Polycom® RealPresence® Resource Manager System

Contents

About This Guide

This guide provides the first time setup information that you need to configure a Polycom RealPresence Resource Manager system. Once you've completed first time setup, see the *Polycom RealPresence Resource Manager System Operations Guide* for additional configuration and customization tasks you can perform.

Polycom RealPresence Resource Manager System Editions

The Polycom RealPresence Resource Manager system is available in an Appliance Edition (for use with a Polycom Rack Server) and a Virtual Edition (packaged as software only).

Most of the functionality described in this document applies to both editions, and so the product references are general-that is, the Polycom RealPresence Resource Manager system. However, when information applies to a specific edition, the reference will be specific - that is, Polycom RealPresence Resource Manager, Virtual Edition or Polycom RealPresence Resource Manager, Appliance Edition.

Audience, Purpose and Required Skills

This guide is written for a technical audience. You will be configuring system networking, and certificates as well as integrating with a time server, and directory server.

This guide assumes that you are starting with a Polycom RealPresence Resource Manager system that has never been installed or previously configured.

Get Help

For more information about installing, configuring, and administering Polycom products, refer to **Documents and Downloads** at Polycom Support.

Polycom and Partner Resources

In addition to this guide, the available documentation that describes the Polycom RealPresence Resource Manager system includes:

- *Polycom RealPresence Resource Manager System Release Notes* Provides the information users need to know about the specific release of the system you're implementing.

- *Polycom RealPresence Resource Manager System Operations Guide*

   Provides more detailed and specialized configuration, operation, and administration information users needs to know when using the Polycom RealPresence Resource Manager System Operations Guide system.

- *System Web Scheduling Guide*

   Gives schedulers detailed information on scheduling and monitoring conferences.

ThePolycom RealPresence Resource Manager system also has online help available through the user interface. If you purchased a UC-APL version of the Polycom RealPresence Resource Manager system, no online help is available.

To find all Polycom partner solutions, see Strategic Global Partner Solutions.

The Polycom Community

The Polycom Community gives you access to the latest developer and support information. Participate in discussion forums to share ideas and solve problems with your colleagues. To register with the Polycom Community, simply create a Polycom online account. When logged in, you can access Polycom support personnel and participate in developer and support forums to find the latest information on hardware, software, and partner solutions topics.

Prepare for System Installation

The sections that follow describe the steps required to perform the initial installation and setup of a Polycom RealPresence Resource Manager system including:

- Complete the First Time Setup Worksheet

- Set up DNS Host and Service Records

- Request Certificates

- Pre-stage a ComputerAccount

- Prepare Client Systems

Complete the First Time Setup Worksheet

Before you begin install and system setup, fill out the **My System Values** column of this worksheet.

Item	My System Values	Factory-Set Default Values	Description
System Network Settings (from Admin > Server Settings > Network)			
System Name		PLCM_RPRM	System name of the Polycom RealPresence Resource Manager system. Can be up to 32 characters long; dashes and underscores are valid characters.
DSCP Marker			Allows the administrator to configure the Quality of Service level of the Polycom RealPresence Resource Manager Set the level between 0 - 63.
IPv6 Address			IPv6 global address.

Item	My System Values	Factory-Set Default Values	Description
IPv6 Prefix length			Within IPv6 networks, the prefix length is the equivalent of the subnet mask in IPv4 networks. Should be 1-128.
IPv6 Default Gateway			The IPv6 address of the gateway server/router. For IPv6 networks only.
IPv6 Link Local Address			Read-only field. The Polycom RealPresence Resource Manager system generates a value for this field when IPv6 is enabled.
IPv4 Address		192.168.200.11	Static, physical IP address for the system server on an IPv4 network. 192.168.200.11 is the default value that needs to be changed according to your own network.
IPv4 Subnet Mask		255.255.255.0	Network subnet mask of the system server. For IPv4 networks only.
IPv4 Default Gateway		192.168.200.1	IP address of the gateway server/router. For IPv4 networks only. 192.168.200.1 is the default value. You need to change this to match the gateway IP for your network.
DNS Domain			This is the DNS domain name suffix for the network in which the domain name server and the system server reside. For example `polycom.com`, not the fully qualified path of *<hostname>*`.polycom.com`.
Preferred DNS Server			IP address of the domain name server.
Alternate DNS Server			IP address of an alternate domain name server. The alternate IP address can does not have to match the network type of the preferred server. For example, the preferred DNS server can be IPv4, while the alternate DNS server can be IPv6.

