Polycom® RealPresence® Video DualManager 400 System

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Use of this software constitutes acceptance of the terms and conditions of the Polycom RealPresence Video DualManager 400 system end-user license agreement (EULA).

The EULA for this product is available on the Polycom Support page for the product.

Contents

About This Guide

This guide provides the first time setup information you need to install and configure a Polycom®
RealPresence® Video DualManagerVideo DualManager 400 system.

The RealPresence Video DualManagerVideo DualManager 400 system is a video conference
management system scaled for small and medium sized businesses. It includes instances of two of the
major Polycom RealPresence Platform management systems on a single hardware host—a
Polycom-branded Dell PowerEdge R620 server. The two components it includes are:

- An instance of the Polycom RealPresence Resource Manager system
- An instance of the Polycom RealPresence DMA system

Documentation Resources

In addition to this guide, the available documentation specifically related to the RealPresence Video
DualManager system includes:

- *Polycom RealPresenceVideo DualManager 400 Video DualManager System Release Notes*

  Provides the information users need to know about the specific release of the system they're
  implementing.

- *Polycom CMA 4000 to RealPresence Video DualManager 400 System Migration Guide*

  Provides the information Polycom CMA 4000 system owners need to migrate their CMA 4000 system
  to a RealPresence Video DualManagerVideo DualManager 400 system.

> Because the virtual instances of the RealPresence Resource Manager and
> RealPresence DMA systems are operationally equivalent to their full editions, you
> should also refer to the product documentation for those products. Note that for
> user convenience, these systems also have context-sensitive online help available
> through the user interface.

Audience

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
RealPresence Video DualManagerVideo DualManager 400 system that has never been previously
configured. Refer to the *Polycom CMA 4000 to RealPresence Video DualManager 400 System Migration
Guide* if you are migrating an existing system to the RealPresence Video DualManagerVideo DualManager
400 system.

Polycom® RealPresence® Video DualManager 400 System Server Setup

The sections that follow describe the steps required to perform the initial installation and setup of a Polycom RealPresence Video DualManager 400 system including:

- Collect Necessary Materials
- Complete the First Time Setup Worksheets
- Set up DNS Host and Service Records
- Pre-stage a Computer Account

Collect Necessary Materials

Before you install a RealPresence Video DualManager 400 system, collect these materials:

- *Polycom RealPresence Video DualManager 400 System Release Notes*
- Polycom RealPresence Video DualManager 400 system server shipment
- Completed First-Time Setup Worksheet (see Complete the First Time Setup Worksheets on page 6)
- Keyboard and VGA Monitor
- Ethernet crossover cable
- PC running Microsoft® Windows® (XP Pro, Vista, or Windows 7) with:
  - ➢ 1280x1024 (SXGA) minimum display resolution; 1680x1050 (WSXGA+) or greater recommended
  - ➢ Ethernet port
  - ➢ Java™ 1.6 or newer
  - ➢ Microsoft Internet Explorer® 7 or newer
  - ➢ Adobe® Flash® Player

> The system's management interface requires Adobe Flash Player. For stability and security reasons, we recommend always using the latest version of Flash Player.
>
> Even so, be aware that your browser's Flash plug-in may hang or crash from time to time. Your browser should alert you when this happens and enable you to reload the plugin. In some cases, you may need to close and restart your browser.
>
> In the Google Chrome browser, use the Adobe Flash plug-in, not the built-in Flash support.

Complete the First Time Setup Worksheets

Before you begin the migration process, fill out the *My System Values* columns of the worksheets for each application of the RealPresence Video DualManager system.

RealPresence Resource Manager System First Time Setup Worksheet

Configuration Information	My System Values	Factory-Set Values	Description
System Network Settings (from Admin > Server Settings > Network)			
System Name		PLCM_RPRM	System name of the 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 RealPresence Resource Manager system. Set the level between 0 - 63.
IPv6 Address			IPv6 global address
IPv6 Default Gateway			The IPv6 address of the gateway server/router. For IPv6 networks only.
IPV6 Link Local Address			Read-only field. The RealPresence Resource Manager system generates a value for this field when IPv6 is enabled.
IPv4 Address			Static IP address for the RealPresence Resource Manager system on an IPv4 network. 192.168.1.254 is the default value that needs to be changed according to your own network. We recommend keeping the IP address the same as the CMA system IP address to simplify the migration process.
IPv4 Subnet Mask			Network subnet mask of the RealPresence Resource Manager system. For IPv4 networks only.
IPv4 Default Gateway			IP address of the gateway server/router. For IPv4 networks only. 192.168.1.1 is the default value. You need to change this to match the gateway IP for your network.

