



Prime Collaboration Provisioning Guide for Cisco Business Edition 6000, Release 10.0(1)

First Published: December 17, 2013

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Introduction

Prime Collaboration Provisioning application provides a single user interface for the following:

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

This document provides steps to install and provision Prime Collaboration Provisioning on a Cisco Business Edition 6000 (BE 6000) server.

For more details, see the *Prime Collaboration Provisioning Guide*:

http://www.cisco.com/en/US/docs/net_mgmt/prime/collaboration/10.0/provisioning/guide/Cisco_Prime_Collaboration_Provisioning_Guide_10.html

The following applications are configured through their respective native interface and not through Prime Collaboration Provisioning:

- Cisco Contact Center Express
- Cisco Video Communication Server
- Cisco Emergency Responder
- Cisco Unified Attendant Console
- Cisco Paging Server

Workflow

Use this document along with other Cisco Business Edition 6000 documentation to complete the following tasks:

Day	Task	Go Here	Audience
0	Installation	See the installation guide for your application here .	Partner
1	Base Configuration	Begin configuration by using Cisco Unified Configurator for Collaboration (CUCC), a tool that establishes the base configuration across Unified Communications Manager and Unity Connection. For information about this tool, please see this site .	Partner
2	Customization	Reverse sync into Prime Collaboration and use it for customization. Infrastructure Provisioning, on page 9 User and User Service Configuration, on page 25	Partner
3 and on	Moves, Adds, Changes, and Deletes (MACDs)	Hand over Prime to an IT administrator who can perform MACD work. User and User Service Configuration, on page 25	IT Administrator

Related Documentation

The following URL provides Cisco gateway considerations for IP telephony network:

http://www.cisco.com/en/US/docs/voice_ip_comm/cucm/srnd/10x/gateways.html

The following URL provides a link to the Cisco Unified Configurator for Collaboration, which helps you quickly install, configure, and deploy basic telephony and simple voice messaging:

http://www.cisco.com/c/en/us/solutions/enterprise/design-zone-branch-wan/cisco_validated.html

Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, using the Cisco Bug Search Tool (BST), submitting a service request, and gathering additional information, see *What's New in Cisco Product Documentation*, at: <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

Subscribe to *What's New in Cisco Product Documentation*, which lists all new and revised Cisco technical documentation, as an RSS feed and deliver content directly to your desktop using a reader application. The RSS feeds are a free service.



Preparation



Note

Ensure that the BE6000 server is rack-mounted, connected to electrical power source and customer data network as illustrated in the *Quick Start Guide (QSG)*, which is included in the shipping box. Also ensure that a monitor and keyboard are connected to the server.

Before you proceed with installation, collect the network information from the data network administrator.

- [Concepts, page 1](#)
- [Obtain Application, page 3](#)
- [License File, page 3](#)
- [Virtual Machine Requirements, page 4](#)
- [Cisco Unified Communications Manager and Cisco Unity Connection Integration, page 4](#)
- [Log In To Application, page 4](#)

Concepts

Prime Collaboration introduces the following concepts:

User

A user with services provisioned like phone, voicemail, and email.

Domain

An area that is managed by a single administrator. Each domain has a domain administrator. Most BE6K deployments have a single domain as part of a Standard Prime installation. Multiple domains are available with Prime Collaboration Advanced (available for purchase) that can be used for complex Business Edition 6000 deployments.

User Roles

Control which products and services that an IT administrator can order for a user. User roles can function across service areas.

Service Area

A logical partition that defines the class of services for the services ordered in that service area. A service area is linked to a single call processor (Unified Communications Manager), message processor (Cisco Unity Connection) and presence processor (IM and Presence Service). User roles and Directory Number Blocks (DNB) are associated with a service area. A Service Area roughly corresponds to a site or physical location.

Example 1

A single site customer deployment with user role type executives, managers, employees, contractors and common area (such as lobby or a conference room) phones.

The following table provides a typical example of how these concepts can be defined.

User Role	Phones	Services
Executives	99xx, EX60	Phone, Line, VM, Presence, Voicemail to Email, Extension Mobility, SNR
Managers	89xx	Phone, Line, VM, Presence, Voicemail to Email, Extension Mobility
Employees	69xx	Phone, Line, VM, Presence, Voicemail to Email
Contractors	6921	Phone, Line, VM, Presence, Voicemail to Email
Conference Room	7937	Phone, Line
Lobby	69xx	Phone, Line
Domain	Location 1: Company1	
Service Area	User Role	DNB
San Jose	Lobby	408555XXXX-1310
RTP	Lobby, Employee, Contractor, Conference Room	919555XXXX-1300
Richardson	Lobby, Executive, Manager	972555XXXX-1030

Example 2

A multi site customer deployment with user role type executives, managers, employees, contractors, conference room and common area (such as lobby) phones.



Note

This example is a complex deployment with multiple administrators: one administrator who manages the east coast, one who manages the west coast along with multiple sites under each domain.

The following table provides a typical example of how these concepts can be defined.

User Role	Phones	Services
Executives	99xx, EX60	Phone, Line, VM, Presence, Email, Extension Mobility, SNR
Managers	89xx	Phone, Line, VM, Presence, Email, Extension Mobility
Employees	69xx	Phone, Line, VM, Presence, Email
Contractors	6921	Phone, Line, VM, Presence, Email
Conference Room	7937	Phone, Line
Lobby	69xx	Phone, Line
Domain	Location 1: Company2, West Coast. IT administrator: Bob	
Service Area	User Role	DNB
San Francisco	Lobby	41555XXXX-1310
Los Angeles	Employee, Contractor, Conference Room	310555XXXX-1300
Seattle	Executive, Manager	206555XXXX-1030
Domain	Location 2: Company2, East Coast. IT administrator: Bill	
Service Area	User Role	DNB
New York	Lobby	646888XXXX-1497
Boston	Employee, Conference Room	617888XXXX-1490
Miami	Executive, Manager	305888XXXX-1340

Obtain Application

Prime Collaboration Provisioning, along with the license file, is preloaded on the Cisco BE 6000 server datastore. You can also download the provisioning application and the license from the Product Upgrade Tool (PUT). You must have a valid contract to place an order through the PUT.

License File

The license file allows you to manage the following:

- Single cluster
- 1000 users and 2500 devices
- One Cisco Unified Communications Manager
- One IM and Presence Service

- Self Care user logins

Virtual Machine Requirements

Endpoints Managed in Prime Collaboration	Number of CPUs	CPU Reservation	RAM	Memory Reservation	NIC	Disk Space
Up to 2500 endpoints (small)	1	2 GHz	2 GB	2 GB	1 GB	90 GB

Cisco Unified Communications Manager and Cisco Unity Connection Integration

The instructions for integrating Cisco Unified Communications Manager with Cisco Unity Connection by Skinny Call Control Protocol (SCCP) are provided in the URL that follows. Cisco Unity Connection supports SCCP integration when Unified Communications Manager has only SCCP phones or has both SCCP and SIP phones.

http://www.cisco.com/en/US/docs/voice_ip_comm/connection/10x/integration/guide/cucm_sccp/cucintcucmskinny070.html

The following URL provides Cisco Unified Communications Manager SIP Trunk Integration with Cisco Unity Connection:

http://www.cisco.com/en/US/docs/voice_ip_comm/connection/10x/integration/guide/cucm_sip/cucintcucmsip060.html

Log In To Application

Procedure

-
- Step 1** Open a browser session on your PC.
 - Step 2** Enter `http://<Prime Collaboration IP Address>`.
The Prime Collaboration login page appears.
 - Step 3** Log in as a globaladmin, using the same the credentials that you specified during initial configuration.
-



CHAPTER 2

Initial Configuration

- [Virtual Appliance Installation](#), page 5
- [Activate Services](#), page 5
- [Install License](#), page 6

Virtual Appliance Installation

To deploy and install the Prime Collaboration Provisioning virtual machine, see the *Installation Guide for Cisco Business Edition 6000*:

http://www.cisco.com/en/US/partner/products/ps11369/prod_installation_guides_list.html

The complete installation time for the Prime Collaboration Provisioning application is approximately 30 minutes.

Activate Services



Note For 10.0(1), some of these services are automatically activated.

For Cisco Prime Collaboration Provisioning to interact with Cisco Unified Communications Manager and IM and Presence Service servers, you must activate the Cisco AXL Web Service on both servers.

Procedure

Step 1 Perform the following actions to enable services on Cisco Unified Communications Manager:

- Log on to native web interface.
- Go to **Navigation > Cisco Unified Serviceability** and click **Go**.
- Click **Tools > Service Activation**.
- Enable the following services, as per the site requirements:
 - Cisco CallManager

- Cisco CTIManager
- Cisco Extension Mobility
- Cisco TFTP
- Cisco AXL Web Services
- Cisco DirSync

e) Click **Save**.

Step 2 Perform the following actions to enable services on IM and Presence Service:

- a) Log on to native web interface.
 - b) Enter the Unified Communications Manager Publisher configuration: the **Hostname** and **IP Address**.
 - c) Enter AXL login information for the Unified Communications Manager Publisher: the **AXL User** and **Password**.
 - d) Enter the **Security Password** for secure communication among Unified Communications Manager and the IM and Presence Service server. This password must match the security password configured on the Unified Communications Manager Publisher node.
 - e) Verify the information and click **Confirm** to proceed.
 - f) At the top right corner, go to **Navigation > Cisco Unified IM and Presence Serviceability** and click **Go**.
 - g) Select **Tools > Service Activation**.
 - h) Enable the following services, as per the site requirements:
 - Cisco SIP Proxy
 - Cisco Presence Engine
 - Cisco Sync Agent
 - Cisco AXL Web Services
 - Cisco XCP Connection Manager
 - Cisco XCP Directory Service
 - Cisco XCP Authentication Service
 - i) Click **Save**.
-

Install License

Procedure

- Step 1** Log in to the Prime Collaboration Provisioning web interface using globaladmin credentials.
- Step 2** Navigate to the license management user interface under the **Administration** tab.
- Step 3** Copy the new license file to the license directory.