Item	My System Values	Factory-Set Default Values	Description
Enable 802.1.x		Disabled	Enable 802.1.x if your network requires this type of authentication. 802.1.x is commonly required in maximum security environments.
User Name			The user name for the 802.1.x account.
Password			The password for the 802.1.x account
Confirm Password			Confirm the password for the 802.1 x account.
Key Management Protocol			Select the appropriate Key Management Protocol for your environment.
EAP Method			Select the appropriate EAP Method for your environment.
Phase2 Protocol			Select the appropriate Phase2 Protocol for your environment.

System Time Information (from Admin > Server Settings > System Time)

Item	My System Values	Factory-Set Default Values	Description
System Time Zone			
Current Date			
Current Time			
External NTP Server			For Appliance Editions, IP address of external NTP time server (optional). For Virtual Editions, the value for NTP server is inherited from the RealPresence Platform Director system.

Information Required for Polycom Customer Support (from Admin > Server Settings > Licenses)

Item	My System Values	Factory-Set Default Values	Description
Serial number			
License number			

Set up DNS Host and Service Records

Before installing a Polycom RealPresence Resource Manager system, you should consider configuring your DNS servers to:

- Resolve queries for the Polycom RealPresence Resource Manager system by host name.

DNS Host Record

To allow your DNS servers to resolve queries for thePolycom RealPresence Resource Manager system by host name, you must enter a DNS host record in your DNS file. The format of this record depends on the format of your network addressing.

- If you use IPv4 addressing, enter a DNS A record in the required format.

- If you use IPv6 addressing, enter a DNS AAAA record in the required format.

To allow your DNS servers to resolve queries for the Polycom RealPresence Resource Manager system by reverse lookup, you must enter a DNS pointer (PTR) record in your DNS file.

Request Certificates

If you are using certificates, you should use the same certificates that you used for the initial installation of the system. If that information is not available, use the information below to set them up.

Certificates and certificate chains are a security technology that allows networked computers to determine whether to trust each other.

By default, to support encrypted communications and establish a minimal level of trust, the system includes a default key and self-signed certificate. However, to implement a full certificate chain to a root certificate authority (CA), the system requires a root CA certificate, an identity server certificate signed by the root signing CA and a Sub CA certificate. Therefore, at some time you must request these certificates from your CA.

You can install the root CA and intermediate certificates during first time setup or return to this task at a later time. However, with regard to the identity server certificate you have two options:

- The Polycom RealPresence Resource Manager system First Time Setup Wizard supports the function of creating a certificate signing request (CSR). Therefore, you may choose to create the CSR for the identity server certificate during first time setup and suspend the process while you wait for your CA to provide the certificate.

- You can also request the identity server certificate in advance of first time setup, but to do this you must have extensive knowledge of certificates, certificate templates, and CSR structures.

Pre-stage a Computer Account

To enable the **Use Single Signon** option, which allows endpoint users who are included in the Active Directory to securely log into their dynamically-managed endpoints without typing in credentials, an Active Directory admin-istrator must first pre-stage an Active Directory computer account for the Polycom RealPresence Resource Manager system.

This procedure can be done at any time before running first time setup.

TASK

1.   To pre-stage a computer account:

2.   On the Active Directory system, use the Microsoft **Active Directory Users and Computers** MMC snap-in to create a computer account for the Polycom RealPresence Resource Manager system.

   ADDITIONAL INFORMATION: Create the computer account in any desired organiza-tional unit (OU). The computer account object must have **Reset Password** and **Write Account Restrictions** permissions.

   For more information on the **Active Directory Users and Computers** MMC snap-in, see Microsoft Technet.