Configuration Information	My System Values	Factory-Set Values	Description
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. Must be in the same IP address format as the preferred DNS server.
Enable 802.1.x		Disabled	Enable 802.1.x if your network requires this type of authentication.
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)			
System Time Zone			
Current Date			
Current Time			
External NTP Server			IP address of external NTP time server (optional).

Polycom DMA System First Time Setup Worksheet

Configuration Information	My System Values	Description
System IP type		Specify whether the DMA 7000 system should support IPv4, IPv6, or both. If both, complete all the IP address information below. If only IPv4 or IPv6, complete only the corresponding fields below.
System server configuration	1 server configuration	RealPresence Video DualManager 400 systems ***must*** be single-server systems.
System split network setting	Combined network interfaces	RealPresence Video DualManager 400 systems ***must*** combine the system's management and signaling interfaces.
Server 1		Only the Server 1 settings are used for the RealPresence Video DualManager 400 system.
Management host name		Local host name of the DMA 7000 system application. The host name may contain only letters, numbers, and internal dashes (hyphens), and may not include a domain. The reserved values appserv* and dmamgk-* may not be used for host names. The host name is combined with the domain name specified under **General System Network Settings** to form the fully qualified domain name (FQDN).
Management IPv4		Static, physical IP address for the component's combined interface.
Management IPv6		
Signaling IPv4		These settings are not used.
Signaling IPv6		
Server 2		These settings are not used.
Shared Management Network Settings		In the combined network configuration required for RealPresence Video DualManager 400 systems, these settings are used for both management and signaling.
Virtual management host name		Not used for a RealPresence Video DualManager 400 deployment with IPv4 enabled. The host name may contain only letters, numbers, and internal dashes (hyphens), and may not include a domain. The reserved values appserv* and dmamgk-* may not be used for host names. The host name is combined with the domain name specified under **General System Network Settings** to form the fully qualified domain name (FQDN).

Configuration Information	My System Values	Description
Virtual management IPv4		These settings are not used.
Virtual management IPv6		
Subnet mask		IPv4 network mask that defines the subnetwork of the application's management interface.
IPv6 prefix length		IPv6 CIDR (Classless Inter-Domain Routing) prefix size value (the number of leading 1 bits in the routing prefix mask) that defines the subnetwork of the application's management interface.
IPv4 gateway		IP address of the gateway server used to route network traffic outside the subnet.
Auto-negotiation		Yes or no. If no, indicate speed and full or half duplex. **Note:** Auto-negotiation is required if your network is 1000Base-T.
Lan Security Settings		
Enable 802.1x		These settings are not used. Do **not** select ***Enable 802.1x***.
Shared Signaling Network Settings		These settings are not used.
General System Network Settings		
DNS search domains		Space- or comma-separated list of fully qualified domain names to query on the DNS servers to resolve host names (optional). The system domain is added automatically; you don't need to enter it.
DNS 1		IP address of the primary Domain Name System server. At least one DNS server is required. Your DMA 7000 system application must be accessible by its host name, not just its IP address, so you (or your DNS administrator) must create A (address) resource records (RRs) for IPv4 and/or AAAA records for IPv6 on your DNS server(s). A/AAAA records that map the IP address to the host name are mandatory.
DNS 2		IP address of a second DNS server (optional, but recommended).
DNS 3		IP address of a third DNS server (optional).