Example:

```
PCP10BENNL2500.lic
```

- Step 4** Remove any other licenses from the license directory.
Prime Collaboration Provisioning automatically updates to the BE6000 version.
-



Infrastructure Configuration

- [Cisco Unified Configurator for Collaboration, page 9](#)
- [Infrastructure Provisioning, page 9](#)
- [Add Device, page 10](#)
- [Infrastructure and User Synchronization, page 10](#)
- [Configure LDAP Server Synchronization, page 12](#)
- [Delete Device, page 15](#)
- [Enable Cisco Jabber Services, page 16](#)

Cisco Unified Configurator for Collaboration

**Note**

Assuming a base configuration has been established on the Unified Communications Manager and Unity connection servers, you can reverse sync the configuration and add devices into Prime Provisioning.

Begin your configuration by using Cisco Unified Configurator for Collaboration (CUCC). See the following URL for CUCC package downloads that also contain further information in the embedded online help:

http://www.cisco.com/en/US/solutions/ns340/ns414/ns742/ns816/cisco_validated.html

Infrastructure Provisioning

The Infrastructure Configuration page lets you browse the infrastructure configuration settings of a Call Processor and Unified Message Processor. Through this page, you can add, edit, or delete the configuration settings of a Call Processor and Unified Message Processor.

**Note**

The Infrastructure Configuration feature applies to Call Processors that are based on Cisco Unified Communications Manager devices and Unified Message Processors that are based on only Cisco Unity Connection.

**Tip**

If you are reverse synchronizing a Cisco BE 6000 that you installed using CUCC, you can use this section for general administration and further customization.

Add Device

Follow this procedure to add devices (applications) to Provisioning.

Procedure

Step 1 Choose **Design > Infrastructure Setup**.

Step 2 In the Infrastructure Setup page, Click **Add** to add devices to Provisioning.

Step 3 In the Add Device window, select the required application from the drop-down list and enter the necessary information such as Name and IP address.

Note For the device name, valid values are space, alphanumeric characters (A-Z, a-z, 0-9), underscore (_), hyphen (-), period (.), and at sign (@).

Step 4 Click **Save**.

Devices are added to Provisioning. You will see two status messages appearing at the bottom of the page. One on whether the addition of the device was successful or not, and another on the Test Connection stating whether the connectivity test was successful or not. Devices with multiple applications are added as separate devices in the table.

Note While adding Cisco Unity Connection 10.0, you must configure both Unity Connection administrator and Operating System (OS) administrator credentials.

Infrastructure and User Synchronization

You use the infrastructure synchronization to synchronize the infrastructure data in the devices. The infrastructure synchronization retrieves device information that is used across multiple users.

To synchronize infrastructure configuration products and users:

Procedure

Step 1 Choose **Design > Infrastructure Setup**.

Step 2 Hover over Quick View of the device for which you want to run synchronization.

Step 3 Do one of the following:

- To initiate Infrastructure Synchronization, click **Start Infrastructure Synchronization**
- To initiate User Synchronization, click **Start User Synchronization**

The progress of synchronization is displayed in the Quick View under Synchronization Status.

Step 4 Click **View Detailed Logs**.

A synchronization log is created, listing the objects that could not be assigned. It also shows a warning message if an unknown element is received from the device. This log is replaced each time a synchronization occurs.

Note If you see the warning message “Skipped unexpected element,” you can ignore it. The message indicates that Provisioning does not support the item that was sent back from the device.

If the status of an infrastructure or user synchronization does not change for an extended period of time, verify that the Nice service is running. Run the following command to check if the Nice service is running:

```
ps -aef | grep nice
```

If the Nice service is stopped, restart the service, and then restart the infrastructure or user synchronization.

If you wish to manage the Analog Phones, you have to update the `ipt.properties` file. In this file, update the `dfc.ipt.cisco.callmanager.analog_phone_support` to Y and then do the user synchronization. You must restart Provisioning after the user synchronization is completed.

For the list of Cisco Unified Communications Manager objects that Provisioning synchronizes, see [Cisco Unified Communications Manager Objects that Are Synchronized](#).

You use the infrastructure synchronization to synchronize the unified messaging infrastructure data in Provisioning with the Unified Message Processor:

- **SubscriberTemplate**—A Subscriber Template in Cisco Unity, Cisco Unity Connection, and the e-mail message processor.
- **UnifiedMessagingFeatureSpecification**—A class of service in Cisco Unity, Cisco Unity Connection, and the e-mail message processor.

You use the user synchronization to synchronize the unified messaging user data in Provisioning with the Unified Message Processor.

- **UMInfo**—A user in Cisco Unity, Cisco Unity Connection, and Cisco Unity Express in conjunction with their user’s voicemail and e-mail information.
- **VoiceMailInfo**—A user in Cisco Unity, Cisco Unity Connection, and Cisco Unity Express in conjunction with UMInfo and EmailInfo.
- **EmailInfo**—A user in Cisco Unity and Cisco Unity Connection in conjunction with VoiceMailInfo and UMInfo.



Note

If during the synchronization of Cisco Unity Express you encounter device connection errors, close all Telnet sessions on the Cisco Unity Express system and restart the synchronization. Cisco Unity Express only allows one Telnet session at a time. Provisioning cannot synchronize with a Cisco Unity Express device that has another telnet session open.

**Note**

IM and Presence 9.0 and higher versions are integrated with Cisco Unified Communications Manager. Due to this, user synchronization will be disabled for IM and Presence 9.0 and higher versions. User information will be directly synchronized from Cisco Unified Communications Manager.

For IM and Presence, use the Infrastructure synchronization to synchronize the User Settings Infrastructure data with Provisioning.

**Note**

After upgrading your Cisco Unified Communications Manager, you must perform User Synchronization manually to synchronize change notification settings.

Configure LDAP Server Synchronization

Procedure

- Step 1** Choose **Design > User Provisioning Setup**.
- Step 2** From the Domains table, select a Domain and click **Edit**.
- Step 3** In the Domain Configuration page, select an LDAP Server.
- Step 4** In the LDAP Settings pane, you configure the information Provisioning gets from the LDAP server. (For descriptions of the fields in this page, see).
- Step 5** For all the changes on the LDAP server to be synchronized to Provisioning, select the following:
 - Mode—**Authentication and Synchronization**.
 - Update existing user details—**All fields**.
 - Action when LDAP users deleted—**Delete user only**.
 - User Search base—Enter a user search base.
 - Filter query for synchronization—Synchronize all users.
- Step 6** Click **Save**.

To schedule synchronization, set the **Synchronization Interval** and **Synchronization Start Date** in the LDAP Settings pane.

After saving the Domain Configuration page, select the Domain and hover over Quick view. Select **Start LDAP Synchronization**.

After an LDAP synchronization, a report is created. The report lists the operations that could not be performed during synchronization. Operation failure can be due to incorrect data entered into the LDAP server or incorrect user settings.

**Note**

You cannot delete an LDAP server which is associated to a Domain. You must remove the LDAP server from the Domain to delete it.

Table 1: LDAP Settings Fields

Field	Description
Mode	<ul style="list-style-type: none"> • Authentication Only—The LDAP server is used only for user authentication. • Authentication and Synchronization—The LDAP server is used both to provide user authentication and to obtain user information.
Update Existing User Details	<ul style="list-style-type: none"> • All fields—If any user information is changed in the LDAP server, the same information is updated in Provisioning. • Do not update—User information in Provisioning is not updated when there are changes to the user information in the LDAP server.
Action when LDAP users deleted	<ul style="list-style-type: none"> • Do not delete—When a user is deleted in the LDAP server, the corresponding user in Provisioning is not deleted. • Delete user only—When a user is deleted in the LDAP server, the corresponding user is deleted in Provisioning alone. • Delete user with services—When a user is deleted in the LDAP server, only the corresponding user service is deleted in the device and in Provisioning. The user is not deleted in the device, but deleted in Provisioning.
User Search Base	<p>The user search base. Provisioning searches for users under the base. CN-Users, DC-Cisco, DC-com.</p> <p>This search base is used only for LDAP synchronization; it is not used for authentication.</p> <p>In the Microsoft Active Directory server, you can use the command dsquery user to list the complete user search base.</p>

Field	Description
Field Mapping	<p>Lists which user fields in Cisco Unified Communications Manager correspond to certain LDAP user fields. The only fields you can configure in Provisioning are the following:</p> <ul style="list-style-type: none"> • Contact phone number—Select either telephone number or ipPhone. • Contact email—Select either mail or sAMAccountName. • User ID—User ID can be mapped to the following fields in LDAP server: <ul style="list-style-type: none"> ◦ employeeNumber ◦ mail ◦ sAMAccountName ◦ telephoneNumber ◦ userPrincipalName
Filter Query for Synchronization	<ul style="list-style-type: none"> • Synchronize all users—All users will be synchronized. • Simple query—You can configure a query by using a combination of the following fields: <ul style="list-style-type: none"> ◦ User ID ◦ Department ◦ Contact phone number ◦ Contact email <p>You can use an asterisk (*) for a partial string search.</p> • Advanced query—You can enter any LDAP query; for example: (&(sAMAccountName=johndoe)(department=Cisco*)(mail=john@cisco.com)).

The table below lists the field mapping between Provisioning and the LDAP server. The data in the specified Provisioning field is synchronized with the user data in the corresponding LDAP field.

Table 2: LDAP Field Mapping

Provisioning Field	LDAP Field
Phone Number	telephoneNumber or ipPhone number.
Email	mail or sAMAccountName.