3.   From a command window on the Domain Controller, type:

   ADDITIONAL INFORMATION: `net user <computer account name>$ <Password> /domain`

   Where `computer account name` is the name of the computer account created in step 1, `Password>` is the desired password, and **/domain** is liter-

ally **/domain** (i.e., do not substitute with a domain name). For more information on the `net user` command, see the Microsoft Knowledge Base.

You have now created a computer account that you can use for integrated Windows authentication.

Prepare Client Systems

To log into the Polycom RealPresence Resource Manager system, you need a client system running Microsoft® Windows® with the following hardware and software:

- A computer running Microsoft® Windows® with the following hardware and software:

  – Hardware

  – 1024x768 (SXGA) minimum display resolution; 1400x900 (WSXGA+) or greater recommended

  – Ethernet ports (Appliance Edition only)

  – Software

  – Browser: Microsoft Internet Explorer® version 8 or higher, or Google Chrome™

  – Adobe® Flash® version 11 or higher

    The RealPresence Polycom RealPresence Resource Manager system's management interface requires Adobe Flash Player. For stability and security reasons, we recommend always using the latest version of Flash Player.

System Installation

The Polycom RealPresence Resource Manager system is available either a Virtual Edition or Appliance Edition.

This section includes the following topics:

- Virtual Edition Installation

- Appliance Edition Installation

Virtual Edition Installation

You will need the do the following in order to install the Polycom RealPresence Resource Manager system, Virtual Edition in your virtual environment.

Polycom recommends that a virtual environment administrator install Virtual Edition software. After the installation of a Virtual Edition, additional configuration should be done by someone who understands video conferencing.

- Review the *Polycom RealPresence Resource Manager System Release Notes* to ensure that your host machine has the capacity for your planned RealPresence Resource Manager system deployment.

- Review the Host Installation Guidelines for Virtual Editions

- Install the RealPresence Platform Director System

- Install the Virtual Edition Software

- Login to the Polycom RealPresence Resource Manager System, Virtual Edition

Host Installation Guidelines for Virtual Editions

Before deploying your Polycom RealPresence virtual edition software, review the following planning guidelines for your deployment.

Polycom recommends that a virtual environment administrator install Virtual Edition software. After the installation of a Virtual Edition, additional configuration should be done by someone who understands video conferencing.

Polycom recommends the following guidelines:

- CPU Allocation

- Memory Allocation

- Disk

CPU Allocation

- Leave 2 cores unallocated, regardless of the number of cores present, how many licenses are purchased, and what other virtual machines will be present.

- For VMware, do not allocate CPU core 0. Host operating system performance may be affected if this core is assigned to the virtual machine.

- When possible, allocate cores on one CPU. This will enhance performance by reducing CPU-to-CPU communication times.

- Do not use processor oversubscription; maintain a 2:1 ratio of virtual CPU to physical CPU. For example, a system with 8 physical cores can support up to 16 virtual processors divided up into any combination among the virtual machines running on that host.

- When you are using Hyper-V, Polycom recommends disabling the Virtual Machine Queue of the Network Interface Card (NIC). For more information, see https://support.microsoft.com/en-us/kb/2902166

NOTE: CPU reservations can only be done after shutting down the virtual machine.

Memory Allocation

In a Microsoft Hyper-V environment, you must not overprovision memory at the hypervisor layer. Dynamic memory for virtual machines is not supported.

Disk

Hypervisors add overhead to disk operations. For best performance, insure that the virtual machine is able to achieve the recommended IOPS listed in the following table.

	Lab Environment	Production Environment
Disk Performance	170 Random IOPS (write) 170 Random IOPS (read)	230 Random IOPS (write) 450 Random IOPS (read)
Network	1GB Shared	1GB Dedicated 10GB Shared

Capacity information such as storage space and memory varies according to virtual edition. Please see release notes for your RealPresence virtual edition software for the minimum capacity requirements for your product.

Install the RealPresence Platform Director System

The RealPresence Platform Director is included with all Virtual Edition products and is available at Polycom's support site for download.

Virtual Editions of Polycom RealPresence Platform products such as Polycom RealPresence Resource Manager system require the RealPresence Platform Director system to manage licensing.

