Polycom® Device Management Service for Enterprise

Contents

Before You Begin

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This Guide provides information on how to use Polycom Device Management Service for Enterprise to manage and provision endpoints.

Related Documentation

The following documentation provides additional information on Polycom products and services.

You can view the following types of documents:

- [Polycom Polycom Device Management Service for Enterprise Security and Privacy White Paper](#) — This white paper addresses security and privacy related information regarding the Polycom Device Management Service for Enterprise Service. It provides information such as what personal data is collected, how is personal data used, and how long is personal data kept.
- [Polycom Cloud Service Portal Administrator Guide](#) — This guide provides detailed information on how to set up and manage your Polycom Cloud Service.
- [Polycom Companion User Guide](#)— Refer to this guide on how to configure and manage the Polycom Studio USB video bar.
- Polycom Studio Provisioning Reference Guide — This guide provides the parameters that Polycom Device Management Service for Enterprise uses to manage your Polycom Studio USB video bar.
- [Polycom UC Software Administrator Guide](#)— This guide provides detailed information on how to install, provision, and manage Polycom phones.
- [Polycom RealPresence Trio Administrator Guide](#) — Refer to this guide for detailed information on the parameters to use the Polycom Device Management Service for Enterprise service to manage your Polycom Trio™ system.

Getting Help

For more information about installing, configuring, and administering Polycom products, refer to **Documents and Downloads** at [Polycom Support](#).

Polycom and Partner Resources

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.

Getting Started

Topics:

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Polycom Cloud Services amplify your device experience on the platform of your choice with backend management tools and innovations that create an excellent end user & IT support experience.

By leveraging cloud technology, we can deliver the specific solutions to address your unique needs as an enterprise or a service provider.

Overview

Polycom Device Management Service has two services:

- **Polycom Device Management Service for Enterprise** : Polycom Device Management Service for Enterprise is a dedicated cloud portal that simplifies the staging, management, and monitoring of your Polycom devices. With Polycom Device Management Service for Enterprise , organizations of any size can apply any one of hundreds of provisioning profiles to enable faster adoption through a custom and consistent user experience. Additionally, enterprise IT administrators can leverage the web portal from anywhere to manage, view, and troubleshoot up to 50,000 Polycom Unified Communication (UC) devices including audio devices and other Polycom UC devices such as Polycom Studio.
- **Polycom Device Management Service for Service Providers**: for Service Providers is an innovative cloud management service that speeds initial deployments, delivers advanced troubleshooting, reduces on-going operating expenses, and helps service providers deliver better life-cycle support to accelerate their business. for Service Providers is designed for maximum scalability supporting millions of devices and flexible enough to support multiple tenants across the globe.

Polycom Device Management Service for Enterprise Overview

The Polycom Device Management Service for Enterprise is a cloud-based device management service for Polycom UC devices including audio devices (both personal and conference based) and other UC devices such as Polycom Studio with the following main features and capabilities.

Integration with Polycom Cloud Relay

Polycom Cloud Relay works as a container for Polycom Management Agent and Polycom Download Agent to access Polycom Device Management Service for Enterprise .

The Polycom Device Management Service for Enterprise can integrate with Polycom Cloud Relay to fully manage your organization's audio devices and Polycom Studio.

Polycom UC Devices Provisioning, Upgrading, and Monitor

provides centralized provisioning for supported devices.

Once provisioned, the service enables you to provision, upgrade, and monitor all your Polycom UC devices including audio devices and other UC devices such as Polycom Studio from a single web page.

Bulk Edit Site or Polycom UC Device Configuration

You can configure sites and Polycom UC devices including phones and other UC devices such as Polycom Studio in bulk by importing and exporting device settings using a CSV file.

Device Group Management

Device groups are logical collections of devices and are used for provisioning and organizational.

You can provision settings for multiple devices together by associating the desired configuration profiles to a device group and then associating devices to the device group.

Navigating the Service

You can navigate the Polycom Device Management Service for Enterprise using the Polycom Cloud Service web interface.

Sign In to the Portal

This account is created as part of the purchase of the Polycom Device Management Service for Enterprise .

You must have a Polycom Cloud Service account to sign in to the Polycom Device Management Service for Enterprise portal.

Procedure

1. Open a web browser and enter the Polycom Cloud Service portal address.
2. Enter your email address and click **Next**.
3. Enter your password.
4. Click **Sign In**.
5. On the Polycom Cloud Service Administration portal, click **PDMS-E**.

Sign Out

Signing out of Polycom Device Management Service for Enterprise signs you out of the Polycom Cloud Service portal.

Procedure

» Click **Username** > **Sign Out** in the upper-right corner of the Polycom Device Management Service for Enterprise portal.

Service Dashboard

When you log in to Polycom Device Management Service for Enterprise , the service first displays the **Dashboard**.

Device Summary

The **Device Summary** pane displays the number of endpoints registered with Polycom Device Management Service for Enterprise .

It displays the number of online and total endpoints.

Device Type

The **Device Type** pane displays the number of registered endpoints by type.

Site

The **Site** pane displays all the sites and the number of endpoints belonging to each site.

Device Group

The **Device Group** pane displays all the device groups and the endpoint number belonging to each device group.

Device Model

The **Device Model** pane displays the number of registered endpoints by endpoint model.

Refresh the Dashboard

When you open the Dashboard, Polycom Device Management Service for Enterprise refreshes the dashboard automatically.

For example, when you log in to Polycom Device Management Service for Enterprise or you go back to the **Dashboard** page, the service refreshes the data on this page.

You can also manually refresh the page.

Procedure

1. Go to the **Dashboard** page.
2. Click the **Refresh** button.

View Account Details

You can find some basic information of the current user on the Polycom Device Management Service for Enterprise portal.

Procedure

1. Click *Username* > **Account Details** in the top-right corner of the Polycom Device Management Service for Enterprise portal.
2. View the login time, user name, and email address.
3. Click **Close**.

Field Input Requirements

If you work in a language other than English, be aware that some Polycom Device Management Service for Enterprise fields accept only ASCII or extended ASCII characters.

You can use "#", ".", "-", "_", "( )" , and "[ ]" in the following fields:

- **Device Name**
- **Device Group Name**
- **Profile Name**
- **Polycom Phone Provisioning Account**
- **Site Name**

You cannot use other special characters in these fields.

Searching and Filtering in a List

You can search or filter some lists where the Polycom Device Management Service for Enterprise summarizes information.

Searching in a List

Lists that include many items may have filters or searchable fields that enable you to view a subset of items or search for a specific entry.

In general, most text filter fields are ASCII only and the Polycom Device Management Service for Enterprise search function is a case-insensitive, substring search. That means when you enter a search string, the Polycom Device Management Service for Enterprise looks for that string wherever it occurs (beginning, middle, or end) in the word or number.

Generally, you can search most text available in a list. You also can even search for any key word in descriptions of the related objects, which may not show up in the list.

The following table lists the fields available for text search.

Filtering in a List

You can click **Filter** ▼ to customize the lists.

The available fields for filtering vary according to the information shown in the list. More precisely, you can locate your target by filtering and searching at the same time. For example, you can find a specific configuration profile by searching a keyword in its profile name within a filtered list of the corresponding type only.

When the search or filter column loses focus or you click somewhere outside the search box or the filter drop-down list, the list gets updated according to the conditions you just set.

If you go to other pages and get back to your filtered page again, the result of your previous filter or search remains on that page. It only gets cleared once you log out or you reset the filter manually.

Polycom Cloud Relay Integration

Topics:

- [Features Enabled by Polycom Cloud Relay](#)
- [Supported Polycom Cloud Relay Topologies](#)
- [Configuring Polycom Cloud Relays](#)

Devices that can't connect directly to the Polycom Device Management Service for Enterprise due to proxy servers or other limitations, can connect through Polycom Cloud Relay.

To enable full feature such as advanced monitoring and scheduled task services, you must use the Polycom Cloud Relay also. Your enterprise may have one or more Polycom Cloud Relay instances. However, you must install the relay(s) within a network where they can directly communicate with the devices that the Polycom Device Management Service for Enterprise manages.

Ensure that each device has a private IP, so that Polycom Cloud Relay can reach the device. You can view or edit the private IP addresses for your devices on the **Device Monitor** page.

When you use Polycom Cloud Relay in conjunction with the Polycom Device Management Service for Enterprise , you gain access to two services: the Polycom Management Agent and the Polycom Device Agent. These agents are pre-configured for enterprise users. You can use the agents for the following tasks:

- The Management Agent sends control commands to devices.
- The Download Agent manages the device images. You can synchronize the devices images to your Download Agent and your devices pull the images from it.

> **Note:** Although Polycom Cloud Relays are not required for all deployments, Polycom strongly recommends due to their lightweight VM footprint and the additional feature benefits only available through Polycom Cloud Relays
>
> If your Polycom Device Management Service for Enterprise license expires, Polycom Cloud Relays are not available for all the deployments.

Features Enabled by Polycom Cloud Relay

The table lists the Polycom Device Management Service for Enterprise features supported with and without a deployed Polycom Cloud Relay.

Feature	With Polycom Cloud Relay Deployed	Without Polycom Cloud Relay Deployed
Device Configuration	Supported	Supported
Device Software Updates	Supported	Supported
Line Registration Status	Supported	Not Supported

Feature	With Polycom Cloud Relay Deployed	Without Polycom Cloud Relay Deployed
Line Registration URI	Supported	Not Supported
Call Status	Supported	Not Supported
Device Uptime	Supported	Not Supported
Last Reboot Time	Supported	Not Supported
Scheduled Tasks	Supported	Not Supported

Supported Polycom Cloud Relay Topologies

Polycom recommends that you provision all devices directly to the Polycom Cloud and leverage Polycom Cloud Relays for all software updates.

This helps to keep your bandwidth usage efficient.

Polycom Device Management Service Without Polycom Cloud Relay

You can use a topology without an integrated Polycom Cloud Relay if your registered devices can directly connect to the Polycom Device Management Service for Enterprise .

These devices are usually on the internet.

In this topology, devices connect directly to the Polycom Cloud through a local NAT firewall. You can still provide software updates and configuration to these devices.

Polycom Device Management Service for Enterprise doesn't support the advanced monitoring and scheduled tasks without a Polycom Cloud Relay.
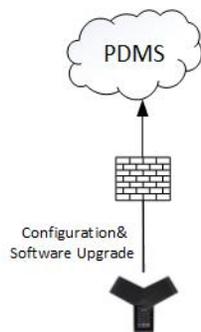
Polycom Device Management Service with a Single Polycom Cloud Relay

You can use a topology with single locally available Polycom Cloud Relay integrated within your environment.

In this topology, devices connect directly to the Polycom Cloud. Configuration is provided directly from the Cloud. Software updates are off-loaded to these devices via the Polycom Cloud Relay.

Ensure that each device has a private IP, so that the device can be reached by Polycom Cloud Relay. Go to **Device Monitor** page to view or edit devices' private IP addresses.
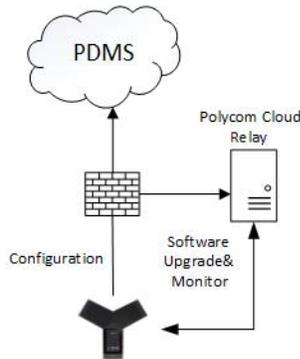
Polycom Device Management System with Load-Balance Polycom Cloud Relays

You can use a topology with multiple load-balanced locally available Polycom Cloud Relays integrated into your environment.

Polycom Cloud Relays can be load balanced via DNS, or by a customer-provided load balancer.

In this topology, the Polycom Device Management Service for Enterprise , doesn't communicate with the load balancer, but it does load balance the available Polycom Cloud Relays for device monitoring. The Polycom Device Management Service for Enterprise also provides the shared FQDN to devices for software updates. The Polycom Cloud Relay provides configuration directly, and the Polycom Cloud Relay offloads software updates to these devices.
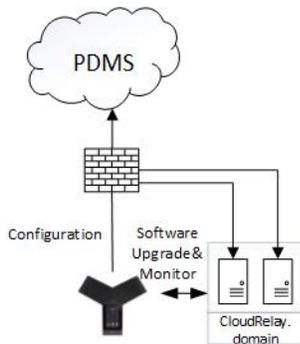
Devices Registered Directly to Polycom Cloud Relay(s)

In this topology, the Polycom Cloud Relays are deployed similarly to the previous two environment scenarios.

The devices are configured to provision through the Polycom Cloud Relays.

The Polycom Cloud Relays immediately sends all requests to the Polycom Cloud and responds directly. The requests do not cache on the local relay.

Software updates from the Polycom Device Management Service for Enterprise cache on the Polycom Cloud Relay.
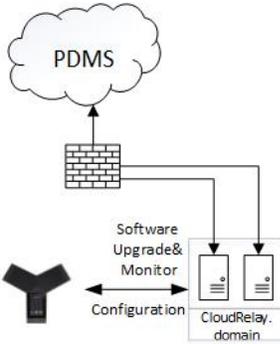
Configuring Polycom Cloud Relays

You can install as many Polycom Cloud Relays as needed for your deployment.

After installing a Polycom Cloud Relay, you must also create and upload a certificate for it.