Configuration Information	My System Values	Description
Domain		The domain for the system. This is combined with the host name to form the fully qualified domain name (FQDN). For instance: Host name: *vdm-dma1* Domain: *video.example.com* FQDN: *vdm-dma1.video.example.com*
Signaling DSCP		The Differentiated Services Code Point value (0 - 63) to put in the DS field of IP packet headers on outbound packets associated with signaling traffic. The DSCP value is used to classify packets for quality of service (QoS) purposes. If you're not sure what value to use, leave the default of 0.
Management DSCP		The Differentiated Services Code Point value (0 - 63) to put in the DS field of IP packet headers on outbound packets associated with management traffic. The DSCP value is used to classify packets for quality of service (QoS) purposes. If you're not sure what value to use, leave the default of 0.
Default IPv6 gateway		The IPv6 gateway's address and the interface used to access it, generally eth0, specified as: *<IPv6_address>*%eth0
Default IPv4 gateway		This setting is not used.
System Time Settings		
Time zone		Time zone in which the system is located. We strongly recommend selecting the time zone of a specific geographic location (such as America/Denver), not one of the generic GMT offsets (such as GMT+7). If you really want to use a generic GMT offset (for instance, to prevent automatic daylight saving time adjustments), note that they use the Linux/Posix convention of specifying how many hours ahead of or behind local time GMT is. Thus, the generic equivalent of America/Denver (UTC-07:00) is GMT+07, not GMT-07.
NTP server #1		IP address of the primary NTP time server. Use of time servers is strongly recommended. All the devices in your video conferencing deployment should use the same time servers to avoid potential problems caused by time differences among devices.
NTP server #2		IP address of a second NTP time server (optional, but strongly recommended).

Configuration Information	My System Values	Description
NTP server #3		IP address of a third NTP time server (optional, but strongly recommended).
Routing Configuration		Special routing rules are generally not needed in the combined network configuration required in RealPresence Video DualManager 400 systems; the operating system's underlying routing configuration is generally sufficient. If you aren't sure, consult the appropriate IT staff or network administrator for your organization.
Destination host/network		The IP address of the destination network host or segment.
Prefix length		The CIDR (Classless Inter-Domain Routing) value that, together with the destination host/network address, defines the subnet for this route. For IPv4, a prefix length of 24 is equivalent to specifying a subnet mask of 255.255.255.0. A prefix length of 16 is equivalent to specifying a subnet mask of 255.255.0.0.
Interface		Specify the interface for this route. In the combined network configuration required in RealPresence Video DualManager 400 systems, this is eth0.
Via		IP address of router for this route. Optional and only needed for non-default routers.

Set up DNS Host and Service Records

RealPresence Resource Manager and DMA systems must be accessible by their host names, not just their IP addresses, so before system installation, Polycom recommends configuring your DNS servers to:

● Resolve queries for the RealPresence Resource Manager and DMA systems by host name.

● Resolve reverse lookup queries for the RealPresence Resource Manager and DMA systems.

● Identify the RealPresence Resource Manager and DMA systems services on the network.

The DNS server(s) should also have entries for your Active Directory server, mail server, and gatekeeper.

DNS Host Records

You (or your DNS administrator) must create A (address) resource records (RRs) on your DNS server(s) for the RealPresence Resource Manager and DMA systems. Address records that map each physical host name to the corresponding physical IP address are mandatory.

To allow your DNS servers to resolve queries for the systems by reverse lookup, you must also enter a DNS pointer (PTR) record in your DNS file.

You may need to create additional DNS records as described in the following sections.

Additional DNS Records for SIP Proxy

To support the use of your Polycom DMA system as a SIP proxy server and ease future network administrative burdens, create the following DNS records:

● (Optional) NAPTR records that describe the transport protocols supported by the SIP proxies at a domain and identify the preferred protocol. Configure these statically to match the system's SIP transport protocol configuration.

● SRV records for each transport protocol that identify the host name of the SIP proxy that services a particular domain. Configure these statically to point to the host name of the Call Server in the domain. Here are example records for a system:

```
_sips._tcp.example.com. 86400 IN SRV 10 1001 5061 dma-asia.example.com.
_sip._tcp.example.com. 86400 IN SRV 20 1001 5060 dma-asia.example.com.
_sip._udp.example.com. 86400 IN SRV 30 1001 5060 dma-asia.example.com.
```

To enable access from the public internet, create corresponding SRV records, visible from outside the firewall, for the public address of each SIP session border controller (SBC).

Additional DNS Records for H.323 Gatekeeper

To support the use of your Polycom DMA system as an H.323 gatekeeper and ease future network administrative burdens, create SRV records that identify the host name of the gatekeeper that services the domain. These records are necessary in order to enable the optional inbound URL dialing feature. Configure them statically to point to the host name of the Call Server in the domain. Here are example SRV records for a system:

```
_h323ls._udp.example.com.  86400 IN SRV 0 1 1719 dma-asia.example.com.
_h323cs._tcp.example.com.  86400 IN SRV 0 1 1720 dma-asia.example.com.
```

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 administrator must first pre-stage an Active Directory computer account for the RealPresence Resource Manager system component of the RealPresence Video DualManager 400 system.