For complete instructions on how to use the RealPresence Platform Director system, see the *RealPresence Platform Director System Getting Started Guide.*

Install the Virtual Edition Software

You can install your Virtual Edition software either with your native tools or with the RealPresence Platform Director system, depending on your environment.

If your RealPresence Platform Director system was installed in a VMware vCenter environment with the required credentials, you can use the RealPresence Platform Director system to deploy Polycom software. For complete instructions on how to use the RealPresence Platform Director system see the *Polycom RealPresence Platform Director Administrator Guide.*

You cannot use the RealPresence Platform Director system to deploy a Hyper-V Virtual Edition. For a Hyper-V Virtual Edition, you must deploy the software using Hyper-V tools and then add the instance to the RealPresence Platform Director system.

Choose from the following installation methods:

- Install Polycom RealPresence Resource Manager, Virtual Edition Software with Your Virtual Environment Tools

- Install the Polycom RealPresence Resource Manager System Software Using the RealPresence Platform Director System

Install the Polycom RealPresence Resource Manager System Software Using Your Virtual Environment Tools

If you install the Polycom RealPresence Resource Manager, Virtual Edition, using your virtual environment tools, you will still need to use the RealPresence Platform Director system to manage licensing of your Polycom software.

If installing a Hyper-V version, you must use the **Copy** option.

TASK

1. To install the **Polycom RealPresence Resource Manager** system using your virtual environment tools:

2. Refer to the documentation for your virtual environment tools for instructions on installing a virtual instance.

3. Install an instance of the Polycom RealPresence Resource Manager, Virtual Edition.

4. Assign a static IP address to the instance using the console if your VM environment does not use DHCP.

5. Add the instance to the RealPresence Platform Director system. See the *RealPresence Platform Director Administrator Guide* for details.

Install the Polycom RealPresence Resource Manager System Software Using the RealPresence Platform Director System

If your RealPresence Platform Director system was installed in a VMware vCenter environment with the required credentials, you can use the RealPresence Platform Director system to deploy Polycom software. For complete instructions on how to use the RealPresence Platform Director system see the *Polycom RealPresence Platform Director Administrator Guide.*

You cannot use the RealPresence Platform Director system to deploy a Hyper-V Virtual Edition. For a Hyper-V Virtual Edition, you must deploy the software using Hyper-V tools and the add the instance to the RealPresence Platform Director system.

TASK

1. To install the **Polycom RealPresence Resource Manager** System Soft-
    ware Using the RealPresence Platform Director System:

2. Install an instance of the Polycom RealPresence Resource Manager,
    Virtual Edition, according to the instructions in the Polycom RealPres-
    ence Platform Director Administrator Guide.

Assign a Static IP Address

The Polycom RealPresence Resource Manager system requires a static IP
address for your system's instance. If your VM environment is not using DHCP,
you must assign a static IP with the console before continuing to configure your
system. If your VM environment has a DHCP server, it will assign an IP address
to the instance. You can then assign a static IP using the console or assign the
static IP from the Polycom RealPresence Resource Manager system's web inter-
face during initial configuration.

TASK

1. **To assign an IP address to the system within your virtual environment
    tools:**

2. Power on the newly-installed VM.

3. Access the console.

4. Click in the console window, press **Enter** if necessary to see the login
    prompt, and log in with user ID *polycom* and password *polycom*.

    ADDITIONAL INFORMATION: A shell interface appears that enables you to
    configure the network.

5. Choose option 2 and follow the prompts to configure the initial
    network settings.

    ADDITIONAL INFORMATION: The system reboots.

6. Press *CTRL + ALT* to release the cursor from the console.

    ADDITIONAL INFORMATION: Then close the console window.

Login to the Polycom RealPresence Resource Manager System, Virtual Edition

You need to log on to your to the Polycom RealPresence Resource Manager,
Virtual Edition system to continue system setup.