Installing Polycom Cloud Relays

You must configure your Polycom Device Management Service for Enterprise license before you install any Polycom Cloud Relays.

Refer to the *Polycom Cloud Relay Deployment Guide* for complete instructions.

Securing Polycom Cloud Relays

To secure the connections between Polycom Cloud Relay and your devices, you must install a certificate for each Polycom Cloud Relay you use with the Polycom Device Management Service for Enterprise s.

You don't need a certificate when using a Polycom Cloud Relay for other Polycom Cloud services.

Certificate Requirements

When used with the Polycom Device Management Service for Enterprise , the Polycom Cloud Relay requires valid PFX certificate that has full certificate chains.

Your certificate should meet the following requirements:

- The certificate issued for the Polycom Cloud Relay requires an Enhanced Key Usage (EKU) of Server Authentication (1.3.6.1.5.5.7.3.1).
- Either the Subject (CN) or the Subject Alternative Name (DNS) must contain the FQDN used to reach the Polycom Cloud Relay by the Polycom device.
- Do not use IP addresses as identifying attributes for either the CN or SAN.
- Multiple Polycom Cloud Relays can leverage the same certificate as long as you define all the associated FQDNs within the Subject Alternative Name.
- If a Polycom device connects directly to the Polycom Cloud for configuration, you can use private Certification Authorities to sign the Polycom Cloud Relay Certificates, as the Polycom Device Management Service for Enterprise can install the root CA.
- If a Polycom device connects to the Polycom Cloud through Polycom Cloud Relay, Polycom recommends a Public Certification Authority signed certificate for installation on Polycom Cloud Relay so that the Polycom device can talk to Polycom Cloud Relay out of the box. If you use a

private Certification Authority to sign the Polycom Cloud Relay certificate, you must manually install the Platform Root CA on each device before you can provision it for software and configuration updates.

Upload a Certificate for the Polycom Cloud Relay

After you have installed and registered a Polycom Cloud Relay with the Polycom Cloud Service Administration portal, upload a certificate and its password before you can use the Polycom Cloud Relay with the Polycom Device Management Service for Enterprise .

Procedure

1. Go to the Polycom Cloud Service Administration portal.
2. Click **Device Management** > **Infrastructure Devices**.
3. Enable **Advanced Setting**s and upload the PFX certificate.
4. Click **Save**.

Site Management

Topics:

Sites are the primary way you organize your devices within a network.

A site is a collection of customer defined LANs that generally correspond with a geographic location such as an office or facility. A device's IP address identifies the site to which it belongs.

A site contains one or more public network subnets, and within a site's public subnet, you can optionally define the associated private subnets. By default, the service automatically generates two sites, named **Internet** and **Intranet**.

- **Intranet**: The public subnet IP of **Intranet** contains only zeros. You must either modify the public subnet IP to match your enterprise network or remove **Intranet** and set up your sites to manage local devices from your enterprise network in the Polycom Device Management Service for Enterprise .
- **Internet:** You cannot edit or delete **Internet** site. After you set up your sites for your local network, all devices outside your enterprise network go to the **Internet** site when you add them.

Polycom Device Management Service for Enterprise can support up to 2000 sites. You can apply different configuration profiles to different sites when you provision them.

View the Site List

The **Sites** page contains a list of the sites defined in the Polycom Device Management Service for Enterprise system.

You can manage sites from the site list.

Procedure

1. In the Polycom Device Management Service for Enterprise portal, go to **Sites**.
2. Do one of the following to find the sites that you want.

    - Filter the sites by **Site Name**.

    - Search a site by entering the site name in the **Search** field.

3. (Optional) Click **Refresh** if you need to refresh the view of sites.
4. View the site information

    The **Sites** list includes this information:

Column	Description
Site Name	Name of the site.
Description	Description of the site.
Location Name	Name of the location in which the site is located.
Device Count	The number of all devices associated with the site.

Adding a Site

When you add a site, you can define overlapping public or private subnets within sites.

When the system determines which subnet a given IP address belongs to, it first chooses the public subnet with the longest IP match. If public subnets are the same, the system chooses the private subnet with the longest IP match.

The following example lists four sites.

Site Name	Public Subnet	Private Subnet
Site A-1	20.1.0.0/16	10.0.0.0/8
Site A-2	20.1.0.0/16	10.33.24.0/24
Site B-1	20.56.31.0/8	3.1.0.0/16
Site B-2	20.56.31.0/8	No private subnet set for this site.

Add a Site

You can define a new site in the Polycom Device Management Service for Enterprise and specify which subnets are associated with it.

Procedure
1. In the Polycom Device Management Service for Enterprise portal, go to **Sites** and click **Add**.
2. In the **General Information** section, enter a **Site Name** (required), **Description**, and **Location Name** for the site.
3. In the **Public Subnets** section, click **Add** to specify a subnet within the site.
4. In the **Add Subnet** dialog box, enter **Subnet IP Address** and **Subnet Mask Length**, and click **OK**.
5. (Optional) Add a private subnet by selecting a public subnet and clicking **Add** in the **Private Subnets** section.
6. Click **Save**.

Importing Sites Using CSV Files

You can import sites in bulk into Polycom Device Management Service for Enterprise using CSV files.

You must first create a CSV file that contains added or updated site information. You can create this file with any plain text editor or use Microsoft Excel. However, do not use Microsoft Excel to edit CSV files on a double-byte operating system.

Note: Limit the site records number to less than 2000 in the CSV file to ensure a successful import.

CSV Format

The CSV file must contain the required headers for site attributes.

You can use commas (","), semicolons(";"), or Tab keys as field separators and enclose them in quotation marks if they are embedded in a field.

Note: You must use only one type of separator in a single CSV file. For example, if you use commas as separators, you can't use semicolons or Tabs as separators in the same CSV file.

Use the following format to add a site with two subnets:

```
site_name,description,location_name,subnets
Test_site,Site for testing,Test location,"{""public-subnet-list"":[{""ip-
address"":""1.2.3.4"",""mask-length"":""32"",""private-subnet-list"":[
{""ip-address"":""172.21.120.1"",""mask-length"":""28""},
{""ip-address"":""192.168.1.1"", ""mask-length"":""28""}
>,
{""ip-address"":""2.3.4.5"",""mask-length"":""32""}
>"
```

Example Header Format (case and sequence insensitive): `site_name, description, location_name, subnets` .

`site_name` and `subnets` are required fields.

Follow this Json format for subnet values:

```
{"public-subnet-list":[{"ip-address":"","mask-length":"","private-subnet-
list":[{"ip-address":"","mask-length":""}>>
```

Because the system requires the subnet information in Json format, you must enclose the embedded quotation marks and commas in quotation marks.

Import the Site CSV File

You can update the sites by importing a CSV file.

The sites specified in the CSV file overwrite existing sites with the same `site_name` .

Procedure

1. In the Polycom Device Management Service for Enterprise portal, go to **Sites.**
2. Click **Import Sites**.
3. Click **Choose File**.
4. Browse to the CSV file and click **Import**.

    The import results display on the **Import Sites Result** dialog.
5. (Optional) Download the import log by clicking **Download Import Log**.
6. Click **OK**.

Edit Site Settings

You cannot edit the **General Information**, **Public Subnets** of the **Internet** site.

You cannot edit the **General Information** or **Public Subnets** of the Internet site.

Procedure

1. In the Polycom Device Management Service for Enterprise portal, go to **Sites**.
2. Click the name of the site (hyperlink) that you want to edit.
3. On the **General Information** tab, change **Site Name**, **Description**, or **Location Name**.
4. On the **Public Subnets** tab, add or remove public subnets.
5. On the **Private Subnets** tab, add or remove private subnets.
6. Click **Update**.

Associate Configuration Profiles with a Site

When you edit a site, you can update the associated configuration profiles for a site.

Procedure

1. In the Polycom Device Management Service for Enterprise portal, go to **Sites**.
2. Click the name of the site that you want to edit.
3. Under the **Profile** tab, select configuration profiles and click **Add** to associate more profiles with the site.
4. Click **Update**.

Related Concepts

Configure Download Path for a Site

When you edit a site, you can set a software upgrade download path for the devices belonging to the site.

The download path set for site has higher priority than the download path set on the **Provisioning Settings** page.

Note: You cannot set a download for the **Internet** site. You can set software upgrade download path for devices outside the enterprise network only on the **Provisioning Settings** page.

Procedure

1. In the Polycom Device Management Service for Enterprise portal, go to **Sites**.
2. Click the name of the site that you want to edit.
3. Under the **Download Path** tab, enter the download path for devices that are associated to this site.

   The format is `https://Polycom Cloud Relay FQDN/` .

4. Click **Update**.

Related Concepts

[Setting Up Software Updates](#) on page 30

Delete a Site

You can delete one site at one time.

Devices belonging to the deleted site migrate to other sites automatically.

Procedure

1. In the Polycom Device Management Service for Enterprise portal, go to **Sites**.
2. Select a site and click **Delete** 🗑 .
3. Click **OK** to confirm the deletion.

Management Agent and Site Association

When a Management Agent connects to Polycom Device Management Service for Enterprise , the Management Agent's IP address identifies the site to which it belongs.

Usually, a Management Agent can serve multiple sites to send control messages. However, if you have an isolated site that cannot communicate with other sites, you must have a specific Management Agent that serves the devices belonging to that site. This Management Agent gets the messages that Polycom Device Management Service for Enterprise send to the devices of this site and delivers the messages to the devices.

View Management Agent and Site Association

You can view which site that a Management Agent belongs to through the portal..

Procedure

1. Go to **Management Agent** > **Monitor View**.
2. Check the **Site Name** column.

Make Associated Management Agent Site Specific

You must make an associated Management Agent site specific when you have isolated sites that cannot communication with other sites.

After you enable this feature, only the Management Agent belonging to this site can send control messages to the devices of this site . The Management Agent serves only this site; It doesn't serve the devices belonging to other sites.

Procedure

1. Go to **Sites**.
2. Double-click an isolated site to edit it.
3. In the **General Information** tab, select the **Make Associated Management Agent Site Specific Control** check box.

Device Provisioning

Topics:

- [Set Up Device Provisioning](#)
- [Managing Device Groups](#)
- [Managing Configuration Profiles](#)
- [Setting Up Software Updates](#)
- [Configuration Profile Deployment](#)
- [Configuring Devices for Provisioning](#)
- [Automatic Configuration: DHCP Scope Option](#)
- [Managing Resource Files](#)
- [Management Agent](#)
- [Configure Provisioning Account](#)

The Polycom Device Management Service for Enterprise provides centralized provisioning for supported endpoints.

After you provision a device, the device polls the Polycom Device Management Service for Enterprise for configuration profiles and software updates at intervals that you define. The service communicates with devices via HTTPS. Advanced monitoring and enhanced device details are only available when a deployed Polycom Cloud Relay can reach a device.

As soon as you configure a device to use Polycom Device Management Service for Enterprise for its provisioning server, the device starts polling for configuration profile and software updates. The default polling interval is 3:00 am to 5:00 am every day. This can be modified by an administrator.

Note: After the Polycom Device Management Service for Enterprise provisions a phone, the phone's REST API is enabled and its administrator password changes to " `789` ". You can use the `AdminPassword-Change-Template` configuration profile to create and define a custom device admin password. You cannot define " `456` " as a device password.

Set Up Device Provisioning

Setting up device provisioning is a multistep process that may include the following tasks:

1. Set up sites to manage your local devices from the enterprise network. See [Site Management](#).
2. Create device groups. See [Managing Device Groups](#).
3. Create custom configuration profiles. See [Managing Configuration Profiles](#).
4. Set up software updates. See [Setting Up Software Updates](#).
5. Define configuration profiles deployment rules. See [Configuration Profile Deployment](#).
6. [Configuring Devices for Provisioning](#)

7. (Optional) Add devices to the Polycom Device Management Service for Enterprise . See Adding Devices.

Managing Device Groups

Device groups are logical collections of devices that you use for provisioning and organizational.

You can provision settings for multiple devices by associating the desired configuration profiles to a device group and then associating devices to the device group.

Devices can be members of multiple device groups.

Add a Device Group

You can add a new device group by selecting a list of existing devices in the Polycom Device Management Service for Enterprise portal.

Procedure

1. Click **Device Groups** and click **Add**.
2. In the **General Information** column, fill in a unique name for the device group.

   You can also add a description.
3. In the **Device Association** column, click **Edit**.
4. Search or filter the list and choose the devices that you want to manage together.
5. Click **OK**.
6. (Optional) In the **Configuration Profile Association** column, choose the configuration profiles that you want to add and click **Apply**.
7. (Optional) To change the profile priority, drag and drop the **Drag and drop to adjust priority** button of each profile name to the appropriate line.
8. Click **Save**.
9. Schedule a task to apply the changes when prompted.

Edit a Device Group

You can add or remove devices in a device group and change the associated devices and configuration profiles at any time.

Procedure

1. Go to **Device Groups**.
2. Click the name of the device group that you want to edit.
3. Edit devices as needed:

   a. In the **Device Association** tab, click **Edit**.

   b. In the **Select Device** window, click **Selected** *number* **Devices**.

   c. Select the devices that you want to delete from the device group.

   d. Click **OK**.

   e. Click **Continue to Select Item** to get back to the device list, or click **OK** to return to the **Edit Device Group** page.
4. Click **Update**.