Provisioning Field	LDAP Field
User ID	User ID can be mapped to the following fields in LDAP server: <ul style="list-style-type: none"> • employeeNumber • mail • sAMAccountName • telephoneNumber • userPrincipalName
First Name	givenName.
Last Name	sn.

Delete Device

To completely remove a device from Provisioning, you must delete it through the Infrastructure Setup page.

Note the following points when you are deleting a device:

- No active released orders, including unrecoverable or recoverable errors.
- No active batch projects.
- No synchronizations in progress.

If these conditions are not met, a message appears on the page when you attempt to delete a device. Avoid performing any activities until the deletion is complete.

- Before deleting a AAA server, make sure it is not assigned to a Domain.
- There must not be any pending orders on the device. You do not need to be in maintenance mode to delete the device capability. However, if another capability is already configured on the router, system must be in maintenance mode to remove the other capability.

Procedure

-
- Step 1** Put Provisioning in maintenance mode.
 - Step 2** Choose **Design > Infrastructure Setup**.
 - Step 3** In the Infrastructure Setup page, select the device you want to delete and click **Delete**.
 - Step 4** In the confirmation dialog box, click **OK** to confirm deletion.
-

Enable Cisco Jabber Services

You can enable Cisco Jabber services for devices in Prime Collaboration Provisioning. Cisco Jabber services allow you to interact with instant messaging and availability.



Note Cisco Jabber service is available for Cisco Unified Communications Manager 9.1.1 and above version, and Cisco Unified Presence only.

Procedure

Step 1 Choose **Deploy > Unified Communication Services**.

Step 2 In the Unified Communication Services page, click **Enable**.

Step 3 Enter the SIP Profile, Service Profile, Softkey template fields and Service Parameter information, and click **Apply**. You can click **View Order** to see the order details in the User Record page. The date when the Jabber Service is enabled appears.

Note After you enable Cisco Jabber service for a call processor, you cannot edit or disable it.



Domain and Service Area Configuration

- [Add Domain, page 17](#)
- [Add Service Area, page 17](#)
- [Add Directory Number Block, page 20](#)
- [Add User Role, page 21](#)
- [Synchronize Domain, page 22](#)
- [Deploy Infrastructure, page 23](#)

Add Domain

After you create a Domain, you can add Service Areas and user roles that have access to your new domain. You can also create a service template and assign it to a Service Area and User Role. A service template can be associated to several such combinations of Service Areas and User Roles.

Procedure

- Step 1** Choose **Design > User Provisioning Setup**.
 - Step 2** Click **Add**, to add new domains in the **Domains** page.
 - Step 3** Enter the necessary fields such as Call Processors, Message Processors, synchronization rules, LDAP settings and so on, and click **Save**. You need to provide a Domain Name for the Name field. Valid values are space, alphanumeric characters (A-Z, a-z, 0-9), and the following special characters: `_ - . / : ; = ? @ ^ ' { } [] | ~`. You can set the Domain Synchronization rules in the Synchronization Rules pane. Select the Synchronization Rules for Cisco Unified Communications Manager and Unity Connection. Mouse over the (?) icon for details on the specific synchronization rule.
-

Add Service Area

When configuring a Service Area, you can do the following:

- Map the Service Area to the corresponding Call Processor objects by specifying its Call Processors and related objects (for a Cisco Unified Communications Manager, some examples are route partition, and device pool), Unified Message Processor, and Unified Presence Processor.
- Specify the user types for the Service Area (only users within a Service Area can order products from it).
The Employee user role is the default based on the Domain rule DefaultUserType.
- Create directory number blocks for the Service Area users.
- Unified Presence Processor settings will list the Presence processor if the selected Call Processor has associated Presence processors.



Note After a Service Area is assigned to a Domain, it cannot be moved to a different Domain. Further, after a Call Processor, Unified Message Processor, or Unified Presence Processor is assigned to a Service Area, it cannot be changed.

Procedure

- Step 1** Choose **Design > User Provisioning Setup**.
 - Step 2** Select the Domain for which you want to create a Service Area.
 - Step 3** Expand the Domain, and select **Service Area**.
 - Step 4** Click **Add**.
 - Step 5** In the **Service Area Configuration** page, enter the necessary fields and click **Save**. The table below describes the necessary fields.
-

To edit an existing Service Area, expand the list of Service Areas in the left pane, and click a particular Service Area to edit. You can also select a Service Area from the table and click **Edit**.

Table 3: Service Area Configuration Fields

Field	Description
Common Device Config	<p>Configuration of common device settings for the Service Area. The following settings are controlled by Common Device Configuration:</p> <ul style="list-style-type: none"> • Softkey Template • User Hold MOH Audio Source • Network Hold MOH Audio Source • User Locale • MLPP Indication • MLPP Preemption • MLPP Domain <p>Note This field appears only if you selected Cisco Unified Communications Manager 6.0.</p>
Location	Location to be assigned to a device.
Partition	Route partition for the Service Area. This is the same as a partition in Cisco Unified Communications Manager.
Device Pool	Device pool for the Service Area.
Voice Gateway References	Voice gateway references for the Service Area.
Email Processors	<p>Available only for Cisco Unity Connection and integrated with an external Exchange Server for IMAP client support.</p> <p>To configure an external Exchange Server for IMAP in Cisco Unity Connection, on the Cisco Unity Connection system, go to System Settings > External Services > Add New, and fill in the required fields.</p>
Subscriber Template without TTS Enabled	Subscriber Template to be used to disable unified messaging for a user in the Unified Message Processor.

Field	Description
Subscriber CoS with TTS Enabled	<p>Class of Service Template to be used to enable unified messaging for a user in the Unified Message Processor. It is used in conjunction with the Subscriber Template.</p> <p>To enable TTS for a CoS, you must configure the following in Cisco Unity Connection:</p> <ul style="list-style-type: none"> • For Cisco Unity Connection 8.x, do one of the following: <ul style="list-style-type: none"> ◦ Select Allow Users to Access Voice Mail Using an IMAP Client field (under Licensed Features). ◦ Select Allow Access to Advanced Features field and Allow Access to Exchange Email by Using Text to Speech (TTS) (under Licensed Features).
Subscriber CoS without TTS Enabled	Class of Service Template to be used to disable unified messaging for a user in the Unified Message Processor. It is used in conjunction with the Subscriber Template.
Directory Number Blocks	Directory number block assigned for that Service Area.

- Common Device Config, Location and Partition fields apply only to Cisco Unified Communications Manager.
- Subscriber CoS with TTS Enabled, and Subscriber CoS without TTS Enabled fields apply only to Unity and Unity Connection.

Add Directory Number Block



Note

The Minimum Length field indicates the minimum number of digits that a directory number can contain before the prefix is added. This is used by the system to pad numbers with zeros. For example, if prefix = 408, first number = 0, last number = 100, and minimum length = 4, then the range of the directory number block would be 4080000 through 4080100.

To Edit, select the Directory Number Block, and click **Edit**. Make the necessary changes and click **Save**. To discard the changes, click **Cancel**.

To delete a Directory Number Block, click **Delete**.

Procedure

- Step 1** Choose **Design > User Provisioning Setup**.
 - Step 2** Expand the Domain and Service Area in the left selector pane, and select the required Service Area.
 - Step 3** In the Directory Number Block(s) field, click **Add Row**.
 - Step 4** Complete the fields as required and click **Save**.
-

Add User Role

User roles control which products and services a user can order.

The default user roles are:

- **Employee**—Default role assigned to new users.
The Employee user role should be configured to match the typical setup of employees in your organization. If you do not configure the employee user role to meet your needs, you may not see all the desired options in the employee user record.
- **Executive**
- **Pseudo**—Used to order phones that do not have an associated user. Pseudo users cannot be renamed or removed.

A pseudo user is authorized to manage phone and directory number inventory.

These user roles exist in each Domain in Provisioning. Each set of user roles may be customized in each Domain by adding, removing, or changing these predefined user roles.

Before You Begin

You must first add a user, then assign the user the Pseudo user role.



Note If users already exist on Unified Communications Manager or if they have been synchronized from LDAP, you do not need to add users.

Procedure

- Step 1** Choose **Design > User Provisioning Setup**.
 - Step 2** In the **All Domains** pane, expand a specific domain and click **User Roles**.
 - Step 3** In the User Roles for a specific domain page, click **Add**.
 - Step 4** In the **User Role Configuration** page, enter the required details for user role name, domain, lines, services, service bundles, and click **Save**.
-

- To change a user role configuration, select a user role, click **Edit** in the User Role for a specific domain, and save the modifications.
- To delete a user role, select a user role, click **Delete** in the User Role for a specific domain, and click **OK**.

Associate User Role with Service

A user whose role is associated with specific endpoints can order them. You can create orders for endpoints and services, individual services, or you can order bundled services.

Procedure

-
- Step 1** Choose **Design > User Provisioning Setup**.
- Step 2** In the **All Domains** pane, expand a specific domain, click **User Roles**.
- Step 3** In the User Roles for the selected domain pane, click **Add**.
- Step 4** Specify a name for the user role and associate it with the necessary Endpoints, Lines, Services and Service Bundles. You can check or uncheck as many Endpoints, Services and Service Bundles as needed.
- Note** To modify the user role configuration, select **User Roles**. In User Roles for a specific domain, select a user role and click **Edit**.
- Step 5** Click **Save**.
-

Synchronize Domain

Before You Begin

Domain synchronization cannot be started without configuring synchronization rules.

