_Identifier</i> is the hostname or IP address of any one of the MPP servers in the Experience Portal system.
CCXML application	In the MIME Type field, select CCXML . In the CCXML URL field, type <code>http://MPP_Identifier/mpp/misc/avptestapp/root.ccxml</code> , where <i>MPP_Identifier</i> is the hostname or IP address of any one of the MPP servers in the Experience Portal system.

5. Click **Verify** to make sure that the system can find this page.
If the EPM can find the specified page, it displays that page in a separate browser window. If this check succeeds, continue with this procedure. Otherwise, correct the information in the **VoiceXML URL** or **CCXML URL** field and repeat this step until the page is found.

*** Note:**

Instead of opening the file in a separate window, the browser can prompt to save the file as text. You can save the file and open it with text editor.

6. If you want to test ASR resources:
 - a. Select the type of ASR server you want to use from the **ASR** drop-down list.
 - b. From the **Languages** list, select **English(US) en-us**.
7. If you want to test TTS resources:
 - a. Select the type of TTS server you want to use from the **TTS** drop-down list.
 - b. From the **Voices** list, select one or more of the **English(US)** voices.
8. To associate one or more incoming numbers with this application, enter the appropriate information in the **Application Launch** group.

9. If you want to test transcriptions, go to the **Transcription** section of the **Reporting Parameters** group and set the desired transcription parameters.
 10. When you have finished, go to the bottom of the page and click **Save**.
The EPM redisplay the Applications page with the test application now listed in the table.
-

Running the sample application

Procedure

1. Call the number you associated with the test application when you added it to Experience Portal.
 2. When the system answers, press:
 - 1 for Automatic Speech Recognition (ASR)
 - 2 for Text-to-Speech (TTS)
 - 3 for Bridge Transfer
 - 4 for Blind Transfer
 - 5 for Consultative Transfer
 - 6 for Audio test
 - 7 to Exit
 3. If you are running the test application as a CCXML application, press:
 - 1 for Automatic Speech Recognition (ASR)
 - 2 for Text-to-Speech (TTS)
 - 3 for Bridge Transfer
 - 4 for Blind Transfer
 - 5 for Consultative Transfer
 - 6 for Audio test
 - 7 to test Conferencing
 - 8 to test Merge
 - 9 to test Call Classification
 - 0 to Exit
-

Next steps

After you run the application, you can create reports about that application's performance and, if transcriptions are enabled, view the transcription data.

Related topics:

[Test Application result for Call Classification option](#) on page 75

[Test Application result for Call Conferencing option](#) on page 76

[Test Application result for Call Merge option](#) on page 76

Test Application result for Call Classification option

When you run the test application as a CCXML application, and press 9 to test call classification, the application plays the following prompts based on the call status:

Call Status	Prompt
Line is busy	The busy tone is detected.
Invalid number is detected	Fail to create call.
Call is connected and human voice is heard	Detected live voice.
Call is connected and a recorded message is detected	Detected answering machine.
Call is connected and fax is detected	Detected fax.
Call is connected and sit tone is detected	The sit tone is detected.
Trunks are busy	The fast busy tone is detected.
Call classification detection does not detect anything within the specified timeout period	Timeout is detected.
Error occurs during call classification detection	Error occurs while detecting.
Call is not answered	No answer is detected.

Test Application result for Call Conferencing option

When you run the test application as a CCXML application, and press 7 to test call conferencing, the application plays the following prompts based on the call status:

Call Status	Prompt
Call to destination fails	Fail to create call.
Call is successful	Thank you. * Note: When the call conference is successful, the application plays additional prompts. For H323, you need to enter 9 with the phone number. Otherwise, the call fails.

Test Application result for Call Merge option

When you run the test application as a CCXML application, and press 8 to test call merging, the application plays the following prompts based on the call status:

Call Status	Prompt
The application detects H.323 connection	This option is not supported in H.323. Please use SIP.
Merge is successful.	Thank you. * Note: After playing the thank you prompt, the application merges the call. This option is not supported for H.323.

Configure and run the Outcall test application

You can use the Outcall test application to validate the Application Interface web service and the Experience Portal Outcall functionality. Avaya supplies an installation script that

automatically installs the Outcall test application when Experience Portal is installed. There are two versions of Outcall test applications. These versions are:

- Outcall test application version 1.4 in `$AVAYA_HOME/Support/OutCallTest/AppIntfWS-Client`.
- Outcall test application version 2 in `$AVAYA_HOME/Support/OutCallTest/VAppIntfClient`.

Related topics:

[Configuring Experience Portal for the Outcall test application](#) on page 77

[Running the Outcall test application for AppIntfWS-Client](#) on page 78

Configuring Experience Portal for the Outcall test application

Before you begin

- Ensure that the Outcall test application is installed in the following Experience Portal EPM directories:
 - `$AVAYA_HOME/Support/OutCallTest/AppIntfWS-Client`.
 - `$AVAYA_HOME/Support/OutCallTest/VAppIntfClient`.
- Verify that the hostnames are mapped to the IP addresses without a DNS, as described in the *Manually mapping hostnames to connect the primary EPM with other servers* topic in the *Implementing Avaya Aura® Experience Portal on multiple servers* guide.

About this task

! Important:

This configuration is required only if you use Experience Portal to perform outcalls or the Application Interface web service to launch CCXML applications.

Procedure

1. Ensure that at least one of the ports in the system is configured to allow outbound calls. For more information on configuring ports, see the *H.323 tab on the VoIP Connections page field descriptions* section or the *SIP tab on the VoIP Connections page field descriptions* section of the *Administering Avaya Aura® Experience Portal* guide.
 2. Ensure that a user name and password is configured in EPM from the **System Configuration > EPM Servers > EPM Settings** page. This is the authentication information that is used for accessing the Application Interface web service.
-

Running the Outcall test application for AppIntfWS-Client

Before you begin

Ensure that Experience Portal is configured for the Outcall test application as described in [Configuring Experience Portal for the Outcall test application](#) on page 77.

Procedure

1. Log in to Linux on the Voice Portal server.
If you are an Avaya Services representative, and are using Avaya Enterprise Linux or if the Avaya Service accounts are installed on this server:
 - Log in to the local Linux console as `sroot`.
 - Or log in remotely as a non-root user and then change the user to `sroot` by entering the `su - sroot` command.Otherwise, log in to Linux locally as `root`, or log in remotely as a non-root user and then change the user to `root` by entering the `su -` command.
2. Navigate to the Outcall test application directory by entering the `cd $AVAYA_HOME/Support/OutcallTest/AppIntfWS-Client` command.
3. Enter the `./runclient.sh -n <outcall-username> -p <outcall password>` command to request the number of available outbound ports, where:
 - `<outcall-username>` is the user name assigned to the outcall user in the **System Configuration > EPM Servers > EPM Settings** page.
 - `<outcall password>` is the password assigned to the outcall user in the **System Configuration > EPM Servers > EPM Settings** page.
4. Verify that the Outcall test application displays a response that shows the total ports and unused ports available for outcalls.
For example:

```
Fri Oct 17 15:21:02 PDT 2008: TestClient: queryResources succeeded, TotalRes = 25, UnusedH323 = 15, UnusedSIP = 10
```



```
Fri Oct 17 15:21:02 PDT 2008: TestClient: exiting.
```
5. Enter the `./runclient.sh -R 1 -A <application-name> -T <number-to-dial> -n <outcall-username> -p <outcall password>` command to initiate an outcall and launch the Experience Portal test application, where:
 - `<application-name>` is the name of the test application specified on the application page.
 - `<number-to-dial>` is the phone number to place the outcall to.
 - `<outcall-username>` is the user name assigned to the outcall user in the **System Configuration > EPM Servers > EPM Settings** page.

- <outcall password> is the password assigned to the outcall user in the **System Configuration > EPM Servers > EPM Settings** page.
6. Verify that the dialed phone number rings.
 7. Answer the phone and verify that the Experience Portal test application is handling the call.

*** Note:**

The application handles the call in the same way as when an actual user calls into the system.

8. Verify that the Outcall test application displays:
 - A response that shows the result of the LaunchVXML operation.
 - The total ports and the unused ports available for outcalls.

For example:

```
Fri Oct 17 15:24:58 PDT 2008: TestClient: launchVXML succeeded, SessionID =
sys-mpp-2008291222458-2, TotalRes = 24, UnusedH323 = 12, UnusedSIP = 12
```

```
Fri Oct 17 15:24:58 PDT 2008: TestClient: exiting.
```

Call activity reports

The following reports track call activity in the Experience Portal system:

Call Summary report : Provides summary information about all calls handled by the specified MPPs and applications for the specified time period.

Call Detail report : Provides detailed information about all calls handled by the specified media managers and applications for the specified time period.

Session Summary report : Provides summary information about call-handling sessions for the specified media managers and applications for the specified time period.

Session Detail report: Provides detailed information about all call-handling sessions for the specified media managers and applications for the specified time period. This report also provides access to any transcription information saved for the applications.

The amount of data available for the MPP reports depends on the **Retention Period** setting for the **Call Data Record** and **Session Data** fields on the AMS Settings page.

For example, if this value is set to 14, you can enter a start date that is two weeks prior to the current date. If the value is set to 7, you can only check for the previous week.

Related topics:

[Creating a Call Detail report](#) on page 80

[Creating a Call Summary report](#) on page 81

[Creating a Session Detail report](#) on page 81

[Creating a Session Summary report](#) on page 82

[Viewing application transcription data](#) on page 83

Creating a Call Detail report

About this task

The Call Detail report provides detailed information about all calls handled by the specified media managers and applications for the specified time period.