TASK

1. To connect to the Polycom RealPresence Resource Manager system:

2. Be sure the Polycom RealPresence Resource Manager system is powered on and running.

3. Open a browser and enter the system IP address in the address bar.

    ADDITIONAL INFORMATION: `https://<staticipaddress>:8443/flex`

4. When the system login screen appears, if necessary select a different **Language**.

5. Enter the administrator **Username** and **Password**.

    ADDITIONAL INFORMATION: The factory default is `admin/Polycom12#$`.

6. Continue to Initial Configuration.

Appliance Edition Installation

If you have ordered an Appliance edition, you need to set up the appliance. If the Polycom RealPresence Resource Manager system software is not pre-installed on your server, you can install the system software using the Polycom RealPresence Resource Manager, Appliance Edition, DVD.

You'll need to do the following to install an Appliance Edition

*   Review the *Polycom RealPresence Resource Manager System Release Notes*.

*   Verify Shipment Contents

*   Unpack and Install the Hardware

*   Install the Polycom RealPresence Resource Manager System Software

*   Connect to the Polycom RealPresence Resource Manager System, Appliance Edition

Verify Shipment Contents

Polycom Rack Server shipments include the server and other contents. You should verify the type of server and other contents of your shipment when you unpack the system. As noted in the following table, some items may arrive in a separate shipment.

Item	R630 and R620	R220
1 Polycom Rack Server	X	X
1 system DVD	May be shipped separately	May be shipped separately
1 blank USB flash drive (RealPresence DMA and RealPresence Access Director systems ONLY)	X	X
1 USB flash drive labeled *Diagnostics* that contains server diagnostics utilities. Use these utilities only under the direction of Polycom Global Services.	X	X
Power cord(s)	May be shipped separately	May be shipped separately
Rail kit	Slide rails with cable management arm	Static rails
Bezel with Polycom badge	X	X
Polycom RealPresence Resource Manager, Appliance Edition, license and activation key	May be shipped separately	May be shipped separately
Polycom warranty letter	X	X
Product Information Guide	X	X

Unpack and Install the Hardware

The Polycom RealPresence Resource Manager system, Appliance Edition can be installed on the following servers:

- Polycom Rack Server 630 (R630)

- Polycom Rack Server 620 (R620)

- Polycom Rack Server 220 (R220)

You should verify the type of server and other contents of your shipment when you unpack the system.

TASK

1. **To unpack and install the hardware**

2. Examine the shipping container for damage.

   ADDITIONAL INFORMATION: If you find damage, file a claim with the delivery carrier. Polycom is not responsible for damage sustained during shipment of this product.

3. Open and review the container packing slips.

4. Open the container and examine the contents for damage.

   ADDITIONAL INFORMATION: If you find damage, file a claim with the delivery carrier. Keep all shipping materials in case you need them later.

5. Unpack your system and identify each item.

   ADDITIONAL INFORMATION: A single-server Polycom RealPresence Resource Manager system shipment includes the items listed in Shipment Contents.

6. Assemble the rails and install the server in the rack.

   ADDITIONAL INFORMATION: To rack-mount a server, see the following instructions:

   - Polycom Rack Server 630 (R630) server:

     http://www.dell.com/support/home/us/en/04/product-support/product/poweredge-r630/manuals

   - Polycom Rack Server 620 (R620) server:

     http://www.dell.com/support/home/us/en/04/product-support/product/poweredge-r620/manuals

   - Polycom Rack Server 220 (R220) server:

     http://www.dell.com/support/home/us/en/04/product-support/product/poweredge-r220/manuals

7. Connect the server's power cable(s) to the server and connect a VGA cable from the server to the monitor.

8. Connect all power cables into a grounded electrical outlet or separate power source, such as an uninterrupted power supply (UPS) or power distribution unit (PDU).

9. Connect a monitor and keyboard to the server.

10. Press the power button on the server and on the monitor.

    ADDITIONAL INFORMATION: The power indicators should light.

11. Create one access password for the system BIOS.

12. Set the correct system time in the system BIOS.

13. Install the bezel (optional).

14. **For Polycom Rack Server 630 (R630) or 620 (R620) servers only**: Connect the GB 1 Ethernet port to the enterprise network.

    ADDITIONAL INFORMATION: The GB 1 Ethernet port is the eth0 network interface, which must be used for this purpose.

