



## Setting Up the Server

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This section comprises of the following:

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- [Single Sign-On for Cisco Prime Collaboration Provisioning, on page 13](#)
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## Managing Licenses

To use Cisco Prime Collaboration Provisioning, you must have the Provisioning Image license and one or more scale licenses. The image license must be present or the product remains in the evaluation mode. Scale licenses add to the number of phones you can provision.

Click **View detailed feature information** (go to **Administration > License Management**) to view the Feature name, Available count, Used count and Expiry.

In Cisco Prime Collaboration Provisioning Standard, the delegation, workflow, template, and NBI features are listed under unavailable features. When you purchase a license for Cisco Prime Collaboration Provisioning Advanced, these features appear in the valid features list.



### Note

If you have a distributed installation, when the network connection between the two servers is lost and then re-established or when only the Provisioning database (the PostgreSQL database) server is restarted, you may get login error for the Provisioning server. Sometimes a license error may appear on the Licensing Status Information page that all features are unavailable. Restart the Provisioning services on the Application server to fix such errors.

- When you purchase a license for Cisco Prime Collaboration Provisioning for the first time, the image and scale licenses may be concatenated into a single license file.
- You can purchase Provisioning image license and one or more scale licenses to cover the number of phone MAC addresses to be managed. Scale licenses are additive, up to 150,000 per one Provisioning instance. If the image license is not present, the product remains in evaluation mode.
- The installed OVA size determines the maximum scale of an instance of Cisco Prime Collaboration Provisioning.

- The Application Programmable Interface (API) for Provisioning is called the Cisco Prime Collaboration Provisioning Northbound Interface (Provisioning NBI). It is a set of web service, SOAP-based requests covering most of the provisioning functionality of Provisioning. For detailed information, see the Provisioning NBI document.

If more than one image license file is found in the license directory, Cisco Prime Collaboration Provisioning selects and uses the latest image license file (based on the file date). If the server has more than one image license, duplicates must be removed as they can interfere with each other.

When a license file is added on License Management page, Cisco Prime Collaboration Provisioning validates the license file and displays proper validation message if an error is encountered. Adding the license file may fail in the following scenarios:

- Incorrect license file (Assurance license added for Provisioning application)
- Incorrect MAC address
- Incorrect version of license
- License file corrupted or modified
- License count mismatch

You can view the manually uploaded license files in the License Management page.

#### **For Cisco Prime Collaboration Release 12.4 and later**

Cisco Prime Collaboration Provisioning Release 12.4 and later works on a hybrid model that supports two modes of licenses. Only one license mode can be active at one time.

The following are the two modes licenses:

- Traditional Licensing
- Smart Licensing

On an upgraded machine, the default mode is traditional. However, you have the option of switching over to smart licensing.

In case of backup and restore, deregister the old PCP machine before registering the new machine.

#### **Traditional Licensing Mode:**

In the Traditional Licensing Mode, Cisco Prime Collaboration Provisioning uses Traditional License. You can switch over to Smart Licensing Mode by clicking the Enable Smart License button. You can also revert to the Traditional Licensing Mode by clicking the Disable Smart License button. For Traditional Licensing Mode, see [Licensing Process, on page 3](#) section.

#### **Smart Licensing Mode:**

In the Smart Licensing Mode, Cisco Prime Collaboration Provisioning uses Smart License. You can switch over to the Traditional Licensing Mode by clicking the Disable Smart License button. You can also revert to the Smart License mode by clicking the Enable Smart License button. For Smart Licensing Mode, see the [Cisco Smart Software Licensing, on page 4](#).

## Licensing Process

The following process applies to new installations (and upgrades), and, the scale licenses.

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- Step 1** Obtain a Product Authorization Key (PAK)—The PAK is used to register Cisco Prime Collaboration Provisioning on Cisco.com, and it contains resource limitations.
- For each incremental license that you purchase, you will receive a PAK, and you must use that PAK to obtain a license file.
- Step 2** Obtain a license file—A license file is sent to you after you register the PAK on Cisco.com.
- Step 3** Import the license file to Cisco Prime Collaboration Provisioning from the License Management page. If Cisco Prime Collaboration Provisioning is already installed and you are upgrading your license file, you must import the license file with Cisco Prime Collaboration Provisioning.
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## Adding a License File to Cisco Prime Collaboration Provisioning