Procedure

1. Log in to the EPM Web interface using an account with the Administration, Operations, or Maintenance user role.
2. From the EPM main menu, select **Reports > Standard**.
3. On the Standard Reports page, click **Call Detail** link in the **Report Name** column.

*** Note:**

You can also click  next to **Call Detail** link to generate the report with the default selection of filters.

4. On the Call Detail page, enter the filter criteria that you want to use.

+ Tip:

Click the **more >>** link to display the rest of the optional filters.

5. Click **OK**.
6. On the Call Detail Report page, if you want to:
 - View the messages generated by one of the Orchestration Designer applications listed in the table, click the appropriate name in the **Application** column. The EPM displays the Application Detail Report page detailing the messages generated during the associated call session.
 - Get more information about how a call ended, hover the mouse over a value in the **End Type** column. The system displays the information in a pop-up window about how a call ended.
 - View details about the session that handled the call, and click the **View Session Details** icon at the end of the appropriate row. The EPM displays the Session Details page.

Creating a Call Summary report

About this task

The Call Summary report provides summary information about all calls based on the specified filtering options.

Procedure

1. Log in to the EPM Web interface using an account with the Administration, Operations, or Maintenance user role.
2. From the EPM main menu, select **Reports > Standard**.
3. On the Standard Reports page, click the **Call Summary** link in the **Report Name** column.

*** Note:**

You can also click  next to **Call Summary** link to generate the report using the default filters.

4. On the Call Summary page, enter the filter criteria that you want to use.

+ Tip:

Click the **more >>** link to display the rest of the optional filters.

5. Click **OK**.
The EPM displays the Call Summary Report page.
-

Creating a Session Detail report

About this task

The Session Detail report provides detailed information about the call-handling sessions for the specified media servers and applications for the specified time period. A session starts with the initial inbound or outbound call and ends with the termination of the CCXML page that resulted from the call.

Procedure

1. Log in to the EPM Web interface using an account with the Administration, Operations, or Maintenance user role.
2. From the EPM main menu, select **Reports > Standard**.

3. On the Standard Reports page, click **Session Detail** link under the **Report Name** column.

*** Note:**

You can also click  next to **Session Detail** link to generate the report using the default selections of filters.

4. On the Session Detail (Filters) page, enter the filter criteria that you want to use.

+ Tip:

Click the **more >>** link to display the rest of the optional filters.

5. Click **OK**.
The EPM displays the Session Detail Report page.
6. If you want to view more information about a particular session, click the **View Session Details** icon at the end of the appropriate row.
Experience Portal displays the Session Details page.

Creating a Session Summary report

About this task

The Session Summary report provides summary information about call-handling sessions for the specified media servers and applications for the specified time period. A session starts with the initial inbound or outbound call and ends with the termination of the CCXML or VoiceXML page that resulted from the call.

Procedure

1. Log in to the EPM Web interface using an account with the Administration, Operations, or Maintenance user role.
2. From the EPM main menu, select **Reports > Standard**.

*** Note:**

You can also click  next to **Session Summary** link to generate the report with the default selections of filters.

3. On the Standard Reports page, click **Session Summary** link under the **Report Name** column.
4. On the Session Summary (Filters) page, enter the filter criteria that you want to use.

+ Tip:

Click the **more >>** link to display the rest of the optional filters.

5. Click **OK**.
The EPM displays the Session Summary Report page.
-

Viewing application transcription data

Procedure

1. Log in to the EPM Web interface using an account with the Administration, Operations, or Maintenance user role.
2. From the EPM main menu, select **Reports > Standard > Session Detail**.
3. On the Session Detail page, click the **more >>** link to display the rest of the optional filters.
4. Enter any criteria you want to use for the report.

+ Tip:

If you want to limit the report to those sessions that have transcription information, select **Yes** in the **Session Transcription** field.

5. Click **OK**.
The EPM displays the Session Detail Report page.
 6. Locate the particular session for which you want to view the transcription data and click the **View Session Details** icon at the end of the appropriate row.
Experience Portal displays the Session Details page, which shows both the session and transcription data grouped by information category.
-

Configuring the Software Upgrade feature in EPM

The Software Upgrade feature allows you to upgrade the MPPs running on your Experience Portal system, from the EPM Web interface. If you want to use this feature, you need to authorize the EPM to upgrade the MPPs. For more information, see the *Software Upgrade overview* section in the Administering Avaya Aura® Experience Portal guide.

If you don't want to use the Software Upgrade feature to upgrade the MPPs, you can disable the InstallAgent RPM.

*** Note:**

Disabling the InstallAgent package is optional.

You can disable it if you don't want the EPM to use a public-key based SSH mechanism to remotely administer the MPP upgrades, and don't want this package installed on your system.

Related topics:

[Optional: Disabling the InstallAgent RPM](#) on page 84

[Reinstalling the InstallAgent RPM](#) on page 84

Optional: Disabling the InstallAgent RPM

Procedure

1. Delete the .ssh directory by entering the `rm -r /home/vpinstall/.ssh` command.

Or

If you want to save the .ssh directory for future reference, you can rename it. For example, to rename the .ssh file to .sshOld, enter the `mv /home/vpinstall/.ssh /home/vpinstall/.sshOld` command.

2. Enter the `chmod -s /opt/Avaya/InstallAgent/bin/InstallAgent` command to disable the InstallAgent RPM.

The command removes the user ID permission from the InstallAgent package.

Reinstalling the InstallAgent RPM

About this task

If you have previously disabled the InstallAgent RPM, as described in [Optional: Disabling the InstallAgent RPM](#) on page 84, and want to use the Software Upgrade feature to upgrade the MPPs, you need to reinstall the InstallAgent RPM.

Procedure

On the Experience Portal server, enter the `rpm -U <IA RPM> --replacepkgs` command to reinstall the InstallAgent RPM.

For example, `rpm -U av-ia-6.0.0.0-3302.rpm --replacepkgs`.

*** Note:**

The InstallAgent RPM is located in the external/installagent directory of the Experience Portal installation image.

External time sources

To make sure that the reporting and logging activities across all servers in your network are synchronized to the same time, make sure that you use the same external time source for:

- The server running the primary EPM software
- Any application servers running on dedicated machines
- All available speech servers
- All PBX switches

You can use a corporate or a public time server as the external time source. If you intend to use a public time source, choose an appropriate one for your needs. You can find public Network Time Protocol (NTP) servers at <http://www.ntp.isc.org/bin/view/Servers/WebHome>.

*** Note:**

Avaya only provides guidelines for public time servers. Ensure that the servers you choose are accessible through your corporate firewall. In addition, you should be aware that some public time servers either limit the amount of access a particular site has or charge for their services. If you select a public time server, make sure that the time server fits all of your needs before you change the `ntp.conf` file on the primary EPM server.

Related topics:

[Configuring the primary EPM server to point to an external time source](#) on page 85

Configuring the primary EPM server to point to an external time source

Before you begin

Make sure you have the server names or IP addresses of one or two appropriate external time sources. For more information, see [External time sources](#) on page 85.

Procedure

1. Log in to Linux on the Experience Portal primary EPM server.

If you are an Avaya Services representative, and are using Avaya Enterprise Linux or if the Avaya Service accounts are installed on this server:

- Log in to the local Linux console as `sroot`.
- Or log in remotely as a non-root user and then change the user to `sroot` by entering the `su - sroot` command.

Otherwise, log in to Linux locally as root, or log in remotely as a non-root user and then change the user to root by entering the `su -` command.

2. Open the `/etc/ntp.conf` file in an ASCII text editor.
3. Edit the `/etc/ntp.conf` file to add the server you want to use as the primary external time source and an explicit declaration to set the local clock. If desired, you can also add a server to use as the secondary time source if the primary source cannot be found. The format is:

```
server xxxx           // primary external time server
server yyyy           // optional secondary external time server
server 127.127.1.0    // set local clock to time received from external
server
fudge 127.127.1.0 stratum 10
driftfile /var/lib/ntp/drift
authenticate no
```

Where `xxxx` and `yyyy` are either server names or IP addresses of the external time servers you want to use.

*** Note:**

The typical settings for `driftfile` and `authenticate` are shown above. If the `ntp.conf` file at your site has different settings, check with your system administrator before you change them.

The following uses the external time sources `clock.sjc.he.net` and `ntp-1.cede.psu.edu`:

```
server clock.sjc.he.net // primary external time server
restrict clock.sjc.he.net nomodify
server ntp-1.cede.psu.edu // secondary time server
restrict ntp-1.cede.psu.edu nomodify
server 127.127.1.0 // set local clock
fudge 127.127.1.0 stratum 10
driftfile /var/lib/ntp/drift
authenticate no
```

4. Save and close the file.
5. Using a text editor of your choice, open the `/etc/ntp/step-tickers` file. This file is used for initial time setup on the EPM.
6. Add a line in the file to specify the time source server names or IP addresses. For example, if you are using the servers `clock.sjc.he.net` and `ntp-1.cede.psu.edu`, you would add the following lines:

```
clock.sjc.he.net
ntp-1.cede.psu.edu
```

7. Save and close the file.
8. Restart the `ntpd` daemon by entering the `/sbin/service ntpd restart` command.

The system returns:

```
Shutting down ntpd: [OK] Synchronizing with time server [OK] Starting ntpd:
[OK]
```

Non-English language support

Non-English character support on the EPM web pages

While the EPM Web pages are written in English, you can use non-English characters when entering field values if you have the appropriate languages installed on the EPM server. If you are using:

- Red Hat Enterprise Linux, all you need to do is select the appropriate languages while installing the operating system.
- Avaya Enterprise Linux, Avaya provides a font file for Chinese, Japanese, and Korean.

