Cisco Prime Collaboration Provisioning Install and Upgrade Guide, 12.5

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Introduction to Cisco Prime Collaboration Provisioning

This section explains the following:

Cisco Prime Collaboration Provisioning Overview

Cisco Prime Collaboration Provisioning provides a scalable web-based solution to manage your company's next-generation communication services. Cisco Prime Collaboration Provisioning manages IP communication endpoints and services in an integrated IP telephony, video, voicemail, and unified messaging environment that includes Cisco Unified Communications Manager, Cisco Unified Communications Manager Express, Cisco Unity (not applicable for Cisco Prime Collaboration 11.0 and later versions), Cisco Unity Express, Cisco Unity Connection systems, and analog gateways.

Note

- Throughout this document, any reference to Cisco Unified Communications Manager can also be understood to refer to Cisco Unified Communications Manager, unless explicitly noted.

- Video provisioning is supported for endpoints registered to Cisco Unified Communications Manager only. Cisco Prime Collaboration Provisioning does not support video endpoints registered to Video Communication Server (VCS).

Cisco Prime Collaboration Provisioning provides the following features:

- Provisioning for initial deployments and implementations, and then remains deployed to provide ongoing operational provisioning and activation services for individual users.

- A single, consolidated view of users across the organization. It provides a set of business-level management abstractions, which are policy-driven by using automation, for managing user services across the Cisco Unified Communications applications.

- Template capability, which permits defining standard configurations that can be reused for new sites or location deployments. Batch provisioning permits the rollout of large numbers of users at the same time.

- Administrators can configure policy at various levels to determine who can do delegated management, for whom that delegation applies, how business-level services apply to Cisco Collaboration Systems, and which types of users are permitted to order which standard services.

  By using this policy and standard configuration approach, you can provision and activate user services easily. At the same time, it retains the overall ability to manage and provide services that use the underlying Cisco Unified Communications applications.

Refer Cisco Prime Collaboration 12.X Data Sheet for more details on the features and benefits of Cisco Prime Collaboration Provisioning.

Cisco Prime Collaboration Provisioning permits standard services (for example an endpoint, line, or voice mail) to be ordered for a user (the owner of the individual endpoint, line, or voice mail). You can also order Cisco Jabber Services for Tablet, Desktop, Android, and iPhone. Cisco Prime Collaboration Provisioning processes all changes to the underlying Cisco Unified Communications applications as service requests or orders.

Cisco Prime Collaboration Provisioning creates an order to make a user-level change (to an endpoint, a line, and so on), or an IP communications-level infrastructure change (such as provisioning a new calling search space or route pattern). All orders in the system are tracked and viewable, both across orders and by username or ID. The order records show who initiated the order, the times of various process steps, and what the order contained.

Cisco Prime Collaboration Provisioning allows delegation of the order management capability so that requests for service additions, changes, or deletions can be done without requiring an underlying knowledge of the voice applications that are delivering those services. Cisco Prime Collaboration Provisioning provides the same service management experience, regardless of the technology delivering the Cisco Unified Communications services.

Common Terminologies in Cisco Prime Collaboration Provisioning

- Device—Includes all applications such as Cisco Unified Communications Manager, Cisco Unified Communications Manager Express, Cisco Instant Messaging and Presence (IM&P), and Cisco Unity Connection. Also includes infrastructure components such as ISR Gateway devices, Cisco IOS Router.
- Processor—A proxy for each instance of a device.
    - A Call Processor is a proxy for each instance of Cisco Unified Communications Manager and Cisco Unified Communications Manager Express.
    - A Unified Message Processor is a proxy for each instance of Cisco Unity (not applicable for Cisco Prime Collaboration 11.0 and later versions), Cisco Unity Express, and Cisco Unity Connection.
    - A Unified Presence Processor is a proxy for each instance of IM and Presence.
- Endpoint—Includes all active software and hardware voice, video, and collaboration devices with which the users interact. For example, phones (99xx, 88xx, 79xx, 78xx), tablets, Telepresence devices, Cisco Jabber clients, personal Telepresence units (DX series, EX series, MX series, SX series), mobile devices running Cisco Jabber, and so on.
- User—A person for whom an active IP Telephony service has been enabled. A user in Prime Collaboration Provisioning also represents an entity that can access Prime Collaboration Provisioning to perform various activities.
- Service—Service is the settings and integration needed to perform a series of functions expected by the user. For example, providing an endpoint service implies that the user will be able to perform dial out, ring, allow answering, have speed dials, forward to voicemail, transfer, conference and so on.

- Domains—Domains are groupings of users. One or more system users can be authorized to manage services for users within the Domain. In addition, rules or policies may be set on a Domain; those rules and policies will apply to services for users in that Domain. Common policies can also be applied on operations within a Domain. A domain administrator handles moves, adds, changes, and deletes (MACD) for users in that domain. Advanced Provisioning supports assigning individual administrators to individual groups.

- Service Areas—Service Areas are groupings within a Domain that are used to structure and manage the required IP telephony and messaging services across geographic, organizational, or technological boundaries. The Service Area typically acts as a service offering location, or site, and provides a template mechanism that determines provisioning attribute values used during order processing. A Service Area also handles Cisco Unified CM partitioning and class of service by directing which location, device pool and route partition assignments to use for any user provisioned into that Service Area.

- User roles—User roles provide policy enforcement, controlling which products and services are allowed to be ordered for different types of users such as contractors, executives or sales persons. They are also used in a filtering process that controls what choices are presented to order administrators at order time. The User Role setup also determines what services are ordered and which service templates are applied for a given user type during the Automatic Service Provisioning process. An administrator may create many User Roles to define different levels of services. The default user roles are: Employee, Executive and Room.

- Service Templates—Service Templates are a convenience for administrators setting up devices or ordering services for an end-user. Service Templates allow small or large amounts of settings to be collected into a single template which can be applied to endpoints or services. This saves time over setting many individual attributes and provides accuracy to prevent missed attributes or typos in attribute fields. Service Templates can leverage keywords and keyword truncation to customize line text displayed on endpoints. Service Templates contain provisioning attributes for a service and enables you to configure service attribute settings using provisioning attributes. Provisioning attributes are configuration settings that are applied to a service during activation.

What's New in Cisco Prime Collaboration Provisioning Install and Upgrade Guide 12.5

Version	Feature Name	Feature Description	Where Documented
Cisco Prime Collaboration Provisioning Install and Upgrade Guide 12.5			
12.5	General	Features and enhancements after upgrade.	'What's New In Cisco Prime Collaboration Provisioning 12.5' section of the Cisco Prime Collaboration Provisioning--Standard and Advanced Guide, 12.5

Cisco Prime Collaboration High Availability

Cisco Prime Collaboration supports high availability (HA) through the VMware vSphere HA feature. You do not need an additional Cisco Prime Collaboration license to configure HA. For details on how to configure the virtualization layer HA for Cisco Prime Collaboration, see the VMware vSphere HA for Cisco Prime Collaboration white paper.

C H A P T E R 2

Cisco Prime Collaboration Licensing

Cisco Prime Collaboration is a licensed software product that is secured to the MAC of the virtual machine. The Cisco Prime Collaboration license enables the features for the Cisco Prime Collaboration application that you choose to install. You can order license for the Cisco Prime Collaboration Provisioning. This section contains the following topics:

Access to the Software Image, PAK, and License File

The product numbers ordered for Cisco Prime Collaboration Provisioning are: R-xxx and L-xxx. When you order the product numbers for Cisco Prime Collaboration Provisioning, an email is sent to your ship-to email address. This email contains the instructions on how you can access the Cisco eDelivery site so that you can download the software images and license Product Authorization Keys (PAKs).

Note If you are using Smart Licensing, you need not use PAKs. For more information on smart licensing, see the 'Cisco Smart Software Licensing' section of the 'Cisco Prime Collaboration Provisioning Guide - Standard and Advanced, 12.5'. For migrating traditional licenses to Smart Licensing, see the section 'Migration of Traditional Licenses to Smart Entitlement'.

The software image is downloaded and installed on the virtual machine. The license PAK ID from the ESD site allows you to access the Cisco Licensing Site. You can access the Cisco Licensing Site and associate the virtual machine MAC address to a license key or keys that are then installed on the virtual machines. These license keys activate the Cisco Prime Collaboration software to be used in a production environment. These license keys also convert a trial installation into a production environment.

