C H A P T E R **6**

Batch Provisioning

To create users and provision their services automatically use batch provisioning. Batch provisioning enables you to easily roll out a new office, or transition from legacy systems.

Creating Batch Action Files

To complete batch provisioning, you must do the following:

1. Create a spreadsheet of users and the services to be provisioned (this typically includes phones and lines), then convert the spreadsheet to a tab-delimited text file called a batch action file.

2. Upload the batch action file into a Provisioning batch project.

3. Run the batch project or schedule it to run later. Provisioning creates the users and provisions the lines and phones based on the data in the file.

You can also view a list of scheduled projects, and the details of the projects that are in progress.

Note While provisioning the orders, you can see the status as Completed. Click the Completed link to view the device related updates.

Batch action files must contain a single row of column headers. The data columns can be in any order, but must be in a tab-delimited text file. You can compile the data in any text editor, provided that the resulting file conforms to these guidelines. For example, you can create batch files in Microsoft Excel and then export them as tab-delimited files.

Provisioning provides sample files that contain most of the commonly used actions. The sample files are located in the \sep\ipt\config\sample\batchProvisioning folder.

Table 6-1 describes the columns that are required for every batch action file.

Table 6-1   Batch Action File Required Columns

Column	Description
Order Type	The order type. Valid options are (they are case sensitive): • add • cancel • change—Cannot be used for Voicemail, Email, or Unified Messaging. • addUser—Add multiple users at one time. If you are adding one subscriber and the product for the subscriber, you would typically use the Add order type. If you are adding multiple subscribers at one time, you would use the addUser order type. • changeUser—Change multiple users' information at one time. • deleteUser—Delete multiple users at one time. • addServiceArea—Add multiple Service Areas at one time. • changeServiceArea—Change multiple Service Areas at one time. • deleteServiceArea—Delete multiple Service Areas at one time. • moveSubscriber—Moves the subscriber to a new Domain. Besides entering information into the mandatory columns, you must also enter key attributes also based on Product Name. (For examples, see the moveService sample file. • moveService—Moves the subscriber services to a new Service Area within the same Domain. You have to set two properties in ipt.properties to update the move batch behavior: – dfc.ipt.subscribermovement.maxunit—Maximum number of matching unit in a move subscriber batch. The default value is 6. (Applies to moveSubscriber only.) – dfc.ipt.subscribermovement.batch_pause—Value (0 or 1) to control whether the batch project should continue or stop whenever a move batch action row encounters an error. The default value is 1. (Applies to moveSubscriber and moveService.)

Table 6-1   Batch Action File Required Columns (continued)

Column	Description

	• The following are specific to Distribution List batch provisioning:
	    – Add-New-Members—Add new members to the Distribution List.
	    – Remove-Members—Removes members from the Distribution List.
	 • addDevice—Add multiple devices at one time.
	 • updateDevice—Change multiple devices at one time.
	 • deleteDevice—Delete multiple devices at one time.
	 • The following are specific to Analog Phone batch provisioning:
	    – add—To add an Analog phone or an Analog phone and the line. Adds an Analog phone where the analog voice gateway configurator will be loaded and Voice port IOS template and Dial peer IOS template are provisioned.
	    – change—To change or replace an Analog phone.
	    – cancel— To cancel an Analog phone.The phone is cancelled in the Unified Communications Manager and the voice port and dial peer configurations are removed from the device.

User ID	Provisioning user ID for which to provision the order. For addServiceArea, changeServiceArea, and deleteServiceArea, the field can be left empty. For all infrastructure products, the user ID is *icadmin*.
Product Name	The product name. Note that the input varies depending on the order type: • Add orders—Must be an orderable product (including bundles), but cannot be a subtype (for example, you would use "Phone" instead of "Cisco 7960"). If you are ordering an Analog Phone, update the dfc.ipt.cisco.callmanager.analog_phone_support to Y in the ipt.properties file. • Cancel—Can be any product name that appears in the user's subscriber record. Note that this does not include bundles. Dependent objects are automatically deleted when their parent is deleted. • Change—Must be an orderable product. • addUser and deleteUser—Leave empty (even if something is entered, it will be ignored). • addServiceArea, changeServiceArea, deleteServiceArea, moveSubscriber—Leave empty.
Service Area	Name of the Service Area to order against. For addUser, deleteUser, and moveSubscriber, leave empty (even if something is entered, it will be ignored). For all infrastructure products, the Service Area is not required if the processor name is provided. If the processor name is not provided, Service Area and Domain name are required.

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Table 6-1   Batch Action File Required Columns (continued)

Column	Description
Phone Button Template	Required when the following apply: • The product name is either Phone (or a bundle containing a Phone) or Extension Mobility Access (or a bundle containing Extension Mobility Access). • The phone type is not a virtual phone (for example, CTI Port). • Ordered in a Service Area that is associated with a Cisco Unified Communications Manager.
Domain	Name of the Domain associated with the subscriber or services.
New Domain	Name of the Domain to where the subscriber is to be moved. (Applies to moveSubscriber only.) **Note** If the new Domain is the same as the old Domain, all the subscribers services are moved to the new Service Area within the same Domain.
New Service Area	Name of the new Service Area. (Applies to moveService only.)
Old SA (1...6)	The current Service Area. (Applies to moveSubscriber only.)
New SA (1...6)	The new Service Area to be moved to. (Applies to moveSubscriber only.)
Apply New Setting	Specifies whether you wish to apply the settings of the new Service Area. (Applies to moveService and moveSubscriber only.)
Phone Type	Type of the phone. This is specific to moveService and moveSubscriber batch file.
MAC Address	MAC address of the phone. moveService—For Cisco IP Communicator, Call Processor versions less than 5, use the MAC address. If the version is 5 or greater, use the device name.