15. **For Polycom Rack Server 220 (R220) servers only**: Connect the Port 0 Ethernet port to the enterprise network.

    ADDITIONAL INFORMATION: The Port 0 Ethernet port is the eth0 network interface, which must be used for this purpose.

Install the Polycom RealPresence Resource Manager System Software

You can install the system software using the Polycom RealPresence Resource Manager system DVD.

TASK

1. **To install the system software manually:**

2. Insert the DVD into the server and turn on the server.

3. At the system prompts, configure the following settings for your system and press **Enter** after you complete each setting.

    ADDITIONAL INFORMATION: **Note:** To accept the default settings, press **Enter** at each prompt without changing the default information.

Prompt	Default Setting
Enter the Polycom RealPresence Resource Manager system host name	PLCM_RPRM
Enter the system domain name	
Enter the system host IP address	192.168.200.11
Enter the netmask for the system	255.255.255.0
Enter the Default Gateway for the system	192.168.200.1
Enter a DNS for the system	198.168.1.100
Enter the profile type	2

System default settings can be revised after installation

If you accept the system default settings during the initial installation, you can later revise the settings from the Polycom RealPresence Resource Manager system web user interface.

4.   Press **Enter** to start the installation process.

ADDITIONAL INFORMATION: Installation takes approximately 15 minutes, after
which the DVD ejects and the server restarts.

Connect to the Polycom RealPresence Resource Manager System, Appliance Edition

You need to power on and connect Polycom RealPresence Resource Manager
system, Appliance Edition system to the network through a ethernet port and
then login to continue system setup.

TASK

1.   To connect to the RealPresence Resource Manager system:

2.   Power on the computer and the system server.

3.   Open a browser and enter the system IP address in the address bar.

ADDITIONAL INFORMATION: `https://<systemipaddress>:8443/flex`

4.   Enter the administrator **Username** and **Password**.

ADDITIONAL INFORMATION: The factory default is `admin/Polycom12#$`.

5.   Continue to Initial Configuration.

Initial Configuration

When you log into a Polycom RealPresence Resource Manager system that has not been configured, the First Time Setup Wizard automatically steps you through a series of ordered configuration pages. You cannot use the system until you've completed the steps in the first time setup.

NOTE: ***Appliance Edition Network Connectivity***

You perform the first time setup of thePolycom RealPresence Resource Manager, Appliance Edition, system when it is not yet on the corporate network. This means you need to manually verify that the network addresses you are using for services such as an NTP, DNS, or OCSP are correct.

The Polycom RealPresence Resource Manager system cannot check these addresses until placed on the network. If these network settings are entered incorrectly, thePolycom RealPresence Resource Manager system may not start properly or be unreachable.

Note that changing configuration settings on some pages of the First Time Setup Wizard, such as the **System Information** page, will cause the system to reboot. When you log into a system after one of these reboots, the next page in the ordered configuration pages appears.

Complete the First Time Setup Wizard

The first time setup wizard walks you through setting up the initial configuration of your Polycom RealPresence Resource Manager system.

TASK

1.   To complete the first-time setup wizard

2.   Navigate to the URL of the Polycom RealPresence Resource Manager system:

      ADDITIONAL INFORMATION: `https://<ipaddress>:8443/flex`

3.   When the system login screen appears, if necessary select a different **Language**.

4.   Enter the administrator **Username** and **Password**.

ADDITIONAL INFORMATION: The factory default is `admin/Polycom12#$`.

5.   Click **Login**.

ADDITIONAL INFORMATION: Because the system has not previously been config-
ured, the **Licensing** page of the setup wizard appears.

EULA License Agreement

6.   Read the end-user license agreement (EULA).

ADDITIONAL INFORMATION: Please note that the EULA includes important defini-
tions and usage limitations that will apply to your installation.

7.   To accept the EULA terms and conditions, click **Accept**.

ADDITIONAL INFORMATION: **Administrator Password**

8.   When the **Change Administrator Password** page appears, enter the
Old Password.

9.   For the **New Password**, enter a new password with a length of at least
ten characters.

10.   **Confirm the New Password** and click **Next**.