Note Cisco Prime Collaboration Provisioning requires that you have an individual license file. When the PAK is emailed to you, a license file is created for you to download. After you download the license file, you must register it with the Cisco Prime Collaboration Provisioning server.

Migration of Traditional Licenses to Smart Entitlement

If you want to upgrade to the Smart Licensing version of the product, then you are able to initiate the migration through the License Registration Portal or Cisco Smart Software Manager. You can self-initiate this process by downloading and installing the Smart Licensing version of the software and registering the device to a Smart Account using a Registration Token. The migration of any entitlements tracked by Cisco automatically migrates to the Customers Smart Account. You will also be able to initiate the migration of unused classic PAKs to Smart Accounts for future consumption by products in Smart Mode. This process is available through the License Registration Portal or Cisco Smart Software Manager.

If you are holding an active Cisco Software Support Service (SWSS) contract, then you can convert the traditional licenses to smart entitlements through the Cisco Smart Software Manager at https://software.cisco.com/#SmartLicensing-LicenseConversion.

Cisco Prime Collaboration Provisioning Evaluation

In case of Traditional Licensing mode, Cisco Prime Collaboration Provisioning in the evaluation mode is valid for 90 days. All the Cisco Prime Collaboration Provisioning advanced licensing features are enabled in this mode. You can do one of the following:

- Directly install Cisco Prime Collaboration in evaluation mode—Go to Try Cisco Prime Collaboration and click **Download Now**.

- Download the OVA file and follow the installation process—Go to Cisco Prime Collaboration Software and download the OVA file based on the number of endpoints that you want to manage.

Note In Smart Licensing mode, before the product registers, it is in evaluation mode for 90 days. Once it is registered, it is no longer in evaluation period.

In case of Traditional Licensing mode, after the expiry of the evaluation period for Cisco Prime Collaboration Provisioning, upload the license file to continue accessing the product.

You cannot move from Standard to Advanced Evaluation mode and also, from Standard or Advanced Evaluation mode to Standard mode. However, if you have an Advanced license file, you can move from Standard mode or Advanced Evaluation mode to Advanced mode. For more details, see the *Managing Licenses* section of the chapter *Setting Up the Server* in the Cisco Prime Collaboration Provisioning Guide - Standard and Advanced.

Cisco Prime Collaboration Provisioning Standard

Cisco Prime Collaboration Standard includes a subset of the features available in the Standalone Provisioning module. Cisco Prime Collaboration—Standard does not require a license.

For details on the differences between the Standard and Advanced versions of Cisco Prime Collaboration Provisioning, see the Cisco Prime Collaboration - Standard and Advanced Offerings.

Cisco Prime Collaboration Provisioning Advanced Licensing

Provisioning provides features such as delegation to individual domains, template support for configuring infrastructure instances, advanced batch provisioning, and so on.

There are two modes of installation—Standard and Evaluation or Advanced. Cisco Prime Collaboration Provisioning Standard is available with Cisco Unified Communications 10.0 and later (Unified CM and Cisco Unity Connection 10.0 and later versions). Cisco Prime Collaboration Provisioning Advanced is available for all Unified Communications suite 8.0 and later versions. See Deployment Models—Provisioning Standard and Advanced, on page 11 for further details on Provisioning Standard and Advanced licensing features.

Cisco Prime Collaboration Provisioning—Advanced is further categorized as follows:

- Cisco Prime Collaboration Provisioning Image (R-PC-version) license (required to activate in a production network)

- Cisco Prime Collaboration Provisioning Scale (L-PC) license

You can purchase additional licenses based on the phones that you want to manage. For details about the additional licenses and part numbers, see Cisco Prime Collaboration Ordering Guide. You must have the Cisco partner privilege to access the Ordering Guide.

To know the status of your Cisco Prime Collaboration Provisioning license, go to **Administration** > **License Management**. To register a new license file, see Log in to Cisco Prime Collaboration Provisioning, on page 25. For more details on Provisioning licensing, see the Cisco Prime Collaboration Provisioning Guide.

Note Scale licenses are cumulative, that is, you can combine licenses to increase the number of endpoints that you want to manage. Until a scale license is installed, some menu items in the user interface are disabled.

PART I

New Installation

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Installation Requirements

This section explains the following:

Deployment Models—Provisioning Standard and Advanced

You can install Cisco Prime Collaboration in two modes—Standard and Advanced. However, the installation process for both these modes are the same.

You can download the Cisco Prime Collaboration OVA deployment file based on the number of endpoints that you want to manage.

- *Cisco Prime Collaboration Provisioning Standard* is a single node with almost all the Cisco Prime Collaboration Provisioning Advanced capabilities except user group delegation capability.

  Cisco Prime Collaboration Provisioning Advanced provides features such as delegation to individual domains, advanced batch provisioning and so on. For information on the number of endpoints that you can manage in each deployment model, see System Requirements - Server and Client Machine Requirements. For more details on available features, see the Standard and Advanced Cisco Prime Collaboration Provisioning section of Cisco Prime Collaboration Provisioning Guide - Standard and Advanced.

Installation Requirements

Table 1: Installation Requirements

Requirements	Description
Number of servers	Cisco Prime Collaboration Provisioning applications must be installed on the same virtual machine. To learn about the installation modes and the required number of servers, see Number of Servers.

Requirements	Description
Virtualization Requirements	The Cisco Prime Collaboration Provisioning images are in the OVA file format. To learn more about the VMware environment required, see VMware Requirements.
System requirements	System requirements vary based on the number of endpoints that you want to manage. See System Requirements - Server and Client Machine Requirements. **Note** **For Cisco Prime Collaboration 11.0 and earlier** For details on the maximum system capacity, such as, number of access ports, number of device pools, number of voice interfaces, and so on, see System Capacity for Cisco Prime Collaboration. **For Cisco Prime Collaboration 11.1 and later** For details on the maximum system capacity, such as, number of access ports, number of device pools, number of voice interfaces, and so on, see System Capacity for Cisco Prime Collaboration. For Cisco Prime Collaboration 11.0 system capacity, refer System Capacity for Cisco Prime Collaboration. For Cisco Prime Collaboration 11.1 system capacity, refer System Capacity for Cisco Prime Collaboration. For Cisco Prime Collaboration Provisioning 12.1 system capacity, refer System Capacity for Cisco Prime Collaboration. For Cisco Prime Collaboration Provisioning 12.2 system capacity, refer System Capacity for Cisco Prime Collaboration. For Cisco Prime Collaboration Provisioning 12.3, refer System Capacity for Cisco Prime Collaboration. For Cisco Prime Collaboration Provisioning 12.4, refer System Capacity for Cisco Prime Collaboration. For Cisco Prime Collaboration Provisioning 12.5, refer System Capacity for Cisco Prime Collaboration
Ports requirements	Cisco Prime Collaboration uses several protocols to communicate with other processes and devices. Ensure that the required ports are available for Cisco Prime Collaboration to communicate. For more details, see Required Ports for Prime Collaboration.
Device configurations (CUCM, Voice, and Video endpoints, and so on)	The endpoints and infrastructure devices require certain configurations for the Cisco Prime Collaboration server to communicate. For more details, see Setting Up Devices for Prime Collaboration Provisioning.

Requirements	Description
Download Images	Cisco Prime Collaboration images are provided on the eDelivery site and on the Cisco.com support software download site. You must have an order for an eDelivery or ESW contract.
User Accounts and Installation Prompts	During installation, you must perform the following: • While installing Cisco Prime Collaboration Provisioning - global admin and Root Account are created. You must specify the password for these accounts. Specify the passwords for these accounts. • Specify the virtual machine details. See Installation Prompts.

Number of Servers

Cisco Prime Collaboration Provisioning (including database) is installed on a single virtual machine. Depending on the number of phones that you want to manage, the OVA size differs.

- If you have fewer than or equal to 150,000 phones (Large deployment model), you need a virtual machine to install the server. To learn about configuring Cisco Prime Collaboration Provisioning for small, medium, and large deployment models, see Configure the Small, Medium, and Large Cisco Prime Collaboration Provisioning OVA.

VMware Requirements

Ensure that your VMware environment meets the following requirements:

- OVA file is downloaded and saved to the same machine on which the vSphere Client/ vSphere Web Client is installed.