Related topics:

[Configuring Chinese on Avaya Enterprise Linux](#) on page 87

[Configuring Japanese on Avaya Enterprise Linux](#) on page 88

[Configuring Korean on Avaya Enterprise Linux](#) on page 90

Configuring Chinese on Avaya Enterprise Linux

Procedure

1. Log in to Linux on the Experience Portal primary EPM server.
If you are an Avaya Services representative, and are using Avaya Enterprise Linux or if the Avaya Service accounts are installed on this server:
 - Log in to the local Linux console as `sroot`.
 - Or log in remotely as a non-root user and then change the user to `sroot` by entering the `su - sroot` command.

Otherwise, log in to Linux locally as root, or log in remotely as a non-root user and then change the user to root by entering the `su -` command.

2. Navigate to the Linux font directory by entering the `cd /usr/share/fonts` command.

*** Note:**

If the font directory does not already exist, create it by entering the `mkdir /usr/share/fonts` command, then navigate to the directory you just created.

3. Copy the Chinese font file to the font directory by entering the `cp $AVAYA_HOME/Support/fonts/zh_CN/TTzh_CN.tar .` command.

! Important:

Make sure you include the `.` (period) at the end of the `cp` command to indicate that you want Linux to copy the files to the current directory.

4. Extract the font file by entering the `tar -xvf TTzh_CN.tar` command.
5. Copy the system language file to the Linux system configuration directory by entering the `cp $AVAYA_HOME/Support/fonts/zh_CN/il8n/etc/sysconfig/` command.
6. Navigate to the Java fonts directory by entering the `cd $JAVA_HOME/jre/lib/fonts` command.
7. Create the fallback directory by entering the `mkdir fallback` command.
8. Navigate to the fallback directory by entering the `cd fallback` command.
9. Copy the Chinese font files to the fallback directory by entering the `cp /usr/share/fonts/zh_CN/TrueType/*.ttf .` command.

! Important:

Make sure you include the `.` (period) at the end of the `cp` command to indicate that you want Linux to copy the files to the current directory.

10. Reboot the EPM server machine by entering the `reboot` command.
-

Configuring Japanese on Avaya Enterprise Linux

Procedure

1. Log in to Linux on the Experience Portal primary EPM server.
If you are an Avaya Services representative, and are using Avaya Enterprise Linux or if the Avaya Service accounts are installed on this server:

- Log in to the local Linux console as `sroot`.
- Or log in remotely as a non-root user and then change the user to `sroot` by entering the `su - sroot` command.

Otherwise, log in to Linux locally as root, or log in remotely as a non-root user and then change the user to root by entering the `su -` command.

2. Navigate to the Linux font directory by entering the `cd /usr/share/fonts` command.

*** Note:**

If the font directory does not already exist, create it by entering the `mkdir /usr/share/fonts` command, then navigate to the directory you just created.

3. Copy the Japanese font file to the font directory by entering the `cp $AVAYA_HOME/Support/fonts/ja/TTja.tar .` command.

! Important:

Make sure you include the `.` (period) at the end of the `cp` command to indicate that you want Linux to copy the files to the current directory.

4. Extract the font file by entering the `tar -xvf TTja.tar` command.
5. Copy the system language file to the Linux system configuration directory by entering the `cp $AVAYA_HOME/Support/fonts/ja/i18n/etc/sysconfig/` command.
6. Navigate to the Java fonts directory by entering the `cd $JAVA_HOME/jre/lib/fonts` command.
7. Create the fallback directory by entering the `mkdir fallback` command.
8. Navigate to the fallback directory by entering the `cd fallback` command.
9. Copy the Japanese font files to the fallback directory by entering the `cp /usr/share/fonts/ja/TrueType/*.ttf .` command.

! Important:

Make sure you include the `.` (period) at the end of the `cp` command to indicate that you want Linux to copy the files to the current directory.

10. Reboot the EPM server machine by entering the `reboot` command.
-

Configuring Korean on Avaya Enterprise Linux

Procedure

1. Log in to Linux on the Experience Portal primary EPM server.
If you are an Avaya Services representative, and are using Avaya Enterprise Linux or if the Avaya Service accounts are installed on this server:

- Log in to the local Linux console as `sroot`.
- Or log in remotely as a non-root user and then change the user to `sroot` by entering the `su - sroot` command.

Otherwise, log in to Linux locally as root, or log in remotely as a non-root user and then change the user to root by entering the `su -` command.

2. Navigate to the Linux font directory by entering the `cd /usr/share/fonts` command.

*** Note:**

If the font directory does not already exist, create it by entering the `mkdir /usr/share/fonts` command, then navigate to the directory you just created.

3. Copy the Korean font file to the font directory by entering the `cp $AVAYA_HOME/Support/fonts/ko/TTko.tar .` command.

! Important:

Make sure you include the `.` (period) at the end of the `cp` command to indicate that you want Linux to copy the files to the current directory.

4. Extract the font file by entering the `tar -xvf TTko.tar` command.
5. Copy the system language file to the Linux system configuration directory by entering the `cp $AVAYA_HOME/Support/fonts/ko/i18n/etc/sysconfig/` command.
6. Navigate to the Java fonts directory by entering the `cd $JAVA_HOME/jre/lib/fonts` command.
7. Create the fallback directory by entering the `mkdir fallback` command.
8. Navigate to the fallback directory by entering the `cd fallback` command.
9. Copy the Korean font files to the fallback directory by entering the `cp /usr/share/fonts/ko/TrueType/*.ttf .` command.

! Important:

Make sure you include the `.` (period) at the end of the `cp` command to indicate that you want Linux to copy the files to the current directory.

10. Reboot the EPM server machine by entering the `reboot` command.
-

Disabling the display of avayavp user name in the RedHat Enterprise Linux GUI login page user list

About this task

If you have installed a graphical interface for RHEL 6.0, the RHEL 6.0 GUI login page displays a list of users on the startup screen.

This list also includes the avayavp user. To eliminate potential security hazard, you must disable the RHEL 6.0 GUI login page from listing users.

Procedure

1. To disable the login page from listing users, enter the following command on the console:
2. To verify that the user list is disabled on the login page, enter the following command on the console:

```
sudo -u gdm gconftool-2 --type bool --set /apps/gdm/simple-greeter/disable_user_list true
```

```
sudo -u gdm gconftool-2 --get /apps/gdm/simple-greeter/disable_user_list
```

If the command returns the value as True, then the login page does not display the list of users.

Chapter 7: Troubleshooting installation issues

Installation log files

The installation log files contain detailed information about the installation process.

Avaya Aura[®] Experience Portal creates several log files during the installation process. If the installation process:

- Completes successfully, Experience Portal copies the log files to `$AVAYA_HOME/logs/install_date`, where `$AVAYA_HOME` is the environment variable pointing to the installation path you specified on the Installation Destination installation screen and `date` is the date the installation process was run. The default installation directory is `/opt/Avaya/ExperiencePortal`.
- Does not complete successfully, Experience Portal copies the log files to `/opt/_Avaya_Voice-Portal_temp`.

General installation log files

Log filename	Description
<code>VP_Install.log</code>	Main log containing output from all EPM and MPP installation processes. This is the first log file you should consult if you need to troubleshoot an installation issue.
<code>ISSummary.log</code>	Summary of the Experience Portal installation, including any warning or error messages encountered during the installation.
<code>ISOpt.log</code>	InstallShield generated log containing internal data.
<code>installSequence.log</code>	Subset of <code>ISOpt.log</code>
<code>prereqchecker.log</code>	Detailed information from the Prerequisite Checker.
<code>prereqchecker.out.log</code>	Results from the Prerequisite Checker.
<code>prereqchecker.err.log</code>	Any internal errors encountered by the Prerequisite Checker.
<code>prereqinstaller.log</code>	Detailed information from the Prerequisite Installer.

Log filename	Description
prereqinstaller.out .log	Results from the Prerequisite Installer.
prereqinstaller.err .log	Any internal errors encountered by the Prerequisite Installer.
SetIAVersion<component>.log	Version history of the Experience Portal components installed. The component can be the EPM, MPP or Docs.
ExtensionsPersistFiles.log	A directory containing files used to preserve properties during EPM upgrades.
installStatus.log	Log file generated for use by auto upgrade to log and track major steps during the installation
GetIAVersionVPMS.err.log	Log file containing any warning messages generated while trying to retrieve version information as part of an upgrade. The presence of a warning in this log file does not necessarily indicate an error.

MPP-specific installation log files

Log filename	Description
av-mpp- <buildnumber>- Install-<date>.log	mppinstall.sh script output.
av-mpp- <buildnumber>- Install-rpm- <date>.log	Output from the Red Hat Package Manager (RPM) during the MPP software installation.
mpp.cert.gen.out.log	Results from the security certificate generation process.
mpp.cert.gen.err.log	Any internal errors generated from the certificate generation process.
mpp.cert.imp.out.log	Results from the security certificate import process.
mpp.cert.imp.err.log	Any internal errors generated from the certificate import process.
mpp.key.import.out .log	Results from the public key import process from the EPM.
mpp.key.import.err .log	Any internal errors generated from the public key import process from the EPM.

Log filename	Description
mpp.key.log	Summary and fingerprint information about the public key imported by the MPP from the primary EPM.

EPM-specific installation log files

Log filename	Description
vpms.cert.gen.out.log	Results from the security certificate generation process.
vpms.cert.gen.err.log	Any internal errors generated from the certificate generation process.
vpms.cert.imp.out.log	Results from the security certificate import process.
vpms.cert.imp.err.log	Any internal errors generated from the certificate import process.
vpms.cert.log	Summary and fingerprint information about the certificate generated during EPM installation that is used for communication with the MPP and any auxiliary EPMs.