5. Schedule a task to apply the changes when prompted.

Refresh the Device Group List

You can refresh the device group list to see any device group changes.

Procedure

1. Go to **Device Groups**.

2. Click **Refresh** ⟳.

Delete a Device Group

If you delete a device group with devices that have associated configuration profiles, you remove all relative associations.

To delete a device group:

Procedure

1. Go to **Device Groups**.

2. Select a device group and click **Delete** 🗑.

3. Click **OK** to confirm.

4. Schedule a task to apply the changes when prompted.

Set a Device Group to Top Priority

You can set a specific device group to the highest priority group in its all associated devices.

For each associated device, the configuration profiles belonging to the selected device group have the highest priority with other device group associated configuration profiles.

Procedure

1. Go to **Device Groups**.

2. Select a device group.

3. Select **More** > **Set to Top Priority**.

4. Click **OK**.

The device group becomes the group with the highest priority in all its associated devices.

Set Default Device Groups

You can set the default device group(s) for new auto-added devices.

When a new device is added to the service, the service adds the new device to the specified default device group(s) automatically. The service applies the configuration profiles associated with the default device group(s) to the auto-added devices once you add devices to the Polycom Device Management Service for Enterprise .

Devices that you import via CSV aren't associated to any configured default device group.

Procedure

1. Go to **Device Groups**.

2. Select **More** > **Set Default Device Group**.

3. Select a device group from the drop-down list and click **Add**.

4. Repeat step 3 to add more device groups.
5. (optional) drag and drop the **Drag and drop to adjust priority** ☰ button to adjust the priority of the specified device groups for the devices that are auto-added.
6. Click **Save**.

Managing Configuration Profiles

When you manage devices, you can configure them by using configuration profiles. A device gets its resultant configuration after applying many configuration profiles through various device associations as defined by your configuration profile deployment rules.

Configuration profiles provide configuration parameters and software updates to managed devices. Each configuration profile by design should only do one action: enable a single feature, perform one task, or update software. This enables you to more easily troubleshoot and debug a device's behavior.

The service sends all provisioning parameters defined in an associated configuration profile to devices according to the profile's deployment configuration. If a device doesn't have a corresponding parameter, it ignores the parameter.

To ensure out-of-box usability, the Polycom Device Management Service for Enterprise comes with many read-only Polycom standard configuration profiles. These profiles provide Polycom's recommended best practice configuration for the associated feature that they enable. You can directly assign these profiles to devices and use them as necessary. Polycom may remove or update the Polycom standard profiles as the configurations recommendation to customers change or as features are no longer applicable. When Polycom removes a standard profile, the service also removes the profile's associations. Additionally, as Polycom makes new features available through software releases, new Polycom standard profiles are automatically added to your service and made available for feature deployment.

Note: Each configuration profile must have an unique name. If an user-defined configuration profile name is same as a standard profile, you must use a different name for the user-defined profile.

Polycom standard profiles that require administrator input end with `-TEMPLATE`. You can't directly assign these profiles to a device. You must first copy and edit the information contained within the template. Usually, these are device or environmental specific configurations.

See the *Polycom UC Software Administration Guide* for information on the features of your Polycom phones.

Related Tasks
Associate Configuration Profiles with a Site on page 19

View Configuration Profile List

You can view your configuration profiles listed on the **Profile Configuration** page.

Procedure

1. Go to **Profile Configuration.**
2. View the following information for each configuration profile:

Field	Description
Profile Name	The name of the profile. You can click the arrow icon to sort the profiles in alphabetical order.
Profile Mode	Polycom Phone Provision mode refers to phone provisioning profile.
Profile Type	• Polycom Standard: Pre-defined configuration profiles that are read-only. • User Defined: User defined profiles that you can edit and delete. • Polycom Standard and User Defined • Polycom Software: Auto-generated profiles. When Polycom Device Management Service for Enterprise contains an available software image the service generates a corresponding profile for software upgrading. • User Imported: CSV imported profiles.
Modified By	The user who modifies the user defined profile.
Date Modified	• Polycom Standard: The time that the pre-defined configuration profiles were installed. • User Defined: The last time that the user modified the profile. • User Imported: The import time. • Polycom Software: The time that the Polycom Device Management Service for Enterprise automatically generated the profiles.

Create Configuration Profiles

You can create new configuration profiles to customize device settings in your environment.

You can either create a new one or copy a predefined profile and make necessary changes.

Procedure

1. Go to **Profile Configuration**.
2. Click **Add**.
3. In the **General Information** section, select **Polycom Phone Provision** from the **Profile Mode** drop-down list.
4. Enter a name and description for the new provisioning profile.

   The filename cannot contain / \ : * ? "< > | .
5. (Optional) In the **Configuration Attributes** section, select the device type and the software image from the **Software** drop-down list.
   - The selected version is used to update the devices under certain condition.
   - When you select a software image, the service uses the attributes defined in its XSD file instead of the default XSD file.
   - You can only see images that correlate to the current profile mode.
6. Add the device's provisioning attribute in one of the following ways.

   When there is an overlap of the attributes, the latest edit takes effect.
   - **Standard Fields**Enter text (two or more characters) to search attributes in an XSD file.
     ◦ If you selected a software image with an XSD file in the previous step, the system searches attributes in the XSD file packed in the software image.

○ The system also comes with a default XSD file that contains device configuration elements that you can use. By default, the system searches attributes in the default XSD file.

- **Custom Fields**

  You can enter an attribute that is not included in the XSD file and click **Add** to add this attribute.

  XSD validation doesn't apply to the customized attributes.

- **Import from File**

  Browse to select a CFG or XML file containing the attributes. The file can contain customized attributes that aren't included in the specified XSD file.

- **Paste Configuration XML**

  Paste XML code containing the attributes and click **Add**. You can paste customized attributes that aren't included in the specified XSD file.

7. (Optional) Identify a resource file for an attribute.

   After adding an attribute, you can associate the attribute with a resource file by clicking the **Resource File** beside the attribute. Choose a resource file for the attribute from the uploaded files.

8. Click **Save** to save the changes or click **Return** to discard the changes.

Upload Default XSD File

XSD files contain device configuration elements that you can use to provision devices.

Polycom Device Management Service for Enterprise comes with a default XSD (Polycom Trio™ 5.7.2 and Polycom Studio 1.0) file. You can also make your own XSD file to include more customized device settings and upload the XSD file to the service to overwrite the default file.

Procedure

1. Go to **Provisioning Settings**.
2. Click **Update Schema**.
3. Click **Choose File** to browse and select the XSD file that you want to upload.
4. Click **Upload**.

Customizing Attributes in the Master Configuration File

You can modify the values defined in a device's master configuration profile by adding the attributes in your phone's configuration profiles.

- CONFIG_FILES: The configuration files specified in the CONFIG_FILES attribute are appended to the configuration file generated by Polycom Device Management Service for Enterprise .
- Other parameters in the master configuration file are overwritten.
  ○ For the APP_FILE_PATH attribute, after you define the APP_FILE_PATH attribute, the software image selection in your profile doesn't take effect.
  ○ By default, the COREFILE_DIRECTORY attribute is empty. You can define the directory to save the files.
  ○ By default, the LOG_FILE_DIRECTORY attribute has a default value. If you don't change the value, Polycom Device Management Service for Enterprise saves the log files.
- You can include the $mac_address in the attributes as a variable. Here are two examples:

○
```
ftp://user:password@1.2.3.4/${mac_address}/config_file.cfg
```

`${mac_address}` is included in a path.

○
```
https://user:password@1.2.3.4/${mac_address}_file.cfg
```

`${mac_address}` is included in a file value.

When deployed, the value is replaced with phone's MAC address.

- You can define new customized attributes included in the master configuration file. The attributes must start with `_mac_cfg` .

Polycom CX5100 and CX5500 Provisioning Attributes

When you create a profile, select a CX5100 or CX5500 software version, and apply the profile to CX5100 or CX5500 unified conference stations, the Polycom Device Management Service for Enterprise provisions the following attributes to the CX5100 or CX5500 unified conference stations:

- `device.local.updateTime="3600"`
- `device.local.updateInterval.set="1"`
- `device.local.autoUpdateEnabled.set="1"`
- `device.local.updateInterval="604800"`
- `device.local.autoUpdateEnabled="1"`
- `device.local.updateServer="${downloadPath}/swupdate/CX/${CXPhoneVersion}"`
- `device.local.updateServer.set="1"`
- `device.local.updateTime.set="1"`

The auto-upgrading time is every Sunday 01:00 am.

Managing Log Files

Polycom Device Management Service for Enterprise collects and maintains log files.

You can manage the log files for a specific device from the Polycom Device Management Service for Enterprise protal.

View Log Files

Polycom Device Management Service for Enterprise saves log files for the past 10 days.

Procedure
1. Go to **Device Monitor**.
2. Select a device.
3. Click the **Log** tab.
4. Select a date that you want to view.
5. Click **Search**.

   The logs saved on the selected date show. By default, the logs of today are shown.

You can download to view the logs. You also can delete the logs.

Edit a Configuration Profile

You can only edit user-defined configuration profiles.

Procedure

1. Go to **Profile Configuration**.
2. Click the name of a customized profile (hyperlink) that you want to edit.
3. Edit the general information and attributes as needed.
4. Click **Update**.
5. Schedule a task to apply the updates to related devices if needed.

Copy a Configuration Profile to Create a Customized Profile

You can copy a Polycom standard profile or an user-defined profile to create your own profiles.

Procedure

1. Go to **Profile Configuration**.
2. Select a profile and click **Copy**.
3. On the **Add Configuration Profile** page, edit the general information and the attributes as needed.
4. Click **Save**.
5. Schedule a task to apply the changes when prompted.

View User-Imported Configuration Profiles

When you manually add devices to the Polycom Device Management Service for Enterprise via CSV import, the service adds any device specific parameters as a custom configuration profile and attaches it to the specific device automatically.

The name format is `${mac}_csv_profile` for audio devices and `${serial number}_csv_profile` for Polycom Studio

Although you can edit User Imported Configuration Profiles within the Polycom Device Management Service for Enterprise , Polycom recommends that you edit the profiles by re-importing the CSV file.

Procedure

1. Go to **Profile Configuration**.
2. Click **Filter**.
3. Select **User Imported** as the **Profile Type**.

Delete a Configuration Profile

You can only delete user-defined or user-imported configuration profiles that you created.

You can't delete Polycom standard profiles or Polycom software profiles.

Procedure

1. Go to **Profile Configuration**.
2. Select a user defined profile and click **Delete**.
3. Click **OK** to delete the profile.

> If the profile has association with devices, device groups, or sites, the service deletes all the associations.

4. Schedule a task to apply the changes,.

Export Configuration Profiles

You can export one user-defined profile or all user-defined profiles to a ZIP file.

You cannot export Polycom standard profiles, user imported profiles, and Polycom software profiles.

Procedure

1. Go to **Profile Configuration**.
2. Do one of the following:

    - Select a user defined profile and click **More** > **Export** to export the profile.
    - Click **More** > **Export User Defined Profiles** to export all user defined profiles.

Setting Up Software Updates

Polycom Device Management Service for Enterprise enables you to update the software on managed devices in two ways.

- Create an user-defined profile or use a Polycom standard configuration profile to specify a software release and apply to your devices through Profile Deployment Rules.

    ◦ Devices that Polycom Cloud Relay can reach

    You must specify a download path to point to the Polycom Cloud Relay. You need to add the required software update images to their Download Agents. By default, the devices get the update images from their Management Agents.

    ◦ Devices that Polycom Cloud Relay can't reach

    You must specify a download path to point to Polycom Device Management Service for Enterprise . The devices get the update images directly from Polycom Device Management Service for Enterprise .

- If you prefer to use your own server as your download server (for example, an FTP server), you can specify the sever address in the `APP_FILE_PATH` attribute in your configuration profile and deploy the profile to your devices. In this case, you must upload all required software images to the server. Devices get the update images from the specified server.

    The software image selection in your profile and the specified download path will not take effect. The devices will get the specified packages from the specified location defined in the `APP_FILE_PATH` attribute.

Related Tasks
Configure Download Path for a Site on page 20

Specifying Download Paths

You must specify download paths for devices inside (if any) and outside enterprise networks, so that devices know where to download upgrade packages.

You can specify the path in the following ways ordered by priority from the highest to the lowest:

- Include the `APP_FILE_PATH` attribute in your configuration profile.
- Specify the path for devices inside enterprise networks per site.

- Specify the download path on the **Provisioning Settings** page.

Specify Site-Specific Download Path

Each defined site can specify a path to a Polycom Cloud Relay for associated devices to use for local cached access to software releases.

Procedure

1. Go to **Sites**.
2. Click the name of the site (hyperlink) that you want to edit.
3. Under the **Download Path** tab, enter the download path for devices that are associated to this site.

   The format is `https://Polycom Cloud Relay FQDN/` .
4. Click **Update**.