- VMware ESXi is installed and configured on the ESXi host. See the VMware documentation for information on setting up and configuring your host machine.

  The VMware vSphere client is Windows-based. Therefore, download and install the client from a Windows system.

  After you install the VMware vSphere Client, you can run it and log in to the virtual host. You can log in to the virtual host using the hostname or IP address of the virtual host, the root login ID, and the password that you configured. You can add the host to a vCenter if you want to manage it through vCenter. See VMware documentation for details.

- VMware ESXi server hostname is configured in the DNS server.

- VMware ESXi server is synchronized with the NTP server.

System Requirements - Server and Client Machine Requirements

Cisco Prime Collaboration runs on any VMware-certified hardware with ESXi 5.1 or ESXi 5.5 installed. Large deployment models require ESXi 5.0.

You can also deploy OVAs on VMWare hosts running ESXi 6.0 and ESXi 6.5.

Note

- The vSphere thick client is not available anymore. Hence, if you are using ESXi 6.5 for deployment with the thin client, you need to use the OVA where the file name specifies 'With ESXi 6.5 using Web client'.

- We recommend that you install and run Cisco Prime Collaboration on Cisco Unified Computing System (UCS), which is VMware-certified.

- Cisco Prime Collaboration runs on Cisco ADE-OS version 2.0.1.043. This operating system is included with the Cisco Prime Collaboration application and is installed when the Cisco Prime Collaboration OVA is deployed.

The OVA defines the configuration of the virtual machine that includes the CPU, memory, disk, and network resources.

Virtual Machine Requirements for Cisco Prime Collaboration Provisioning

This table lists the virtual machine requirements for the Cisco Prime Collaboration Provisioning application, based on the number of endpoints that are managed in Cisco Prime Collaboration.

From Cisco Prime Collaboration Provisioning 12.1, single server setup has been implemented for large and very large scale server installation. The network adapter type has been changed from E1000 to VMXNET 3.

Managed Endpoints	Number of vCPUs	vCPU Reservation	RAM	Memory Reservation	NIC	Disk Space
Up to 3000 endpoints (Small OVA)	1	2 GHz	2 GB	2 GB	1 GB	90 GB
Up to 20,000 endpoints (Medium OVA)	4	8.8 GHz	8 GB	8 GB	1 GB	120 GB
Up to 150,000 endpoints (Large OVA Server)	8	17.6 GHz	16 GB	16 GB	1 GB	150 GB

Client Machine Requirements for Cisco Prime Collaboration Provisioning

Attributes	Values
Display Resolution	1440 x 900

Attributes	Values
Supported Browser	

Attributes	Values
	The following browsers are supported in Cisco Prime Collaboration Provisioning:
	• Mozilla Firefox 31 ESR and later
	• Windows Internet Explorer 10 and 11, and Microsoft Edge
	Note Windows Internet Explorer 10 do not support upload or import feature across Cisco Prime Collaboration Provisioning application such as browsing files, click upload, and so on.
	Following are few of the Cisco Prime Collaboration Provisioning features that are not supported in Windows Internet Explorer 10:
	• Certificate upload
	• Endpoint bundle upload
	• Language bundle upload
	• Patch upload
	• Upgrade bundle upload.
	Drop-down on single click in the Edge browser does not display the menu items. Double click the drop-down to select any item.
	• Google Chrome 43 and later
	Prime Collaboration provides a self-signed certificate (HTTPS). To allow access of the Prime Collaboration client, ensure that security is set to either medium or low in Internet Explorer and do the following:
	• Ensure that you enable cookies in the browser.
	• Ensure that you set one of the following locales for Prime Collaboration Provisioning:
	• English (United States) [en-us]
	• Japanese [ja]
	• Korean [ko]
	• Chinese [zh]
	• Chinese-Taiwan [zh-tw]
	• French [fr]

Attributes	Values
	• German [de]
	• Italian [it]
	• Spanish [es]
	• Arabic [ar_sa]
	• Danish [da]
	• Dutch [nl]
	• Portuguese [pt_br]
	• Russian [ru]
	• Swedish [sv_se]
	• Ensure that you disable the popup blocker if you have installed it, as Prime Collaboration uses popup dialog boxes at several instances.
Environment	Clients must be able to access Cisco Prime Collaboration: • From outside a firewall, refer to your firewall documentation for information on how to configure client access. • Across a Virtual Private Network (VPN), the VPN tunnel must connect the client and a VPN router or similar device. See Required Ports for Prime Collaboration.

Install Cisco Prime Collaboration Provisioning

This section explains the following:

Download Cisco Prime Collaboration Provisioning

Cisco Prime Collaboration images are provided on the eDelivery site and on the Cisco.com support software download site. You must have an order for an eDelivery or ESW contract.

Important   Download the OVA file on a machine where the vSphere client is installed. To ensure that the downloaded OVA file is not corrupt, you must verify if the Message Digest 5 (MD5) Checksum of the OVA file matches with the value in the download site. To view the MD5 Checksum of the OVA file available in Cisco.com support software download site, hover your mouse over the filename.

To install only Cisco Prime Collaboration Provisioning, download the Cisco Prime Collaboration Provisioning OVA file based on the number of endpoints that you want to manage.

You can configure the Cisco Prime Collaboration Provisioning application for the following types of deployment models:

- Cisco Prime Collaboration Provisioning OVA for a small deployment—For up to 3000 phones

- Cisco Prime Collaboration Provisioning OVA for a medium deployment—For up to 20,000 phones

- Cisco Prime Collaboration Provisioning OVA for a large deployment—For up to 150,000 phones

The OVA file format is `cpc-provisioning-<version number>-<build number>-<deployment type>_SIGNED.ova`; where, the version number is the Cisco Prime Collaboration release number (11.0 or 11.1 or 12.1 or 12.2 or 12.3, 12.4, or 12.5) and the deployment type is small, medium, or large.

You must have a valid Cisco.com user account to download the files.

See Setting up Devices for Cisco Prime Collaboration Provisioning for information about setting up the devices in your network for Cisco Prime Collaboration.

User Accounts

For Cisco Prime Collaboration, specify various passwords at different instances.

- globaladmin—Special account, which can be used to access and configure the Cisco Prime Collaboration Provisioning User Interface.
- globaladmin password—Password to access Cisco Prime Collaboration Provisioning UI .

  In Cisco Prime Collaboration Provisioning, globaladmin password is used for the postgres administrator (to perform backup and restore operations). This password is also used for logging in to Cisco Prime Collaboration Provisioning.

Password Rules for the Globaladmin

For Cisco Prime Collaboration 11.5 and later

Follow these guidelines when you are creating password for the globaladmin:

- Must contain at least one—lowercase letter, uppercase letter, number, and special character (exclamation mark[!], at symbol[@], pound sign[#], dollar[$], asterisk[*], comma[,], period[.])
- Cannot repeat a character in the password more than three times.
- Cannot contain non-ASCII characters minus(-), percent(%), plus(+), ampersand(&) or a space.
- Cannot be cisco or ocsic or any variant by changing the capitalization of letters or by substituting 1, exclamation(!), or pipe(|) for i, 0 for o, dollar($) for s.
- Cannot be the same as the username or the username reversed.
- Must be between 8 and 80 characters.
- Cannot end with: asterisk(*), semicolon(;), or pound sign(#).

Password Rules After Migration

For Cisco Prime Collaboration 11.6 and later

If you are migrating from Cisco Prime Collaboration 11.1 or 11.2 or 11.5 or 11.6 to 12.1, note how the following password rules are getting migrated:

Note The same password rules are applicable, when you are migrating from Cisco Prime Collaboration 11.x to 12.1.

Before Migration	After Migration
The **Must contain characters from 3 of lowercase, uppercase, number and special character** setting is disabled in the user interface (**Administration > Settings**).	The **Must contain characters from \<number of\> of 4 character types: lowercase, uppercase, number, and special character** setting will be set to 1 in the user interface (**Administration > Settings > Password**).
The **Must contain characters from 3 of lowercase, uppercase, number and special character** setting is enabled in the user interface (**Administration > Settings**).	The **Must contain characters from \<number of\> of 4 character types: lowercase, uppercase, number, and special character** setting will be set to 3 in the user interface (**Administration > Settings > Password**).
Minimum length of the password is set less than six.	Minimum length of the password will be set to six. **Note** You are recommended to change the default CUPM password (**Administration > Rules > DefaultCUPMPassword**) if it is enabled and its length is less than 6 characters, else creation of the user in Cisco Prime Collaboration Provisioning fails due to non-compliance of the password policy.