Procedure

-
- Step 1** Choose **Design > User Provisioning Setup**.
- Step 2** From the Domains table, hover over quick view of the Domain you want to synchronize, and click **Start Domain Synchronization**.
- A popup appears saying that the Domain Synchronization has started successfully. The Last Synchronization field in Quick View displays the status of synchronization along with the start and completion time.
-

What to Do Next

Partners can now customize Infrastructure by using the **Deploy** menu. The Infrastructure configuration window allows you to customize Core UC applications from one location.

Deploy Infrastructure

Procedure

- Step 1** Choose **Deploy > Infrastructure Configuration**.
All available devices are listed in the left pane.
- Step 2** Expand each device to view the infrastructure product of that device.
- Step 3** Click the desired infrastructure product to cross launch or launch it natively:
- When you cross-launch, the Find and List page of the device appears. Click Add New, enter the necessary information, and click **Save**.
 - Some of the infrastructure products (whose versions are earlier than 10.0) are launched natively, where you can add a product instance and configure it within Provisioning. Perform the following steps:
 - 1 Click **Add** and enter the necessary information in the Infrastructure Configuration - configure Product Instance page. An asterisk next to a field indicates a required field.
 - 2 Click **Apply** or **Save as Draft**.
Apply sends the configuration immediately to the device. **Save as Draft** saves the configuration locally. At a later time, the service can be pushed to the device either by clicking **Apply** or by using infrastructure configuration scheduling.

When you choose Save as Draft, the provisioning state of the object changes to Uncommitted Add. The operational status is inactive, meaning that the object has not been pushed to the device.

Note Clicking Apply may cause the devices to restart and end calls in progress.



User and User Service Configuration

- [Add User](#), page 25
- [Order Service for a User](#), page 26
- [Process Order](#), page 41

Add User

**Note**

If you already used CUCC, then users are synced and ready for order processing. You can use Prime Collaboration to add additional features and services to these users.

Procedure

- Step 1** Choose **Deploy > User Provisioning**.
- Step 2** In the **User Provisioning** page, click **Add**.
- Step 3** In the **Add User** window, enter the User ID, Domain, and Last name. Also, enter values for other fields if required.
To launch quick view for a particular domain or user role, while selecting the domain and user role, click the drop-down menu and hover on the quick view icon.
- Step 4** In the **Save and Begin Provisioning** drop-down, perform the following actions as necessary:
- To save the details and launch the Service Provisioning page for the user, click **Save and Begin Provisioning**.
 - To save the details and add another user, click **Save and Add Another**.
 - To save the details and close the Add User window, click **Save and Close**.

- Note**
- If you are removing a user who has services associated, you are notified to disassociate the services before removing the user.
 - Pseudo role allows you to provision phones without an associated user in the Call Processor.
 - While selecting roles for user, the default or Employee user role should be configured to match the typical setup of employees in your organization. If you do not configure the default or Employee user role to meet your needs, you may not see all the desired options in the employee user record.
 - The DefaultUserType rule controls which user role is set as the default. Provisioning comes with the Employee user role configured as the default user role. If you update the default user role name for a domain in Provisioning, make sure you update the DefaultUserType rule with the new default role name for that domain.
 - Changing the username does not also change the phone or line description field for the user (if a phone or line was ordered for the previous username).
 - For Cisco Unified Communications Manager, the combination of characters for First Name and Last Name cannot exceed 30 characters.
 - If a user does not have any associated services, you are prompted to confirm removal of the user.
 - When a service is disassociated from a user, the service is not deleted or disassociated on the device (processor); it is only disassociated within Provisioning.
 - When a subsequent Domain synchronization occurs, depending on the synchronization rules, the user could be created again, and the services could be associated with the user.

Order Service for a User



Note

A partner can hand this section to the IT administrator who can perform moves, adds, changes, and deletes (MACDs) with this tool.

Creating orders for all services follow the same basic procedure.

A user might not have access to all services. The list of services that appear in a given user record depends on the following:

- User role assigned to the user, and the Domains and Service Areas available to the user.
- Availability of resources to support delivery within the Service Areas (for example, a Cisco Unity or Cisco Unity Connection system must be available to provide Unified Messaging).
- Provisioning system configuration.

Service dependencies:

- Line requires an existing endpoint.
- Voicemail and Email require an existing Line.

- Unified Messaging requires Email.
- Extension Mobility Line requires Extension Mobility Access.

Procedure

-
- Step 1** Choose **Deploy > User Provisioning**.
- Step 2** In the User Provisioning page, select a user.
- Step 3** In the User Service Details page, click **New Service**.
- Step 4** Select a Service Area from the drop down list. Rest your mouse pointer over the quick view icon for information on a Service Area in the drop-down list.
- Step 5** Click **Continue**.
All available services which you can provision are displayed, see .
- Step 6** Select the service that you want to provision and click **Continue**.
- Note** If endpoints are not displayed in the list for a user, you must associate the user role of a specific user to endpoints.
- Step 7** In the Service Provisioning page, follow the Order Entry wizard, entering the required information for the service.
When placing orders, note the following:
- The <Service Type> Information and Advanced Order Configuration panes provide specifications for the selected service.
 - Users with Advanced Order or Administrator authorization role can access the Advanced Order Configuration pane. However, an order can be completed or an endpoint can be provisioned without using Advanced Order configuration.
- Note** To clear the value of a provisioning attribute that has a numeric value in the Cisco Unified Communications Manager, you must enter zero as the value. If you do not specify any value and leave the field blank, you cannot clear the value of the provisioning attribute.
- Step 8** Click **Continue** to create the order.
- Step 9** Click **Confirm**, and then click **OK**. You can view the order number in the Service Details page. Verify order status by reviewing the Provisioning History pane. To search for a specific order, see .
You can use the global search option (search available in the right corner of the home page) to search Subscriber ID and Last Name, MAC address and Directory Number.
- For Subscriber ID and Last Name search, alphanumeric characters (A-Z, a-z, 0-9), hyphens (-), underscores (_), dots (.), at signs (@), space and apostrophe are allowed. Example, AASJKUser006, AAS*, AA*, *SJKUser006, 3242#@!#####&@!*@(3), AANewRDUser00*
 - For MAC Address search, alphanumeric characters (A-Z, a-z, 0-9), dash (-), period (.), and underscore (_) are allowed. Example, 0024C444C3C6, 0024*, *24
 - For Directory Number search, alphanumeric characters, period, and underscore are not allowed. Special characters such as +, ?, (), and - are allowed in the directory number. Example, \+0000057, \+0000*, \+*, *0000*, *57

- Note**
- When you search for phones using the MAC address in the global search option, use the format xxxxxxxxxxxx.
 - A minimum of three characters in the search string is recommended to enable faster retrieval of search results.

To view the provisioning attributes for an ordered service, in the Service Details page, hover over the desired service, and then click View in the Actions list.

To add user notes to an ordered service, in the Service Details page, hover over the desired service, and then click User Notes in the Actions list.

To create a template for the service you have created, click Create Template from Quick View. Enter the necessary details and click Create Template. A template will be created for the service with all its values.

If you are deploying a large number of services, you may want to combine these activities into a single activity. The batch provisioning functionality of Provisioning enables you to create a single batch that contains multiple types of orders. You can also combine multiple types of services into a single batch operation.

To configure a batch project, choose **Deploy > Batch Provisioning**.

**Note**

While provisioning a service, if selecting the Security Profile Provisioning Attribute results in an error, uncheck the Protected Device option for the order to complete successfully. Make sure the Cluster and Device Security Modes are configured appropriately for the Cisco Unified Communications Manager cluster. For information about the security parameters in Cisco Unified Communications Manager, see Cluster and Security Modes in the Cisco Unified Communications Manager Security Guide for your release, available here: http://www.cisco.com/en/US/products/sw/voicesw/ps556/prod_maintenance_guides_list.html.

Table 4: Provisioning Services

Service	Description
Enable Mobility Support	<p>Enables Mobility for the selected user on the selected Call Processor. When ordering using default parameters, the following provisioning attributes are used:</p> <ul style="list-style-type: none"> • Enable Mobility: True • Enable Mobile Voice Access: True • Max Desk Pickup Wait Time: 1000 ms • Remote Destination Limit: 4 • Primary User Device <p>This service is available only for Cisco Unified Communications Manager 6.0.x and later.</p>

Enable Presence	Enables presence messaging updates by enabling the user's Presence Server license on a Call Processor. This option is available only for Cisco Unified Communications Manager 8.x and later. You will not be able to see this service for ordering until you associate the service to a user role.)
Enable Presence Client	Enables the use of Cisco Unified Personal Communicator by enabling the user's Unified Personal Communicator license on a Call Processor. This is a bundle of Enable Presence Client and Client User Settings. Enable Presence Client is available only for Cisco Unified Communications Manager 8.x and later. This service is available only when you order Enable Presence. You will not be able to see this service for ordering until you associate the service to a user role.
Enhanced Mobility Service	Includes an Extension Mobility device profile, line, and voicemail for the selected user on the selected Call Processor. This bundle enables you to create standard provisioning services such as Extension Mobility, line, and voicemail in a single order. You will not be able to see this service for ordering until you associate the service to a user role.
Enhanced Mobility Service with Unified Messaging	Includes an Extension Mobility device profile, line, voicemail, e-mail and unified messaging for the selected user on the selected Call Processor. You will not be able to see this service for ordering until you associate the service to a user role.
Client User Settings	Enables Unified Personal Communicator user settings on a Unified Presence Processor. Client User Settings can be ordered only through bundle services such as Enable Client Service or Presence Service. You will not be able to see this service for ordering until you associate the service to a user role.