Specify Service Download Paths

You must specify download paths for devices inside and outside enterprises separately.

Procedure

1. Go to **Provisioning Settings**.
2. Click the **Download Path** tab.
3. Specify the download path for devices inside or outside the enterprise network.

Device	Description
Devices outside enterprise network	Enter the Polycom Device Management Service for Enterprise address in the **Internet** field.
Devices inside enterprise network	Enter the Polycom Cloud Relay address in the **Enterprise Sites** field.

4. Click **Save**.

Add Device Update Images to the Download Agent

Local software updates for devices provided by Polycom Cloud Relay are managed centrally.

You must add the software images to the device Download Agent. Once the image synchronizes with the Download Agent, the devices can update via the locally provided image.

Devices updating via a local Polycom Cloud Relay agent can't update their software until the image successfully synchronizes to the Download Agent.

Note: You can select 40 device images at most and the total size must be under 30 GB.

Procedure

1. Go to **Management Agent** > **Device Images**.
2. Click **Add**.
3. Select the device images that you need to use from the **Available Device Images** list.
4. Click **Save**.

The device images are uploaded to all your available Download Agents.

Delete a Device Update Image

You can remove unused device images from the Download Agents.

After you remove them, the devices that use the local Polycom Cloud Relay can't update their software.

Procedure

1. Go to **Management Agent** > **Device Images**.
2. Select a device image.
3. Click **Delete**.
4. Click **OK** to confirm.

View Device Images on Management Agents

You can view the uploaded device images on your Management Agents.

Procedure

1. Go to **Management Agent** > **Monitor View**.
2. Select an active Management Agent.

   The Download Agent status must also be active, otherwise you can't view the images on the agent.
3. Click **View Detail.**

   - Status ⊘ means that this image is successfully synchronized.
   - Status ↔ means that this image is still being synchronized.

Synchronize Device Images

If for some reason the service can't upload software images that you want to add to the Download Agents, you can add the images again by synchronizing the images with Polycom Device Management Service for Enterprise .

Procedure

1. Go to **Management Agent** > **Monitor View**.
2. Select an active Management Agent.

   The Download Agent status also needs to be active.
3. Click **View Detail.**
4. Click **Sync Images**.

Configuration Profile Deployment

With the Polycom Device Management Service for Enterprise , you can deploy configuration profiles and provisions devices by editing a device, device group, or site.

You can also associate profiles on the **Profile Deployment** page that manages the association of configuration profiles to different containers.

For example, you have a `call.autoAnswer.SIP` parameter enabled in configuration profile A and disabled in configuration profile B. Profile A applies to specific **Site.** Profile B applies to **Global**. The `call.autoAnswer.SIP` parameter is enabled for the phones belonging to the site since **Site** has higher priority.

Software updates follow the same rule. For example, you select UC software 5.5 in profile A and select UC software 5.4 in profile B. You apply profile A to device group 1 and apply profile B to Global. The phones in device group 1 upgrade to 5.5. Other phones in Global upgrade to 5.4.

Profile deployment uses five containers to apply configuration profiles to managed devices. The following list shows the priority of the containers from the highest to the lowest.

- **Device**: Configuration profiles in this container apply to the corresponding device that you specify. For example, you know a specific device needs a specific configuration or call server. You can select the device to receive the required configuration profiles.

- **Site**: Configuration profiles in this container apply to the devices in the corresponding site. Geographical location is the typical use case for site.

- **Device Model**: Configuration profiles in this container apply to the devices of the corresponding device model. For example, you can apply a customized configuration profile to all Polycom VVX 500 devices.

- **Device Group**: Configuration profiles in this container apply to the devices in the corresponding device group.

- **Global**: All devices are part of **Global** regardless of model, site, or device group. Configuration profiles in this container apply to all devices.

Add User Groups, Users, or Rooms

You must add existing user groups, users, and rooms before you can associate configuration profiles with the user groups or users .

Procedure

1. Go to **Endpoint** > **UC Management** > **Profiles Deployment**.
2. Click **User Groups** or **Users/Rooms**.
3. Click **Add** +
4. Select an existing user group, user, or room.
5. Click **OK**.

    After adding the user groups, users, or rooms, the added user groups, users, or rooms display under the **User Groups** or **Users/Rooms** tab. You can associate configuration profiles with the user groups, users, or rooms.

Associate Configuration Profiles

On the **Profile Deployment** page, you can manage the association of configuration profiles to different containers.

You can also associate profiles to a specific device or device group by editing it.

Procedure

1. Go to **Profile Deployment**.
2. Do one of the following:

    - **Global**: Click **Edit** .

- **Device Model/Device Group/Site/Device**: Click the hyperlinked name of any model, device group, site, or device. Use **Search** or **Filter** to downsize the list and find your target.

3. Select or search for a configuration profile and click **Add**.

   Click the hyperlinked name of a device, a device group, or a profile to view the details.

4. After you add all configuration profiles that you need, adjust the priority of the configuration profiles by dragging and dropping the **Drag and drop to adjust priority** ≡ button and move the configuration profile up and down.

5. Click **Save**.

6. Schedule a task to apply the changes if prompted.

   If the devices are offline, the devices receive the changes when the devices connect to the Polycom Device Management Service for Enterprise .

Set Priority for User Groups

You can set priority for the configuration profiles associated with each user group .

For each endpoint owned by a user in a user group, if the user group has higher priority, the configuration profile associated with this user group has higher priority. When a user belongs to different user groups, you can set the priority for each user group that the user belongs to. The configuration profiles, which are associated with the user group with the highest priority, take effect to the endpoints owned by the user.

Procedure

1. Go to **Endpoint** > **UC Management** > **Profiles Deployment**.
2. Click **User Groups**.
3. Click **More** > **Set Priority**.
4. Select an existing user group or user.
5. Click the **Up**, **Down**, **Top**, and **Bottom** navigation buttons ∨ ∧ ↓ ↑ to change the priorities.
6. Click **Save**.

Configuring Devices for Provisioning

To use Polycom Device Management Service for Enterprise as a device provisioning service, you must configure the devices to connect to the service.

You can configure devices automatically through DHCP scope options or via the Polycom Zero Touch Provisioning (ZTP) Service. You can also manually configure devices on the phone or in the Web Admin Utility.

Finding Your Tenant Provisioning Address

You must specify a provisioning server address for devices.

You can find the tenant provisioning address using the following options:

- Devices directly managed by the Polycom Device Management Service for Enterprise : the provisioning service address displays on the Polycom Device Management Service for Enterprise **Provision Settings** page.

  You can change the first field (host name) of the address to a friendlier name.

- Devices provisioned through Polycom Cloud Relay: The address depends on your configured environment. Because you must use HTTPS, the value must match in the DNS of the certificate installed on Polycom Cloud Relay.

Note: You must specify the provisioning account and password configured on the **Provision Settings** page.

Note: Polycom recommends you to install the certificate that matches the Polycom Cloud Relay certificate on the Polycom Cloud Relay provisioned devices.

Change Provisioning Server Address Host Name

You can change the first field (host name) of the provisioning server address to a friendlier name.

For the devices directly managed by the Polycom Device Management Service for Enterprise , the provisioning service address displays on the Polycom Device Management Service for Enterprise **Provisioning Settings** page. You can change the first field (host name) of the address to a friendlier name.

Procedure

1. Go to **Provisioning Settings**.
2. Select the **Provisioning Address** tab.
3. Click **Change Address**.
4. Update the host name of the provisioning server address you want to change.
5. Click **Save**.

Host Name Rules

When you update the host name, you must follow the rules.

- You can use only lowercase letters, numbers, "_", and "-".
- A host name must start and end with a lowercase letter or number.
- A host name length must be 2 to 31 characters.
- Do not use the following reserved text:
  - A host name that starts with `t` followed by numbers, for example, a host name starts with `t1234`, `t889`, and so on.
  - A host name that contains only `www`.
  - A host name that starts with `ops`, `service`, or `console`.

Automatic Configuration: DHCP Scope Option

Polycom devices boot and examine DHCP options 66 and either option 160 (openSIP SKUs) or 161(Microsoft SKUs) for a string specifying the address of the provisioning server.

Define this string in the format of `https://pdms_tenant_address` or `https://user:password@pdms_tenant_address` if the default `PlcmSpIp` was not configured for your tenant.

Automatic Configuration: Polycom ZTP

If DHCP doesn't automatically discover a provisioning server address and you didn't enter a static address, the phone contacts the Polycom ZTP server and requests initial configuration files, including the address of the service provider or enterprise provisioning server.

See the Polycom Support Site for more information regarding access to the ZTP Service

Manual Device Configuration

Configure a device to make the Polycom Device Management Service for Enterprise service its provisioning server.

You can configure the following parameters either on the device interface or through the web admin utility. Refer to the device guides or web admin utility guides on how to configure the following parameters.

- Specify the server type.
- Set the server address to `PDMS_Tenant_Address`.
- Specify server user and password if you didn't use the Default `PlcmSpIp` for your tenant.

Managing Resource Files

You can use resource files to configure devices.

For example, you can upload image files and configure the system to use the files as device icons in your configuration profile. The service supports the following file types:

- `.ld` : boot rom updates
- `.wav` : ring tones, music on hold
- `.cfg` : configuration files
- `.csv` : feature line key configuration files
- `.png` : image files for branding
- `.jpg` : image files for branding
- `.xml` : device language files, call logs, license files
- `.zip` : UCS software packages
- `.tar` : RealPresence Group Series software files
- `.txt` : RealPresence Group Series license files
- `.log` : logging files
- `.bak` : device backup
- `.htm` : microbrowser
- `.html` : microbrowser
- `.mp3` : ring tone files

Upload a Resource File

You can upload resource files such as pictures or ring tones to customize your Polycom audio devices.

Polycom recommends that the resource files be smaller than 50 MB.

Procedure

1. Go to **Resource Files**.
2. Click **Add** to open the **Upload Resource Files** page.
3. Click **Choose File** and select the file that you want to upload.
4. Write a concise description of the file in the **Description** field.

   Long descriptions may not completely show up in the resource files overview.
5. Click **Save**.

   The file name field becomes green once the uploading process completes. If the uploading fails, a red alert flag flashes at the top right corner.

Download a Resource File

You can download resource files and check the content.

Procedure

1. Go to **Resource Files**.
2. Select a resource file to download.

   You can download only a single file at one time.
3. Click **Download** ⬇ .

Delete a Resource File

You can delete obsolete resource files from the resource files overview.

Procedure

1. Go to **Resource Files**.
2. In the resource file list, choose one resource file.
3. Click **Delete** 🗑 .

   You can delete only a single file at one time.
4. Click **OK** to confirm.

Refresh Resource Files

You can refresh the resource files to see any changes.

Procedure

1. Go to **Resource Files**.
2. Click **Refresh** 🔄 .

Management Agent

The Management Agent is a service that runs on Polycom Cloud Relay.

Management Agents are pre-configured for enterprise users, and an enterprise may have one or more Management Agents to centrally manage and upgrade its devices. Tenant users cannot edit or delete Management Agents.

The Polycom Device Management Service for Enterprise sends check sync messages to the devices that it provisions via Management Agents to get devices status and send provisioning parameters.

Download Agent is a sub-service of the Management Agent. The Download Agent synchronizes device images made available from the cloud with each instance of Polycom Cloud Relay. You need to add the desired software images that you want distributed to Polycom Cloud Relays.

The Management Agent stores the following parameters:

- Tenant ID generated by Polycom Cloud Relay.
- PIN code generated by Polycom Device Management Service for Enterprise . PIN code is a key value pair with Polycom Cloud Relay.
- Polycom Device Management Service for Enterprise address. This is unified for all tenant users.

Tenant ID and PIN code must be verified when Management Agents connect Polycom Cloud Relay.

Management Agent Status

You can view your Management Agent and Download Agent Status on the **Management Agent** > **Monitor View** page.

Management Agents and Download Agents send heartbeat messages to the Polycom Device Management Service for Enterprise every 2 minutes. If the Polycom Device Management Service for Enterprise doesn't receive a heartbeat message for 10 minutes, the Polycom Device Management Service for Enterprise sets the Management Agent or Download Agent to **Inactive**.

Reset the PIN Code

By default, after you add a new tenant to Polycom Device Management Service for Enterprise , the system generates a PIN code automatically for the Management Agent and Download Agent to register to Polycom Device Management Service for Enterprise .

You only need to reset the PIN code when the Management Agent and Download Agent can't register to the Polycom Device Management Service for Enterprise due to authentication failure.

After resetting the PIN code, Polycom Device Management Service for Enterprise saves the old and new PIN codes for 24 hours. You can use either the old or new PIN code connect to Polycom Cloud Relay within 24 hours. After 24 hours, you can use only the new PIN code.

Note: You must wait 24 hours to reset a PIN code again.

Procedure

1. Go to **Management Agent** > **PIN Code.**
2. Click **Reset**.

Scheduling Device Change Tasks

If you deploy devices on your local network using Polycom Cloud Relay, you can schedule tasks to execute changes that impact provisioning.