Installation Prompts

We recommend that you know the values for the following parameters, before configuring the virtual appliance:

- IP address—IP address of the virtual appliance

- IP default netmask—Default subnet mask for the IP address

- Host Name—Host Name of the virtual appliance

- IP default gateway—IP address of the default gateway

- Default DNS domain—Default domain name

- Primary nameserver—Primary name server. You may add the name server. To configure several name servers, enter **y**.

- Primary NTP server[time.nist.gov]—Primary NTP server. To enter a secondary NTP server, enter **y** at the next prompt.

  Note To configure a tertiary NTP server, enter **y** at the next prompt after you specify a secondary NTP server. Cisco Prime Collaboration supports three NTP servers.

- Time zone—Time stamp that is displayed on the user interface is the server time. By default, the configured time zone is UTC. For a list of supported time zones, see Supported Timezones for Prime Collaboration.

> • global admin password—Password for the global administrator.

✎

Note   Cisco Unified Communication Manager, Release 10.0 and later are supported in the Standard mode.

Deploy and Configure Cisco Prime Collaboration Provisioning

You can install the Cisco Prime Collaboration Provisioning application, based on the OVA file that you have downloaded:

- • For small, medium, and large deployment models, you need one virtual machine only to install and configure Cisco Prime Collaboration Provisioning. To learn about configuring these deployment models, see Configure the Small, Medium, and Large Cisco Prime Collaboration Provisioning OVA, on page 23.

After you deploy the Cisco Prime Collaboration Provisioning OVA file, configure the virtual appliance.

Based on the OVA file you have downloaded, you can configure Cisco Prime Collaboration Provisioning virtual appliance as follows:

- • Configure the Small, Medium, and Large Cisco Prime Collaboration Provisioning OVA, on page 23

Deploy Cisco Prime Collaboration Provisioning OVA

Before You Begin

Ensure that requirements listed in Installation Requirements, on page 11 and System Requirements - Server and Client Machine Requirements, on page 14 have been met.

Procedure

Step 1   Launch VMware vSphere Client and select **File > Deploy OVF Template**.

Step 2   In the **Deploy OVF Template** window, click **Deploy** from file.

Step 3   Click **Browse** and navigate to the location where you have saved the Cisco Prime Collaboration Provisioning OVA file. Click **Next**.

Step 4   In the **OVF Template Details** window, verify the details about the OVA file, including the product name, version, and the size, and then click **Next**.

Ensure that the Publisher field in the OVF Template Details window displays Cisco Systems, Inc with a green check mark next to it.

Step 5   Click **Accept** to accept the end-user license agreement. Click **Next**.

Step 6   In the **Name and Location** window, specify a name and location for the template that you are deploying. The name must be unique within the inventory folder and can contain up to 80 characters. Click **Next**.

Step 7   In the **Disk Format** window, select **Thick provisioned format** to store on the virtual disks, and then click **Next**.

Step 8   Verify the options in the **Ready to Complete** window, and then click **Finish** to start the deployment.

The deployment takes about 30 minutes to complete. Check the progress bar in the **Deploying Virtual Appliance** window to monitor the task status.

Step 9   Click **Close**.

The virtual appliance that you deployed appears in the left pane of the vSphere Client, under the host.

Configure the Small, Medium, and Large Cisco Prime Collaboration Provisioning OVA

Procedure

Step 1   Turn on the virtual machine by right-clicking the virtual appliance and choosing **Power > Power On**.

Step 2   In the virtual appliance console, enter **setup** at the localhost login prompt.

Step 3   Enter the required parameters at the console prompts. After entering each parameter, press **enter** to bring up the next parameter. (see Installation Prompts, on page 21.) For the Installation Mode prompt, enter 1 to select Standard Cisco Prime Collaboration Provisioning, or enter 2 to select Advanced Cisco Prime Collaboration Provisioning (with a 90-day evaluation of advanced features). The default value is 1.

> **Note**   Time zone—When you are prompted to enter a time zone for the Cisco Prime Collaboration Provisioning server, specify the time zone (UTC). Ensure that you specify the same time zone in the server and in the Cisco Prime Collaboration Provisioning user interface.
>
> You can use SSH (troubleshooting user login) to change the time zone after you install the Cisco Prime Collaboration Provisioning server. For details see the Configuring Prime Collaboration Provisioning Server Time Zone section in Cisco Prime Collaboration Provisioning Guide. For a list of supported time zones, see Supported Timezones for Prime Collaboration.

Step 4   After you finish the installation (when you see the login prompt in console), wait approximately 10 minutes for the Cisco Prime Collaboration Provisioning processes to be listed on the console and then log in to the Cisco Prime Collaboration Provisioning user interface.

> **Note**   Your account will be locked upon 5 consecutive unsuccessful login attempts. For globaladmin, the account is automatically unlocked after 8 hours, and for other user accounts after 12 hours.

Step 5   Log in to Cisco Prime Collaboration Provisioning server to verify the installation. See Verify the Cisco Prime Collaboration Provisioning Installation (for Advanced or Standard Mode), on page 57

CHAPTER 5

Get Started after New Installation

This section explains the following:

Log in to Cisco Prime Collaboration Provisioning

You can invoke Cisco Prime Collaboration using the client browser.

Procedure

Step 1 Open a browser session from your machine. See System Requirements - Server and Client Machine Requirements, on page 14 for information about supported browsers.

Specify the IP address of the Cisco Prime Collaboration Provisioning application.

Step 2 Enter `https://IP Address`

Note • You can use either the IP address or the hostname of the Cisco Prime Collaboration Provisioning server. We recommend that you use the hostname if you have configured it in DNS.

• Troubleshooting Account CLI is supported only through SSH; Telnet is not supported. The port used for Cisco Prime Collaboration Provisioning is 22.

Based on the browser you are using, you see one of the following:

• In Windows Internet Explorer, **the Certificate Error: Navigation Blocked** window.

• In Mozilla Firefox, **the Untrusted Connection** window.

• In Google Chrome, **the Privacy Error: Connection is not private** window.

These windows appear because Cisco Prime Collaboration uses a self-signed certificate.

Step 3 Remove the SSL certificate warning.

The **Cisco Prime Collaboration login** page appears.

Step 4   In the **Cisco Prime Collaboration login** page, you must log in for the first time as a global administrator, using the same credentials that you have specified during the installation.

The dashboard data is populated only after you perform tasks listed in the following table.

Get Started with Cisco Prime Collaboration Provisioning

After you install Cisco Prime Collaboration Provisioning, perform the tasks listed in the following table:

	Task and Description	**Navigation in Cisco Prime Collaboration Provisioning Application**	**Section or chapter to be referred in the** Cisco Prime Collaboration Provisioning Guide - Standard and Advanced, 12.5
Step 1	(Optional if you are evaluating the product) Register a new license file.	**Administration** > **License Management** We recommend that you add a license file through the user interface. 1. **Administration>License Management. Add License Files** The system validates the license file and updates the license. The updated licensing information appears on the **License Status Information** window (**Administration** > **License Management**). **Note** If the license status is not refreshed after a few minutes, manually refresh the **License Management** window to view the updated license status.	Setting Up the Server
Step 2	Add, configure, and synchronize call processors and message processors.	**Infrastructure Setup** > **Getting Started Wizard** **Infrastructure Setup** > **Infrastructure Configuration**	Managing Devices

	Task and Description	Navigation in Cisco Prime Collaboration Provisioning Application	Section or chapter to be referred in the Cisco Prime Collaboration Provisioning Guide - Standard and Advanced, 12.5
Step 3	Set up domain deployment: • Create domains and assign call and message processors • Create service areas • Configure rules • Synchronize domain	**User Provisioning**	Managing Domains and Service Areas Synchronizing Processors, Users, and Domains Managing Users
Step 4	Create and deploy templates to configure Cisco Unified Communication Manager or infrastructure configuration.	**User Provisioning**, or **Infrastructure Setup** > **Configuration Template**	Configuring Templates in Provisioning
Step 5	Assign user roles to a service area.	**Provisioning Setup** > **Domain** > **Service Area** > **Edit**	Managing Users
Step 6	Add a new user.	**User Provisioning** > **Add**	Managing Users
Step 7	Provision user services.	**User Provisioning**	Managing Orders

PART II

Upgrade to Cisco Prime Collaboration Provisioning

Plan for Cisco Prime Collaboration Provisioning Upgrade

Before you upgrade Cisco Prime Collaboration Provisioning, you must know the supported upgrade versions and virtual machine requirements for Cisco Prime Collaboration Provisioning.