Fixing Prerequisite Checker failures

Solution

Procedure

1. Examine the Prerequisite Checker pages to determine exactly what problems were encountered.

+ Tip:

If the error is `UnknownHostException: localhost`, see [Prerequisite Checker fails with UnknownHostException:localhost](#) on page 96.

2. Upgrade your system to meet the minimum hardware and operating system requirements for Experience Portal, as described in the *Minimum server machine hardware requirements* topic of the *Planning for Avaya Aura® Experience Portal* guide.
-

Next steps

After you upgrade your system, you can resume the Experience Portal installation script at the current point as long as you did *not* exit the installation script or restart your Experience Portal server. If you want to:

- Resume the script, type 2 and press `Enter` until you go past the first Prerequisite Status page. Experience Portal reruns the Prerequisite Checker and you can then continue with the installation instructions.
- Quit the installation script, type 3 and press `Enter`, then type 1 and press `Enter` to confirm.

Prerequisite Checker fails with `UnknownHostException:localhost`

If you receive an error during the prerequisite check for the `localhost`, or a `faultString` reporting `UnknownHostException:localhost` during Experience Portal installation or upgrade, it is likely that the `/etc/hosts` file of the server is not properly set up. As a result, the installation script cannot deploy certain Experience Portal components correctly.

The `/etc/hosts` file is a simple text file that associates IP addresses with one or more hostnames. The format is one line per IP address, with the associated hostnames separated by white space (spaces or tabs).

Solution

Procedure

1. Log into Linux on the EPM server.
If you are an Avaya Services representative, and are using Avaya Enterprise Linux or if the Avaya Service accounts are installed on this server:
 - Log in to the local Linux console as `sroot`.
 - Or log in remotely as a non-root user and then change the user to `sroot` by entering the `su - sroot` command.Otherwise, log in to Linux locally as `root`, or log in remotely as a non-root user and then change the user to `root` by entering the `su -` command.
2. Back up the original file prior to editing it by entering the `cp /etc/hosts/etc/hosts.bak` command.
3. With the ASCII text editor of your choice, open the `/etc/hosts` file.
4. Verify that:
 - The first line contains `127.0.0.1 localhost localhost.localdomain`, with the IP address and hostnames separated by spaces or tabs
 - If the file has other entries, each entry must be in the form `IP_address hostname1 hostname2...`, where `IP_address` is the IP address of a server

in the Experience Portal system and *hostname1 hostname2...* is one or more hostnames, separated by tabs or spaces, to associate with the IP address.

Example

The following shows a properly-formatted `/etc/hosts` file with two MPP servers:

```
127.0.0.1      localhost      localhost.localdomain      #Required first line
123.123.123.122  vpms_server_hostname      #Primary EPM server IP
addy and hostname
123.123.123.123  first_mpp      first_mpp.domainname.com   #First MPP server
123.123.123.124  second_mpp     second_mpp.domainname.com  #Second MPP server
```

Fixing Prerequisite Installer failures

The Prerequisite Installer installs additional software required for Experience Portal such as the Apache Web Server, Tomcat, and php. The majority of this software comes from RPMs installed by the Prerequisite Installer.

Installer failures are generally the result of installing Experience Portal on a server running a:

- More recent version of Red Hat Enterprise Linux than Release 6.0 32 bit or later. Although Experience Portal does support updates to Red Hat Enterprise Linux, some of system RPMs in the newer updates can conflict with some of the RPMs that Experience Portal is attempting to install.
- Customized Red Hat Enterprise Linux installation that is missing an RPM required by one of the Experience Portal prerequisite RPMs.

Solution

Procedure

1. Examine the Prerequisite Installer report to determine exactly what problems were encountered and what log file, if any, is available for more information. For an example of one such error, see [Sample Prerequisite Installer error message](#) on page 98.
2. If you are using Red Hat Enterprise Linux Server 6.0 and the Prerequisite Installer fails for any of the php RPMs, install the following RPMs from your Red Hat installation CD-ROM or the Red Hat support website:
 - `php-domxml`
 - `php`
 - `php-pear`

3. If that does not solve the problem, see [Identifying RPM issues](#) on page 99 for more information.

Next steps

After you fix any prerequisite software issues, you can resume the Avaya Aura® Experience Portal installation script at the current point as long as you did *not* exit the installation script or restart your Avaya Aura® Experience Portal server. If you want to:

- Resume the script, type 2 and press `Enter` until you go past the first Installation Status page. Avaya Aura® Experience Portal reruns the Prerequisite Installer and you can then continue with the installation instructions.
- Quit the installation script, type 3 and press `Enter`, then type 1 and press `Enter` to confirm.

Sample Prerequisite Installer error message

The following is an example of the error messages produced by the Prerequisite Installer when the installer encounters a more recent version of the JDK than Experience Portal was about to install. You can use this example as a guideline for solving any Prerequisite Installer issues you encounter.

```

=====
Installation Status
=====
Third-Party Software===== | -
Network Time Protocol (NTP)-----Already Completed | - GNU
MP (Arbitrary Precision Library)-----Already Completed | - XML
Library-----Already Completed | -
Internationalized Domain Name Support Library-----Already Completed | - cURL
(File Download Utility)-----Already Completed | - GnuPG
Common Error Library-----Already Completed | - General
Purpose Crypto Library-----Already Completed | - XML File
Transform Library-----Already Completed | -
ActiveMQ-----Already Completed | -
TrueType Font Rendering Engine-----Already Completed | - Font
Configuration and Customization Library-----Already Completed | - Password
quality-control module-----Success | - Shared
Library for X Window System-----Already Completed | - Java(TM) 2
SDK Standard Edition-----Failed
    
```

The following line indicates the start of the error information:

```

| | Error: RPM Installation failed with the following detail. | |
===== | | jdk-1.5.0_12-fcs.i586.rpm install | | -
original directory='/mnt/cdrom/external' | | - RPM install directory='/mnt/cdrom/
external/J2SDK' | | - RPM name = 'jdk-1.5.0_12-fcs.i586.rpm' | | - LOG file = '/tmp/
Avaya/install-rpm.log' | | ----- | | >>>>>Starting
RPM installation: 'rpm -U --replacepkgs jdk-1.5.0_12- | | fcs.i586.rpm'
    
```

The following two lines show the installed JDK version and why it does not match the version Experience Portal needs to install:

```
| | package jdk-1.5.0_14-fcs (which is newer than jdk-1.5.0_12-fcs) is | | Already
Completed | | >>>>>RPM Installation failed: Exit Code: 2 | |
=====
```

The following three lines restate the error that the version found was not the version expected:

```
| | RPM installation check: Expecting 'Found' = 'Expected'. | | Expected:
jdk-1.6.0_07-fcs.i586.rpm | | Found: jdk-1.5.0_14-fcs Out of Date | | Non-compliant
Java SDK found. Enter "rpm -e j2sdk" in the command line | | to uninstall the SDK,
then run the prerequisite installer again.
```

```
=====
Install aborted due to installation failure.
=====
```

To resolve this issue:

1. If you want to verify that this version is actually installed, enter the `rpm -q jdk` command.
2. Before you remove the more recent RPM version that you have installed, check the Avaya online support Web site, <http://support.avaya.com>, to make sure that a solution to this issue has not been posted. If no solution is available:
 - a. Look at the RPM installation check line, which is the third highlighted line in the example. In this case, the Prerequisite Installer expected that the version it found installed on the system would be identical to the version it was installing. The solution is to remove the more recent version and let the Prerequisite Installer install the JDK version Experience Portal requires.
 - b. To remove the installed JDK version, enter the `rpm -e jdk` command.
 - c. Once the JDK version has been removed, return to the Experience Portal installation script and resume the installation.

Identifying RPM issues

If you have installed Red Hat Enterprise Linux Server 6.0, you should also verify that the correct RPMs are installed on your system. Experience Portal requires Release 6.0 32 bit or later. If you registered with Red Hat to automatically receive updates, there might be a conflict with one or more of the updated RPMs.

The Experience Portal installation included a file that lists the RPMs and version numbers in Release 6.0 32 bit or later. This file is installed in `$AVAYA_HOME/Support/RedHat-RPM-Lists` and on the Experience Portal installation DVD under `Support/RedHat-RPM-Lists`.

You can generate a listing of the RPMs that are currently installed on your system and then compare the RPMs you have installed against what has been verified. Other versions than the ones verified might cause your Experience Portal system not to operate.

*** Note:**

If the list of RPMs installed on your system does not exactly match the list of RPMs in the `RedHat-RPM-Lists` file that is located in the Support directory of the Experience Portal installation DVD, it does not necessarily mean there is a problem. However, if you are still experiencing problems after you have reviewed the installation log files and initial configuration settings, you might bring your system inline with the verified list of RPMs to see if that solves the problem.

Solution

Procedure

1. On each Experience Portal server, log in to Linux as root.
2. Enter the `cat /etc/issue` command.
3. Verify that the version is Release 6.0 32 bit or later.
4. To get a list of the RPMs installed on your system and redirect the list to a file, enter the `rpm -qa | sort > /tmp/rpmlist.txt` command.
When the system has finished generating `rpmlist.txt`, it stores the file in the `/tmp` directory.
5. To find any differences between the RPMs currently installed and the RPMs that are required for Experience Portal, enter the `diff /tmp/rpmlist.txt $AVAYA_HOME/Support/RedHat-RPM-Lists/RHEL6.0.txt` command.
6. To display the differences file, enter the `cat /tmp/diffrpms.txt` command.
7. Review the reported differences and bring the installed RPMs inline with the RPMs listed in the `Support > RedHat-RPM-Lists` directory of the Experience Portal installation DVD.
8. If you need the correct version of an RPM, download it from Red Hat website, <http://www.redhat.com>.
9. Once you have identified the problems and downloaded any required RPMs:
 - To upgrade an RPM to a different version, enter the `rpm -u <path>/rpmname` command, where `<path>` is the complete path and `rpmname` is the filename of the RPM you are updating.
 - To install an RPM, enter the `rpm -i path/rpmname` command, where `path/rpmname` is the complete filename and path of the RPM you are installing.