To add a license file to Cisco Prime Collaboration Provisioning:

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- Step 1** Go to License Management page.
- In the Cisco Prime Collaboration Provisioning application, select **Administration > License Management**.
- Step 2** On the **License Management** page, click **Add**.
- Note** If you are updating from the Cisco Prime Collaboration Provisioning Standard mode to the Cisco Prime Collaboration Provisioning Advanced licensed mode, you must add the new license files and later delete all the old license files (see the Upload Time column) listed on the License Management page using the Delete option.
- Step 3** In the **Add License File** window, upload the license file, and click **OK**.
- The newly added license file information appears in the License Status pane. If you purchased more than one license, repeat **Step 2** and **Step 3** to install each additional license.
- To delete a license file, on the License Management page, select the license file and then click **Delete**.
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## Switching Between the Standard and Advanced Modes in Cisco Prime Collaboration Provisioning

Prime Collaboration allows you to switch from the Standard mode to the Advanced mode in Cisco Prime Collaboration Provisioning.

The following table captures the different scenarios of switching:

**Table 1: Switching from the Standard Mode to the Advanced Mode in Cisco Prime Collaboration Provisioning**

Installation Modes	Standard to Advanced Evaluation	Standard to Advanced*	Advanced Evaluation to Advanced*	Advanced Evaluation to Standard
Cisco Prime Collaboration Provisioning	Not Applicable	Yes	Yes	Not Applicable
* To upload the license file for the advanced mode, click <b>Administration &gt; License Management</b> . On the License Management page, click <b>Add</b> and upload the license file.				

## Cisco Smart Software Licensing

Cisco Smart Software Licensing is a new way of thinking about licensing. It adds flexibility to your licensing and simplifies it across the enterprise. It also delivers visibility into your license ownership and consumption.

Cisco Smart Software Licensing helps you to procure, deploy, and manage licenses easily where devices self-register and report license consumption, removing the need for product activation keys (PAK). It pools license entitlements in a single account and allows you to move licenses between entities, represented by Virtual Accounts, within your company. It is enabled across Cisco products and managed by a direct cloud-based model ([Cisco Smart Software Manager](#)) or a mediated deployment model ([Smart Software Manager satellite](#)).

This service registers the product instance, reports license usage, and obtains the necessary authorization from Cisco Smart Software Manager or Cisco Smart Software Manager satellite.

You can use Cisco Smart Licensing to:

- Register with Cisco Smart Software Manager or Cisco Smart Software Manager satellite
- See the license usage and count
- See the product licenses available on Cisco Smart Software Manager or Cisco Smart Software Manager satellite
- Renew License Authorization with Cisco Smart Software Manager or Cisco Smart Software Manager satellite
- Renew the License Registration
- Cisco Prime Collaboration Provisioning supports multiple types of licenses and one license is required for each feature type. You need a feature license to enable each of the following available features:

**Table 2: Available Feature Licenses**

Features
Advanced Features
Assign Admin to Domain
CUM/VC or CUE
IM&P Servers

Features
Max End Points
Access to API
Max Admin Login at a Time
Access to prebuilt configuration template
Unified Communications Manager clusters or CMEs
User IDs in data base
Access to order management
Lines, EM Lines, and RDP Lines

### Cisco Smart Software Manager

Cisco Smart Software Manager is hosted on [software.cisco.com](https://software.cisco.com), allowing product instances to register and report license consumption to it.

You can use Cisco Smart Software Manager to:

- Manage and track licenses
- Move licenses across virtual account
- Remove registered product instance

For more information about Cisco Smart Software Manager, see <https://software.cisco.com/>.

### Cisco Smart Software Manager satellite

Cisco Smart Software Manager satellite is a component of Cisco Smart Licensing that manages product registrations and monitoring of smart license usage for Cisco products. If you do not want to manage Cisco products directly using Cisco Smart Software Manager, either for policy or network availability reasons, you can choose to install Cisco Smart Software Manager satellite on-premises. Products register and report license consumption to the Cisco Smart Software Manager satellite as it does on Cisco Smart Software Manager.

For more information about Cisco Smart Software Manager satellite, see <http://www.cisco.com/web/ordering/smart-software-manager/smart-software-manager-satellite.html>.