After you click **Update** when you edit a device or click **Save** when you edit a device group or configuration profile, a window appears to let you choose the time that you want to execute the changes. You have three available options:

- **Execute Immediately** and **Schedule Apply**: Applies the changes at once. The impacted devices reboot as soon as they receive the command from the Polycom Device Management Service for Enterprise .
- **Schedule Apply**: Applies the changes at the time you choose. The impacted devices reboot at that time to execute the changes.
- **Skip**: Saves the changes and applies them at the next polling interval.

Note: You can not apply updates to Polycom Studio via scheduling a task. Polycom Studio doesn't recognize check sync messages. Polycom Studio applies the updates at its next polling interval.

Viewing Scheduled Tasks

You can view information of all scheduled tasks on the **Management Agent** > **Scheduled Tasks** page.

Field	Description
Task Status	The status of the scheduled tasks. Possible values include: • **Scheduled (not executed yet)** 🗓 • **Executing** ▶ • **Done** ⊘
Task Name	The service automatically generates the task name. You can rename the task when editing this task.

Type	Scheduled task types:
	
	• **Apply Device Provisioning Changes**
	
	• Phone REST API control tasks:
	
	   ◦ **Device Control: Dial Out**
	
	   ◦ **Device Control: Reboot**
	
	   ◦ **Device Control: Reset**
	
	   ◦ **Device Control: Set Parameters**

Date Created	The time that the task is created.
Scheduled & Execution Time	The time that the service executes the task.
Execution Results	Execution Result for finished tasks. • **Total**: The total impacted devices. • **Success**: The number of devices that receive the changes. • **Failure**: The number of devices that didn't receive applied the changes. • **In Progress**: The number of devices that are receiving the messages.

Edit a Scheduled Task

You can only edit unexecuted scheduled tasks.

Procedure

1. Go to **Management Agent** > **Scheduled Tasks**.
2. Select an unexecuted task and click **Edit**.
3. In the **General Information** section, you can rename the task.
4. In the **Triggers** section, update the device groups or devices that you want to apply the updates to.

    a. Click **Add**.

    b. Select the device groups or devices that you want to apply updates to.

       You also can remove devices groups or devices by clearing its check box.
5. Update the executing time.
6. Click **Save**.

View Completed Task Details

After a task is completed, you can view the details result of this task.

Procedure

1. Go to **Scheduled Tasks**.
2. Select a completed task.
3. Click **View Detail**.

    You can see the following information of this task.

Field	Description
General Information	Task type and task name.
Sub Task	The device name.
Type	• **OTHER**: Apply Device Provisioning Changes.
	• DIAL: Phone dial out message.
	• REBOOT: Phone reboot message.
	• RESET: Phone reset message.
	• SET_PARAMETER: Phone set parameter message.
Execution Result	• **Success**
	• **Failure**
	• **Not Applicable**
Reason	Possible reasons for the execution result failure.

Delete a Scheduled Task

You can delete a scheduled task before it runs or after it completes.

However, you can't delete a task currently in progress.

Procedure

1. Go to **Scheduled Tasks**.
2. Select an unexecuted or a completed task.
3. Click **Delete**.

   If you delete an unexecuted task, device updates occur at the next polling interval.
4. Click **OK** to confirm.

Refresh Scheduled Tasks

You can refresh the scheduled tasks list to see the latest information for scheduled tasks.

Procedure

1. Go to **Scheduled Tasks**.
2. Click **Refresh**.

Configure Provisioning Account

You must set a phone provisioning account to manage devices with Polycom Device Management Service for Enterprise .

Because the Polycom Device Management Service for Enterprise uses HTTPS for the provisioning connection between the service and the phones, you must configure an account that the phones use during the process to get provisioning profiles and software updates from the Polycom Device Management Service for Enterprise .

You can change the account password at any time. If you change the password, make sure to update the password on the phones so they can receive provisioning profiles and software updates from the Polycom Device Management Service for Enterprise .

All Polycom devices have default user name and password of `PlcmSpIp`. If you change this value, you must update the device with the new credentials either through DHCP Scope, ZTP, or manual configuration.

Note: The Polycom Device Management Service for Enterprise does not provide a default user name and password. You must configure a provisioning account before you start provisioning phones.

Procedure

1. Go to **Provisioning Settings**.
2. Select the **Provisioning Account** tab.
3. Select the **Polycom Phone Provisioning Account** check box, then enter your user name and password.
4. Click **Save**.

Device Management

Topics:

You can monitor and manage your devices directly in Polycom Device Management Service for Enterprise .

Naming Devices

You can name devices in different ways with different priorities.

For audio devices, the device name is purely for organizational and display purposes inside of Polycom Device Management Service for Enterprise . This device name is never communicated back to the device.

For other devices, such as Polycom Studio, when the device connects to Polycom Device Management Service for Enterprise , the Polycom Device Management Service for Enterprise updates the device using the specified device name.

You can name devices using the following methods:

- Specify the device name in a configuration profile
- Add a device manually
- Edit a device
- Import a device via a CSV file

The device name specified in a configuration profile has the highest priority for device naming. If you specify different names for a device in both a CSV file and a configuration profile, the **Device Monitor** page displays the device name in the CSV file, but the service updates the device to the device name specified in the configuration profile. Editing the device name on the **Device Monitor** page or editing the device name in a CSV file have the same priority.

PDMS-E License

The full features of PDMS-E, such as advanced monitoring and scheduled task services, are only available for licensed devices reachable by Polycom Cloud Relay.

When you add a new device to PDMS-E, it doesn't consume a PDMS-E license. The device only consumes a license when it connects to PDMS-E.

Whether or not a device consumes a license, PDMS-E can monitor the devices' statuses for Polycom Cloud Services and the Alexa for Business service if the device supports the Alexa for Business service.

PDMS-E can monitor and provision Polycom Studio without a license.

Adding Devices

Add devices to the PDMS-E service based on your deployment's needs.

You can add devices to the Polycom Device Management Service for Enterprise by one of the following options:

- Add devices automatically: Devices that connect to your tenant for provisioning that haven't already been added automatically show up on the **Device Monitor** page.
- Add a device manually: You can stage single device for configuration prior to network deployment.
- Bulk add devices: Import a CSV file to stage devices in bulk for configuration prior to network deployment.

Adding Devices Automatically

The service adds devices to the Polycom Device Management Service for Enterprise automatically based on associations.

Automatically added devices retrieve configuration from the **Global**, **Default Device Group**, **Device Mode**, and **Site** associations.

Add a Device Manually

You can manually add a device on the **Device Monitor** page.

Procedure

1. In the Polycom Device Management Service for Enterprise portal, go to **Device Monitor** and click **Add**.
2. Select the device type and model that you want to add in the **Device Type** and the **Device Model** drop-down lists.
3. Specify the MAC address for audio device or specify the serial number for other devices such as Polycom Studio.
4. Enter a device name in the **Device Name** field.

5. (Optional) In the **Device Group Association** column, select the device group to associate with and click **Apply**.
6. (Optional) In the **Configuration Profile Association** column, select the configuration profile to associate with and click **Apply**.
7. Click **Save**.
8. (Optional) Schedule a task to apply the selected configuration profiles to the device.

Edit a Device

You can update the device name, private IP address, and description using the PDMS-E portal.

Procedure

1. In the Polycom Device Management Service for Enterprise portal, go to **Device Monitor**.
2. Click a device name (hyperlink).
3. In the **Summary** tab, edit the device name, private IP address, and description.
4. Click **Update**.

Delete a Device

You can manually delete devices.

After you delete a RealPresence Trio system that registers to Polycom Cloud registration, the registration is also deleted.

Procedure

1. In the Polycom Device Management Service for Enterprise portal, go to **Device Monitor**.
2. Select a device.
3. Click **Delete** 🗑.
4. Click **OK** to confirm.

Using Polycom Cloud Services

PDMS-E works as a device management portal where you can register your devices to Polycom Cloud Services to use the Alexa for Business and Device Analytics services.

You must register with Polycom Cloud Services to use the Alexa for Business and Device Analytics services.

Note: Only Polycom Trio supports the Alexa for Business and Device Analytics services. Please refer to the Polycom Trio documents for the supported versions.

Register a Device to Polycom Cloud Services

You can register your devices to Polycom Cloud Services when adding or editing the device from the PDMS-E portal.

Currently, only Polycom Trio supports this feature. You can find the registration code on the Polycom Trio local interface or the system web interface.

Procedure

1. Do one of the following:

    - If you are adding a device, select the **Cloud Service Registration** check box.
    - If you are editing a device information, click the **Cloud Registration** tab.

2. Enter the registration code and click **Register**.

After the device registers to Polycom Cloud Services successfully, you can view its statuses for Polycom Cloud Services and Alexa for Business on the **Device Monitor** page.

Unregister a Device to Polycom Cloud Services

You can unregister your device to Polycom Cloud Services from the PDMS-E portal.

You unregister a device from Polycom Cloud Services by editing the device.

Procedure

1. Go to **Device Monitor** and click the link for the device name for which you want to unregister the device.
2. Click the **Cloud Registration** tab.
3. Click **Unregister**.

Alexa for Business

PDMS-E works as a device management portal where you can view the Alexa for Business service status and manage the Alexa for Business service rooms.

To use the Alexa for Business service, you must enable the Alexa for Business service on Polycom Cloud Services and your device. See the Polycom Cloud Services Administrator Guide for information on how to enable the service.

On PDMS-E, after you register your devices to Polycom Cloud Services successfully, you can monitor the device statuses for Polycom Cloud Services and Alexa for Business. When the device status for Alexa for Business is ready or offline, you can also manage the Alexa for Business rooms and their associations with devices.

Assign an Alexa for Business Room to a Device

After you have registered a device to Polycom Cloud Services and the Alexa for Business service status shows ready or offline, you can assign an Alexa for Business room to your device from the PDMS-E portal.

You assign an Alexa for Business room by editing the device.

Procedure

1. Go to **Device Monitor** and click the link for the device name for which you want to assign Alexa for Business.
2. Click the **Alexa for Business** tab.
3. Select a room from the **Assigned Room** drop-down list.
4. Click **Save**.

Create an Alexa for Business Room and Assign it to a Device

After you have registered a device to Polycom Cloud Services and the Alexa for Business service status shows ready or offline, you can create an Alexa for Business room and assign it to the device from the PDMS-E portal.

You create and assign an Alexa for Business room by editing the device.

Procedure

1. Go to **Device Monitor** and click the link for the device name for which you want to assign Alexa for Business.
2. Click the **Alexa for Business** tab.
3. Click **Create a Room**.
4. Enter a room name.

    You can use these characters as a room name: "a~z", "A~Z", "0~9", "#", ".", "-", "_", "( )","[ ]", and spaces. The maximum length is 80 characters.
5. Select a room profile from the **Room Profile** drop-down list.
6. Optional: Enter the room calendar information.
7. Optional: Add skill groups.
8. Click **OK**.

    The system selects the new room from the **Assigned Room** drop-down list automatically.
9. Click **Save**.

Edit an Alexa for Business Room and Assign it to a Device

After you have registered a device to Polycom Cloud Services and the Alexa for Business service status shows ready or offline, you can edit the name, profile, and the calender of an Alexa for Business room and assign the updated room to the device from the PDMS-E portal.

Procedure

1. Go to **Device Monitor** and click the link for the device name for which you want to assign Alexa for Business.
2. Click the **Alexa for Business** tab.
3. Select a room from the **Assigned Room** drop-down list.
4. Click **Edit a Room**.
5. Update the room name, room profile, and room calendar information as needed.
6. Click **OK**.
7. Click **Save**.

View Device Analytics

After you register a device to Polycom Cloud Services, you can open the Device Analytics service and view your device's information from PDMS-E.

You view device analytics by editing the device.

Procedure

1. Go to **Device Monitor** and click the link for the device name for which you want to view device analytics.
2. Click the **Cloud Registration** tab.
3. Click **View Device Analytics**.

Manage the Device Group Association

You can manage a device's group association by editing the device..

You can associate a devicewith a device group, delete it from a device group, or change the priority of multiple associated device groups.

Procedure

1. In the Polycom Device Management Service for Enterprise portal, go to **Device Monitor**.
2. Click a device name (hyperlink).
3. Click the **Groups** tab.
4. Update the information as needed.
5. Click **Update** to apply the changes.
6. Optional: Schedule a task to apply the updates to the related devices.

Manage the Configuration Profile Association to Devices

You can manage configuration profiles associated to a device by editing the device.

You can associate a device with a configuration profile, delete its association with a configuration profile, or prioritize multiple associated configuration profiles.

Procedure

1. In the Polycom Device Management Service for Enterprise portal, go to **Device Monitor**.
2. Click a device name (hyperlink).
3. Click the **Profiles** tab.
4. Update the information as needed.
5. Click **Update** to apply the configuration profile changes.
6. Optional: Schedule a task to apply the updates to the related devices.

Device Files

Polycom Device Management Service for Enterprise supports uploading a global `000000000000-*` file for all provisioned devices and uploading files for specific devices.

Use the following guidelines when uploading global config files:

- When you upload a global `000000000000-*` file as a resource file (for example, `000000000000-directory.xml` or `000000000000-license.cfg`) the service applies this file to all the devices that Polycom Device Management Service for Enterprise provisions.