For details on virtual machine requirements for Cisco Prime Collaboration, see Virtual Machine Requirements for Cisco Prime Collaboration Provisioning.

Note Cisco Unified Communications Manager 9.x, , Cisco IM & Presence 9.x, and Cisco Unity Connection 9.x, devices are not supported from this release onward. Upgrade will not proceed if the 9.x versions of these devices are present in the server. To proceed with the upgrade, you need to upgrade the 9.x versions of the devices to the respective supported versions, or delete them from Cisco Prime Collaboration Provisioning.

Supported Upgrade Versions — Cisco Prime Collaboration Provisioning 12.1

Direct upgrade from Cisco Prime Collaboration 11.x to 12.1 is not supported in Cisco Prime Collaboration 12.1. You can upgrade from 12.x version to another.

Supported Upgrade Versions — Cisco Prime Collaboration Provisioning 12.2

Direct upgrade from Cisco Prime Collaboration 11.x to 12.2 is not supported in Cisco Prime Collaboration 12.2. You can upgrade from 12.x version to another.

Note Direct migration from Cisco Prime Collaboration Provisioning 11.x to 12.2 is not supported. But we can migrate from 11.x to 12.1, then upgrade from 12.1 to 12.2. For more information on migration, refer to Cisco Prime Collaboration Provisioning Migration —12.1 . Also, the user needs to install ES on Cisco Prime Collaboration Provisioning 12.1 before migration.

Supported Upgrade Versions - Cisco Prime Collaboration Provisioning 12.3

Direct upgrade from Cisco Prime Collaboration 11.x to 12.3 is not supported in Cisco Prime Collaboration 12.3. You can upgrade from 12.x version to another.

Note While upgrading to 12.3 from the earlier versions, ensure that there is no 9.x CUCM present in the server to be upgraded. You can migrate from 11.x to 12.1, then upgrade from 12.1 to 12.3. For more information on migration, refer to Cisco Prime Collaboration Provisioning Migration —12.1. Also, the user needs to install ES on Cisco Prime Collaboration Provisioning 12.1 before migration.

Supported Upgrade Versions - Cisco Prime Collaboration Provisioning 12.4

Direct upgrade from Cisco Prime Collaboration 11.x to 12.4 is not supported in Cisco Prime Collaboration 12.4. You can upgrade from 12.x version to another.

Note While upgrading to 12.4 from the earlier versions, ensure that there is no 9.x CUCM present in the server to be upgraded. You can migrate from 11.x to 12.1, then upgrade from 12.1 to 12.4. For more information on migration, refer to Cisco Prime Collaboration Provisioning Migration —12.1. We recommend you to install the PCP 12.1 692 build before migration. However, if you have already installed PCP 12.1 475 build, you can apply ES on top of the build and upgrade.

Note The following are the steps if you perform in-line upgrade from PCP 12.3 to PCP 12.4:

1. Take a snapshot of the 12.3 Server.

2. Download the Upgrade Manager patch file (UpgradeManagerPatch-12.3-1.tar.gz) from the Cisco site to your Desktop.

3. Upload and Install the patch file from **Administration > Updates > Application Software Updates**.

4. Wait for the Upgrade Manager patch to complete the Installation and PCP Login screen to appear.

5. Login to PCP and perform the In-line Upgrade with the PCP 12.4 upgrade App Bundle.

Supported Upgrade Versions - Cisco Prime Collaboration Provisioning 12.5

Direct upgrade from Cisco Prime Collaboration 11.x to 12.5 is not supported in Cisco Prime Collaboration Provisioning 12.5. If you want to upgrade from PCP 11.x to PCP 12.5, you need to migrate to PCP 12.1. Then, you need to upgrade to PCP 12.4, and then upgrade to PCP 12.5. Direct upgrade from PCP 12.1, 12.2, 12.3 to PCP 12.5 is not supported.

Note While upgrading to 12.5 from the earlier versions, ensure that there is no 9.x CUCM present in the server to be upgraded. You can migrate from 11.x to 12.1, then upgrade from 12.1 to 12.4 and upgrade from 12.4 to 12.5. For more information on migration, refer to Cisco Prime Collaboration Provisioning Migration —12.1. We recommend you to install the PCP 12.1 692 build before migration. However, if you have already installed PCP 12.1 475 build, you can apply ES on top of the build and upgrade.

Note The following are the steps if you perform in-line upgrade from PCP 12.3 to PCP 12.4:

1. Take a snapshot of the 12.3 Server.

2. Download the Upgrade Manager patch file (UpgradeManagerPatch-12.3-2.tar.gz) from the Cisco site to your Desktop.

3. Upload and Install the patch file from **Administration > Updates > Application Software Updates**.

4. Wait for the Upgrade Manager patch to complete the Installation and PCP Login screen to appear.

5. Login to PCP and perform the In-line Upgrade with the PCP 12.4 upgrade App Bundle.

Migration from Cisco Unified Communications Management Suite

For Cisco Prime Collaboration 11.0 and earlier

The data migration from Cisco Unified Communications Management Suite to Cisco Prime Collaboration 11.0 is not supported directly. If you want the data to be migrated to Cisco Prime Collaboration, see the "Migrating from Cisco Unified Communications Management Suite" chapter in Cisco Prime Collaboration Upgrade and Migration Guide .

After migration, upgrade to any of the supported upgrade versions and then to Cisco Prime Collaboration 11.0.

Migration from Cisco Unified Communications Management Suite

For Cisco Prime Collaboration 11.1 and later

The data migration from Cisco Unified Communications Management Suite to Cisco Prime Collaboration 11.x is not supported directly. If you want the data to be migrated to Cisco Prime Collaboration, see the "Migrating from Cisco Unified Communications Management Suite" chapter in Cisco Prime Collaboration Upgrade and Migration Guide .

After migration, upgrade to any of the supported upgrade versions and then to Cisco Prime Collaboration 11.x.

Feature Support After Upgrade—Cisco Prime Collaboration Provisioning

For Cisco Prime Collaboration 11.0 and earlier

Note When you upgrade from Evaluation mode, Standard mode, Advanced mode, and Cisco Prime Collaboration 10.x and 11.0, all the settings that you had set up in Cisco Prime Collaboration Provisioning are kept intact. You need not re-create them in Cisco Prime Collaboration 11.0. See the Cisco Prime Collaboration Provisioning Guide for information about features available in Standard and Advanced mode. For feature changes after upgrade, see .

For Cisco Prime Collaboration 11.1 and later

Note When you upgrade from Evaluation mode, Standard mode, Advanced mode, and Cisco Prime Collaboration 10.x and 11.0, all the settings that you had set up in Cisco Prime Collaboration Provisioning are kept intact. You need not re-create them in Cisco Prime Collaboration 11.x. See the Cisco Prime Collaboration Provisioning Guide for information about features available in Standard and Advanced mode. For feature changes after upgrade, see .

Cisco Prime Collaboration Provisioning Migration —12.1

You can migrate from Cisco Prime Collaboration Provisioning 11.1 and above to 12.1 either through **Dashboard** or **Administration > Updates > Launch Migration Tool** in the Cisco Prime Collaboration Provisioning user interface. You can migrate to Cisco Prime Collaboration Provisioning 12.1 in two ways:

- Running System—Select this option to migrate from a running Provisioning server.

- Migration File—Select this option to migrate from a file created by command-line migration backup tool, BackUpToolFor12_1Migration.

Note　The following scenarios are not supported in 12.1 migration features:

- If Cisco Prime Collaboration Provisioning 11.x server is configured with SSO setup, then the same configuration does not work in Cisco Prime Collaboration Provisioning 12.1 server after migration, the user needs to configure the SSO again in the 12.1 server after the migration.