### Product Instance Evaluation Mode

After installation and before registration, Cisco Prime Collaboration Provisioning runs under the 90-day evaluation period. During this period, you can use all features in this product. Register Cisco Prime Collaboration Provisioning with Cisco Smart Software Manager or Cisco Smart Software Manager satellite to report the license usage to Cisco and obtain the necessary authorization for entitlement usage. After the evaluation period expires, some features like adding devices, endpoints, users, RBAC, and self-care will stop working until you register with Cisco Smart Software Manager or Cisco Smart Software Manager satellite.



**Note** Evaluation period is before the product is registered.

### License Usage

Cisco Prime Collaboration Provisioning uses multiple types of licenses and one license is required for each feature type. You need one feature license to enable each of the following available features:

**Table 3: Available Feature Licenses**

Features
Advanced Features
Assign Admin to Domain
CUM/VC or CUE
IM&P Servers
Max End Points
Access to API
Max Admin Login at a Time
Access to prebuilt configuration template
Unified Communications Manager clusters or CMEs
User IDs in data base
Access to order management
Lines, EM Lines, and RDP Lines

The License Manager page shows information on Cisco Prime Collaboration feature license requirements, as reported to the Cisco Smart Software Manager or Cisco Smart Software Manager satellite. The License Manager page is updated daily when Cisco Prime Collaboration Provisioning communicates with Cisco Smart Software Manager or Cisco Smart Software Manager satellite.

### License Compliance

When first installed, the Cisco Prime Collaboration Provisioning is fully operational in evaluation mode for 90 days until it has successfully registered with Cisco Smart Software Manager or Cisco Smart Software Manager satellite. Once purchased, the new licenses are deposited to a virtual account off the customer Smart Account on Cisco Smart Software Manager. If PCP is connected to Cisco Smart Software Manager, the purchased license are reflected on Cisco SSM satellite via a synchronization process between the satellite and Cisco SSM.

Cisco Prime Collaboration Provisioning reports the total license usage to the Cisco Smart Software Manager or Cisco Smart Software Manager satellite. The Cisco Smart Software Manager or Cisco Smart Software Manager satellite totals the license requirements for all connected Cisco Prime Collaboration Provisioning product instances and compares this total license requirement to the total available installed licenses. The Cisco Smart Software Manager or Cisco Smart Software Manager satellite then reports the status back to the

product instance as Authorized or as Out of Compliance. CSSM and SSM satellite also show on its portal the Authorized or Out-Of-Compliance (OOC) status. Out-Of-Compliance occurs when the number of licenses are insufficient.

Authorization Expired occurs when the product has not communicated with Cisco Smart Software Manager or Cisco Smart Software Manager satellite for 90 continuous days. In this state, Cisco Prime Collaboration Provisioning allows you to run in Authorization Expired state for another 90 more days. After which all the 14 features of Cisco Prime Collaboration Provisioning stop working.

### System Licensing Prerequisites

Complete the steps to set up Smart and Virtual accounts. For more information about this process, see <https://software.cisco.com/>.

### Smart Software Licensing Task Flow

The following is the Smart Software Licensing Task Flow:

1. Obtain the Product Instance Registration Token: Use this procedure to generate a product instance registration token for your virtual account.
2. Configure Transport Settings: Perform this step to select transport settings through which Cisco Prime Collaboration Provisioning can connect to Cisco Smart Software Manager or Cisco Smart Software Manager satellite. Direct option is selected by default where the product communicates directly with Cisco Smart Software Manager.
3. Register with Cisco Smart Software Manager or Cisco Smart Software Manager satellite: Perform this step to register Cisco Prime Collaboration Provisioning with Cisco Smart Software Manager or Cisco Smart Software Manager satellite.

### Obtain the Product Instance Registration Token

#### Before you Begin

Obtain the product instance registration token from Cisco Smart Software Manager or Cisco Smart Software Manager satellite to register the product instance. Tokens can be generated with or without the Export-Controlled functionality feature being enabled.

The following is the procedure to obtain the Product Instance Registration Token:

1. Log in to your Smart Account in either Cisco Smart Software Manager or your Cisco Smart Software Manager satellite.
2. Navigate to the virtual account with which you want to register the Cisco Prime Collaboration Provisioning cluster.
3. Generate a "Product Instance Registration Token".