ADDITIONAL INFORMATION: The **Network** page appears.

NOTE: *Network Settings*

11.   Enter the **Network Settings** information recorded in Complete the
First Time Setup Wizard and click **Next**.

ADDITIONAL INFORMATION: The **System Time** page appears.

System Time

12. Configure these settings on the **System Time** page, as necessary.

ADDITIONAL INFORMATION:

Field	Description
System Time Zone	The time zone in which the system server resides.
Use Current Time	Select this check box to input the current date and time. Even if you plan on using an NTP server, you should set the proper time during first-time setup to ensure certificate creation works reliably.
Current Date	The system date for the system.
Current Time	The system time for the system.
Use External NTP Server Time Synchro nization	(Recommended) Select this check box to synchronize the system date and time with an external NTP server. Do this ONLY after you have first manually set the local system time.
IP address or DNS resolved names separate d by spaces	The IP address or fully qualified domain name (ASCII only) of the NTP servers. • For Appliance Editions, enter the IP address of external NTP time server (optional). • For Virtual Editions, the value for NTP server is inherited from the RealPresence Platform Director system.

If you set the system to use an external NTP server without first setting the current date and time, the system time may be wrong until the system's first synchronization.

13. Click **Next**.

ADDITIONAL INFORMATION: The **Certificates** page appears. By default the system is configured to use a default self-signed certificate. Click **Yes** to confirm.

Certificate Management

14. You can skip the certificates screen and return to it after you complete first time setup.

ADDITIONAL INFORMATION: If you have changed the system name of the RealPresence Resource Manager you can generate a new self-signed certificate at this time.

15. Click **Next**.

    ADDITIONAL INFORMATION: ***System Reboot***

16. When prompted to reboot, click **Commit the Settings and Reboot**.

    ADDITIONAL INFORMATION: The system displays a confirmation message.

17. Click **Yes**.

    ADDITIONAL INFORMATION: The system reboots.

18. Close your browser and wait at least five minutes.

    ADDITIONAL INFORMATION: Wait for the system to completely reboot.

19. Login using the newly configured local administrator name and password.

20. Click Next.

    ADDITIONAL INFORMATION: ***Enterprise Directory Server Configuration***

21. To integrate the system with an enterprise Active Directory server so that users can include enterprise groups, users, and rooms in their conferences:

    a   On the **Enterprise Directory** page, select **Integrate with Enterprise Directory Server**.

    b   To have the system auto-discover the server by querying DNS, enable **Auto-discover** in the **Enterprise Directory Server DNS Name** section; otherwise, enter the **DNS Name** for the enterprise directory server.

22. As needed, configure these settings.

    ADDITIONAL INFORMATION:

Setting	Description
Domain\Enterprise Directory User ID	Domain and Enterprise Directory User ID for an account that the RealPresence system can use to access the enterprise directory server and retrieve group, user, and room information. This is the account created when you completed the Pre-stage a Computer Account step. This User ID must have read permissions so it can search the entire forest on the enterprise directory server. This User ID is automatically associated with the Polycom RealPresence Resource Manager system administrator role - by default it is the ONLY enterprise directory User ID with this role.
Enterprise Directory User Password	The password for the enterprise directory user account

Setting	Description
Security Level	The level of security on the connection between the RealPresence Resource Manager system and the enterprise directory server. Possible values include: • **Plain**—No security on the connection • **LDAPS**—The connection is secured over outbound port 3269 using LDAP-S in a manner similar to `https`. If the "Domain Controller: LDAP Server signing requirements" setting on the Active Directory server is set to "Require Signing", then you must use LDAPS to secure the connection. • **StartTLS**—The connection is secured over outbound port 3268 (the same port as **Plain**), but it then negotiates security once the socket is opened. Some LDAP servers reject any unsecured transactions, so the first command is the `StartTLS` negotiation command.
Ignore Disabled Enterprise Directory Users	Check this field to have the Polycom RealPresence Resource Manager system ignore disabled enterprise users in its queries.
Enterprise Directory Exclusion Filter	If necessary and you understand the filter syntax, specify other types of user accounts to exclude. Don't edit these expressions unless you understand LDAP filter syntax.
Enterprise Directory Search BaseDN	If necessary and you understand the filter syntax, specify the top level of the enterprise directory tree (referred to as the base DN) to search. Don't edit these expressions unless you understand the filter syntax.