- If Cisco Prime Collaboration Provisioning 11.x server is enabled with FIPS mode, then the same configuration does not work in Cisco Prime Collaboration Provisioning 12.1 server after migration, the user needs to enable FIPS mode after the migration.

- If a user is having their own certificated in Cisco Prime Collaboration Provisioning 11.x server, then the same certificate does not get copied to Cisco Prime Collaboration Provisioning 12.1 server as part of migration, the user needs to upload the certificate in 12.1 server after the migration.

Before you begin

Ensure that you have:

- Taken a database backup of your existing 11.1/11.2/11.5/11.6 as suitable.

- New license files for 12.1. The license files must be updated after upgrade is complete.

- You must take a snapshot of Cisco Prime Collaboration Provisioning 12.1 Virtual Machine instance before starting the migration, and this snapshot can be deleted after the successful 12.1 migration.

Migration from Running System

You must provide the following server information:

Procedure

Step 1　Enter **Server IP Address** and **11.x's root Password**.

Step 2　Click **Next** to take a backup of the database.

Close this migration, and take a backup. Run the Migration Tool again. After migrating, you must use the password of the existing 11.x system.

Note　Time taken to backup database depends upon the size of PCP database.

Step 3   Click **Begin Migration** to complete the process.
Once the migration is complete, you are redirected to the login page.

Note   After migrating from Cisco Prime Collaboration Provisioning 11.x to 12.1, the 11.x server will not be accessible. The Administrator must manually restart the services to enable 11.x server up and running.

Migration Using Migration File

You must provide the location of the migration file.

Procedure

Step 1   Select **SFTP** or **FTP** as suitable.

Step 2   Enter the following details.

- IP Address—IP Address of the server, where the back-file is saved

- Port—Disabled for FTP by default

- Path— The user needs to provide the path along with the file name

- Username— The back-up server's FTP/SFTP login username

- Password— The back-up server's FTP/SFTP login password

Step 3   Click **Next** to download the back-up file.

Step 4   Click **Begin Migration** to complete the process.
Once the Migration is complete, you are redirected to the login page.

Note   you may have to repeat these steps to take the back-up from BackUpToolFor12_1Migration

BackUpTool12_1Migration tool

The BackUpTool12_1Migration tool is used for taking the back-up from 11.1 and above version of the Prime Collaboration Provisioning before doing the Migration on 12.1 version of Prime Collaboration Provisioning.

Note   This is applicable if the **Migration using Migration file** option is chosen, while doing the migration.

1. Download the File BackUpTool12_1Migration.sh from same location, where ova's are uploaded.

2. Copy the above mentioned file to /opt, that is the BackUpTool12_1Migration.sh on 11.1 and above version of the Prime Collaboration Provisioning

3. Go to **/opt** directory using the `cd /opt`

4. Change the permissions of the file using the command `chmod 775 BackUpTool12_1Migration.sh`

5. Execute the script `./BackUpTool12_1Migration.sh`. The backup gets stored in /opt directory by the name **backupData.tar.gz**

6. Copy the above created backup file manually to the SFTP/FTP server.

Backup and Restore Cisco Prime Collaboration Provisioning

This section explains the following:

Perform Backup and Restore

Cisco Prime Collaboration Provisioning allows you to backup your data and restore it. You can schedule periodic backups using the Provisioning UI (Schedule Backup Using the Provisioning User Interface, on page 41).

Note In Cisco Prime Collaboration Provisioning 12.4, backup and restore requires mandatory password for enhanced security. Hence, after the upgrade to 12.4, all scheduled backup jobs from 12.x will fail. Once upgrade from 12.x to 12.4 is complete, you can cancel all the previously scheduled and saved jobs. The admin has to either reset the password and schedule the backup again or delete the scheduled backup job and reschedule it on 12.4. You can view the upgrade logs for the appropriate message.

There are two backup and restore scenarios; select the set of procedures that matches your scenario:

- Backup and restore on a single machine, with the same installation or a new installation. For this scenario, see Schedule Backup Using the Provisioning User Interface, on page 41.

  Note When backing up files, you should place the files on a different file server. Also, you should burn the backup data onto a CD.

Cisco Prime Collaboration Provisioning allows you to back up system data and restore it on a different system in the event of total system failure. To restore the backup from another system, the following prerequisites must be met:

- Ensure that the server to which data is restored has the same MAC address as that of the system that was backed up (the IP address and the hostname can be different).

- If you are unable to assign the MAC address of the original system (the one that was backed up) to another system, contact the Engineering Team for information on a new license file (for a new MAC address).

- The procedure to backup and restore data on a different system is the same as the procedure to backup and restore data on the same system.

Back Up the Single-Machine Provisioning Database

This procedure requires that you have administrator level access to the Provisioning database (the PostgreSQL database).

Procedure

Step 1 Login as troubleshooting user using SSH with port 22

Step 2 Navigate to the **/opt/cupm** folder and enter the following command:

```
sudo ./cupm-app-service.sh stop
```

Step 3 Stop Apache, JBoss, and NICE Services using the following commands:

```
ps -aef | grep startcupm
ps -aef | grep nice
kill -9 <startcupm process ID>
kill -9 <nice process ID>
```

Step 4 Go to the directory using the command:

```
cd /opt/postgres/pghome/bin
```

Step 5 Run the following command:

```
sudo ./pg_dumpall -o -Upmadmin > /<backup_directory_name>/<backup_file_name>
```

where,

- *pmadmin*—postgres user id

- *backup_directory_name*— For sudo user, the directory name is **/home/<sudo User directory>**. For Example: If sudo user is 'testuser' , directory name will be /home/testuser/

- *backup_file_name*—Backup will be created with this file name.

Step 6 In a backup folder, make copies of the following files and directories:

- /opt/cupm/sep/dfc.properties

- /opt/cupm/sep/ipt.properties

- /opt/cupm/sep/dfc.keystore

• /opt/cupm/jboss/server/cupm/conf/login-config.xml

• /opt/cupm/jboss/server/cupm/deploy/dfc-ds.xml

• /opt/cupm/sep/ipt/.system/.pcprandom.key

Step 7 Start Apache, JBoss, and NICE Services using the following commands:

```
cd /opt/cupm
sudo ./cupm-app-service.sh start
```

Schedule Backup Using the Provisioning User Interface

You can create periodic backups of Provisioning database using the Provisioning User Interface. You must be logged in as an administrator to perform backup. To create a backup of the Provisioning database:

Procedure

Step 1 Choose **Administration > Backup Management**.

Step 2 In the Backup Management page, click **New.**

Step 3 Enter a backup title in the Create New Backup page.

Step 4 From the Backup Connection drop-down list, select SFTP, FTP, or Local to save your backup files.

a) If you select SFTP or FTP, provide the following details:

• IP address of the server where the backup files need to be saved.

• Path to the backup location and port details (for SFTP only).

Note The backup location is relative to the specified SSH user home directory. The relative path must contain directory details (for example DIRNAME or DIRNAME 1 / DIRNAME 2), to avoid backup in root directory.

• Username and password information. Testing the SFTP or FTP password is optional.

Note Taking backup through SFTP on another PCP server in FIPS mode is not supported.

b) If you select Local, the backup files are saved to the CUPM local directory.

Note Ensure that the destination path for SFTP, FTP, or Local is not given as "opt/backup"

Step 5 For a local backup, select the number of backup files you want to save on your local machine from the Backup History drop-down list.

The default value is 2. By default, you can save two recent backup files. You can save up to 9 recent backup files.

Step 6 Enter the scheduling details to schedule a backup.

The time displayed is the server browser time. The default recurrence type for a new backup job is None. After a backup job is created with default settings, the backup will start immediately.

Step 7   Enter email address to receive status notification for the scheduled backup. You can enter multiple email addresses separated with a comma.

Step 8   Click Save. The scheduled backup appears in the Backups table on the Backup Management page.

Step 9   Click Run Now, to run a backup immediately.

Prime Collaboration Provisioning enters maintenance mode before backup starts. A notification will be displayed for all logged-in users stating that the users will be logged out of Prime Collaboration Provisioning 10 minutes before the scheduled backup starts. Users must save their work and log out before the backup starts, else they will be logged out automatically, and will not be able to access Prime Collaboration Provisioning.