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**Note**

Select the **Allow export-controlled functionality** on the products registered with this token check box to turn on the Export-Controlled functionality for tokens of a product instance you wish in this smart account. By checking this check box and accepting the terms, you enable higher levels of the product encryption for products registered with this Registration Token. By default, this check box is selected. You can uncheck this check box if you wish not to allow the Export-Controlled functionality to be made available for use with this token.

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**Note** Use this option only if you are compliant with the Export-Controlled functionality.

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**Note** The **Allow export-controlled** functionality on the products registered with this token check box is not displayed for the Smart Accounts that are not permitted to use the Export-Controlled functionality.

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4. Copy the token or save it to another location.

For more information, see <https://software.cisco.com/>.

### Configure Transport Settings

Use this procedure to select transport settings through which Cisco Prime Collaboration Provisioning can connect to Cisco Smart Software Manager or Cisco Smart Software Manager satellite.

#### Before You Begin

Obtain the Product Instance Registration Token

The following is the procedure to configure transport settings:

1. From Cisco Prime Collaboration Provisioning GUI, choose **Administration > License Management**. The License Manager window appears.
2. From the Smart Software Licensing section, click the **View/Edit** link. The Transport Settings dialog box appears.
3. Select one of the following radio buttons:

- Direct—Cisco Prime Collaboration Provisioning sends usage information directly over the internet. No additional components are needed. This is the default setting.
- Cisco Smart Software Manager satellite—Cisco Prime Collaboration Provisioning sends usage information to an on-premise Cisco Smart Software Manager. Periodically, an exchange of information is performed to keep the databases in synchronization. Enter the details in the URL text box.

For more information on installation or configuration of the Cisco Smart Software Manager satellite, go to this URL: [www.cisco.com/go/smartsatellite](http://www.cisco.com/go/smartsatellite).

- Proxy Server—Cisco Prime Collaboration Provisioning sends license usage information to Cisco Smart Software Manager through a proxy server which can be an off-the-shelf proxy such as Cisco Transport Gateway or Apache. The customer would need to install this on their premises and configure the details in the following fields:

- Host Name/IP Address
- Port



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**Note** If you choose to use direct connection, then you must configure Domain Name System (DNS) on Cisco Prime Collaboration Provisioning that can resolve [tools.cisco.com](http://tools.cisco.com).

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**Note** If you choose not to use the DNS server in your deployment and not connect to the Internet, then you can select the Cisco Smart Software Manager satellite with manual synchronization in disconnected mode.

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4. Click **Save**.

### Register with Cisco Smart Software Manager

Use this procedure to register your product with Cisco Smart Software Manager or Cisco Smart Software Manager satellite. Your product is in Evaluation Mode until then.

#### Before You Begin

Configure Transport Settings

1. From Cisco Prime Collaboration Provisioning GUI, choose Administration> License Management. The License Manager window appears.
2. From the Smart Software Licensing section, click the **Register** button. The Smart Software Licensing Product Registration window appears.
3. In the Product Instance Registration Token section, paste the copied or saved "Registration Token Key" that you generated using the Cisco Smart Software Manager or Cisco Smart Software Manager satellite.
4. Click **Register** to complete the registration process.
5. Click **Close**.



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**Note** License Usage information is updated once every 24 hours automatically.

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### Smart Software Licensing Additional Operations

The available Smart Software Licensing additional operations are:

- **Renew Authorization:** Renew Authorization is performed automatically every 30 days by Cisco Prime Collaboration Provisioning; however, the user can manually do this step to renew the License Authorization Status for all the licenses listed under License Type.
- **Renew Registration:** Registration renewal is automatically performed by Cisco Prime Collaboration Provisioning every 6 months. However, the user can perform this step manually to renew the ID certificate that has been assigned to Cisco Prime Collaboration Provisioning.
- **Deregister:**  
Perform this step to disconnect the Cisco Prime Collaboration Provisioning cluster from Cisco Smart Software Manager or Cisco Smart Software Manager satellite. The product reverts to evaluation mode as long as the evaluation period is not expired. All license entitlements used for the product are immediately released back to the virtual account and are available for other product instances to use.
- **Reregister License with Cisco Smart Software Manager:**  
Perform this step to reregister (register with force) Cisco Prime Collaboration Provisioning with Cisco Smart Software Manager or Cisco Smart Software Manager satellite. Reregistration means register with

force and this option is used when a product needs to be registered without deregistration first. This could be due to an error condition making the deregistration before registration not possible.