- Devices get the `000000000000-*` file after connecting to the system.

- You can also upload a `000000000000-*` file or other file for a specific device.

- After a device connects to Polycom Device Management Service for Enterprise , it first gets the files uploaded for it specifically. If there is no specific file for the phone, then the phone gets the global `000000000000-*` file to use.

See the *Polycom UC Software Administrator Guide* for more information on device files.

Upload Device Files

When uploading device configuration files, you must upload the files to the correct directory, based on the purpose of the files.

Polycom Device Management Service for Enterprise supports CFG, XML, CSV, PEM, CRT, and CER file types and the following directories:

- Misc Files Directory
- Contacts Directory
- Overrides Directory
- License Directory
- User Profiles Directory
- Certificate Directory
- FLK Directory

See the *Polycom UC Software Administrator Guide* for more information on the directories.

Procedure

1. In the Polycom Device Management Service for Enterprise portal, go to **Device Monitor**.
2. Select a device.
3. Click **More** > **Upload Device File**.
4. Select a file directory.
5. Browse and select a supported file.
6. Click **Save**.
7. After you upload the files, click the device name (hyperlink).

    The **Files** > **Phone Files/Web Files/Others** section contains these files.

Manage Device Files

You can view, download, or delete devices files on the **Files** tab.

In the **Files** tab, you can find the following files:

- Provisioning Profiles: These files contain all the attributes applied to the selected device. After you remove the device from the system, the service deletes the files.
- Phone Files: These files contain the configuration data that set from the selected device local UI.
- Web Files: These files contain the configuration data that set from the selected device's web GUI.
- Other: Other files such as a file containing device's address book.

    Note: You must enable the pop-up window on your browser to view the files.

Procedure

1. In the Polycom Device Management Service for Enterprise portal, go to **Device Monitor**.
2. Click a device name (hyperlink).
3. Click the **Files** tab, view files by clicking the links of the files.

    You can delete or download files.
4. Click **Return** to go back to the **Device Monitor** page.

View Devices

You can view devices on the **Device Monitor** page.

Procedure

1. In the Polycom Device Management Service for Enterprise portal, go to **Device Monitor.**
2. Review the following device information:

Field	Description

Status	The state of the endpoint. Possible values include:
	
	 • **Device Online** (•)
	
	 • **Device Offline**
	
	 • License status
	  ○ **Licensed**
	  ○ **Unlicensed**
	  ○ **No Licensed Needed**
	
	 • Call status (only available with Polycom Cloud Relay deployed)
	  ○ **In call**
	  ○ **Call Idle**
	
	 • SIP registration status (only available with Polycom Cloud Relay deployed)
	  ○ **SIP Registered**
	  ○ **SIP Partial Registered**
	  ○ **SIP Unregistered**
	  ○ **SIP Unknown**
	
	 • Polycom Cloud Services status (only available with Polycom Trio)
	  ○ **Polycom Cloud Services Online**
	  ○ **Polycom Cloud Services Offline**
	  ○ **Polycom Cloud Services Cloud Unregistered**
	
	 • Alexa for Business status (only available with Polycom Trio)
	  ○ **Alexa for Business Ready**
	  ○ **Alexa for Business Pending**
	  ○ **Alexa for Business Offline**
	  ○ **Alexa for Business Unregistered**
	  ○ **Alexa for Business Deregistered**

Device Name	The assigned name of the device.

Field	Description
Model	The model of the device.
MAC	The MAC address of the device.
Public IP	The IP address assigned to the device.
Private IP	(Only available with Polycom Cloud Relay deployed) The private IP address that you give to the device.
SIP URI	(Only available with Polycom Cloud Relay deployed) A SIP URI is the address used to call another person via SIP. In effect, it's a user's SIP device number.
Site Name	The name of the site that the device belongs to.
Software Version	The software version of the device.

Device Status

Depending on your deployment and provisioning options, you can view different status information for your devices.

- For devices that a deployed Polycom Cloud Relay can reach, Polycom Device Management Service for Enterprise monitors all device status information including online/offline status, SIP registration, line info, and call status. The system sends API calls to devices as heartbeat messages to check devices status every 2 hours. Newly added devices may take up to 2 hours to display status.

- For devices that a deployed Polycom Cloud Relay can't reach, Polycom Device Management Service for Enterprise can only monitor whether a device is online or offline.

> **Note:** The Polycom Device Management Service for Enterprise can't monitor line info, SIP registration status, and call status on VVX business media phones with UC Software 5.7.0 due to a bug with REST API updates.

- For devices that support the Alexa for Business service, Polycom Device Management Service for Enterprise can monitor the statuses for Polycom Cloud Services and Alexa for Business.

You may see the following statuses on Polycom Device Management Service for Enterprise :

- **Online** and **Offline** status: When a device sends any message to PDMS-E, the service sets the device online.
- Call status: When a device makes or ends a call, the device sends a notification to the PDMS-E service. The service updates the status immediately.
  - **In a Call**: If a device has multiple lines, one or more lines are in a call.
  - **Idle**: The default status when you create a device in the service.
- SIP register status: When a device registers to or unregisters from a SIP server, the device sends a notification to the PDMS-E service. The service updates the status immediately.
  - **SIP Registered**: A device has multiple lines, and all lines are registered.
  - **SIP Partial Registered**: A device has multiple lines, and some lines are registered while others are not.
  - **SIP Unregistered**: A device has multiple lines, and none of the lines are registered.

- ◦ **SIP Registration Status Unknown**: A device has multiple lines, and the registration status of all lines is unknown.
- Polycom Cloud Services status: When a device registers to Polycom Cloud Services, the device sends a notification to the PDMS-E service. The service updates the status immediately.
  - ◦ **Cloud Online**: A device has registered and connected to Polycom Cloud Services.
  - ◦ **Cloud Offline**: A device has registered to Polycom Cloud Services, but it doesn't connect to Polycom Cloud Services.
  - ◦ **Cloud Unregistered**: A device has not registered to Polycom Cloud Services.
- Alexa for Business status
  - ◦ **Alexa for Business Ready**: Alexa for Business is enabled on the device and the device registers to Alexa for Business successfully. However, the device has not yet been added to a room.
  - ◦ **Alexa for Business Pending**: A device is added to an Alexa for Business room but isn't yet fully synced.
  - ◦ **Alexa for Business Offline**: A device has registered to Alexa for Business, but then Alexa for Business disables this device.
  - ◦ **Alexa for Business Unregistered**: A device hasn't registered to Alexa for Business.
- License Status
  - ◦ **Licensed**: This device consumes a PDMS-E license.
  - ◦ **Unlicensed**:This device doesn't have a PDMS-E license.
  - ◦ **No Licensed Needed**: This status is only for Polycom Studio.

View Audio Device Line Information

Polycom Device Management Service for Enterprise can monitor the line information of audio devices in the local network where you deploy Polycom Cloud Relay.

Audio devices with multiple lines have an arrow icon beside ☎ displayed to the left of the device name.

Procedure

1. In the Polycom Device Management Service for Enterprise portal, go to **Device Monitor**.
2. Click ☎ for the device that you want to view line information about.
3. Click the link for each line to view details.

View Device Details

You can view device details on the **Device Monitor** page.

Procedure

1. In the Polycom Device Management Service for Enterprise portal, go to **Device Monitor**.
2. Click a device name (hyperlink).
3. Click the **Detail** tab and view the following device information:

> **Note:** **Device Extended Information** requires that a deployed Polycom Cloud Relay can reach the device.
>
> Polycom Device Management Service for Enterprise can't provide **Device Extended Information** for devices that don't support REST API.

Device Extended Information

Field	Description
SIP URI	The address used to call another person via SIP. It's a user's SIP device number or Address of Record (AOR).
SIP User	The user ID mapped to the device's SIP URI. Polycom Device Management Service for Enterprise can't get the SIP user information for devices that don't support REST API. For example, the service can't show the SIP user of the following devices: • Polycom SoundPoint • Polycom SoundStation • Polycom SoundStructure VoIP Interface • Polycom CX5100
Last Restart Time	Endpoint's last reboot or restart time.
Uptime	The amount of time the endpoint has been working and available.

Profile Deployment Result

Field	Description
Last Provision Result	The last provisioning profile that the system did or did not successfully apply to the device. The result could be **SUCCESS** or **FAILED**.
Last Provision Time	The date and time, in the default format of `yyyy-mm-dd hh:mm:ss`, of the last provisioning message exchanged with the device.

Call Information

Field	Description
Far Site Name	When a device is in a call, this field shows the far site device name.
Far Site Number	The address of the far site endpoint that connects to the selected endpoint. The address value for the calling endpoint appears to be the dialed address.
Configuration Profile Association	This table lists the configuration profiles associated with the selected endpoint. Click **Profile Name** (hyperlink) to view the profile information.

4. Click **Return** to go back to the **Device Monitor** page.

Customize the Device List

You can search or filter devices displayed on the **Device Monitor** page.

When you search devices by entering a keyword in the **Searching** field, the results display only on the first page without being sorted. For example, if you select to display 10 items per page and the search results return 20, only 10 matching devices display.

When you use **Filter** (with drop-down lists), all the matching devices display.

Procedure

1. In the Polycom Device Management Service for Enterprise portal, go to **Device Monitor**.
2. Click **Filter** to filter the device list using your preferred conditions.
3. Click **Reset** if you want to do another search.
4. Press **Enter** to do the search.
5. Enter a keyword in the **Search** field beside **Filter** to search for the keyword among the filter results.

Managing Multiple Devices

You can manage multiple devices by importing a CSV file to add or update devices managed by the Polycom Device Management Service for Enterprise .

You can create the CSV file with a plain text editor or use Microsoft Excel. However, do not use Microsoft Excel to edit CSV files on a double-byte operating system.

The Polycom Device Management Service for Enterprise defines all the CSV-imported devices as Polycom devices by default. When the devices connect to the service, the service recognizes the device type and model.

Note: Limit the number of device records to less than 10,000 devices in your CSV file to ensure a successful import.

Creating a Device CSV File

You can create a CSV file to manage multiple devices in the Polycom Device Management Service for Enterprise .

To ensure the service can read the CSV file, use the following guidelines:

- The CSV file structure must contain a mandatory header in addition to any number of desired optional configuration parameters as required by the environment.
- You can use commas (","), semicolons(";"), or tabs as field separators and enclose them in quotation marks if they are embedded in a field.

Note: You must use only one type of separator in one CSV file. For example, if you use commas as separators, you can't use semicolons or tabs as separators in the same CSV file.

Use the following tables to create a new CSV file or export existing devices to create the CSV file structure.

CSV File Headers

Header	Description
`mac address`/serial_number	Mandatory header
	• The value is the MAC address or serial number of the device being added.
	• You use MAC address to identify Polycom phones. The format must be like "`0123456789ab`".
	• You use serial number to identify other UC devices such as Polycom Studio. The mac_address field can be an optional field for these devices.
	• The serial number format must be like "`8218404c20ccf9`".
	• The notation format of the mac address or serial_number should not include colon (:) or hyphen (-) separators.
endpoint_type	Optional header for Plycom phones
	Mandatory header only for other Polycom UC devices such as Polycom Studio
	You must use the following values for endpoint type:
	• VVX
	• SoundStation
	• SoundPoint
	• SoundStructure VoIP Interface
	• Polycom Trio
	• CX
	• Polycom Studio
`endpoint_name`	Optional header.
	The name of the endpoint as displayed in the service. For phones, the device name is purely for organizational and display purposes inside the service and is never communicated back to the device. For other UC devices, PDMS-E updates the device to the specified name.
	You can use the following characters for this field:
	`"a~z", "A~Z", "0~9", "#", ".",` `"-", "_", "( )","[ ]`
	Other characters result in an import error.

Header	Description
`endpoint_group`	Optional header.
	A list of all associated device groups. The groups must already exist in the service for the association to occur. You can associate a single device to numerous groups, each of which are separated by a vertical bar (|) character.
	You can use the following characters for this field:
	`"a~z", "A~Z", "0~9", "#", ".",` `"-", "_", "( )","[ ]`
	Other characters result in an import error.
User-defined attribute headers	Parameters defined for a MAC address or a serial number are added to a dynamically created configuration profile called `MAC_Address_CSV_profile` or serial_number_CSV_profile and associated to the device in which they were defined.

Example CSV Header Format

Use the following code example to format the headers in your CSV file.

```
mac_address, serial_number, endpoint_type, endpoint_name, endpoint_group,
reg.1.address, reg.1.displayname, reg.1.auth.userId, reg.1.auth.password,
[any attribute name]
```

Note: While you can define any UC Software parameter without a limitation on the type or format of the value, Polycom recommends that you include only parameters that are unique to a specific endpoint in the CSV import process.

Combine parameters that share values across multiple devices to an endpoint group and associate those parameters through the `endpoint_group` field.

The header format is case and sequence insensitive.

CSV File Examples

Use the following examples in your CSV file to add multiple devices to the service .