Enable SoftPhone Support	<ul style="list-style-type: none"> • Enables use of a personal computer along with a physical endpoint (both ring at the same time), or a CTI port (a virtual phone defined on Unified Communications Manager). • Not supported on Unified Communications Manager Express, or when ordering from a Call Processor based on Unified Communications Manager Express. • Will not appear in your service list if all of your available Call Processors already support SoftPhone. A list of valid Service Areas appears for specific Call Processors that are available to you. • When ordering, specify the server name or IP address of the user's computer in the Associated PC field. • Although you enable this service based on Service Area, you can do so only once per Unified Communications Manager, even if more Service Areas are associated with it. • Applies only to a Cisco SoftPhone that uses a CTI port. Cisco IP Communicator does not use CTI ports to communicate with Unified Communications Manager, but acts as a physical endpoint with a MAC address. To order Cisco IP Communicator, you must order a physical endpoint and select Cisco IP Communicator as the endpoint type. • Required for Cisco Jabber for Desktop to function as a desktop phone on a Cisco Jabber for Desktop client.
Enhanced Endpoint Service	<p>Includes an endpoint, line, and voicemail. The line is automatically associated with the endpoint that you ordered, and the voicemail is automatically associated with the line.</p> <p>When placing an order for Enhanced Endpoint Service on a Cisco Unified Communications Manager Express, you must enter the call-forward provisioning attributes. When entering an order, click Advanced Order Configuration and in the Voicemail Configuration Template provisioning attribute, enter the following commands: <code>call-forward busy <voice mail port/dn></code> <code>call-forward noan <voice mail port/dn></code> <code>timeout <seconds></code></p> <p>For a Cisco Unity Express Service Area, enter only alphabetical characters in the Voice Mail Display Name field. If you use other types of characters, orders for the user will fail.</p> <p>For Cisco Unity Express Service Area, you cannot add, modify, or cancel orders when the infrastructure or user synchronization is in progress.</p>

Extension Mobility Access or Access with Line	<p>Enables users to log into a specific endpoint type and have their endpoint device profile applied to it. This service is available either by itself, or bundled with a line.</p> <p>Extension Mobility is available for ordering only if the optional extension mobility details are entered for a Call Processor when it is added to Provisioning.</p> <p>When placing an order for Extension Mobility Access in a Service Area that supports SIP phones, select a phone button template only for the following Cisco Unified IP Phones: 7911, 7941, 7942, 7945, 7961, 7962, 7965, 7970, 7971, or 7975.</p> <p>The order will fail if Extension Mobility is not supported on the selected phone button template.</p> <p>While ordering Extension Mobility Access for iPhones, order may fail if you use the default values for the following attributes:</p> <ul style="list-style-type: none"> • DND Option • DND Incoming Call Alert (Set-only Attribute) • MLPP Indication <p>For ordering Extension Mobility Access for iPhones, it is recommended that you create a service template with the following values for these attributes and apply the template while creating an order:</p> <ul style="list-style-type: none"> • DND Option—Call Reject • DND Incoming Call Alert—Disable • MLPP Indication—Off
Extension Mobility Line	The directory number/line ordered for a device profile on a Cisco Unified Communications Manager. It can be ordered as an upgrade when the user already has Extension Mobility Access.
Cisco Jabber Service	<p>Allows you to order Jabber service. Cisco Jabber service is orderable for Cisco Jabber for Tablet, Cisco Jabber for Desktop, Cisco Jabber for Android, Cisco Jabber for BlackBerry, and Cisco Jabber for iPhone. You must at least have an employee's role for user role type to view the Cisco Jabber Service in the order page.</p> <p>If you are upgrading from Prime Collaboration 9.0 to Prime Collaboration 9.5 version, you will not be able to see this service for ordering until you associate the service to a user role</p>

Line	<p>Line service can be provisioned for a user with or without an endpoint. No shipping, assignment, receipt, or tracking (for returns) steps are required for provisioning a new Line service.</p> <p>The Upgrade designation next to the Line service indicates that a line is being ordered for an existing endpoint.</p> <p>For Call Processors, the display for a line cannot exceed 30 characters. Make sure that the combination of characters for First Name and Last Name does not exceed 30 characters. If this limit is exceeded, when you place an order, the Call Processor sends an error.</p> <p>End User Association is automatically provisioned for Line services.</p>
Line on a Shared Endpoint	<p>Order a line on a shared endpoint when users require their own separate lines on the same physical endpoint. When this service is provisioned, the endpoint and all lines on it are displayed in each of the user record.</p> <p>The Shared icon appears next to the endpoint that is shared in the user record.</p>
Messaging Service	<p>Consists of an endpoint, line, voicemail, and e-mail.</p>

Endpoint	<p>Order an endpoint that does not have a line or a directory number associated with it. Must not be associated with a line or a directory number.</p> <p>For SIP phones, select Yes to enable Extension Mobility for the following Unified IP Phones only: 7911, 7941, 7942, 7945, 7961, 7962, 7965, 7970, 7971, 7975. Extension Mobility is not supported for any other SIP phones.</p> <p>Guidelines for endpoint names:</p> <ul style="list-style-type: none"> • Unified Personal Communicator: <ul style="list-style-type: none"> ◦ Must match the username. (UPC is automatically added to the endpoint name after the order is provisioned.) ◦ Must contain uppercase letters (A-Z) or numbers (0-9). Other characters are ignored. ◦ May contain 12 additional characters after UPC. <p>For example, if the username is john_jackson, enter JOHNJACKSON.</p> • Cisco Jabber for iPhone: <ul style="list-style-type: none"> ◦ Must contain the prefix TCT. (If you do not enter it, Provisioning automatically adds it.) ◦ Must contain no more than 15 characters, including the prefix. ◦ Must consist only of alphanumeric characters (A-Z, a-z, 0-9). Provisioning converts lowercase letters to uppercase before pushing the information to the endpoint. • CTI port-Must contain 1 to 15 characters: alphanumeric (A-Z, a-z, 0-9), underscore (_), hyphen (-), or period (.) • IP Communicator-Must contain 1 to 15 characters: alphanumeric (A-Z, a-z, 0-9), underscore (_), hyphen (-), or period (.) <p>Cisco Services Framework-Must contain 1 to 15 alphanumeric characters (A-Z, a-z, 0-9).</p> <p>Note Endpoint attributes are displayed based on the supported features for the selected endpoint type.</p>
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Endpoint Service	<p>Adds a new endpoint and a line.</p> <p>While ordering Endpoint service, the maximum number of lines is dependent on the phone button template for the phone type (if a phone button template is available). For Cisco Unified Communications Manager Express, because no phone button templates are available, the maximum number of lines is defined in the product catalog for each endpoint type.</p> <p>When placing endpoint service orders for Cisco Unified Communications Manager Express, note the following: Provisioning always provisions the ephone-dn with a dual-line.</p> <ul style="list-style-type: none"> • Provisioning always provisions the ephone-dn with a dual-line • During user synchronization, Provisioning synchronizes all the ephone-dns with single-line, dual-line, and octo-line. • The endpoint should not have orphan ephone-dns (those that are not used by, or associated to, an ephone). <p>Note Endpoint attributes are displayed based on the supported features for the selected endpoint type.</p>
Remote Destination Profile	<p>Order Remote Destination Profile for users, configure their attributes, and allow selection/configuration of a Remote Destination Profile Line, which supports Single Number Reach (SNR).</p> <p>Remote Destination Profile does not support Change Owner and Replace operations.</p> <p>You will not be able to see this service for ordering until you associate the service to a user role.</p>
Remote Destination Profile Line	<p>Order unlimited Remote Destination Profile Lines in a single Remote Destination Profile. Remote Destination Profile Line supports Auto-assign or Chosen types of Lines.</p> <p>Remote Destination Profile Line can be shared among users and the same destination can be shared between Remote Destination Profile, Line, and Enable Mobility Access Line. In this scenario, all types of lines are displayed as shared lines.</p> <p>In Remote Destination Profile, you can order Voice Mail or Extension Mobility as they are ordered in the Line services.</p> <p>You can order Remote Destination Profile with any user role but not as a pseudo user.</p> <p>You will not be able to see this service for ordering until you associate the service to a user role.</p>
Remote Destination Profile Service	<p>Enable the Remote Destination Profile service for all Service Areas to shares this Call Processor and also add a Remote Destination Profile Line.</p> <p>You can order Remote Destination Profile with any user role but not as a pseudo user.</p> <p>You will not be able to see this service for ordering until you associate the service to a user role.</p>

Single Number Reach Service	<p>Configure an Enable Mobility, Remote Destination Profile, and Remote Destination Profile Line.</p> <p>For mobility to work on a desktop phone, you must do the following:</p> <ul style="list-style-type: none"> • Configure the Line on the phone and Remote Destination Profile to be shared. • Configure the User ID that is used for the Remote Destination as an Owner. • Create a softkey template in Cisco Unified Communications Manager and assign it to a desk phone. Provisioning does not support softkey customization. You must create a customized template in Cisco Unified Communications Manager. <p>You will not be able to see this service for ordering until you associate the service to a user role.</p>
Unified Messaging	<p>You can create an order to add the Unified Messaging feature if you already have e-mail and voicemail. The Unified Messaging feature allows the retrieval of e-mail from your voicemail, and the retrieval of voicemail from your e-mail. In Cisco Unity, you will be enabling the Text-to-Speech (TTS) capability. In Cisco Unity Connection, you will be enabling the TTS and Internet Mail Access Protocol (IMAP) capability.</p> <p>The Upgrade designation next to the Unified Messaging service indicates that the existing e-mail and voicemail are being upgraded to include the Unified Messaging feature.</p>
Unified Messaging Service 1	<p>A Unified Messaging Service order includes the line, endpoint, voicemail and e-mail, and Unified Messaging services.</p> <p>The list of services that are available to users is based on user roles and Provisioning system configuration. To modify this list to include the services you require, contact your Provisioning administrator.</p>
User Services	<p>Enables presence messaging by enabling the user's presence service settings on a Call Processor.</p> <p>To configure User Services, do the following:</p> <ol style="list-style-type: none"> 1 Add the Presence Server to Provisioning and perform the Infrastructure synchronization. 2 Add the Presence Server to the Service Area that will be used for ordering. <p>Note User Services is available for Cisco Unified Communications Manager 9.x.</p> <p>Note For Cisco Unified Communications Manager 10.0 and above, User Services will not be available as an orderable service. It is added by default, when you create an order for a service.</p>