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**Note** Product may migrate to a different virtual account by reregistering with token from a new virtual account.

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### Renew Authorization

Use this procedure to manually renew the License Authorization Status for all the licenses listed under the License Type.



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**Note** The authorization renew expires after 90 days if Cisco Prime Collaboration Provisioning is not connected to Cisco Smart Software Manager or Smart Software Manager satellite. You have an additional 90-day grace period after the authorization expires, before some of the functionalities like adding devices, endpoints, users, RBAC, and self-care are affected. The authorization renew is automatically renewed every 30 days.

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### Before You Begin

The product should be registered with Cisco Smart Software Manager or Cisco Smart Software Manager satellite.

The following is the procedure to renew authorization:

1. From Cisco Prime Collaboration Provisioning GUI, choose **Administration > License Management**. The License Manager window appears.
2. From the Smart Software Licensing section, click the **Actions** drop—down list box.
3. Choose **Renew Registration Now**. The Renew Registration window appears.
4. Click **Ok**.

Cisco Prime Collaboration Provisioning sends a request to Cisco Smart Software Manager or Cisco Smart Software Manager satellite to check the "License Authorization Status" and Cisco Smart Software Manager or Cisco Smart Software Manager satellite reports back the status to Cisco Prime Collaboration Provisioning.



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**Note** License Usage information is updated once every 24 hours automatically.

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### Renew Registration

During product registration to Cisco Smart Software Manager or Cisco Smart Software Manager satellite, there is a security association used to identify the product and is anchored by the registration certificate, which has a lifetime of one year (that is, registration period). This is different from the registration token ID expiration, which has the time limit for the token to be active. This registration period is automatically renewed every 6 months. However, if there is an issue, you can manually renew this registration period.



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**Note** The initial registration is valid for one year. Renewal of registration is automatically done every six months provided the product is connected to Cisco Smart Software Manager or Cisco Smart Software Manager satellite.

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### Before You Begin

The product should be registered with Cisco Smart Software Manager or Cisco Smart Software Manager satellite.

The following is the procedure to renew registration:

1. From Cisco Prime Collaboration Provisioning GUI, choose Administration > License Management. The License Manager window appears.
2. From the Smart Software Licensing section, click the **Actions** drop—down list.
3. Choose **Renew Registration Now**. The Renew Registration window appears.
4. Click **Ok**.

Cisco Prime Collaboration Provisioning sends a request to Cisco Smart Software Manager or Cisco Smart Software Manager satellite to check the "Registration Status" and Cisco Smart Software Manager or Cisco Smart Software Manager satellite reports back the status to Cisco Prime Collaboration Provisioning.



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**Note** License Usage information is updated once every 24 hours automatically.

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### Deregister

Use this procedure to unregister from Cisco Smart Software Manager or Cisco Smart Software Manager satellite and release all the licenses from the current virtual account. This procedure also disconnects Cisco Prime Collaboration Provisioning cluster from Cisco Smart Software Manager or Cisco Smart Software Manager satellite. All license entitlements used for the product are released back to the virtual account and is available for other product instances to use.

### Before You Begin

The product should be registered with Cisco Smart Software Manager or Cisco Smart Software Manager satellite.

The following is the procedure to deregister:

1. From Cisco Prime Collaboration Provisioning GUI, choose **Administration > License Management**. The License Manager window appears.
2. From the Smart Software Licensing section, click the **Actions** drop—down list box.
3. Choose **Deregister**. The Deregister window appears.
4. Click **Ok**.



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**Note** License Usage information is updated once every 24 hours automatically.

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### Reregister License with Cisco Smart Software Manager

Use this procedure to reregister (register force) Cisco Prime Collaboration Provisioning with Cisco Smart Software Manager or Cisco Smart Software Manager satellite.

#### Before You Begin

Obtain the Product Instance Registration Token

The following is the procedure to reregister a license:

1. From Cisco Prime Collaboration Provisioning GUI, choose **Administration > License Management**. The License Manager window appears.
2. From the Smart Software Licensing section, click the **Register** button. The Registration window appears.
3. From the Smart Software Licensing section, click the **Actions** drop—down list box.
4. Choose **Reregister**. The Smart Software Licensing Product Re-registration window appears.
5. In the Product Instance Registration Token section, paste the copied or saved "Registration Token Key" that you generated using the Cisco Smart Software Manager or Cisco Smart Software Manager satellite.
6. Click **Register** to complete the registration process.
7. Click **Close**.