- To remove an RPM, enter the `rpm -e rpmname` command, where `rpmname` is the name of the RPM you are removing.

! Important:

Do not specify a file path when you remove an RPM.

Installation Progress Bar stops at 25% completed

If the **Installation Progress Bar** does not advance beyond 25% completed and the Post Installation Summary screen states that no summary information could be found, then InstallShield has encountered an internal error and the Experience Portal installation or upgrade was not successful.

This error condition is shown in the following example:

```
Installation Progress Note: The last portion of the install might take several
minutes to complete. Please be patient and wait for the Post Installation Summary to
be displayed. Installing Avaya Aura Experience Portal. Please wait...
```

```
|-----|-----|-----|-----| 0% 25% 50% 75% 100% |||||
```

```
-----
Post Installation Summary The Avaya Aura Experience Portal installation has
completed. Review the following information. If there are errors or warnings, then
please review the installation logs. No summary information could be found; please
check the log files for more information Press 3 to Finish or 5 to Redisplay [3]
java.io.IOException: java.io.IOException: /opt/_Avaya_Voice-Portal_temp/
MoveLogFiles: not found at java.lang.UNIXProcess.<init>(UNIXProcess.java:143) at
java.lang.Runtime.execInternal(Native Method) at
java.lang.Runtime.exec(Runtime.java:566) at
com.installshield.util.Java2ProcessExec.processExec(Unknown Source) at
com.installshield.util.ProcessExec.executeProcess(Unknown Source) at
com.installshield.wizardx.actions.ExecWizardAction.executeProcess(Unknown Source)
at com.installshield.wizardx.actions.ExecWizardAction.run(Unknown Source) at
java.lang.Thread.run(Thread.java:534)
```

In this case, no Experience Portal software was actually installed or upgraded.

Solution

Procedure

1. Type 3 to finish the aborted installation or upgrade process.

2. Return to the beginning of the installation or upgrade procedure you were following and rerun the Experience Portal installation script `installvp`.

EPM install finishes with an Axis error

A known issue with Axis sometimes affects the EPM software installation. If this problem occurs, the EPM software installer displays either `Exception: AxisFault` or `Warning: Axis may not be accepting new applications properly`, as shown in the following Post Installation Summary screens.

First sample Post Installation Summary screen:

```
Installing EPM... Possible Error during operation: Register vpappLog with Axis -
Start error description - Exception: AxisFault faultCode: {http://
schemas.xmlsoap.org/soap/envelope/}Server.generalException faultSubcode:
faultString: Couldn't find an appropriate operation for XML QName {http://
xml.apache.org/axis/wsdd/}deployment faultActor: faultNode: faultDetail: {http://
xml.apache.org/axis/}hostname:takuma.avaya.com - End error description - Possible
Error during operation: Deploy Core Services (Part 2/2) - Start error description -
Error: Could not deploy network log server: 255 Error: Could not deploy alarm server:
255 - End error description -
```

Second sample Post Installation Summary screen showing the `Warning: Axis may not be accepting new applications properly` message:

```
Installing Documentation... ..done installing Documentation Installing EPM...
Possible Error during operation: Start Tomcat - Start error description - Warning:
Axis may not be accepting new applications properly - End error description - ..done
installing EPM Installing MPP... ..done installing MPP
In this case, you need to:
```

Solution

Procedure

1. Type 3 to finish the incomplete installation process.
2. Return to the beginning of the installation procedure you were following and rerun the Experience Portal installation script `installvp`.

Install hangs at Post Installation Summary screen

A known InstallShield issue sometimes causes the software installation to hang, especially if there is a long delay between steps.

In this case, the Post Installation Summary screen displays:

```
Post Installation Summary The Avaya Aura Experience Portal installation has
completed. Review the following information. If there are errors or warnings, then
please review the installation logs. Installing Documentation... Press 3 to Finish
or 5 to Redisplay [3]
```

Solution

Procedure

Restart the installation script from the beginning, making sure that you do not pause too long between steps.

The Post Installation Summary screen should display messages similar to the following:

```
Post Installation Summary The Avaya Aura Experience Portal installation has
completed. Review the following information. If there are errors or warnings,
then please review the installation logs. Installing Documentation... ..done
installing Documentation Installing EPM... ..done installing EPM Installing
MPP... ..done installing MPP Press 3 to Finish or 5 to Redisplay [3] Moving
installation logs to: /opt/Avaya/VoicePortal/logs/install_2008-01-21.000
[sroot@vpms-server cdrom]# reboot
```

MPP installation is hanging

Any hung or stale NFS mount points can cause RPM installations to hang while installing the Experience Portal software.

Solution

Procedure

1. On the MPP server, enter the `df` command.

2. If the server:
 - Responds to this command, then all NFS mount points are operational. Make sure that the EPM and MPP clocks are properly synchronized as described in [Time synchronization problems](#) on page 108.
 - Does not respond to the command, continue with this procedure.
 3. Enter the `umount -l` command to unmount any file systems.
 4. If not already done, exit the Experience Portal installation script.
 5. If the automount feature is enabled, disable it by commenting out the appropriate lines in the server's `/etc/fstab` file.
 6. Reboot the server.
 7. Restart the installation script from the beginning.
-

MPP could not import EPM key

The EPM installs correctly but the Public Key Verification screen displayed during the MPP installation contains the error:

```
Failed to import key from specified host. Please check the following: URL: http://  
EPM-server/cert.pem
```

The most common cause of this error is that the `iptables` firewall is enabled on the primary EPM server.

Solution

Procedure

1. Log in to Linux on the Experience Portal primary EPM server.
If you are an Avaya Services representative, and are using Avaya Enterprise Linux or if the Avaya Service accounts are installed on this server:
 - Log in to the local Linux console as `sroot`.
 - Or log in remotely as a non-root user and then change the user to `sroot` by entering the `su - sroot` command.Otherwise, log in to Linux locally as `root`, or log in remotely as a non-root user and then change the user to `root` by entering the `su -` command.
2. Determine whether the `iptables` firewall is active by entering the `service iptables status` command.

3. If the firewall is:
 - Running, disable it by entering the `chkconfig --del iptables` command and proceed to Step 4.
 - Not running, try to manually download the certificate by entering the `curl http://EPM-server/cert.pem` command, where *EPM-server* is the domain name or IP address of the system where the primary EPM software is installed.

If the command displays the lines `-----BEGIN CERTIFICATE-----` and `-----END CERTIFICATE-----`, regardless of what information is displayed between those lines, continue with this procedure. Otherwise, contact your Avaya Services representative.
4. Restart the *vpms* service by entering the `/sbin/service vpms restart` command.
You will see a series of messages as the command starts to shut down EPM components. When the command has successfully stopped all relevant components, it displays the message: `VPMS Shutdown Status: [OK]`.

The command immediately starts the relevant components. When it has finished, it displays the message: `VPMS Start Status: [OK]`.
5. Verify that you can log in to the EPM Web interface as described in the *Logging in to the Avaya Aura® Experience Portal web interface* topic in the *Administering Avaya Aura® Experience Portal* guide.
6. Return to the MPP server and either continue the current installation or restart the installation process.

Changing PostgreSQL user account passwords

Before you begin

If you have installed the EPM software and are still logged in to the EPM server, ensure that the environment variables are properly loaded as described in the .

About this task

Experience Portal uses the following PostgreSQL user accounts:

Default account name	Description
postgres	The EPM server uses this account to log in to the Experience Portal database to store and retrieve data and to install new updates or patches. The database administrator can use this account to log in to

Default account name	Description
	<p>the local <code>VoicePortal</code> database and perform database administration tasks.</p> <p>You can set the password for this account, but you cannot add other accounts of this type, delete this account, or change the account name.</p> <p>! Important:</p> <p>Contact the Avaya Services representative to modify the local <code>VoicePortal</code> database as the database contains critical configuration information used to run the system.</p>
report	<p>This user account can only read those tables in the Experience Portal database that store report data. Speech application developers can use this account to log in to the database to create custom reports using any SQL-enabled report generation tool.</p> <p>You can have any number of accounts of this type with any account names.</p>
reportwriter	<p>This user account can only change the data in the tables that store report data in the Experience Portal database on the auxiliary EPM server.</p> <p>You can have any number of accounts of this type with any account names.</p> <p>! Important:</p> <p>Contact the Avaya Services representative to modify the tables that store report data in the local <code>VoicePortal</code> database.</p>
vpcommon	<p>This account allows the auxiliary EPM server limited access to the main Experience Portal database, and it is required if you plan to configure an auxiliary EPM server.</p> <p>You can delete this account or set the password for this account, but you cannot add other accounts of this type or change the account name.</p>

The `SetDbpassword` script allows you to change all account passwords and add and delete all accounts except for `postgres`, which cannot be deleted.

*** Note:**

This script replaces the `UpdateDbPassword` script that was included with Avaya Aura[®] Experience Portal 4.0 or 4.1.

Procedure

1. Log in to the EPM using an administrative account and open a command window.

On Linux: Log in to Linux on the primary or auxiliary EPM server. If you are an Avaya Services representative and are using Avaya Enterprise Linux, or if the Avaya Service accounts are installed on this server:

- Log in to the local Linux console as `sroot`.
- Or log in remotely as a non-root user and enter the `su - root` command to change the user to `sroot`.