Voicemail and Email (bundle)	<p>Create orders for additional Voicemail and Email services if the user already has a line.</p> <p>The Upgrade designation next to the Voicemail and Email service indicates that the line service is being upgraded to include voicemail and e-mail.</p> <p>When placing an order for voicemail on Cisco Unified Communications Manager Express, you must enter the call-forward provisioning attributes. When entering an order, click Advanced Order Configuration and in the Voicemail Configuration Template provisioning attribute, enter the following commands: <code>call-call-forward busy <voice mail port/dn> forward noan <voice mail port/dn> timeout <seconds></code></p>
Voicemail (individually)	<p>Create orders for additional Voicemail services if the user already has a line. The Upgrade designation next to the voicemail service indicates that the Line service is being upgraded to include voicemail.</p> <p>When placing an order for voicemail on a Cisco Unified Communications Manager Express, you must enter the call-forward provisioning attributes. When entering an order, click Advanced Order Configuration and in the Voicemail Configuration Template provisioning attribute, enter the following commands: <code>call-forward busy <voice mail port/dn>call-forward noan <voice mail port/dn> timeout <seconds></code></p>
Email (individually) 2	<p>Create orders for additional Email services if the user already has a line and voicemail.</p> <p>The Upgrade designation next to the Email service indicates that the Line service is being upgraded to include e-mail.</p>

- ¹ After ordering Email or Unified Messaging Service on Cisco Unity, there is an initial delay in appending the full Domain information to the email address in the User Record Details page. After placing the order, you should run user synchronization and Domain synchronization so that the complete email address appears.
- ² After ordering Email or Unified Messaging Service on Cisco Unity, there is an initial delay in appending the full Domain information to the email address in the User Record Details page. After placing the order, you should run user synchronization and Domain synchronization so that the complete email address appears.

Table 5: Order Entry Fields

GUI Element	Description
Associated PC	The name (DNS resolvable) or IP address of the computer to be used with the SoftPhone support.
Email ID	Enter the e-mail ID. It cannot contain spaces.
Display Name (Email)	Enter the name to be used in the From field of the e-mail.
Enable Extension Mobility	Select Yes or No .

Extension Mobility Line	<p>Select one of the following: Auto-assigned-System automatically assigns a directory number. Chosen Line-User specifies a directory number. The directory number cannot include dashes or spaces.</p>
Line Type	<p>Select one of the following:</p> <ul style="list-style-type: none"> • Auto-assigned-System automatically assigns a directory number. • Chosen Line-You specify a directory number. The directory number cannot include dashes or spaces. <p>After the line is configured, to save your settings, you must click the save icon on the right side of the page. After you make a selection, the Advanced Order Configuration option appears on the page. You can then configure the provisioning attributes for the line. You can copy the provisioning attributes of a configured line on the same endpoint by selecting the line from the Copy Line field and clicking Done.</p>
Directory Number	<p>You can either enter a directory number directly into the field, or you can choose a directory number by clicking the Chooser icon. If you click the Chooser icon, a Directory Number search page appears. To use the Directory Number search page, do the following:</p> <ol style="list-style-type: none"> 1 In the Directory Number search page, choose your search criteria from the following: <ul style="list-style-type: none"> • Directory Number-Enter a specific number to search for. • Available DNs-When selected, all directory numbers that are available in the Provisioning database are displayed. • Reserved DNs-When selected, all directory numbers that are reserved for the user for whom the order is being placed are displayed. • DN Blocks-The directory number blocks that are configured for the Service Area on which the order is being placed are displayed. 2 Click Find. Your search results appear 3 Click the desired directory number. <p>The number is entered into the Directory Number field.</p>

Line Position	<p>During the order process, a page appears that lists the available line positions on the endpoint. Next to the line position, it indicates whether or not the line position is available.</p> <p>In the line position page, you can do the following:</p> <ul style="list-style-type: none"> • Configure the line type-Click Not Assigned next to the line, and in the next page, configure the line type. After the line is configured, you must click the save icon on the right side of the page, to save your settings. • Change line position-Click the up or down arrow beside the line position. <p>Line position is not supported on Cisco Unified Communications Manager Express or Extension Mobility Access Lines.</p>
Selected Endpoint	Select an endpoint from the list.
MAC Address	(Optional) Select a MAC address or enter one. In case of Analog endpoints, MAC address is generated based on the selected voice port.
Endpoint Type	Select an endpoint type from the list.
Protocol	Select the protocol. Endpoints support both SCCP and SIP, or any one. Provision with the default protocol set in the Provisioning Attribute.
Target Endpoint	Select a target endpoint from the list.
Phone Button Template	List of available Phone Button Templates.
Service Template	List of available Service Templates.
Analog Voice Gateway Reference	<p>Select an analog voice gateway reference.</p> <p>Before executing the user synchronization, the infrastructure synchronization should be executed. During user synchronization, if the synced back analog endpoint is associated to a voice gateway reference that does not exist in IM, then the voice port instance creation and its association will be skipped. As a result, the analog endpoint will not be manageable through Provisioning.</p> <p>Synchronization of analog endpoints and IM instance creation will be done only for the Call Processor versions 6.x and above. For Call Processors versions 5.x and below the analog endpoint instance creation will be skipped since the analog voice gateway support is provided only for Call Processor version 6.x and above.</p> <p>The Analog Voice Gateway Reference field is enhanced to include the description of the gateway along with the alphanumeric reference number. While configuring the Voice Gateway infrastructure service, if the gateway description is provided, then the description will appear in the Analog Voice Gateway Reference field.</p>
Name	Name of the Remote Destination Profile.
Description	Description of the Remote Destination Profile.
Selected Remote Destination Profile	Name of the selected Remote Destination Profile.

Service Area	<p>List of available Service Areas.</p> <p>If a Service Area has a Unity Connection configured as a Unified Messaging Processor, and the Unity Connection does not have an external e-mail server, Provisioning will not list this Service Area as an option when ordering Email.</p>
Unified Messaging	List of available e-mails for which you can enable Unified Messaging.
Use Dummy MAC Address	<p>Used for Tool for Auto-Registered Phones Support (TAPS) phones. If you check this check box, Provisioning creates a phone with a dummy MAC address, which is unique in the system.</p> <p>After a TAPS phone is provisioned on the Cisco Unified Communications Manager and updated with a real MAC address, you must run a user and Domain synchronization in Provisioning. This updates the dummy MAC address in Provisioning with the real MAC address.</p> <p>After a dummy endpoint is ordered, change and cancel orders do not require a user or Domain synchronization.</p>
Voicemail Alias	Enter an alias for the voicemail.
Voicemail Display Name	Enter a display name for the voicemail.
Voiceport	Based on the Analog Voice Gateway Reference field, the relevant Voiceport is populated. You can view the list of occupied and available ports. Only the available port will be selected for ordering.
Advanced Order Configuration	<p>Lists the available provisioning attributes for the ordered service. This allows you to set provisioning attributes when placing an order. Click the plus sign (+) next to the Advanced Order Configuration option to expand this pane.</p> <p>To unset the value of a provisioning attribute that has a numeric value in Cisco Unified Communications Manager, you must enter a zero for the value. If you only clear the value, the provisioning attribute is not unset in Cisco Unified Communications Manager.</p> <p>Advanced Order Configuration is available only to users who are assigned the Advanced Ordering authorization role.</p>
Choose a reserved endpoint	Opens a search page that lists reserved endpoints. A reserved endpoint is booked for a specific user.

Copy endpoint	<p>Opens a search page that lists all the endpoints in the system that are supported by the user role. Copy endpoint allows you to provision a new endpoint with the same settings of an existing endpoint.</p> <p>To copy settings, in the search page, select an endpoint and click OK to confirm that you want the endpoint's settings copied to the new endpoint.</p> <p>This feature is available only to users with the Advanced Ordering role.</p> <p>When you have Global access, you can copy all the endpoints that are orderable for the user, including managed and unmanaged endpoints, as long as the endpoint belongs to the same Call Processor.</p> <p>When you have Domain access, you can only copy managed endpoints that are orderable for the user and are in the user's manageable Domains, as long as the endpoint belongs to the same Call Processor.</p> <p>Because some settings are unique to each endpoint, not all settings are copied to the new endpoint. The following settings are not copied to the new endpoint:</p> <ul style="list-style-type: none"> • Directory Number • MAC Address • Endpoint Description <p>When an endpoint is copied, services are not copied to the new endpoint. For example, if lines, voicemails or e-mails exist on the endpoint, they will not be copied to the new endpoint. In addition to this, the set only attributes associated with the endpoint are not copied.</p> <p>Through Copy endpoint you can only copy the provisioning attributes that are set while creating an order.</p> <p>If the Cisco Unified Communications Manager version for the copied endpoint does not support an attribute, or if the copied endpoint type does not support an attribute, the attribute is cleared on the new endpoint.</p> <p>You are allowed to copy only an analog phone to another analog phone. Copying an IP phone to analog phone is not allowed.</p> <p>When an endpoint is copied, the provisioning attributes that are set during the add order are only copied.</p> <p>Once the Order is completed, in Cisco Unified Communications Manager, the Overriding Common settings check box is enabled. It means that the default attributes of the new endpoint have been modified.</p>
---------------	---

Orderable Cisco Jabber Services	<p>You can order Cisco Jabber services only if you have enabled Jabber on a Cisco Unified Communications Manager. To enable Jabber for a Cisco Unified Communications Manager, choose Deploy > Unified Communication Services.</p> <p>Select a Jabber service from the list:</p> <ul style="list-style-type: none">• Cisco Jabber for Tablet• Cisco Jabber for iPhone• Cisco Jabber for Desktop• Cisco Jabber for Blackberry• Cisco Jabber for Android
---------------------------------	--

Process Order

After you submit orders for users, the orders are approved and then shipped. Depending on how your Provisioning system is configured, these steps may be automatic or may require processing by users.