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**Note** License Usage information is updated once every 24 hours automatically.

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## Cross-launch from Cisco Prime Collaboration Provisioning

With Prime Collaboration 10.0 and above, you can access the Cisco Unified Communication functionality through Cisco Prime Collaboration Provisioning, using the cross-launch feature of Cisco Prime Collaboration Provisioning. Cisco Prime Collaboration Provisioning redirects to the Cisco Unified CM user interface to provision the infrastructure objects, upon clicking the infrastructure objects suitable for cross launching. Any user with admin privilege can cross-launch from Cisco Prime Collaboration Provisioning to use Cisco Unified Communication products. Cross-launch enables a smooth, continuous workflow if an administrator in Cisco Prime Collaboration Provisioning requires access to the device user interface and wants to update a user configuration on the product user interface of the configured devices such as Cisco Unified CM, Unity Connection, or IM and Presence Services.

As an admin user, you can use cross-launch for the following purposes, from Cisco Prime Collaboration Provisioning:

- [Cross-launching Devices from Infrastructure Configuration](#)
- Cross-launching Serviceability from Infrastructure Setup. See [Adding Devices](#).

- Cross-launching Related Links in Cisco Unified CM from User Provisioning. See [Adding Users](#).

**Note**

- Cross launching is available for users with administrator privileges only and is supported for Cisco Unified CM, Unity Connection, and Presence Services from 10.0 version onwards. If you add older version (earlier than 10.0) of these devices in Cisco Prime Collaboration Provisioning, you will view native-launch links only, as an admin. Native-launch link is applicable to certain infrastructure objects that can be configured in Cisco Unified CM through Cisco Prime Collaboration Provisioning user interface.

However, Presence Services, with versions earlier than 10.0, are not listed in the Infrastructure Configuration view as native links were not supported in earlier versions of Prime Collaboration.

- Enabling Single Sign-On (SSO) for Cross-launch is not mandatory. If you have not enabled SSO for cross-launch, you must specify the login credentials when you cross launch a processor (Cisco Unified Communications Manager, Unity Connection, or Presence Services) for the first time by continuing when you are prompted to add the website in the trusted security certificate list. However, you need not login on successive attempts to cross launch the processor as long as the session is in progress and running. To enable SSO, see [Single Sign-On for Cisco Prime Collaboration Provisioning, on page 13](#).
- Depending on browser settings, the cross-launch may open in new browser tab or a new window. Refer to the browser compatibility in the product documentation of the specific application.

## Single Sign-On for Cisco Prime Collaboration Provisioning

Prime Collaboration provides users with admin privileges to enable Single Sign-On (SSO) in Cisco Prime Collaboration Provisioning using Security Assertion Markup Language (SAML).

Prime Collaboration does not support multiserver SAN certificates and end user SAML SSO.

You can enable SSO in Cisco Prime Collaboration Provisioning to cross-launch the following UC applications:

- Cisco Unified Communications Manager
- Cisco Unity Connection
- Cisco IM and Presence

**Note**

To cross-launch the UC applications without the need for login credentials, ensure that SSO for those applications is configured on the same IdP server as that of Prime Collaboration.

Ensure that the following prerequisites are met before you enable SSO:

- At least one LDAP Administrative user exists in the system—through LDAP synchronization in Cisco Prime Collaboration Provisioning.

For information on how to provide administrative privileges to a user in Cisco Prime Collaboration Provisioning, see Managing Users chapter in the [Cisco Prime Collaboration Provisioning Guide](#).

- An Identity Provider (IdP) server that enables you to use SSO to access many other applications from a single hosted application and a Service Provider. The Service Provider is a website that hosts the applications.

Following are the supported third-party IdP servers:

- Open Access Manager (OpenAM)
- Ping Identity
- Active Directory Federation Services (ADFS)
- Oracle Identity Manager

For the steps to set up an IdP server, see the [SAML SSO Deployment Guide for Cisco Unified Communication Applications, Release 10.0\(1\)](#).

- Download the Identity Provider metadata file from the IdP server and save it in your local system.

To enable Single Sign-on:

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**Step 1** Choose **Administration** -> **Single Sign-on**.

**Step 2** Click **Enable SSO**.

A warning message is displayed stating, Enabling SSO redirects you to the IdP server for authentication from the next login. To access the application, you will need to be authenticated successfully.