To pre-stage a computer account

1 On the Active Directory system, use the Microsoft **Active Directory Users and Computers** MMC snap-in to create a computer account for the RealPresence Resource Manager system. Create the computer account in any desired organizational 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.

2 From a command window on the Domain Controller, type:

```
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 literally **/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.

Polycom® RealPresence® Video DualManager 400 System Software Setup

The sections that follow describe how to perform an initial installation and setup of the RealPresence Resource Manager and RealPresence DMA systems that are included in the RealPresence Video DualManager 400 system. The sections include:

Unpack and Install the Hardware Components

The RealPresence Video DualManager 400 system uses a Polycom-branded Dell PowerEdge R620 server.

To unpack and install the system hardware:

1 Examine the RealPresence Video DualManager 400 system shipping container for damage. Polycom is not responsible for damage sustained during shipment.

2 Open and review the container packing slips.

3 Open the containers and examine the contents. A single-server RealPresence Video DualManager 400 system shipment includes:

➢ 1 RealPresence Video DualManager 400 system server

➢ Power cord

➢ 1 rack-mount kit (four-post)

➢ 1 bezel assembly and key

➢ 1 copy of the *Polycom RealPresence Video DualManager 400 System Quick Start Guide* (which includes this procedure)

➢ 1 RealPresence Video DualManager 400 system recovery disk (included for recovery purposes; the software on the disk is already installed on the server)

➢ A USB memory stick with server diagnostics utilities (to be used only under the direction of Polycom Global Services)

➢ 1 USB memory stick containing Dell Diagnostics server utilities (intended only for use under Polycom Global Services direction)

➢ The server *Product Information Guide*

4 Examine the contents for damage.

If you find damage, file a claim with the delivery carrier. Polycom is not responsible for damage sustained during shipment.

5 Unpack your system and identify each item. Keep all shipping materials in case you need them later.

6 Examine the contents for damage. Again, if you find damage, file a claim with the delivery carrier.

7 Unpack your system and identify each item. Keep all shipping materials in case you need them later.

8 Assemble the rails and install the server in the rack. To rack-mount a server, see the *Rack Installation Guide* (available at http://support.dell.com/support/edocs/systems/peR620/en/index.htm).
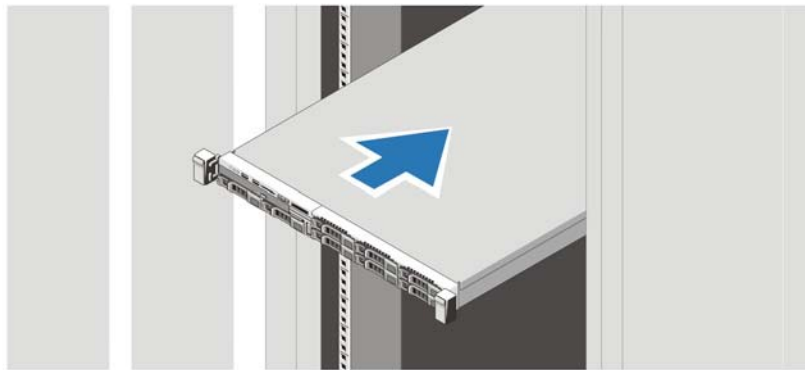
9 Connect the power cable to the system and, if a monitor is used, connect the monitor's power cable to the monitor.

10 Plug the other end of the cable into a grounded electrical outlet or separate power source such as an uninterrupted power supply (UPS) or a power distribution unit (PDU).

11 Press the power button on the system and the monitor. The power indicators should light.
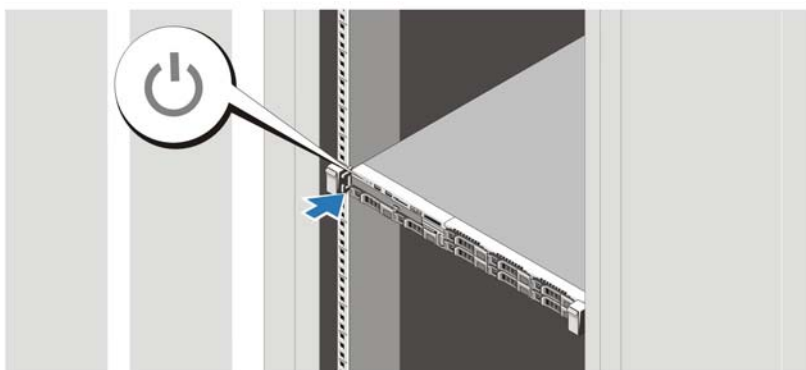
12 Power on the computer and the system server.

RealPresence Resource Manager System Setup-Part 1

To step through the RealPresence Resource Manager system First Time Setup

1 Disable all wireless connectivity on the PC and verify that the PC is not connected to a network.

2 Connect one end of a crossover Ethernet cable to the **Gb 1** port of the system server, and the other end of the cable to the PC's Ethernet port.

3 Configure the PC with a static IP address on the network `192.168.1.x` (for example, `192.168.1.5`). See the product documentation for your PC, for information on changing the IP address.

4 Using a web browser, browse to the IP address `192.168.1.254`.

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

The factory default is `admin/admin`.

6 Click **Login**.

Because the system has not previously been configured, the Licensing page of the setup wizard appears.

EULA License Agreement

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

Please note that the EULA includes important definitions and usage limitations that will apply to your installation.

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

Administrator Password

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

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

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

The **Network** page appears.

Network Settings

12 Enter configuration values obtained from the *First Time Setup Worksheet* on page 7 in the following fields:

- **System Name**
- **IPv4 Address**
- **IPv4 Subnet Mask**
- **IPv4 Default Gateway**

13 Click **Next.**