You can assign four possible activities to users during the order processing stage. The activities are assigned based on the rules set for the Domain.

- **Approve orders**—Approves orders before provisioning can occur, and can also reject orders. This user must be assigned the Approval authorization role. This is controlled by the following rules:
 - IsAuthorizationRequiredForAddOrder
 - IsAuthorizationRequiredForChangeOrder
 - IsAuthorizationRequiredForCancelOrder
- **Assignment**—Assigns MAC address to an endpoint. This user must be assigned the Assignment role. This is controlled by the rule PhoneAssignmentDoneBy.
- **Shipping**—Ships the order. This user must be assigned the Shipping authorization role. This is controlled by the rule PhoneShippingDoneBy.
- **Receiving**—Done by the user who has the Receiver user role. Indicates that an ordered endpoint has been received. This is controlled by the rule PhoneReceiptDoneBy.

**Note**

An administrator can configure how these activities are assigned.



Self Care Portal Configuration

- [Using Prime Collaboration Self-Care, page 43](#)
- [Creating a Self-Care Account, page 44](#)
- [Launching Prime Collaboration Self-care, page 45](#)
- [Customizing Your Personal Settings, page 45](#)
- [Self-Care User Migration Script, page 50](#)

Using Prime Collaboration Self-Care

Prime Collaboration provides a telephone Self-Care portal, which allows you to control preference settings such as user name, password and so on. You can update your own account and services by using the Self-Care portal. The Self-Care feature enables you to modify line settings, manage services, and configure phone options.

A new Self-Care feature is introduced in Cisco Unified Communications Manager 10.0. This Self-Care can be accessed from Cisco Unified CM only. You can enable Prime Collaboration Self-Care, that is, Self-Care from Prime Collaboration Provisioning for Cisco Unified CM 10.0 and lower versions.



Note

Prime Collaboration Self-Care is also available for Cisco Unified CM 10.0 and Cisco Unity Connection 10.0 along with CM based Self-Care. The administrator must turn-off the "Enable Prime Collaboration Self-Care" check box in the User Provisioning page if Prime Collaboration Self-Care is not used.

Cisco Unified Communications Manager Self-Care is recommended when the environment is Cisco Unified CM 10.0 only with Cisco Unity Connection 10.0 only, or Users with services on only one Cisco Unified CM 10.x cluster.



Note

When Cisco Unified Communications Manager is shared between two or more users, and if one or more users are using LDAP, Prime Self-Care will be used regardless of the version of Cisco Unified Communications Manager.

To enable Prime Collaboration Self-Care, see [Creating a Self-Care Account, on page 44](#).

To enable CM based Self-Care, see [Cisco Unified Communications Self Care Portal User Guide, Release 10.0.0](#)

Creating a Self-Care Account

You can create a Self-Care account in standalone or converged Prime Collaboration Provisioning. You can choose to enable or disable Self-Care for each user you create.



Note

- To assign Self-Care roles, you must enable the CreateSelfCareAccounts rule while creating a new domain. The CreateSelfCareAccounts rule is disabled by default.
- You can also assign Self-Care roles in an already existing domain by running the Self-Care Migration Utility. This will enable Self-Care role for already existing users. See [Self-Care User Migration Script, on page 50](#) for details.
- The SelfCareUser check box is available only if the CreateSelfCareAccounts rule is enabled.
- After creating users, the users can login to Self-Care only after the globaladmin or domain-admin changes their account password. By default, the user password is empty. You must specify a default password in the DefaultCUPMPassword Data field and set Enabled to true to set the default password.

To create a Self-Care account for a user:

Procedure

- Step 1** Choose **Deploy > User Provisioning**.
- Step 2** Click **Add User** and check the **Enable Prime Collaboration Self-Care** check box.
- Step 3** Enter the necessary user information and save.

Enabling or Disabling Self-Care Using Batch Provisioning

You can enable Self-Care while creating new users using Batch Provisioning. To enable Self-Care for a user, provide the authorization role as SelfCareUser in the batch action file.

Batch Provisioning can also be used to enable or disable Self-Care role for an existing user. To enable provide the authorization role as SelfCareUser, and to disable provide none in the batch action file.



Note

The CreateSelfCareAccounts rule must be enabled for the domain to create a Self-Care account.

For information on Batch Provisioning see [Managing Batch Projects, on page 53](#).

Launching Prime Collaboration Self-care

Based on your user role, you can launch Self-Care.



Note If you are using IE 10, you must select the Standards mode for the Self-Care portal to work properly.

A user with only Self-Care role will be directed to the self-care portal after login:

Procedure

-
- Step 1** In a browser enter, `http://<provisioning-ip>/cupm/selfcareuser/Login`.
- Step 2** Use Self-Care credentials to log in.
Since the user has only Self-Care role, he will be able to access only the Self-Care menu. Provisioning menus will not be available for such a user.
-

Launching Prime Collaboration Self-care from Personal Settings

If a user has a Self-Care role along with other authorization roles (Maintenance, Ordering, Activity Roles and so on), then the user can launch Self-Care from the Personal Settings menu.

To launch Personal Settings:

Procedure

-
- Step 1** Login to Provisioning using your credentials.
- Step 2** Choose **Deploy > User Provisioning**.
- Step 3** Select a user, and click **Provision Services**.
- Step 4** Select **Personal Settings** to update self-care options for the selected user
-

You can click Launch Self-Care from the User's Quick View.

Customizing Your Personal Settings

Self-Care enables you to set individual attributes and personal preferences for the following aspects of phone use:

- Phone options include configuring speed dial numbers, do not disturb options, and music when a call is placed on hold.
- Profile options allow you to configure options for extension mobility and single number reach.
- Line options for a specific line on the phone, such as call forwarding, caller identification, and notifications.

- User options for the phone user, such as passwords and personal identification numbers (PINs).

You can update the `/opt/cupm/sep/ipt.properties` file to hide or display the features displayed in the Phone Settings, Line Settings, and User Settings page of Self-Care portal. For example, if you want to configure the features in the Phone settings, your entries would be:

```
enabled features for Phone Settings should be provided as follows:
General, SpeedDials, DoNotDisturb, Locale, MusicOnHold, Others
dfc.ipt.selfcare.phone.features=General, SpeedDials, DoNotDisturb, Locale, MusicOnHold, Others#
```

**Note**

You must log in as root user to update the `ipt.properties` file. You must restart the cupm services for the changes to take effect.

To configure Self-Care options:

Procedure

Step 1 In a browser, enter `http://<provisioning-ip>/cupm/selfcareuser/Login`.

Step 2 Enter your username and password.

The Self-Care portal screen appears. The Self-Care portal screen contains the following elements:

- Phone carousel—The phone carousel (positioned in the lower left side of the screen) contains icons for the phones and service profiles that you can configure. Click the icons at either side of the visible icons to view the additional phones or profiles.
- Main menu—The main menu options (to the right of the phone carousel) are Phone Settings, Line Settings, and User Settings. Depending on your selection in the phone carousel, the Phone Settings option might be replaced by Extension Mobility Settings or Single Number Reach Settings.
- Configuration area—The configurable categories for the selected main menu option appear next. When you click a category, such as Speed Dials, the right side of the screen displays the configurable options.

Step 3 In the phone carousel, select the phone or profile you want to configure.

Step 4 In the Line Settings menu, make sure that you select the correct line for the options you are configuring. The following options are available for you to configure in the Self-Care portal:

- Configuring Phone / Extension Mobility Settings
- Configuring Single Number Reach Settings
- Configuring Line Settings
- Configuring User Settings

Configuring Phone / Extension Mobility Setting

The following table lists the Phone and Extension Mobility settings you can perform using Self-Care.

Table 6: Configuring Phone / Extension Mobility Setting

Settings	Description	Procedure
General	Update your phone MAC address.	Choose Phone Settings > MAC Address, enter a valid MAC address for your phone, then click Save.
Speed Dials	Add phone numbers for speed dialing. Add a comma between the numbers to pause speed dialing. You can add any number of commas. Default delay for a comma is two seconds.	Choose Phone Settings > Speed Dials , then click Add. Enter the necessary information and click Save.
Do Not Disturb	Enable or disable the Do Not Disturb feature. Select the action to be taken if an incoming call arrives while the Do No Disturb feature is enabled.	Choose Phone Settings > Do Not Disturb, then check the Enable Do Not Disturb check box.
Locale	Select your work and network locales for time and language support.	Choose Phone Settings > Locale, then choose your location from the User Locale drop-down list, and click Save.
Music On Hold	Select the source of the music to be played when you place a user on hold.	Choose Phone Settings > Music On Hold, then choose the audio source to play when you place a call on hold from the User Hold Audio Source drop-down list, and click Save.
Others	Enable or disable the following options: <ul style="list-style-type: none"> • Speakerphone • Speakerphone and headset • Video • PC Port use • Extension Mobility 	Choose Phone Settings > Others, then check or uncheck the check box as required for each option, then click Save .

Line Settings

The following table lists the available line settings for each line of the selected phone or profile:

Table 7: Line Settings

Settings	Description	Procedure
Call Forward	Set default call-forwarding options. Customize call-forwarding for external or internal incoming calls.	Choose Line Settings then select Call Forward, Caller ID, Notification, or Music On Hold to update and click Save.
Caller ID	Configure caller ID options.	
Notification	Set audio and visual options for incoming calls and notification of messages.	
Music On Hold	Select the source of the music to be played when a call is placed on hold.	