The backup table provides information on the status and history of each backup job. The Next Run Time option provides details on the next periodic schedule.

The Last Run Status column shows the status of the last run backup job. The status of a backup job can be Scheduled, In Progress, Success or Failed.

When a backup job reaches the scheduled time, the last run status changes to Scheduled. After entering into maintenance mode, that is after 10 minutes, the status will change from Scheduled to In Progress.

After the backup job is complete, the status is either Success or Failure.

To know about the history of any backup job, click **Run History Count**, and open the dialog box. You can view the start time, end time, status and file size of the backup. You can delete the run history logs. The backed up files are not deleted when the backup logs are deleted.

Managing Backup Jobs

With the scheduled jobs, you can:

- Edit and Delete: The Edit and Delete options are disabled during Scheduled and In Progress states. You cannot edit or delete a backup job when the backup is in Scheduled or In Progress state. You can edit only one backup job at a time.

- Cancel: You can cancel a running backup job which is in Scheduled or In Progress state only.

CHAPTER 8

Upgrade Cisco Prime Collaboration Provisioning

This section explains the following:

Cisco Prime Collaboration Upgrade Options

For Cisco Prime Collaboration Release 11.5 and later

The following table lists the supported options to upgrade to Cisco Prime Collaboration 11.5.

If your current version is:	Upgrade using:
Cisco Prime Collaboration 12.5	• (Recommended) User interface, refer Upgrade Cisco Prime Collaboration from the Provisioning User Interface, on page 43

Upgrade Cisco Prime Collaboration from the Provisioning User Interface

For Cisco Prime Collaboration Release 11.5 and later

You can upload the application bundle and upgrade Cisco Prime Collaboration from the provisioning user interface. Using this feature, you can view the software update history which includes information such as the name of the installation file, description, type of software update, and the status of installation.

Before you begin

- You must have administrator privilege to perform this task.

- We recommend that you make a full backup of your server. If you do not make a backup, you cannot bring back your old system intact if the upgrade fails, since a rollback is not possible.

- Ensure that the following prerequisites are satisfied before you begin the upgrade process:

• No order is in released state.

• No device synchronization is in progress state.

• No active batch projects.

• No wizard is in active state.

Procedure

Step 1	Download the application bundle.
Step 2	Log in to Prime Collaboration Provisioning as a user with Administrator privileges.
Step 3	Choose **Administration > Updates**.
Step 4	Click **Browse** and navigate to the location where you have saved the application bundle.

> **Note** The file must be in .rpm format. From Cisco Prime Collaboration Provisioning release 12.5 onward, .tar.gz format is not supported.

Step 5	Click **Upload**.

The updated file is listed in the updates table with the status **Ready to Install.**

Step 6	Select the required entry from the table.
Step 7	Click **Install Now**.

> **Note** When upgrading from 11.2 to 11.5, ignore the confirmation popup message "*Prime Collaboration Provisioning 11.2.0-523 will now be installed. All services are restarted during this time.*" and click **Yes** to continue upgrading to 11.5.

Step 8	Once the validation is successful, you are redirected to a page with the message **Upgrade in progress** displaying the status of the upgrade. Click **View Debug Logs** to view the detailed upgrade log.

After successful installation, you will be redirected to the provisioning login page.

What to do next

After upgrading Cisco Prime Collaboration Provisioning, perform the following post upgrade tasks:

• For Cisco Prime Collaboration Provisioning 11.0 and later, the vCPU reservations are increased. Thus when you are upgrading to Prime Collaboration Provisioning 11.0 and later, power off the instances of the server. Manually increase the vCPU reservation and power on the instances of the server. For more details on vCPU reservation, see Virtual Machine Requirements for Cisco Prime Collaboration Provisioning, on page 14.

• If a session is already open in the browser, clear the browser cache and refresh the browser before you start using the upgraded application.

• It is recommended that you perform the following synchronization:

  • Domain synchronization

  • Infrastructure synchronization

> • Subscriber or User synchronization

Troubleshooting Cisco Prime Collaboration Provisioning Upgrade

• **Issue**:Snapshot revert on the VM instance , Time is not getting updated

Recommended Action:

Once you revert the snapshot on the VM instance, you can do either of the following options:

> • Reboot the PCP VM instance(Shut down Guest and Power On)

> • Run the following two commands on CLI by logging in with Troubleshooting account:

> > • **sudo timedatectl set-ntp true**

> > • **sudo systemctl start ntpd**

Wait for 10 seconds.

After following any one of the above options, try executing the date command on CLI and verify whether the correct date and time are displayed.

• **Issue:** Upgrade sequence completes in few seconds with a message, Domain/Device/Ldap sync in progress, could not do the upgrade.

Recommended Action:

> • Make sure that the prerequisites are satisfied and continue with the upgrade process.

> • Clear the in-progress activities listed in the message.

• **Issue:** After Upgrading, the provisioning UI still shows the older Mega-menu.

Recommended Action: Perform one of the following actions:

> • Reboot the VMware Instance.

> • Clear the browser cache.

> • Open the provisioning application in a new browser.

• **Issue:** If you upload a new production license file when the standard license file is already present, the authorization role does not list individual domains because of the presence of the standard license file.

Recommended Action:

> • Delete the standard license file from /opt/cupm folder.

• **Issue:** Migration from 11.x to 12.1, if the migration is not successful.

Recommended Action:

> • Revert the snapshot of the PCP 12.1 application before migration.

• Access the troubleshooting account, and check the PCP processes.

Get Started after Upgrade

This section provides information about the navigation changes, enhancements, and limitations after you upgrade Cisco Prime Collaboration Provisioning. For information about logging in to Cisco Prime Collaboration Provisioning after upgrade, see .

PART III

Install Cisco Prime Collaboration Provisioning Software Updates

C H A P T E R 10

Install Cisco Prime Collaboration Provisioning Software Updates

This section explains the following:

Installing Cisco Prime Collaboration Provisioning Software Updates

For Cisco Prime Collaboration Release 11.2 and later

You can upload and install service packs and software update patches from the provisioning user interface. Using this feature, you can view the software update history which includes information such as the type of software update, description, and when the software update was installed. You can also view the readme documents related to the software updates by clicking the document icon against the description of the respective software update file.

To upload and install software updates:

Before you begin

You must have administrator privilege to perform this task.

Procedure

Step 1   Choose **Administration > Updates**.

Step 2   Click **Browse** and navigate to the location where you have saved the software update file.

Note   The file must be in .rpm format. From 12.5 onward, .tar.gz format is not supported.

Step 3   Click **Upload**.

The updated file will be listed in the updates table with the status **Ready to install.**

Step 4   Click the required element from the table.

Step 5   Click **Install Now**.

You will be redirected to a static page with the message **Restart is in progress**. After successful installation, you will be redirected to the provisioning login page.

You can also uninstall the software updates. To uninstall software update, select the required update file from the table and click **Uninstall**. When you click **Uninstall**, software update is uninstalled and rolled back to the previous state.

PART IV

Uninstall Cisco Prime Collaboration Provisioning

CHAPTER 11

Uninstall Cisco Prime Collaboration Provisioning

This section explains the following:

Uninstall Cisco Prime Collaboration Provisioning

To uninstall Cisco Prime Collaboration Provisioning applications:

Procedure

Step 1	Log in to the vSphere Client and connect to the ESXi server that is running the virtual appliance that you want to uninstall.
Step 2	Right-click the application and choose **Power > Shut Down Guest** (or choose **Power Off**).
Step 3	Right-click the application and in the **Confirm Delete** window, choose **Delete from disk**.

C H A P T E R 12

Troubleshooting

This section explains the following:

Verify the Cisco Prime Collaboration Provisioning Installation (for Advanced or Standard Mode)

You can verify that Cisco Prime Collaboration Provisioning has been properly installed as follows:

1. In a browser, specify the IP address of the server on which Cisco Prime Collaboration Provisioning (standard or advanced) has been installed. The login page is displayed. Log in with global administrator credentials.
2. Log in to the Provisioning server as globaladmin. Go to **Administration**>**Logging and Showtech**, create a troubleshooting user, and obtain the response string by mailing challenge string to the Engineering Team, and then login as troubleshooting user to the Troubleshooting UI.

> **Note** With the Troubleshooting UI, the user can check the services, create the console account, and access the PCP CLI.