Otherwise, log in to Linux locally as `root`, or log in remotely as a non-root user and enter the `su -` command to change the user to `root`.

On Windows: Log in to Windows on the primary EPM server and open a command window.

2. Navigate to the `Support/VP-Tools/SetDbPassword` directory.

On Linux: Enter the `cd $AVAYA_HOME/Support/VP-Tools/SetDbPassword` command. `$AVAYA_HOME` is an environmental variable pointing to the name of the installation directory specified during the Experience Portal software installation.

On Windows: Enter the `cd %AVAYA_HOME%/Support/VP-Tools/SetDbPassword` command. `%AVAYA_HOME%` is an environmental variable pointing to the name of the installation directory specified during the Experience Portal software installation.

The default value is `/opt/Avaya/ExperiencePortal`.

3. To run the script:

On Linux: Enter the `bash SetDbpassword.sh update -u username -p password` command.

On Windows: Enter the `SetDbpassword.bat update -u username -p password` command.

Where:

- *username* is the name of the user account whose password you want to change.
- *password* is the new password you want to use for this account.

For example, on Linux, to set the `postgres` password to `NewPostgres`, you can enter the `bash SetDbpassword.sh update -u postgres -p NewPostgres1` command. On Windows, to set the `postgres` password to `NewPostgres1`, you can enter the `SetDbpassword.bat update -u postgres -p NewPostgres1` command.

If you change the password for the `postgres` account, Experience Portal stops and then restarts the `vpms` service.

4. Verify if the service has started:

On Linux: Enter the `/sbin/service vpms status` command to verify the service status.

On Windows: Open the **Services Control Panel** applet and verify if the AAEP Manager service is started.

Next steps

If you change the password for the vpccommon account on the primary EPM server, you must also change the password on the auxiliary EPM server.

Time synchronization problems

Experience Portal uses Network Time Protocol (NTP) to control and synchronize the clocks when the EPM and MPP software is running on different servers. The dedicated MPP servers and the optional auxiliary EPM server point to the primary EPM server as the reference clock.

To troubleshoot synchronization errors, perform the following procedures in the order given, advancing to the next procedure only if the problem continues to persist.

Determining whether the servers are synchronized

Procedure

1. Simultaneously log in to Linux on the EPM server, each MPP server, and, if configured, the optional auxiliary EPM server.
2. On each server, at the same time enter the `date` command.
3. Verify that each MPP server and the optional auxiliary EPM server are synchronized with the primary EPM server.
4. If you find one or more unsynchronized servers, follow the procedure [Verify that the NTP service is operating properly](#) on page 108.

Verify that the NTP service is operating properly

Procedure

1. Log in to Linux on each unsynchronized MPP or auxiliary EPM server.
If you are an Avaya Services representative, and are using Avaya Enterprise Linux or if the Avaya Service accounts are installed on this server:
 - Log in to the local Linux console as `sroot`.

- Or log in remotely as a non-root user and then change the user to sroot by entering the `su - sroot` command.

Otherwise, log in to Linux locally as root, or log in remotely as a non-root user and then change the user to root by entering the `su -` command.

2. Enter the `/sbin/service ntpd status` command.

If the server returns a message stating that the NTP service is running, continue with this procedure. Otherwise, go to [Synchronizing the MPP or auxiliary EPM clock with the primary EPM](#) on page 109.

3. To verify that the NTP service is operating properly, enter the `/usr/sbin/ntpq -np` command.

4. A status message similar to the following is displayed:

```
remote refid st t when poll reach delay offset jitter
=====
===== 123.123.123.123 LOCAL(0) 6 u 23 64 1 0.354 0.361 0.004
```

If the `jitter` value displayed is 4000, go to [Synchronizing the MPP or auxiliary EPM clock with the primary EPM](#) on page 109.

*** Note:**

The remote IP address displayed should point to the primary EPM server.

Synchronizing the MPP or auxiliary EPM clock with the primary EPM

Procedure

1. If you are working with an MPP server and the MPP software is running, stop it using the EPM Web interface:
 - a. Log in to the EPM Web interface using an account with the Administration or Operations user role.
 - b. From the EPM main menu, select **System Management > Media Server Manager**.
 - c. On the MPP Manager page, click the selection box associated with the MPP that you want to stop, then click **Stop** in the **State Commands** group.
 - d. Confirm the action when requested.
 - e. Wait until the operational state becomes Stopped.
To check this, click **Refresh** and look at the **State** field.

*** Note:**

The operational state changes when the last active call completes or the grace period expires, whichever comes first.

2. Log in to Linux on the server.

If you are an Avaya Services representative, and are using Avaya Enterprise Linux or if the Avaya Service accounts are installed on this server:

- Log in to the local Linux console as `sroot`.
- Or log in remotely as a non-root user and then change the user to `sroot` by entering the `su - sroot` command.

Otherwise, log in to Linux locally as `root`, or log in remotely as a non-root user and then change the user to `root` by entering the `su -` command.

3. If you are working with:

- An MPP server, stop the `mpp` process by entering the `/sbin/service mpp stop` command.
- The auxiliary EPM server, stop the `vpms` service by entering the `/sbin/service vpms stop` command.

4. Restart the NTP process by entering the `/sbin/service ntpd restart` command.

The system returns:

```
Shutting down ntpd: [OK] Synchronizing with time server [OK] Starting ntpd: [OK]
```

*** Note:**

After you restart the NTP process, wait up to 10 minutes for the server to synchronize with the EPM.

5. After you give the servers enough time to synchronize themselves, verify that the process worked by entering the `/usr/sbin/ntpq -np` command.

A status message similar to the following is displayed:

```
remote refid st t when poll reach delay offset jitter
=====
===== 123.123.123.123 LOCAL(0) 6 u 23 64 1 0.354 0.361 0.004
```

*** Note:**

The remote IP address displayed should point to the primary EPM server.

6. If the `jitter` value is still set to 4000, go to [Advanced time synchronization troubleshooting](#) on page 111 below. Otherwise continue with this procedure.

7. If you are working with:

- An MPP server, start the `mpp` process by entering the `/sbin/service mpp start` command.
- The auxiliary EPM server, start the `vpms` service by entering the `/sbin/service vpms start` command.

8. Verify the service has started by entering the `/sbin/service mpp status` or `/sbin/service vpms status` command.

Advanced time synchronization troubleshooting

Procedure

1. Log in to Linux on the MPP or auxiliary EPM server.
If you are an Avaya Services representative, and are using Avaya Enterprise Linux or if the Avaya Service accounts are installed on this server:
 - Log in to the local Linux console as `sroot`.
 - Or log in remotely as a non-root user and then change the user to `sroot` by entering the `su - sroot` command.
 Otherwise, log in to Linux locally as `root`, or log in remotely as a non-root user and then change the user to `root` by entering the `su -` command.
2. Using an ASCII text editor, open the following files on the server and ensure that the hostname or the IP address of the primary EPM server is correct:
 - `/etc/ntp.conf`
 - `/etc/ntp/step-tickers`
3. If the IP address or hostname is incorrect in either of the above files, fix it then save and close the files. Otherwise simply close the files.
4. If the primary EPM server is synchronized with an external clock, verify that the `/etc/ntp.conf` file on the primary EPM server is properly set up. For details, see [External time sources](#) on page 85.
5. If you made any changes to the files:
 - a. Stop the appropriate service by entering the `service mpp stop` or `/sbin/service vpms stop` command.
 - b. Restart the NTP process by entering the `/sbin/service ntpd restart` command.
The system returns:

```
Shutting down ntpd: [OK] Synchronizing with time server [OK] Starting ntpd: [OK]
```

*** Note:**

After you restart the NTP process, wait up to 10 minutes for the server to synchronize with the EPM.

 - c. After you give the servers enough time to synchronize themselves, verify that the process worked by entering the `/usr/sbin/ntpq -np` command.

A status message similar to the following is displayed:

```
remote refid st t when poll reach delay offset jitter
=====
===== 123.123.123.123 LOCAL(0) 6 u 23 64 1 0.354 0.361 0.004
```

*** Note:**

The remote IP address displayed should point to the primary EPM server.

6. If the `jitter` value is still set to 4000:
 - a. Reboot the server.
 - b. Enter the `/usr/sbin/ntpq -np` command.
 - c. If the `jitter` value is still set to 4000, reinstall the MPP or auxiliary EPM software.

Changing the Product ID for an existing Experience Portal system

Before you begin

If you have just installed or upgraded the Experience Portal software and are still logged into the server, verify that you reloaded the environment variables as described in [Reloading the Experience Portal environment variables](#) on page 113.

About this task

*** Note:**

This script stops and then restarts Tomcat automatically. This means that the EPM will be unavailable until Tomcat reinitializes.

Procedure

1. Log in to Linux on the Experience Portal primary EPM server.

If you are an Avaya Services representative, and are using Avaya Enterprise Linux or if the Avaya Service accounts are installed on this server:

 - Log in to the local Linux console as `sroot`.
 - Or log in remotely as a non-root user and then change the user to `sroot` by entering the `su - sroot` command.

Otherwise, log in to Linux locally as root, or log in remotely as a non-root user and then change the user to root by entering the `su -` command.
2. Navigate to the `Support/VP-Tools` directory by entering the `cd /opt/Avaya/InstallAgent/bin` command.

3. To run the script:

On Linux: Enter the `bash ResetProductID New_ProductID` command where `New_ProductID` is the product ID that you want to use.

On Windows: Enter the `ResetProductID.bat New_ProductID` command where `New_ProductID` is the product ID that you want to use.

4. Follow any on-screen instructions displayed by the script.
-

Changing the Avaya Enterprise Linux network configuration for an existing Avaya Aura[®] Experience Portal server

Procedure

To change the Avaya Enterprise Linux network configuration after you have installed the operating system, enter the `system-config-network` command and follow the prompts.