User Settings

The following table lists the available User Settings:

Table 8: User Settings

Settings	Description	Procedure
Information	Update your name. Enter your email address. Select your primary phone.	Choose User Settings, then select Information, Password or PIN to update and click Save.
Password	Update your password.	
PIN	Update your personal identification number.	

Common Self-Care Tasks

The following table lists all the common self-care tasks a user can perform:

Table 9: Common self-care Tasks

Task	Procedure
Change a password	Choose User Settings > Passwords.

Task	Procedure
Change a PIN	Choose User Settings > PIN. Note You can change your phone and voice mail PINs. Phone PIN is to reset the Cisco Unified Communications Manager (or Extension Mobility) PIN, and voice mail is to reset the Unity Connection PIN.
Disable use of a speakerphone	Choose Phone Settings > Others, then check the Disable Speakerphone check box.
Enable extension mobility	Choose Phone Settings > Others, then check the Cisco Extension Mobility check box.
Enable video calls	Choose Phone Settings > Others, then check the Enable Video check box.
Forward calls	Choose Line Settings > Call Forward, then set the options for forwarding incoming calls.
Provide e-mail information	Choose User Settings > Information, and enter your email address.
Select a different phone as your primary device.	Choose User Settings > Information, and choose the preferred device from the Primary Device drop-down list.
Select call and message notifications	Choose Line Settings > Notification, then choose the notification options for incoming calls and messages.
Select the source for music for calls on hold	Choose Phone Settings > Music On Hold, then choose the audio source to use when you or the network places a call on hold.

Configuring Single Number Reach

The Single Number Reach feature enables you to associate a another phone number with your business IP phone number. When a call is received on the business phone number, Provisioning Manager automatically directs the call to ring on the phone you specify as well as the business phone. In this way, the Single Number Reach feature enables callers to reach you by dialing a single number, regardless of your location.

To configure an alternate number for Single Number Reach:

Procedure

-
- Step 1** In the phone carousel, select the icon associated with the remote destination profile.
- Step 2** Choose **Single Number Reach Settings > Alternate Numbers**.
- Step 3** Provide the information as described in the [Table 10: Field Description for Single Number Reach](#) table, then click **Save**.
- Step 4** If needed, click **Add New** to add an additional alternate number.
-

Table 10: Field Description for Single Number Reach

Field	Description
Alternate Number	Enter the alternate number that Provisioning Manager is to direct calls to when calls are received on your primary phone.
Description	(Optional) Enter a description of the alternate number.
Enable Reach Me Anywhere	Check the check box to enable incoming calls to ring on multiple phones at the same time.
This is a mobile device	Check the check box if the alternate number is for a mobile device.
Allow me ... seconds to answer	Enter the length of time (in tenths of seconds) that Provisioning Manager should wait for you to answer the call on the primary phone before directing the call to the alternate number.
Continue ringing the alternate number for ... seconds	Enter the length of time (in tenths of seconds) that Provisioning Manager should ring at the alternate number.
If the alternate number answers within ... seconds	Enter the length of time (in tenths of seconds) that Provisioning Manager should wait after directing a call to the alternate device before connecting a call on the device. This delay prevents calls from being picked up by automated greetings, such as voice mail, on the device.
Line Association Information	Check the check box for the line to associate with this alternate number.

Self-Care User Migration Script

The SelfCareMigrationUtility can be invoked during the migration, or from the CLI, after migration. The tool processes all the users in the domains that have CreateSelfCareAccounts rule and DefaultCUPMPassword rule set.

This tool can be run through CLI from /opt/cupm/sep/ipt/bin. It can be run either globally (means for all domains) or for a single domain.

To run script:

Procedure

Step 1 Go to /opt/cupm/sep/ipt/bin.

Step 2 Run: `./SelfCareMigrationUtility.sh ALL ENABLE`

- ALL—Indicates all domains.
- ENABLE—Enables selfcare for all users in the domain specified.

To disable selfcare option, run:

```
./SelfCareMigraionUtility.sh ALL DISABLE
```

The script can be run at the domain level also. To do this, run:

```
./SelfCareMigrationUtility.sh DOMAIN NAME [ENABLE | DISABLE]
```

For more information on migration, see the [Cisco Prime Collaboration 10.0 Migration Guide](#).



Batch Provisioning

- [Managing Batch Projects](#), page 53

Managing Batch Projects

Batch Provisioning support is provided for all the devices of Unified Communications Manager, Unity Connection, Unity, Presence Processor, Unity Express, Call Manager Express, and Generic IOS Router. Users with the Administration role can provision devices using batch provisioning.

Sample batch files for all devices are available in the `opt/cupm/sep/ipt/config/sample/batchProvisioning` directory.

After you create a batch action file, you must create the batch project that it belongs to. When you upload a batch action file, its contents are converted to batch actions, and the columns that are common to all batch actions in the batch action file are displayed.

You must upload batch action files in the correct order according to any dependencies that exist between the batch actions. For more information about these dependencies, see [Guidelines for Creating Batch Action Files](#).

To create a batch project:

Procedure

- Step 1** Choose **Deploy > Batch Provisioning**.
- Step 2** In the **Configure a Batch Project** page, click the **New** icon.
- Step 3** In the **Create a New Batch Project** page, type a name and add notes for the batch project.
- Step 4** Click **Create**. After the batch project is created, you can upload one or more batch action files to the batch project.
- Step 5** In the **Configure a Batch Project** screen, click **Upload a Batch Action File**.
- Step 6** In the **Upload a Batch Action file** page, do one of the following
 - In the **File to Upload** field, type the full directory path and filename of the file to be uploaded.
 - Click **Browse** and then locate and click the file to be uploaded.

Step 7 Click **Upload**.

Step 8 You can do one or more of the following:

- Upload another batch action file (repeat this procedure).
- Run the batch project immediately, or schedule it to run later. See the table below for canceling, pausing and other operations on Batch Projects.
- Schedule the batch project to be run later (see [Managing Batch Projects](#), on page 53).

It is currently not possible to edit batch projects or batch action files in Provisioning. Instead, you can update the batch action files manually and then upload them into a new batch project, and delete the batch projects that you no longer require.

You can delete batch projects that you no longer require. To delete a batch project, click the Delete icon beside the batch project name.

Table 11: Managing Batch Projects

Batch Operation	Procedure
To run a batch project immediately	<ol style="list-style-type: none"> 1 In the Configure a Batch Project page, click the Chooser icon and select the batch project that you require. 2 In the Project Schedule pane, click Now. 3 Click OK. The batch project is started and the status changes to In Progress. (To refresh the screen, click the Refresh icon. When the batch project has completed, the status changes to Complete.
To schedule or reschedule a batch project	<ol style="list-style-type: none"> 1 In the Project Schedule Pane, click the Select Schedule Date icon. Specify a date and time, as well as a Coordinated Universal Time (UTC) Offset or Location (if required), in the dialog box that appears. 2 Click Select. A clock icon appears in the Status section to indicate that the batch project has been scheduled. <p>Note Batch projects created for infrastructure configuration cannot be restarted if there is a failure.</p>

To cancel a batch project	<ol style="list-style-type: none"> 1 Select a batch project that you require 2 In the Project Schedule pane, click Abort. 3 Click OK to cancel the batch project. <p>You can cancel (abort) a batch project that is in progress. Provisioning completes any actions that are in progress, but does not submit any further actions.</p>
To pause a project	<ol style="list-style-type: none"> 1 Select a batch project that you require 2 In the Project Schedule pane, click Pause next to Project Pause Date/Time. Click OK to confirm. 3 Click the Refresh icon. The status of the project is changed to Paused. 4 You have the following options: <ul style="list-style-type: none"> • To restart the batch project, click Restart. The batch project is restarted. • To cancel the batch project, click Abort. The batch project is canceled. <p>When you pause a batch project, Provisioning completes actions that are in progress, but does not submit any more.</p>
To schedule a batch project to pause	<ol style="list-style-type: none"> 1 In the Configure a Batch Project page, in the Pause Execution section, click the Chooser icon, next to Project Pause Date/Time. 2 Click OK to confirm. The Select Date and Time dialog box appears. 3 Specify a date and time, as well as a UTC Offset or Location, (if required), and then click Select. A date and time appear next to Pause Execution, to indicate that the batch project has been scheduled to pause. <p>You can schedule a pause in a batch project, for example, if you have scheduled a batch project to start at a later time, but you want to ensure that it stops before a scheduled maintenance down-time.</p>

To cancel a scheduled batch project	<ol style="list-style-type: none"> 1 In the Configure a Batch Project page, under the Project Schedule pane, click the Clear icon next to the Project Start Date/Time. 2 Click OK to confirm. <p>You can cancel a scheduled batch project provided that it has not started processing.</p>
To cancel a scheduled pause for a batch project	<ol style="list-style-type: none"> 1 In the Project Schedule section, click the Clear icon. 2 Click OK to confirm. The scheduled pause for the batch project is cleared.
To view the batch project details	<p>Click View in the Batch Project Actions pane. The View Batch Action Details page appears. This page displays all configured information for the batch project action.</p> <p>In Batch Provisioning, during endpoint order, users with any user role can add a new endpoint. Even a pseudo user can add an endpoint.</p>
To view the current status of a batch project	<p>In the Configure a Batch Project page, the Batch Project Actions pane displays the status of each batch action project. After a batch project has completed, you can check the user records of the users to verify that orders have been processed.</p> <p>To see details of a single running order within a batch project, administrators can also use My Activities (Deploy > User Provisioning > My Activities) to view each order as it is executed in the workflow</p>