Use the following format to add a phone with two line addresses:

```
mac_address, endpoint_name, endpoint_group, reg.1.address, reg.
1.displayname, reg.1.auth.userId, reg.1.auth.password, reg.2.address, reg.
2.displayname, reg.2.auth.userId, reg.2.auth.password,
0004F23EA4E1, SoundPoint-EA4E1, EPGroup1|EPGroup2, 1000, Jon Smith, 1000,
1000, 1001, Jon Smith1, 1001, 1001
```

Use the following format to add a phone with a line address:

```
mac_address,reg.1.address
0004F24FD08E, 1001
```

Use the following format to add a phone without a line index but an attribute setting in the profile:

```
mac_address, device.hostname
0004F23EA4E1, SoundPointA4E1
0004F24FD08E, SoundPointD08E
```

Use the following format to add an UC device such as a Polycom Studio:

```
mac_address, serial_number, endpoint_type, endpoint_name, endpoint_group
00E0DB4C20CC, 8218404c20ccf9, Polycom Studio, Jsmith_Studio, EPGroup1|
EPGroup2
```

Import Multiple Devices Using a CSV File

You can add new devices or updating existing devices by importing them through a CSV file.

Procedure

1. In the Polycom Device Management Service for Enterprise portal, go to **Device Monitor**.
2. Click **Import Devices**.
3. Select a separator from the **Separator** drop down list.
4. Click **Choose File**.
5. Browse to the CSV file and select the file.
6. Select the **Update Existing Device Records** check box to update the existing devices in the system. and choose one of the following options:
    - **Overwrite Existing Device Attributes**
    - **Merge and update. Keep all device attributes and update duplicates.**
7. Click **Import**.

    The service doesn't apply updates to devices until the next polling interval.
8. View the import results on the **Import Devices Result** dialog.
9. Optional: Click **Download Import Log** to download the import log.
10. Click **OK**.

Updating Existing Devices Using a CSV File

In addition to creating new devices, you can update existing devices through the CSV import.

To update devices, you must select the **Update the Existing Device Records** option before importing the CSV file. Any deivce that already exists in Polycom Device Management Service for Enterprise is ignored if you don't select this option.

When updating existing devices, you can use two methods to update parameters:

- **Overwrite Existing Attributes**

    The service deletes all existing parameters defined in the `MAC_Address_CSV_profile` or `serial_number_CSV_profile` configuration profile for the MAC addresses or serial numbers

contained in the CSV file. The service updates group associations and parameters to the values defined in the imported CSV file.

- **Merge and update**

  The service updates all existing parameters defined in the `MAC_Address_CSV_profile` or `serial_number_CSV_profile` for a device, for the MAC addresses or serial numbers contained in the CSV file, if you define a new value. If you don't define the parameter in the imported CSV file but have previously defined it in a previous import, the service keeps the value. The service adds all newly defined parameters to the existing `MAC_Address_CSV_profile` or `serial_number_CSV_profile` configuration profile.

Bulk Edit Devices

You can bulk edit devices by exporting the device list, which includes the updated attributes in the auto-generated profiles (if any), to a CSV file.

You can export only the user-imported profiles (named with `MAC_Address_csv_profile or serial_number_CSV_profile`) from the device. You cannot export other manually associated user-defined profiles when exporting the device.

Once you update the data by editing the CSV file, import the CSV file to update the device data.

Format:

```
mac_address, serial_number, endpoint_name, endpoint_type, endpoint_group,
reg.[1-5].address, reg.[1-5].displayname, reg.[1-5].auth.userId, reg.
[1-5].auth.password, [any attribute name]
```

Note: The MAC address or serial number is the unique identifier of a device. The service treats a changed MAC address or serial number as a new device instead of an update to the old one.

Procedure

1. In the Polycom Device Management Service for Enterprise portal, go to **Device Monitor**.
2. Click **Export Devices**.
3. Select a separator.
4. Click **Export and Download** to download the CSV file.
5. Open the CSV file and edit the device information as needed.
6. Reimport the updated CSV file.

Auto-Generated Configuration Profile

If a header in a CSV file contains user-defined device attributes and the attributes for a device have values, the Polycom Device Management Service for Enterprise generates a configuration profile for this device.

The auto-generated device profile has the following characteristics:

- The profile name is `Phone_MACaddress_csv_profile` for phone or `serial_number_csv_profile` for other UC devices such as Polycom Studio.
- The profile is associated with the device and has the highest priority by default.

- You can't associate the profile with other conditions such as **Global**, **Device Group**, **Site**, or **Device Models**. You also can't associate this profile with other devices.
- The profile type is **User Imported**. You can filter the user imported profiles by profile type on the **Profile Configuration** page.
- You can remove this profile from the service, and the service also removes the device association. After you delete the device, the service also deletes the profile.

Provisioning and Upgrading RealPresence Group Series Via Polycom Trio

You can provision and update a RealPresence Group Series system via a Polycom Trio system when they pair.

Polycom Device Management Service for Enterprise can provision the specific RealPresence Group Series parameters that Polycom Trio supports. You also can update a paired RealPresence Group Series system by creating a configuration profile to set an upgrade version.

If you want to upgrade both RealPresence Group Series and Polycom Trio when they pair, both systems require a configuration profile. Therefore, you need one configuration profile that specifies **RealPresence Group Series** as the software, and another one that specifies the software as **Polycom Phone**.

After you connect the RealPresence Group Series, you can see the available upgrading packages from the **Software** drop-down list when you add a configuration profile. If you can't find the upgrading packages, contact Polycom Global Support.

Managing RealPresence Group Series License Files

You can add, view, download, and delete a RealPresence Group Series license file from Polycom Device Management Service for Enterprise .

You must add a valid license file for each available RealPresence Group Series upgrading image before you do the upgrade. You can download a license file, make necessary updates, and then upload it again to overwrite the old one.

Upload a License File for RealPresence Group Series

You must upload the valid license key file for each RealPresence Group Series upgrading image.

When you upload a new license file, the new one overwrites the old one.

Procedure
1. Go to **Software License**.
2. Click **Add**.
3. Select an image that you want to upload the license file for.
4. Browse and select the correct license file.
5. Click **Save**.

View a License File for RealPresence Group Series

You can view the uploaded license key files for each RealPresence Group Series image.

Procedure
1. Go to **Software License**.

2. Click an upgrading image.
3. Click **View License Key**.

Download a License File

When you need to edit an uploaded license file, you can download the file, make changes, and then reupload the file to overwrite the old one.

Procedure

1. Go to **Software License**.
2. Select an image that you want to download the license file.
3. Click **Download**.

   The license file saves to your local drive.

Refresh License Files

When multiple users log in using the same tenant account and add license files, you can refresh the **Software License** page to view the latest updates.

Polycom Device Management Service for Enterprise refreshes this page every 15 minutes.

Procedure

1. Go to **Software License**.
2. Click **Refresh**.

Delete a License File

You can delete the uploaded license key files for the RealPresence Group Series upgrading images.

Procedure

1. Go to **Software License**.
2. Select an image that you want to delete.
3. Click **Delete**.
4. Click **OK** to confirm the deletion.

Controlling Devices via REST API

You can control devices to do certain tasks on Polycom Device Management Service for Enterprise .

When you start an action, Polycom Device Management Service for Enterprise sends the corresponding command to devices via REST API.

- Place a call remotely from a provisioned device
- Reset a device
- Get or set device parameters
- Capture a device's screen
- Change the device's Active Directory password
- Get device configurations
- Capture Device Network Packet

To support device control, a device must support REST API and Polycom Cloud Relay must be able to reach it.

Remote Call Control

You can control provisioned phones remotely via REST API commands.

After you make a call using remote call control on a provisioned phone, the system creates an immediately executed task.

Place a Call Remotely from a Provisioned Device

You can remotely control a provisioned phone to place a call using Polycom Device Management Service for Enterprise .

Procedure

1. In the Polycom Device Management Service for Enterprise portal, go to **Device Monitor**.
2. Select a supported phone.
3. Click **More** > **Remote Call Control**.
4. Enter the destination phone address in the **Call to** field.
5. Select the URL type from the **Dial Type** drop down list.
6. Enter a line number that you want to use to make the call.
7. Click **Apply**.

View Remote Call Control Task Status

After you set up a remote call, the system creates a scheduled task to place the call. You can view the task status and execution results.

Procedure

1. In the Polycom Device Management Service for Enterprise portal, go to **Management Agent** > **Scheduled Tasks**.
2. Click **Filter**.
3. Select **Device Control: Dial Out** from the **Type** drop-down list to filter all the remote call control tasks.
4. Select a task.
5. Click **View Detail** to view its status and detailed information.
6. Click **Return** to go back to the **Scheduled Tasks** page.

Resetting Devices

You can reset a specific device or reset devices that belong to a device group or a site from Polycom Device Management Service for Enterprise .

The service supports the following reset options:

- Web Configuration: Polycom Device Management Service for Enterprise removes web files and resets the phone web configuration.
- Local Configuration: Polycom Device Management Service for Enterprise removes phone files and resets the phone local configuration.
- Device Settings: Polycom Device Management Service for Enterprise resets the phone device settings.
- Web, Local, and Device Settings: Polycom Device Management Service for Enterprise removes web and phone files and resets the web, local, and device settings.
- Reset to Factory Settings: Polycom Device Management Service for Enterprise removes all the phone related files and resets the phone to factory settings.

Reset a Specific Device

You can reset a specific device.

Procedure

1. In the Polycom Device Management Service for Enterprise portal, go to **Device Monitor**.
2. Select a device that you want to reset.
3. Select **More** > **Reset Device**.
4. Select a reset option.
5. Click **Reset**.
6. Schedule a task to execute the reset.

Reset Devices in a Group

You can reset devices belonging to a group.

Procedure

1. In the Polycom Device Management Service for Enterprise portal, go to **Device Groups**.
2. Select a device group.
3. Select **More** > **Reset Device**.
4. Select a reset option.
5. Click **Reset**.
6. Schedule a task to execute the reset.

Reset Devices in a Site

You can reset devices belonging to a site.

Procedure

1. In the Polycom Device Management Service for Enterprise portal, go to **Sites**.
2. Select a site.
3. Select **More** > **Reset Device**.
4. Select a reset option.
5. Click **Reset**.
6. Schedule a task to execute the reset.

View Reset Task Status

The system creates a scheduled task to reset the devices. You can view the task status and execution results.

Procedure

1. In the Polycom Device Management Service for Enterprise portal, go to **Management Agent** > **Scheduled Tasks**.
2. Click **Filter**.
3. Select **Device Control: Reset** from the **Type** drop-down list to filter all the reset tasks.
4. Select a task.
5. Click **View Detail** to view its status and detailed information.
6. Click **Return** to go back to the **Scheduled Tasks** page.

Getting and Setting Device Parameters

When you select a specific device to get its parameters, Polycom Device Management Service for Enterprise gets the device's parameters by sending corresponding REST API commands to the selected device.

After viewing the parameters, you can set new values to the parameters from Polycom Device Management Service for Enterprise . You also can set parameters to the same values for devices in a device group or a site.

The services saves all updates that you make using this option as device local configurations.

Get and Set Device Parameters

You can select a device, view its parameters, and change the parameter values.

After you select a parameter, Polycom Device Management Service for Enterprise sends REST API commands to get the parameter value and type.

Procedure
1. In the Polycom Device Management Service for Enterprise portal, go to **Device Monitor**.
2. Select a device.
3. Select **More** > **Get/Set Parameters**.
4. In the **Get** tab, enter the parameters.
   - In the **Standard Fields** tab, search for the parameter in the XSD file and click it.
   - In the **Custom Fields** tab, enter a parameter name and click **Add**.
   -

     Polycom Device Management Service for Enterprise gets the selected parameters from the device. You can get up to 20 parameters at one time.
5. If necessary, click **Refresh** to get all the parameters again to check the current values.
6. Click the **Set** tab.
7. Remove the parameters that you don't want to update.
8. Enter the new values for the parameters that you want to update.
9. Click **Save**.
10. Schedule a task to execute the parameter updates.

Set Parameters for Devices in a Device Group

You can update specific parameters to the same values for devices belonging to a same device group.

Procedure
1. In the Polycom Device Management Service for Enterprise portal, go to **Device Groups**.
2. Select a device group.
3. Select **More** > **Set Device Parameters**.
4. Select the parameters you want to set.
   - In the **Standard Fields** tab, search for the parameter in the XSD file and click it.
   - In the **Custom Fields** tab, enter a parameter name and click **Add**.
5. Enter the new values for the parameters that you want to update.
6. Click **Save**.
7. Schedule a task to execute the parameter updates.

Set Parameters for Devices in a Site

You can update specific parameters to the same values for devices belonging to a same site.

Procedure

1. In the Polycom Device Management Service for Enterprise portal, go to **Sites**.
2. Select a site.
3. Select **More** > **Set Device Parameters**.
4. Select the parameters you want to set.
    - In the **Standard Fields** tab, search for the parameter in the XSD file and click it.
    - In the **Custom Fields** tab, enter a parameter name and click **Add**.
5. Enter the new values for the parameters that you want to update.
6. Click **Save**.
7. Schedule a task to execute the parameter updates.

View Set Parameter Task Status

The system creates a scheduled task to set parameters for the devices. You can view the task status and execution results.

