



Plan Your Installation

- [Cisco Prime Collaboration Provisioning Overview, on page 1](#)
- [Deployment Modes, on page 3](#)
- [Distributed Setup, on page 4](#)
- [Cisco Prime Collaboration Provisioning Licensing, on page 4](#)
- [Installation Requirements, on page 7](#)

Cisco Prime Collaboration Provisioning Overview

Cisco Prime Collaboration Provisioning provides a scalable web-based solution to manage your company's next-generation communication services. It 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, 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.
- 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.
- Templates, which allow you to define standard configurations for reuse. Batch provisioning permits the rollout of large numbers of users at the same time.
- The ability to configure policies regarding delegation and interaction with other business-level 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, BlackBerry, 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.

Terms Used in This Guide

- **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.

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](#).

Deployment Modes

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

Cisco Prime Collaboration Provisioning Standard

This deployment mode is a single cluster node with almost all the Cisco Prime Collaboration Provisioning Advanced capabilities except the following:

- User group delegation.
- Multicluster capability.
- Ability to create administration roles.

- Workflow.
- Northbound API support.

Cisco Prime Collaboration Provisioning Advanced

This deployment mode provides features such as delegation to individual domains, advanced batch provisioning in addition to the features listed above.

For information on the number of endpoints that you can manage in each deployment model, see [System Requirements](#).

For more details on available features, see the Standard and Advanced Prime Collaboration Provisioning section of [Cisco Prime Collaboration Provisioning Guide - Standard and Advanced](#).

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

- Small OVA—up to 3000 phones
- Medium OVA—up to 20,000 phones
- Large OVA—up to 150,000 phones

Distributed Setup

Cisco Prime Collaboration Provisioning Advanced provides two types of setups for large deployments: Standalone and Distributed.

In a Standalone setup, all application and database services run on the same server. In a Distributed setup, the application and database services run on two different servers providing scalability and flexibility. The encrypted data transfers between the servers ensure secured data transmission.

For information on configuring Cisco Prime Collaboration Provisioning in a distributed setup, see [Configure Cisco Prime Collaboration Provisioning OVA](#).

Cisco Prime Collaboration Provisioning Licensing

Cisco Prime Collaboration Provisioning is a licensed software product that is secured to the MAC of the virtual machine. The product license enables the features and endpoint quantities for the Cisco Prime Collaboration Provisioning that you choose to install. You can order a license based on the collaboration management options required, and the quantity of the endpoints.

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, 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).

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, by default, is installed 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 Licensing

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. Cisco Prime Collaboration Provisioning Advanced is available for all supported version of Unified Communications suites. See [Deployment Modes, on page 3](#) 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 number of phones that you are managing. The number of licenses must be the same or greater than the number of endpoints configured in all UCM clusters managed by Cisco Prime Collaboration Provisioning. For details about the additional licenses and part numbers, refer to [Cisco Prime Collaboration Ordering Guide](#). You must have the Cisco partner privilege to access the Ordering Guide.

To register a new license file, log in to Cisco Prime Collaboration Provisioning. For more information, refer to [Cisco Prime Collaboration Ordering Guide](#).

To know the status of your Cisco Prime Collaboration Provisioning license, go to **Administration > License Management**. For more information on Provisioning licensing, refer to [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.

Installation Requirements

Table 1: Installation Requirements

Requirements	Description
Number of servers	Number of servers required for Cisco Prime Collaboration Provisioning depends on the installation mode. To learn about the installation modes and the required number of servers, see Number of Servers .
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 .
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 (Cisco Unified Communications Manager, 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 .
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: <ul style="list-style-type: none"> • While installing Cisco Prime Collaboration Provisioning, the global admin account is created. You must specify the password for this account. • Specify the virtual machine details. See Installation Prompts .

Number of Servers

Number of servers required for Cisco Prime Collaboration Provisioning depends on the installation mode.

Table 2: Number of Servers as per the Deployment Modes

Deployment Mode	Number of Server
Standalone	Cisco Prime Collaboration (including the database) is installed on a single virtual machine.
Distributed	Cisco Prime Collaboration and the database are installed on separate virtual machines. Depending on the number of phones that you want to manage, the OVA size varies. Only large OVAs can be installed on the distributed set up.

For more information about configuring Cisco Prime Collaboration Provisioning, refer to [Configure Cisco Prime Collaboration Provisioning OVA](#).

VMware Requirements

Cisco Prime Collaboration Provisioning images are in the OVA file format.

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

Cisco Prime Collaboration Provisioning runs on any VMware-certified hardware with ESXi 5.5, ESXi 6.0, ESXi 6.5, ESXi 6.7, and HX TRC 6.0 only. Large deployment models require ESXi 5.0.

You can also deploy OVAs on VMWare hosts running ESXi 6.0, ESXi 6.5, and ESXi 6.7.

**Note**

- The vSphere thick client is not available anymore. Hence, if you are using ESXi 6.5 or later 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 CentOS 7. 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. Number of vCPUs is based on using 2.7GHz or faster processors for the Medium and Large models.

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

Managed Endpoints	Number of vCPUs	Min 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	10.8 GHz	8 GB	8 GB	1 GB	120 GB
Up to 150,000 endpoints (Large OVA Server)	8	21.6 GHz	16 GB	16 GB	1 GB	150 GB

**Note**

On a Small OVA setup, when number of endpoints or users is close to 3000, if you are facing any performance issue or observing frequent nice process restarts, it is recommended to increase the RAM allocated to the Virtual Machine from 2GB to 3GB.

On a Large OVA setup, when number of endpoints or users is close to 1,50,000, if you are facing any performance issue or observing frequent nice process restarts, increase the RAM allocated to the Virtual Machine from 16GB to 20GB.

For more information on system capacity, see [System Capacity for Cisco Prime Collaboration Provisioning](#).

Client Machine Requirements for Cisco Prime Collaboration Provisioning

Attributes	Values
Display Resolution	1440 x 900
Supported Browser	<p>The following browsers are supported in Cisco Prime Collaboration Provisioning:</p> <ul style="list-style-type: none"> • Mozilla Firefox 60 and later • Windows Internet Explorer 11 and Microsoft Edge • Google Chrome 68 and later <p>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 perform the following:</p> <ul style="list-style-type: none"> • Ensure that you enable cookies in the browser • Ensure that you set one of the following locales for Prime Collaboration Provisioning: <ul style="list-style-type: none"> • English-United States [en-us] • Arabic-Saudi Arabia [ar-sa] • Chinese-China [zh] • Chinese-Taiwan [zh-tw] • Danish-Denmark [da] • Dutch-Netherlands [nl] • French-France [fr] • German-Germany [de] • Italian-Italy [it] • Japanese-Japan [ja] • Korean-Korea Republic [ko] • Portugese-Brazil [pt-br] • Russian-Russia [ru] • Spanish-Spain [es-es] • Swedish-Sweden [sv-se] • Ensure that you disable the popup blocker if you have installed it, as Prime Collaboration uses popup dialog boxes at several instances.

Attributes	Values
Environment	<p>Clients must be able to access Cisco Prime Collaboration:</p> <ul style="list-style-type: none">• From outside the 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.