The **System Time** page appears.

System Time

14 Configure these settings on the **System Time** page, as necessary:

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.
Current Date	The system date for the system.
Current Time	The system time for the system.
Use External NTP Server Time Synchronization	(Recommended) Select this check box to synchronize the system date and time with an external NTP server.
IP address or DNS resolved names separated by commas	The IP address or fully qualified domain name (ASCII only) of the NTP server.

> 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.

15 Click **Next**.

The **Certificates** page appears. By default the system is configured to use a default self-signed certificate.

Certificate Management

16 To configure and install other certificates for the system, refer to the *Polycom RealPresence Resource Manager System Operations Guide*.

Optionally, you can configure and install other certificates at a later date.

17 Click **Next**.

18 When prompted to reboot, click **Commit the Settings and Restart**.

The system displays a confirmation message.

19 Click **Yes**.

The system reboots. Allow the system at least 15 minutes to restart to ensure all required services are available.

RealPresence DMA System Setup

While the RealPresence Resource Manager system is rebooting, you can log in to the DMA system and configure its network settings.

To configure DMA system network settings

1 Open a browser window to the IP address `192.168.1.101`.

The RealPresence DMA system's login page appears.

2 Log in with user ID `admin` and password `admin`.

The Polycom DMA system's management interface appears, displaying the **Dashboard**.

Network Settings

3 Go to **Admin > Local Cluster > Network Settings** and select the **System IP type** specified on the *First-Time Setup Worksheet.*

4 Enter the network values from the *First-Time Setup Worksheet.*

5 Click **Update**. When asked to confirm restarting the system, click **OK**.

The system restarts.

6 Disconnect the crossover cable from the system server.

7 Reconnect the standard Ethernet cable to the **Gb 1** port of the system server.

8 Return the PC's network configuration to its original settings.

System Time

9 From a PC with network access to the Polycom DMA system, point your browser to the host name or IP address you assigned to the system and log in with user ID **admin** and password **admin**.

10 Go to **Admin > Local Cluster > Time Settings** and do the following:

a Select the correct System time zone for your location.

We strongly recommend selecting the best location-specific setting, not one of the generic GMT offset settings. If you need to use a generic GMT offset, note that they use the Linux/POSIX convention of specifying how many hours ahead of or behind local time GMT is. Thus, the generic equivalent of America/Denver (UTC-07:00) is GMT+07, not GMT-07.

b Under NTP servers, enter the IP addresses (or domain names) for the time servers from the First-Time Setup Worksheet.

We strongly recommend specifying at least one and preferably three time servers. Use NTP stratum 3 quality time servers if possible. At least one time server must be specified before creating or joining a supercluster.

c Click Update. When asked to confirm restarting the system, click Yes.

The system reboots. Allow the system at least 15 minutes to ensure that all required services are available.

RealPresence Resource Manager System Setup-Part 2

To complete the RealPresence Resource Manager system First Time Setup

1 Log in to the RealPresence Resource Manager system using the IP address and the administrator password you configured earlier and click Next.

The **Enterprise Directory** page appears.

Enterprise Directory Server Configuration

2 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.

3 As needed, configure these settings.

Setting	Description
Domain\Enterprise Directory User ID	Domain and Enterprise Directory User ID for an account that the RealPresence Video DualManager 400 system can use to access the enterprise directory server and retrieve group, user, and room information. This is the account created Pre-stage a Computer Account on page 12.
	This User ID must have read permissions so it can search the entire forest on the enterprise directory server.
	In maximum security environments, this User ID is automatically associated with the RealPresence Resource Manager system No Defined Role.
	In non-maximum security environments, this User ID is automatically associated with the RealPresence Video DualManager 400 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 Video DualManager 400 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 RealPresence Video DualManager 400 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.