Procedure

1. In the Polycom Device Management Service for Enterprise portal, go to **Management Agent** > **Scheduled Tasks**.
2. Click **Filter**.
3. Select **Device Control: Set Parameters** from the **Type** drop-down list to filter all the set parameters tasks.
4. Select a task.
5. Click **View Detail** to view its status and detailed information.
6. Click **Return** to go back to the **Scheduled Tasks** page.

Changing Device Active Directory Passwords

You can change the Active Directory password for a specific device or set a same Active Directory password for the devices belonging to the same device group from Polycom Device Management Service for Enterprise .

Change the Active Directory Password for a Specific Device

You can select a device and change its Active Directory password.

Procedure

1. In the Polycom Device Management Service for Enterprise portal, go to **Device Monitor**.
2. Select a device.
3. Select **More** > **Change Device Active Directory Password**.
4. Enter a new password in the **New Password** field.
5. Click **Save**.

Set the Active Directory Password for Devices in a Device Group

You can set the same Active Directory password to devices belonging to a device group.

Procedure

1. In the Polycom Device Management Service for Enterprise portal, go to **Device Groups**.
2. Select a device group.
3. Select **More** > **Change Device Active Directory Password**.
4. Enter a new password in the **New Password** field.
5. Click **Save**.
6. Schedule a task to execute the password updates.

Set the Active Directory Password for Devices in a Site

You can set the same Active Directory password to devices belonging to the same site.

Procedure

1. In the Polycom Device Management Service for Enterprise portal, go to **Sites**.
2. Select a site.
3. Select **More** > **Change Device Active Directory Password**.
4. Enter a new password in the **New Password** field.
5. Click **Save**.
6. Schedule a task to execute the password updates.

View Active Directory Password Change Task Status

The service creates a scheduled task to change the Active Directory password for the devices. You can view the task status and execution results.

Procedure

1. In the Polycom Device Management Service for Enterprise portal, go to **Management Agent** > **Scheduled Tasks**.
2. Click **Filter**.
3. Select **Device Control: Set Parameters** from the **Type** drop down list to filter all the set parameters tasks.
4. Select a task.
5. Click **View Detail** to view its status and detailed information.
6. Click **Return** to go back to the **Scheduled Tasks** page.

Get Device Configurations

You can get a device's configurations from Polycom Device Management Service for Enterprise

You can get the following configurations for a device:

- **Config Files**: Device's provisioning configurations
- **Local**: Device's local configurations
- **Web**: Device's web configurations
- **Device Settings**: Device settings
- **All (Except Device Settings)**: Device provisioning, local, and web configurations

Procedure

1. In the Polycom Device Management Service for Enterprise portal, go to **Device Monitor**.
2. Select a device.
3. Select **More** > **Get Device Configuration**.
4. Select the configuration option that you want to get.

5. Click **Get**.

The service gets the device configurations and shows the configurations on this page.

Capture a Device Screen

You can capture a device's current screen shot from Polycom Device Management Service for Enterprise .

Make sure that you have enabled the **Screen Capture** feature on the device that you want to capture a screen shot. See the *Polycom UC Software Administrator Guide* for information on how to enable **Screen Capture**.

Procedure

1. In the Polycom Device Management Service for Enterprise portal, go to **Device Monitor**.
2. Select a device.
3. Select **More** > **Capture Screen**.

   Polycom Device Management Service for Enterprise loads the current screen shot for the device.
4. Optional: Click **Retry** to capture the device's current screen shot again.

Capture a Device Network Packet

You can capture a device network packet from Polycom Device Management Service for Enterprise Polycom Trio systems and VVX phones for debugging.

You must set the `diag.pcap.enabled` parameter to `1` on the phone before starting the packet capture. You can set the value in a configuration profile or by using the setting parameter command. This change may restart the phone. You can change the value back to `0` after you are done with the capture.

Procedure

1. In the Polycom Device Management Service for Enterprise portal, go to **Device Monitor**.
2. Select a device.
3. Select **More** > **Capture Packet**.
4. Optional: Enter a filter to customize the packet that you want to capture. You must follow the Wireshark filter syntax.
5. Enter a file size between 1 and 10 MB that you want the capture stops by.
6. Enter a time between 1 and 2880 minutes that you want the capture stops by.
7. Click **Start** to start the capture.

   After the task is completed, you can see the log file on this page.
8. Download the log file after the task completes.

Stop or Cancel Network Capture

You can stop or cancel the network capture before the task is completed.

When you stop the task, Polycom Device Management Service for Enterprise still saves the log file. When you cancel the task, Polycom Device Management Service for Enterprise doesn't save the log file.

Procedure

1. In the Polycom Device Management Service for Enterprise portal, go to **Device Monitor**.
2. Select the device that you want to stop or cancel the capture.
3. Click **Stop or Cancel**.

View Device Network Packet Log File

Polycom Device Management Service for Enterprise saves the network packet log files. You can download and view the file.

After you capture the device network packet, Polycom Device Management Service for Enterprise saves the log file

Procedure

1. In the Polycom Device Management Service for Enterprise portal, go to **Device Monitor**.
2. Click the device name that the service captured the network packet for.
3. Click **Logs**.
4. Filter the log files by time.

    The network capture log file name is similar to `mac-address_time-stamp.pcap.tar.gz`. For example, `0004f2fcfc20_2019.01.14_061046.pcap.tar.gz`.
5. Download and view the file.

Rebooting Devices

You can successfully reboot devices only when Polycom Cloud Relay can reach the devices.

You can choose to reboot a specific device or reboot the devices belonging to a device group or a site.

Reboot a Device

You can reboot a specific device.

Procedure

1. In the Polycom Device Management Service for Enterprise portal, go to **Device Monitor**.
2. Select a device that you want to reboot.
3. Click **More** > **Reboot Device.**
4. Schedule a task to reboot the device or click **Cancel** to cancel the reboot.

Reboot Devices in a Device Group

You can reboot devices in a device group.

Procedure

1. In the Polycom Device Management Service for Enterprise portal, go to **Device Groups**.
2. Select a device group.
3. Click **More** > **Reboot Device**.
4. Schedule a task to reboot the devices or click **Cancel** to cancel the reboot.

Reboot Devices in a Site

You can reboot devices in a site.

Procedure

1. In the Polycom Device Management Service for Enterprise portal, go to **Sites**.
2. Select a site.
3. Click **More** > **Reboot Device**.

4. Schedule a task to reboot the devices or click **Cancel** to cancel the reboot.

View Reboot Device Task Status

After you schedule a task to reboot devices, the service reboots the phones according to the scheduled time.

You can view task's status, and after the service executes the task, you can view the results. The task starts with `Apply-Reboot-****` by default.

Procedure

1. In the Polycom Device Management Service for Enterprise portal, go to **Management Agent** > **Scheduled Tasks**.
2. Click **Filter**.
3. Select **Device Control: Reboot** from the **Type** drop-down list to filter all the reboot tasks.
4. Click a reboot task that you want to view.
   - If the task is not executed, you can click to edit the task.
   - If the task is executed, you can click **View Detail** to view its status and executing results.
5. Click **Return** to go back to the **Scheduled Tasks** page.

Required Port for Polycom Device Management Service for Enterprise

The following port is required for Polycom Device Management Service for Enterprise .

Required Outbound Firewall Port for Polycom Device Management Service for Enterprise

Port	Type	State (Open/Listening)	Description
443	TLS	Open	This port is used for devices provisioning and software images download. The following FQDNs are contacted via HTTPs/443: • `www.pdms.plcm.cloud` • `<host_name>.pdms.plcm.cloud` `<host_name>` can be customized. Contact Polycom Global Support to update the host name. **Note:** Note: You can retrieve the IP for any of the below URLs by using the following command in a command window: `nslookup <FQDN>` . If you are unfamiliar with commands like this, consult with your network administrator.

Troubleshooting

Topics:

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The section includes options for troubleshooting and solutions to resolve certain issues with the Polycom Device Management Service for Enterprise or related Polycom products.

Test Connectivity to Polycom Device Management Service for Enterprise

You can verify connectivity to the Polycom Device Management Service for Enterprise from your devices.

For example, if your provisioned phone stops working, you can test the connectivity to troubleshoot if the problem resides in the phone or service.

Procedure

1. In a web browser, enter `https://`*<your_service_FQDN>*`.pdms.plcm.cloud/ 000000000000.cfg`.

   - If the browser prompts for credentials, you're connected to the Polycom Device Management Service for Enterprise .
   - If the browser doesn't prompt for credentials, HTTPS connectivity to the Polycom Cloud environment has been blocked by your firewall.

2. If the browser doesn't prompt for credentials, you may proxy the requests through the Polycom Cloud Relay software to connect to Polycom Device Management Service for Enterprise from your network.

Failed to Find Associated Software in a Configuration Profile

When you open a configuration profile, if the profile cannot find its associated software image, an error message like "Couldn't find software image" will show.

In this case, you can either select a new image or contact Polycom Global Support to upload the images that you need.

Download Activity Logs

The Polycom Device Management Service for Enterprise saves the administrator operations logs.

The service provides activity logs for adding, editing, deleting, and other operations in a weekly log file. The system retains up to four weeks worth of logs.

Procedure

1. Click **Username** > **Download Activity Log.**

2. Specify the date for the log that you want to download.

3. Click **Download**.

   The logs for the week of the specified date download. For example, if today is Friday and you select today, the log file from Monday to Friday downloads. If you select Monday, the same log file downloads.

Saving Log Files to an External Server

If you want to collect device log files on an external server, you can include the `LOG_FILE_DIRECTORY` attribute in a configuration profile to be deployed to the devices.

You can specify a FTP server or HTTP server address. The Polycom Device Management Service for Enterprise sends the device log files to the specified server.

You send logs to an HTTP, HTTPS, FTP, FTPS, or TFTP server by providing the full string value for the server in the `LOG_FILE_DIRECTORY` attribute.

For example:

`[protocol]://[user]:[password]@[server address]/[path]`

- Where `[protocol]` may be:
  - HTTP
  - HTTPS
  - FTP
  - FTPS
  - TFTP
- Where [`Server address`] may be either IP or FQDN Host.
- [`Path`] is optional and environment dependent.
- The variable `$mac_address` can be included. For example: `http:// user:password@1.2.3.4/${mac_address}`

  `${mac_address}` is included in a path. When deployed, the service replaces the value with the phone's MAC address.

Appendix

Topics:

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This appendix lists the required browsers and the tested and supported devices.

Browser Requirements

Using one of the web browsers in the following table to log in to the Polycom Device Management Service for Enterprise .

Supported Browsers

Product	Tested Versions
Google Chrome™	Version 45.0 or later
Microsoft Internet Explorer	Version 11.0

Limitations

When using Internet Explorer, Polycom Device Management Service for Enterprise may fail to respond to the following operations:

- Refreshing the **Device Monitor** page when you click the **Refresh** button frequently
- Searching attributes in a configuration profile frequently

When using the service, you might not be able to go back to your previous session by clicking **Continue my Session** if you have been idle too long, The portal might also display a **Service is in ERROR** message. If this happens, go back to the Polycom Cloud Services home page and log in again.

Products Tested with Polycom Device Management Service for Enterprise

The Polycom Device Management Service for Enterprise is tested with other products.

The following list is not a complete inventory of compatible equipment. It lists the products that have been tested for compatibility with Polycom Device Management Service for Enterprise .

Note: Polycom recommends that you upgrade your Polycom devices with the latest software versions, as compatibility issues may already have been addressed by software updates. To find the supported products and software versions, see the [Current Polycom Interoperability Matrix](#).

Products Tested with this Release

Product	Tested Versions
Polycom UC Devices	
Polycom Trio™ 8800	5.8.0, 5.9.0
Polycom Trio™ 8500	5.8.0, 5.9.0
Polycom Trio™ Visual+	5.8.0, 5.9.0
Polycom® SoundPoint® IP 300/450/560/650/670	4.0.14
Polycom® SoundStation® IP 5000/6000/7000	4.0.14
Polycom® SoundStation® Duo	4.1.0, 4.1.1
Polycom® SoundStructure® VoIP Interface (with VOIP card)	5.8.1
Polycom® VVX® 150/250/350/450	5.9.0, 5.9.1
Polycom® VVX® 101//150/201/250 Polycom® VVX® 300/301/310/311/350 Polycom® VVX® 400/401/410/411/450 Polycom® VVX® 500/501 Polycom® VVX® 600/601 Polycom® VVX® 1500	5.9.0, 5.9.1
Polycom® CX5100	1.3.3, 1.3.4
Polycom® CX5500	1.3.3, 1.3.4
Polycom Studio	1.0

Interoperability Requirements and Limitations

Polycom Device Management Service for Enterprise contains the following interoperability requirements and limitations:

- Polycom Device Management Service for Enterprise requires TLS 1.2 for audio devices to connect it.
- If an audio device does not support TLS 1.2, it can be provisioned by Polycom Device Management Service for Enterprise only when it is directly registered to the Polycom Cloud Relay. The device can't be provisioned when directly connected to Polycom Device Management Service for Enterprise .
- Polycom CX5500 cannot update call status to Polycom Device Management Service for Enterprise .

- Polycom Device Management Service for Enterprise can't monitor SIP user information of devices that don't support REST API.