Reloading the Experience Portal environment variables

After you install or upgrade a Experience Portal server, you need to load the new environment variables.

Procedure

1. Log completely out of the Linux system.
 2. Log in to Linux by entering a non-root user name and password at the prompts.
 3. If you are working with:
 - Avaya Enterprise Linux, enter the `su - sroot` command.
 - Red Hat Enterprise Linux Server 6.0, enter the `su -` command.
-

File system check (fsck) reports number of day's error

If a file system check (fsck) is performed during the boot up process and indicates an error of extremely large number of days since the file system was checked, it is likely that:

- The system's clock was set backwards manually.
- NTP was reconfigured and then restarted at the time of OS or software installation.

This following is an example of the error message:

```
Sep 20 13:34:35 i3250-mpp fsck: RHE4.0-AV11.3EP2 has gone 49706 days without being
checked, check forced.
Sep 20 13:34:35 i3250-mpp fsck: RHE4.0-AV11.3EP2:
```

Related topics:

[Solution](#) on page 114

Solution

Procedure

You can ignore the number of days reported since the last check. Regardless of the exact number of days since the file system was last checked, fsck performs this check and reports the file system errors.

Chapter 8: Installation worksheets

Installation worksheets for the Avaya Aura[®] Experience Portal dedicated server configuration

Before you begin the installation of Avaya Aura[®] Experience Portal on two or more dedicated servers, you should complete these installation worksheets. They are your guide to collecting the information necessary for a successful Experience Portal installation and configuration.

All users should complete:

- One copy of the [Primary EPM server installation worksheet](#) on page 116.
- One copy of the [MPP server installation worksheet](#) on page 119 for each planned MPP.
- If desired, one copy of the [Auxiliary EPM server installation worksheet](#) on page 121.

In addition, if this deployment includes:

- H.323 connections, complete one copy of the [H.323 installation worksheet](#) on page 125 for each connection.
- SIP connections, complete one copy of the [SIP installation worksheet](#) on page 127 for each connection that you want to configure.
- Automatic Speech Recognition (ASR) servers, complete one copy of the [ASR server installation worksheet](#) on page 124 for each ASR server
- Text-to-Speech (TTS) servers, complete one copy of the [TTS server installation worksheet](#) on page 125 for each TTS server
- Speech applications, complete one copy of the [Speech application installation worksheet](#) on page 129 for each application that will be deployed on the Experience Portal system.

Primary EPM server installation worksheet

Complete this worksheet if you are installing the EPM server on a dedicated Experience Portal server.

Requirement/ Information Needed	Your value	Notes
Ensure that the hardware meets the minimum requirements.		See <i>Minimum server machine hardware requirements</i> topic in the <i>Planning for Avaya Aura® Experience Portal</i> guide.
What access method are you going to use?	<input type="checkbox"/> Local keyboard, mouse, and monitor <input type="checkbox"/> Remote access via SSH client or modem	
Server information	IP address _____ Host name _____ _____	The hostname cannot contain spaces or periods.
Avaya Enterprise Linux network configuration information	Subnet mask on Corporate LAN _____ Default gateway _____ Primary DNS Server _____ DNS domain name _____ Time zone _____ _____	
For customer-provided hardware, is Release 6.0 32 bit or later installed?	<input type="checkbox"/> Yes <input type="checkbox"/> No	If No, install Release 6.0 32 bit or later as described in Customer-provided operating system installation on page 17.
Is the default language for Linux set to English?	<input type="checkbox"/> Yes <input type="checkbox"/> No	If No, set the default language to English. You can change the default language after Experience Portal is installed.
Can all planned Experience Portal servers	<input type="checkbox"/> Yes <input type="checkbox"/> No	For more information, see the <i>Verifying server communication worksheet</i> topic in the

Requirement/ Information Needed	Your value	Notes
communicate with one another?		<i>Implementing Avaya Aura[®] Experience Portal on multiple servers</i> guide.
For Avaya Enterprise Linux, user account passwords	cust account password: _____ root account password: _____	
For Red Hat Enterprise Linux Server 6.0, user accounts and passwords	root account password: _____ Non-root account name: _____ Non-root account password: _____	
Installation directory, if different from default	_____	Default directory: /opt/Avaya/ExperiencePortal Specify an absolute directory path containing only standard English alphanumeric characters and the symbols / (forward slash), _ (underscore), - (hyphen), ~ (tilde), or . (period).
EPM Web interface administration user name and password	User name: _____ Password: _____	The Experience Portal administrator uses this account to log in to the EPM Web interface to administer the Experience Portal system. The account is assigned the Administration user role as well as the Auditor and User Manager user roles. For details, see the <i>User Roles</i> topic in the <i>Administering Avaya Aura[®] Experience Portal</i> guide.
postgres database account password	_____	The EPM server uses this account to log in to the Experience Portal database to store and retrieve data and to install new updates or patches. The database administrator can use this account to log in to the local VoicePortal database and perform database administration tasks.

Requirement/ Information Needed	Your value	Notes
Do you want to create a database account that can access the report information in the database?	<p>_____ Yes _____ No If Yes, account user name, if different from the default: _____ Password: _____</p>	<p>Default user name is: report This user account can only read those tables in the Experience Portal database that store report data. Speech application developers can use this account to log in to the database to create custom reports using any SQL-enabled report generation tool.</p> <p>* Note: The report user name cannot be the same as the EPM Web interface administration user account name or the report reader user account name.</p>
Do you want to create an account that the optional auxiliary EPM server can use to access the Experience Portal database?	<p>_____ Yes _____ No If Yes, account password: _____</p>	<p>With this account, the auxiliary EPM server gets limited access to the main Experience Portal database. The access is required to configure an auxiliary EPM server. For details, see the <i>Avaya Aura® Experience Portal Management System server overview</i> topic in the <i>Planning for Avaya Aura® Experience Portal</i> guide.</p>
What is the Product ID for this system?	<p>_____</p>	<p>See the <i>License Requirements</i> topic in the <i>Planning for Avaya Aura® Experience Portal</i> guide.</p>
Third-party SSL certificate information.	<p>The location of the existing certificate: _____ The existing certificate's password: _____</p>	
Will Avaya Services maintain this server?	<p>_____ Yes _____ No If Yes, what is the Listed Directory Number (LDN) for this server? _____ Where is the Avaya Service Account authentication file located? _____</p>	<p>See Configuring the Avaya Service accounts on page 63.</p>

Requirement/ Information Needed	Your value	Notes
WebLM information	License server URL, if not located on the EPM server: _____ WebLM password: _____	
The external time sources that the EPM server should be synchronize with, if desired	The name or IP address of primary time source: _____ The name or IP address of secondary time source: _____	
Do you want to enter values in the EPM in languages other than English?	_____ Yes _____ No	

MPP server installation worksheet

Complete the following worksheet for each planned Media Processing Platform (MPP) server on this Experience Portal system.

Requirement or information needed	Your value	Notes
Ensure that the hardware meets the minimum requirements.		See <i>Minimum server machine hardware requirements</i> topic in the <i>Planning for Avaya Aura® Experience Portal</i> guide.
What access method are you going to use?	_____ Local keyboard, mouse, and monitor _____ Remote access via SSH client or modem	
Corporate LAN IP address	_____	
PBX LAN IP address, if different from the corporate LAN	_____	

Requirement or information needed	Your value	Notes
Avaya Enterprise Linux network configuration information	Subnet mask on Corporate LAN <hr/> Subnet mask on PBX LAN, if different from Corporate LAN <hr/> Default gateway <hr/> Primary DNS Server <hr/> DNS domain name <hr/> Time zone <hr/>	
Is the default language for Linux set to English?	<input type="checkbox"/> Yes <input type="checkbox"/> No	If No, set the default language to English. You can change the default language after Experience Portal is installed.
Maximum simultaneous calls	<hr/>	The maximum number of calls that this MPP can handle at any one time. It is equivalent to the maximum number of ports that Experience Portal will allocate to this MPP. For assistance in sizing your MPP server capacity and setting the correct value for the Maximum Simultaneous Calls parameter for each MPP server, contact your Avaya Services representative or Avaya Business Partner. For more information, see the <i>MPP server capacity</i> topic in the <i>Planning for Avaya Aura® Experience Portal</i> guide.
Will Avaya Services maintain this server?	<input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, what is the Listed Directory Number (LDN) for this server? <hr/>	

Auxiliary EPM server installation worksheet

Complete this worksheet if you are installing an auxiliary EPM server.

Requirement/ Information Needed	Your value	Notes
Ensure that the hardware meets the minimum requirements.		See <i>Minimum server machine hardware requirements</i> topic in the <i>Planning for Avaya Aura® Experience Portal</i> guide.
What access method are you going to use?	<input type="checkbox"/> Local keyboard, mouse, and monitor <input type="checkbox"/> Remote access via SSH client or modem	
Server information	IP address _____ Host name _____ _____	The host name cannot contain spaces or periods.
Avaya Enterprise Linux network configuration information	Subnet mask on Corporate LAN _____ Default gateway _____ Primary DNS Server _____ DNS domain name _____ Time zone _____ _____	See Avaya-provided server installation on page 9.
For customer-provided hardware, is Release 6.0 32 bit or later installed?	<input type="checkbox"/> Yes <input type="checkbox"/> No	See Customer-provided operating system installation on page 17.
Is the default language for Linux set to English?	<input type="checkbox"/> Yes <input type="checkbox"/> No	If No, set the default language to English. You can change the default language after Experience Portal is installed.
Can all planned Experience Portal servers	<input type="checkbox"/> Yes <input type="checkbox"/> No	For more information, see Verifying server communication worksheet on page 23.