3. Display the processes that are running.

   show application status cpcm

bash : no job control in this shell httpd denotes httpd service

nice.sh denotes Nice service

startcupm.sh denotes Jboss service

postmaster/su denotes Postgres service

```
STAT PID USER COMMAND ELAPSED

=================================================

Ss 629 root httpd 02:11:38

S 613 root nice.sh 02:11:38

S 610 root startcupm.sh 02:11:38

S 608 root su 02:11:38
```

The parameters in the COMMAND column are the processes that are running on the Cisco Prime Collaboration Provisioning server (standard or advanced). If you do not see the processes running, enter the following commands to restart the Cisco Prime Collaboration Provisioning services:

admin#application stop cpcm

admin#application start cpcm

The above commands take one or two minutes to stop or start the Cisco Prime Collaboration Provisioning services.

You can verify if the installation is complete and successful, by checking if the JBoss service is running. In the SSH terminal, run the following command as a troubleshooting user to know if the JBoss service is running:

ps - aef|grep startcupm

You can also check at what time the JBoss service was started, in the following location (in the last line of the log file):

```
/opt/cupm/sep/logs/jboss.log
```

If the JBoss service is running, see , to get started with the Cisco Prime Collaboration Provisioning application.

Upgrade the Cisco Prime Collaboration Provisioning from Small to Medium Deployment Model

After you manually upgrade the system requirements (vRAM, vCPU, vDISK, and so on), you must run the following scripts as a troubleshooting user:

1. Execute the **memorymodel.sh** file under `/opt/cupm`:

   ./memorymodel.sh medium "-Xms512m -Xmx1024m -XX:MaxPermSize=256m -server" "-Xms512m -Xmx1024m -XX:MaxPermSize=256m" simple all

2. Execute **cpcmdiskutil.sh** under `/opt/cupm`:

   . /cpcmdiskutil.sh /dev/sda

3. Restart the server(VMware instance).

✎

Note If you want to support endpoint count as per the upgraded deployment model in Cisco Prime Collaboration Provisioning, you must add a scale license.

Upgrade the Cisco Prime Collaboration Provisioning Server from the Small or Medium to Large Deployment Model

1. Back up the database from the Cisco Prime Collaboration Provisioning application by following the procedures provided in Cisco Prime Collaboration Provisioning Guide.

2. Deploy a large OVA, both as an application and database server by following the procedure in the Deploy and Configure Cisco Prime Collaboration Provisioning. Ensure that the globaladmin password is the same as the password that you provided during the deployment.

   1. Copy the licenses from the old server to the new server.

   2. If you use the MAC address of the existing Cisco Prime Collaboration Provisioning server, then update the MAC address using the VMware client for this VMware instance.

   3. If you use a new MAC address for server, then you must rehost the licenses in the /opt/cupm/license directory to match the new server VM.

3. Stop provisioning services in the server.

   1. Go to the *opt/cupm* folder.

   Execute **sudo ./cupm-app-service.sh stop**

   2. Ensure that Apache, JBoss, and NICE services are stopped.

   ps -aef | grep startcupm

   ps -aef | grep nice

   3. Stop any running process.

   kill -9 *startcupm process id*

   kill -9 *nice process id*

   4. Check whether the nice process is still holding on the postgres connection.

   ps -aef

   5. Look for the process:

   /opt/cupm/jvm/bin/java -server -classpath /opt/cupm/sep/lib/dom.jar

   6. Stop any running nice process.

   kill -9 *Process-Id found earlier*

   7. Wait a minute to make the resources, such as ports, to become free.

4. Restore the database in the server using the backed-up database file taken from Step 1. For details, see the section Restoring Database in the server section in the Cisco Prime Collaboration Provisioning Guide.

5. Stop and then start the provisioning services in the server

   1. **cd /opt/cupm** folder.

      sudo ./cupm-db-service.sh stop

   2. Wait 30 seconds before starting the database services

   3. Start the database services.

      cd /opt/cupm

      sudo ./cupm-db-service.sh start

6. Copy the following files from the original Cisco Prime Collaboration Provisioning server to the newly deployed server

   1. `/opt/cupm/sep/dfc.properties`

   2. `/opt/cupm/sep/dfc.keystore`

   3. `/opt/cupm/jboss/server/cupm/conf/login-config.xml`

7. Change the directory to `/opt/cupm/sep` and edit the `dfc.properties` file using the vi editor

   1. **cd /opt/cupm/sep**

   2. **vi dfc.properties**

   3. Change the property dfc.memory.model=medium to **dfc.memory.model=large**

   4. Change the property dfc.postgres.host=localhost to **dfc.postgres.host=*IP of server Database***

   5. Save changes and exit the editor

8. Start application services in the server.

   1. Change directory to `/opt/cupm` to start the application services

   2. **cd /opt/cupm**

      sudo ./cupm-app-service.sh start

      The system is now ready to be used.

Downgrade Cisco Prime Collaboration Provisioning Deployment Model

Cisco Prime Collaboration does not support the downgrade of the deployment model; that is, you cannot downgrade from the Cisco Prime Collaboration large deployment model to small deployment model.

Change the IP Address on the Provisioning Server (Single Setup)

The following procedure is applicable for Cisco Prime Collaboration Provisioning 12.3 and later releases.

1. Call the Engineering Team, and get the troubleshooting account access.

2. Generate the Console Account, and then login to the CLI account.

3. In OS, change the configuration file */etc/sysconfig/network-scripts/ifcfg-eth0* that stores network config settings specific to the new IP address.

4. Restart the network services using the command **service network restart**.

5. To verify IP address change, issue the command **ifconfig** and check for updated IP in the response.

6. Update the file **/etc/resolv.conf** with the DNS of the new IP address.

7. Update **/etc/hosts** file with new server IP and hostname.

8. Set the hostname in Cisco Prime Collaboration Provisioning server by running the command **hostnamectl set-hostname <HOSTNAME>**.

Creating a Troubleshooting Account

Procedure

From PCP

a) Login to PCP

b) Go to **Administration > Logging and ShowTech**. In Troubleshooting Account field, provide User ID, and Select duration from **Expires In** dropdown, and then click **Create Account**.

On creating a Troubleshooting user, challenge string is generated, using this we can generate a response which acts as password for a Troubleshooting user. Contact the Engineering Team for generating a response string.

Note   Login to PCP as Troubleshooting user, then start micro service page from **Troubleshooting>Launch**. Also, Sep admin can be accessed under Troubleshooting menu.

To Access Troubleshooting Account or Console Account if the PCP UI is inaccessible

When PCP UI is inaccessible, you can verify the status of the server from the micro service page.

Note	We can access Troubleshooting account from micro service page:https:// <PCP ip server>:28080/index.

1. Go to micro service page, create a troubleshooting user. For creating a troubleshooting user, refer to Creating a Troubleshooting Account .

2. Login from micro service page, go to Process Management to verify the status of PCP services.

Note	Console account can be created to access CLI account of PCP.

Generate Console Account using Troubleshooting User

Follow these steps to generate a console account using troubleshooting user

1. In PCP micro service page under Console Account, we generate a console account user by providing username and password.

2. From console account, you can access CLI of PCP server.

Note	• In PCP 12.1, there is no access to CLI/SSH as root, so the user created through console account can access this privilege.
	• If troubleshooting user is created using trouble shooting UI, and the Cisco Prime Collaboration Provisioning database is not up and running, then the user will be available only through the troubleshooting UI and not through the Cisco prime Collaboration Provisioning UI.

Generate Certificate Signing Request (CSR)

Procedure

Step 1 Go to micro service page, and then create a troubleshooting user. For creating a troubleshooting user, refer to Creating a Troubleshooting Account.

Step 2 Generate the Console Account, and then login to the CLI account.

Step 3 Go to `cd /opt/cupm/httpd/bin`

Step 4 To generate the CSR, enter:

`./openssl req -new -key <keyName>.key -out <csrName>.csr`

Step 5 Enter the appropriate details when prompted, such as:

`Country Name: <Country>`

```
State/Prov: <State>

Locality: <Locality>

Organization name: <Org>

Organizational unit name: <unit>

Common name: <hostname>.<companyname>.com
```

Step 6 The generated CSR is available in the location `/opt/cupm/httpd`.