4 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.

     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). 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 "Pre-stage a Computer Account" on page 7.

5 Click Next.

   The Directory Setup page appears.

Directory Configuration

6 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.

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

7 Click Next.

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.

8 Click Next to go to the system Dashboard.

Once system setup is complete, you can request licenses for each application of the RealPresence Video
DualManager 400 system.

Request Component System Licenses

To request licenses for the RealPresencec Video DualManager 400 component systems

Obtain component system serial numbers

1 Open a new browser page or tab and log into the RealPresence Resource Manager system as an
administrator.

2 Go to **Admin > Server Settings > Licenses** and record the system serial number:

_____.

3 Open another new browser page or tab and log into the DMA system as an administrator.

4 Go to **Admin > Local Cluster > Licenses** and record the system serial number:

_____.

Access the License Activation page

5 Open a new browser page or tab and go to http://support.polycom.com.

6 In the **Licensing & Product Registration** section, select **Activation/Upgrade**.

7 In the popup that appears, select **All Other Polycom Products**.

8 Log in or **Register for an Account**.

The **License and Product Activation** page appears.

9 Select **Site & Single Activation/Upgrade**.

Activate the RealPresence Resource Manager system license

10 In the **Site & Single Activation** page, enter the serial number you recorded for the RealPresence
Resource Manager system in step 2.

11 Click **Next**.

12 Accept the **EXPORT RESTRICTION** agreement.

13 In the new **Site & Single Activation** page, enter the serial number listed on your License Certificate and enter the license number (shipped with the system server) and click **Activate.**

14 To download your license file, in the **Key Code** field, click **Click here to download** and save the file to your system.

Activate the DMA system license

15 In the **Site & Single Activation** page, click [**Back**] .

16 In the new **Site & Single Activation** page, enter the serial number for the DMA system recorded in step 4.

17 Click **Next**.

18 Accept the **EXPORT RESTRICTION** agreement.

19 In the new **Site & Single Activation** page, enter the serial number listed on your License Certificate and enter the license number (shipped with the DVD Migration Kit) and click **Activate.**

20 In the **Key Code** field, record the key code that appears:

_____.

Install Component System Licenses

To update the license for a RealPresence Resource Manager system

1 Open a new browser page or tab and log into the RealPresence Resource Manager system as an administrator.

2 Go to **Admin > Server Settings > Licenses**.

3 Click **Update License** to view the **Update License** dialog box.

4 Click **Choose File** to navigate to the license file you received from Polycom.

5 Click **Preview** to preview the license features.

6 On the **Update License** dialog box, click **Update**.

To update a license for the DMA system

1 Open a new browser page or tab and log into the DMA system as an administrator.

2 Go to **Admin > Local Cluster > Licenses**.

3 Under the **Activation Keys** area, enter the license number you received from Polycom in the **Activation Key** text field.

4 Click **Update**.

Complete System Configurations

Once you have finished the initial set up of the Polycom RealPresence Video DualManager component systems, you will need to perform additional configuration tasks on both component systems.

- On the RealPresence Resource Manager system, set up"
  - ➢ The connection to an external enterprise directory server
  - ➢ Directory services
  - ➢ Site topology
  - ➢ Integration with the DMA system
  - ➢ Integration with other network devices
  - ➢ Conference templates
  - ➢ Certificates and security
- On the DMA system, verify the integration with the RealPresence Resource Manager system and site topology, which should occur as a result of the Integration with the DMA system task described above. Then set up:
  - ➢ The connection to an external enterprise directory server
  - ➢ Signaling
  - ➢ The call server
  - ➢ Certificates and security
  - ➢ Integration with the MCUs
  - ➢ Conference templates

Refer to the appropriate product documentation for background and overview information for it, and where appropriate, links to specific step-by-step procedures to follow in order to complete the task.