Requirement/ Information Needed	Your value	Notes
communicate with one another?		
For Avaya Enterprise Linux, user account passwords	cust account password: _____ root account password: _____	
For Red Hat Enterprise Linux Server 6.0, user accounts and passwords	root account password: _____ Non-root account name: _____ Non-root account password: _____	
Installation directory, if different from default	_____	Default directory: /opt/Avaya/ExperiencePortal Specify an absolute directory path containing only standard English alphanumeric characters and the symbols / (forward slash), _ (underscore), - (hyphen), ~ (tilde), or . (period).
Primary EPM server host name or IP address	_____	
If Yes, account password: _____ _____	_____ _____	See Primary EPM server installation worksheet on page 116
postgres database account password	_____	The EPM server uses this account to log in to the Experience Portal database to store and retrieve data and to install new updates or patches. The database administrator can use this account to log in to the local VoicePortal database and perform database administration tasks.
Do you want to create a database account that can access the report	_____ Yes _____ No If Yes, account user name, if different from the default: _____	Default user name is: report This user account can only read those tables in the Experience Portal database that store report data. Speech application

Requirement/ Information Needed	Your value	Notes
information in the database?	Password: _____	developers can use this account to log in to the database to create custom reports using any SQL-enabled report generation tool. * Note: The report user name cannot be the same as the EPM Web interface administration user account name or the report reader user account name.
Do you want to create a database account that can write report data into the database?	_____ Yes _____ No If Yes, account user name, if different from the default: _____ Password: _____	Default user name is: reportwriter This user account can only change the data in the tables that store report data in the Experience Portal database on the auxiliary EPM server. You should create this account if you plan to set up an external database on this server that is shared by multiple Experience Portal systems. * Note: The report user name cannot be the same as the EPM Web interface administration user account name or the report reader account name.
Third-party SSL certificate information.	The location of the existing certificate: _____ The existing certificate's password: _____	
Will Avaya Services maintain this server?	_____ Yes _____ No If Yes, what is the Listed Directory Number (LDN) for this server? _____	See Configuring the Avaya Service accounts on page 63.

ASR server installation worksheet

Complete a copy of the following worksheet for each Automatic Speech Recognition (ASR) server in the Experience Portal system.

Requirement or information needed	Your value
Server name	_____
IP address	_____
Server type	_____ Loquendo, minimum version: • LASR 7.8.1 w/Patch 13 • LTTS 7.8.4 (Engine Full) _____ Nuance Recognizer (using Real Speak), minimum version: • Recongizer 9.0.7 • RealSpeak 4.5 w/patch _____ Nuance Recognizer (using Vocalizer), minimum version: • Recognizer 9.0.9 • Vocalizer 5.0.3
Total number of Nuance or Loquendo licenses available on this speech server	_____
Configured languages	_____ _____ _____ _____ _____
Will Avaya Services maintain this server?	_____ Yes _____ No If Yes, what is the Listed Directory Number (LDN) for this server? _____

TTS server installation worksheet

Complete a copy of the following worksheet for each Text-to-Speech (TTS) server in the Experience Portal system.

Requirement or information needed	Your value
Server name	_____
IP address	_____
Server type	<input type="checkbox"/> Loquendo, minimum version 7.8.4 <input type="checkbox"/> Nuance RealSpeak, minimum version 4.5 w/patch2 <input type="checkbox"/> Nuance Vocalizer, minimum version 5.0.3
Total number of Nuance or Loquendo licenses available on this speech server	_____
Configured voices	_____ _____ _____ _____ _____
Will Avaya Services maintain this server?	<input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, what is the Listed Directory Number (LDN) for this server? _____

H.323 installation worksheet

Complete the following worksheet for each H.323 connection that you want to use with this Experience Portal system.

! Important:

Configure the PBX as detailed in *Avaya Configuration Note 3910* on the Avaya online support Web site, <http://support.avaya.com>.

Requirement or information needed	Your value
Do you want to use supervised transfers or perform outbound calling with the Application Interface web service?	<input type="checkbox"/> Yes <input type="checkbox"/> No <p>* Note: If Yes, you need Communication Manager 3.1 build 369 or later with the Avaya Special Application SA8874 feature.</p>
PBX name	_____
Gatekeeper IP address	_____
Alternative Gatekeeper IP address	_____
Codecs installed on the switch	_____ _____ _____ _____
Does the PBX use Media Encryption?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<i>Hunt Group information -- Group 1</i>	
Pilot number	_____
Station range	_____
First station password	_____
What type of passwords does the group use?	<input type="checkbox"/> Identical <input type="checkbox"/> Sequential
What type of calls are the ports used for?	<input type="checkbox"/> Inbound only <input type="checkbox"/> Inbound and outbound <input type="checkbox"/> Maintenance
<i>Hunt Group information -- Group 2</i>	
Pilot number	_____
Station range	_____
First station password	_____
What type of passwords does the group use?	<input type="checkbox"/> Identical <input type="checkbox"/> Sequential
What type of calls are the ports used for?	<input type="checkbox"/> Inbound only <input type="checkbox"/> Inbound and outbound <input type="checkbox"/> Maintenance
<i>Hunt Group information -- Group 3</i>	
Pilot number	_____

Requirement or information needed	Your value
Station range	_____
First station password	_____
What type of passwords does the group use?	<input type="checkbox"/> Identical <input type="checkbox"/> Sequential
What type of calls are the ports used for?	<input type="checkbox"/> Inbound only <input type="checkbox"/> Inbound and outbound <input type="checkbox"/> Maintenance
<i>Hunt Group information -- Group 4</i>	
Pilot number	_____
Station range	_____
First station password	_____
What type of passwords does the group use?	<input type="checkbox"/> Identical <input type="checkbox"/> Sequential
What type of calls are the ports used for?	<input type="checkbox"/> Inbound only <input type="checkbox"/> Inbound and outbound <input type="checkbox"/> Maintenance
<i>Hunt Group information -- Group 5</i>	
Pilot number	_____
Station range	_____
First station password	_____
What type of passwords does the group use?	<input type="checkbox"/> Identical <input type="checkbox"/> Sequential
What type of calls are the ports used for?	<input type="checkbox"/> Inbound only <input type="checkbox"/> Inbound and outbound <input type="checkbox"/> Maintenance

SIP installation worksheet

Complete the following worksheet for each SIP connection that you want to configure on this Experience Portal system.

You can configure as many SIP connections as you need. However, only one SIP connection can be enabled at any one time.

! Important:

Configure the PBX and Avaya SIP Enablement Services as detailed in *Avaya Configuration Note 3911* on the Avaya online support Web site, <http://support.avaya.com>.

Requirement or information needed	Your value
Do you want to use Secure Real-time Transport Protocol (SRTP)?	<input type="checkbox"/> Yes <input type="checkbox"/> No * Note: If Yes, you need Avaya SIP Enablement Services version 4.0 or later with either Communication Manager version 3.0 or later or a third-party SIP Gateway or SIP Trunk.
PBX name	_____
What proxy transport do you want to use?	<input type="checkbox"/> TCP <input type="checkbox"/> TLS
SIP Domain	_____
Proxy server address	_____
Proxy server port, if different from the default	_____ * Note: The default for TCP is 5060, and the default for TLS is 5061.
Listener port, if different from the default	_____ * Note: The default for TCP is 5060, and the default for TLS is 5061.
P-Asserted-Identity, if used	_____
Simultaneous call settings	_____ Maximum number of calls that this connection can handle at any one time If desired, specify the number of simultaneous calls that can be: <input type="checkbox"/> Inbound <input type="checkbox"/> Outbound * Note: If you specify the number of inbound and outbound calls, the values should add up to the maximum number of calls.

Speech application installation worksheet

Complete the following worksheet for each speech application you want to deploy on the Experience Portal system.

*** Note:**

For information about using Avaya Orchestration Designer to create speech applications, see your Orchestration Designer documentation.

Requirement or information needed	Your value
Application name	_____
What is the application MIME type?	<input type="checkbox"/> VoiceXML <input type="checkbox"/> CCXML <input type="checkbox"/> CCXML/VoiceXML
If the MIME type is VoiceXML or CCXML/VoiceXML, the URL to the initial VoiceXML page	_____
If the MIME type is CCXML or CCXML/VoiceXML, the URL to the initial CCXML page	_____
If this application uses Automatic Speech Recognition (ASR) resources, what languages are required?	_____ _____ _____ _____
If this application uses Text-to-Speech (TTS) resources, what voices are required?	_____ _____ _____ _____
What will this application be used for?	<input type="checkbox"/> Specific inbound calls <input type="checkbox"/> Inbound calls not handled by another application <input type="checkbox"/> Outbound calls <p>* Note: If it is for outbound calls, configure the Application Interface web service. For details, see <i>The Application Interface web</i></p>

Requirement or information needed	Your value
	<p><i>service</i> topic in the <i>Administering Avaya Aura® Experience Portal</i> guide.</p>
<p>What called numbers should be associated with this application?</p>	<p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>
<p>Which server will perform DTMF processing?</p>	<p>_____ The ASR server. You must select this option if the DTMF grammar uses the ECMA script.</p> <p>_____ The MPP server.</p>
<p>If this application was not developed using Orchestration Designer, do you want to add its log and breadcrumb information to the Experience Portal report database so that it appears in the application reports?</p>	<p>_____ Yes</p> <p>_____ No</p> <p>* Note:</p> <p>If Yes, configure the Application Logging web service. For details, see <i>The Application Logging web service for third-party speech applications</i> topic in the <i>Administering Avaya Aura® Experience Portal</i> guide.</p>

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