**Note** **Enable SSO** is disabled if the prerequisites are not met.

**Step 3** Click **Continue**.

**Step 4** Follow the steps that are provided in the SSO wizard to enable Single Sign-On.

- Locate the IdP metadata file from your local system and click **Import IdP Metadata**.
- Click **Download Trust Metadata file**.
- Launch the IdP server and import the downloaded Trust Metadata file.

**Note** This is a manual step for Enabling SSO. Create a Circle of Trust (CoT) in the IdP server and log out before proceeding with the SSO testing.

- To run SSO Test Setup, select a username from the **Valid Administrative Usernames** drop-down.

**Note** Using any other username to log in to the IdP server may lock the administrator account.

- Click **Run SSO Test** to test the connectivity among the IdP server, Prime Collaboration Applications, and Single Sign-On.

If you are prompted with an error message, Unable to do Single Sign-On or Federation:

- Manually log in to the IdP server using the end user credentials and check if the authentication is successful.
- Verify if the Trust Metadata file is successfully uploaded in the IdP server.
- Verify if the Prime Collaboration server and the IdP server are part of the same Circle of Trust.

- Click **Finish**.
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### Troubleshooting and Logs for SSO

- When you are logged out of the Prime Collaboration server while enabling SSO, we recommend that you close the browser and relaunch the Prime Collaboration application. Because, though your session expires in the Prime Collaboration server, the IdP server session may be still active.
- You can find the log file (ssosp\*.log) for Cisco Prime Collaboration Provisioning in the **/opt/cupm/sep/logs** directory.
- While enabling SSO, ensure that the hostname for Prime Collaboration is set and is part of DNS.

When the IdP server is down, you can:

- Use the recovery URL- `https://<PCserver IP address or host name that is part of DNS>/ssosp/local/login`.
- Disable Single Sign-On from CMD Utility.

To disable SSO from CMD utility in Prime Collaboration applications:

- Log in to the Cisco Prime Collaboration Provisioning server using SSH with port 22.
- Navigate to the **/opt/cupm/sep/build/bin** directory for Cisco Prime Collaboration Provisioning. Add `<Operation>` and `<Value>` entries in the **cpcmconfigsso.sh** file.

Operations can be...	Values can be...
1-To get the Single Sign-On status	Not applicable
2-To get the recovery URL status	Not applicable
3-To set the Single Sign-On status	False <b>Note</b> You cannot enable SSO through CLI. Use the UI procedure to enable SSO.
4-To set the recovery URL status	True or False

- To disable SSO, run the following command:

```
cpcmconfigsso.sh 3 false
```



**Note** The recovery URL is enabled by default. If you want to disable it for security reasons, set it as false.

## Configuring Provisioning to Use LDAP and ACS Servers

You can configure Cisco Prime Collaboration Provisioning to use Access Control Server (ACS) or LDAP server to authenticate, read, and synchronize.

**Note**

- If you are adding an ACS server, you must add the Provisioning server as an ACS client (with TACACS).
- To enable SSL for LDAP Server:
  1. You must upload the LDAP server certificate. For the steps to upload LDAP certificate, refer [Upload SSL Certificate](#).
  2. Go to the **LDAP Server Configuration** page and check the **Use SSL** check box.
- Before deleting an ACS or LDAP server, ensure that it is not assigned to a Domain. ACS or LDAP servers are enabled on a per Domain basis. After adding an ACS or LDAP server, you must assign it to a Domain. All the users in the Domain, are authenticated against that ACS or LDAP server. If an ACS or LDAP server is not associated to a Domain, all the users of that Domain are authenticated locally. Globaladmin is always authenticated locally.
- All authentication happens on the Active Directory/LDAP server when a domain has both local users and external users (LDAP or ACS), and if the domain is integrated with Active Directory/LDAP.
- We recommend, not to have a domain that has a combination of both local users and external users.

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When configuring Provisioning to use Cisco Secure Access Control Server, be aware of the following:

- When you click the Test Connection button, only the connectivity of the IP address is checked.
- The Shared Secret Key is used only for authentication.
- If you entered an incorrect Shared Secret Key, when you try to log into Provisioning, you will get an incorrect secret key error. Use the SSK that is generated while configuring ACS.
- Provisioning supports only ACS 5.x.