23. To integrate the system with an Active Directory domain controller for single sign-on authentication:

   a   On the **Enterprise Directory** page, select **Allow Delegated Authentication to Enterprise Directory Server**.

   ADDITIONAL INFORMATION: The system can auto-discover the closest logical domain controller and Active Directory servers, but to do this the network DNS server must have a DNS SRV record for these servers.

   b   If your network DNS server has a DNS SRV record for the domain controller, in the **Domain controller name** section enable **Auto-discover**; otherwise, enter the **Fully Qualified Host Name** of the domain controller (for example, `dc1.mydomain.com`).

   ADDITIONAL INFORMATION: The pre-staged computer account must be within this domain as well.

   c   In the **Computer Account Credentials** section, enter the **Domain\Computer Name** and **Password** for the pre-staged computer account created in step Complete the First Time Setup Wizard.

24. Click **Next**.

    ADDITIONAL INFORMATION: The **Directory Setup** page appears.

    Directory Configuration

25. On the **Directory Setup** page:

    a   To allow non-LDAP directory protocols, select the **Allow non-LDAP directory protocols.**

    b   To exclude users with dynamically-managed endpoints from the Global Address Book, clear the **Include dynamically-managed devices in the Global Address Book** option.

          ADDITIONAL INFORMATION: Note that VVX system endpoints and CMA Desktop and RealPresence Mobile clients are always dynamically-managed.

    c   To exclude guestbook entries from the enterprise directory, clear the **Show Guestbook Entries in the Directory** option.

    d   Select the **Allow endpoint directories for local users to include enterprise directory user and group information** if you want that option.

          ADDITIONAL INFORMATION: You can allow local users to access Enterprise Directory entries when the RealPresence Resource Manager is integrated with an enterprise directory.

    e   If your video network includes LifeSize endpoints, select the **Modify Directory Listings for LifeSize® Endpoint Support** option.

26. Click **Next**.

    ADDITIONAL INFORMATION: The system displays the message that you have completed first time setup. You have the option of logging out of the system or being redirected to the system **Dashboard**.

27. Click **Next** to go to the system **Dashboard**.

System Licenses

Once you've finished first time setup, you will need to license your system. This process depends on which edition you have installed.

* License Your Virtual Edition with RealPresence Platform Director

* License Your Appliance Edition System

License Your Virtual Edition with RealPresence Platform Director

You will need to ensure the RealPresence Platform Director system can communicate with your Virtual Edition so it can be licensed and monitored.

- If you used the RealPresence Platform Director system to deploy your RealPresence Resource Manager system, this is done automatically.

- If you used your virtual environment tools to install the system, you need to add your system instance to the RealPresence Platform Director if you have not done so already.

    For complete instructions on how to use the RealPresence Platform Director system, see the *RealPresence Platform Director System Administrator Guide*.

License Your Appliance Edition System

If you deployed an Appliance Edition system, you need to license the system using an activation key code or license file.

For complete instructions on how to license your Appliance Edition system, see the *Polycom RealPresence Resource Manager System Operations Guide* or online help.

Additional Configuration

Additional configuration tasks are discussed in Chapter 2 of the *Polycom RealPresence Resource Manager System Operations Guide*. For example:

- Configure your system for redundancy, if applicable.

- Set up your site topology.

- As needed:

- Integrate with a RealPresence DMA system for gatekeeper, SIP registrar, and virtual meeting room services.

- Integrate the system with a Microsoft Active Directory.

- Configure Areas. (Area functionality is a separately licensed feature.)

- Associate users with roles. You will need at least one user with the device administrator role who will be able to create machine accounts for devices. You will also need at least one user assigned to the role of operator or scheduler/advanced schedule so conferences can be scheduled.

- Associate users with endpoints.

- Create provisioning profiles and rules for dynamically managed endpoints.

- Add MCUs.