Table 6-2 lists the additional columns that are used when new users are being created (Table 6-1 lists the required columns for all batch action files).

Table 6-2   Batch Action File Columns for New User

Column	Description
First Name	(Optional) User's first name.
Last Name	User's last name.
Domain	Domain to place the new user in.
Phone Number	(Optional) Phone number for the new user.
Email	(Optional) Email address for the new user.
Department	(Optional) Department for the new user.

Table 6-2   Batch Action File Columns for New User (continued)

Column	Description
Subscriber Type	(Optional) Subscriber type for the new user. Multiple subscriber types can be added for a subscriber (use a semicolon to separate the subscriber types). **Note** Subscriber Types which are not supported by the Domain will be ignored. If there are no valid subscriber types assigned to the subscriber, the subscriber will not be created and the batch order will fail.
PMPassword	(Optional) User password for Provisioning.

Table 6-3 lists the additional columns that are used when deleting users (Table 6-1 lists the required columns for all batch action files).

Table 6-3   Batch Action File Columns for Deleting Users

Column	Description
Domain	(Optional) Domain where the user exists.
OnlyFromCUPM	(Optional) If this column is enabled (set to Y), any services on the subscriber record for the user will be moved to the Global Resources namespace, and the subscribers or their services on the actual device will not be removed. If this column is not enabled, the user will be removed from both Provisioning and the device. **Tip** When a user is deleted with OnlyFromCUPM enabled, a subsequent Domain synchronization creates the user (provided it matches the Domain synchronization rules), and the matched services appear in its subscriber record. Alternatively, the user can be manually created in the correct Domain followed by a Domain synchronization to match the services. This provides you with a way to move users between Domains or move subscriber services across Service Areas.

Table 6-4 lists the additional columns that are used when deleting users (Table 6-1 lists the required columns for all batch action files).

Table 6-4   Batch Action File Columns for Adding and Changing Multiple Service Areas

Column	Description
Domain	The name of the Domain to which the Service Area belongs.
Subscriber Type	Used only for addServiceArea. It can be left empty. If used, enter a semicolon separated list of subscriber roles.
Call Processor Name	Name of the Call Processor in the listed Service Area.
The following columns apply only if the Call Processor Name column is defined:	
• Phone Protocol	The value can be either SCCP or SIP. If no value is specified, the default is SCCP.
• Phone Call Search Space	The Calling Search Space for the Phone.
• Line Call Search Space	Calling Search Space for the Line.
• Common Device Config	Common Device Configuration for the Phone.

Table 6-4   Batch Action File Columns for Adding and Changing Multiple Service Areas

Column	Description
• Location	Location for the Phone.
• Route Partition	Route Partition for the Line.
• Device Pool	Device Pool for the Phone.
Unified Message Processor Name	Name of the Unified Message Processor in the listed Service Area.
The following columns apply only if the Unified Message Processor Name column is defined:	
• Subscriber Template Without TTS	One of the TT-disabled Subscriber Templates without TTS enabled, that is defined on the listed Unified Message Processor.
• Subscriber COS With TTS	One of the TTS-enabled Subscriber COS that is defined on the listed Unified Message Processor
• Subscriber COS Without TTS	One of the TTS-disabled Subscriber COS that is defined on the listed Unified Message Processor.
Directory Number Blocks	Adding Directory Number Blocks in Service Area is an enhancement of Service Area batch provisioning.
	The data format will be *<Prefix>* :*< First Number>* :*< Last Number>* :*<Minimum Length>*; *<Prefix>* :*< First Number>* :*< Last Number>* :*< Minimum Length>*
	Delimiter ";" is used to configure multiple Directory Number Blocks.
	User can remove all existing Directory Number Blocks using CUPM_BLANK keyword during changeServiceArea operation. CUPM_SKIP keyword can be used to retain the previous value during changeServiceArea operation.

Table 6-5 lists the additional columns that are used while adding devices

Table 6-5   Batch Action File Columns for Adding, Modifying, or Deleting Devices

Column	Description
DeviceType	Type of the device.
IPAddress	IP Address of the device.
DeviceName	Name of the device.
NewDevicename	To change the name of the device and give a new name.
Capability <number>	Number assigned to the capability.
If Capability<number> is Unified Communications Manager, following are the valid headers:	
• Capability<number> Version	Version of the Unified Communications Manager device.
• Capability<number>IPAddress	IP Address of the Unified Communications Manager device.
• Capability<number>Action	Action to access the Unified Communications Manager device.
• Capability<number> UserName	Username to access the Unified Communications Manager device.

Table 6-5   Batch Action File Columns for Adding, Modifying, or Deleting Devices (continued)

Column	Description
• Capability<number>Password	Password to access the Unified Communications Manager device.
• Capability<number>ConfirmPassword	Confirmation of the password to access the Unified Communications Manager device.
• Capability<number>Protocol	Protocol of the Unified Communications Manager device.
• Capability<number>LDAPDirectoryIntegration	Specifies whether LDAP integration is needed or not.
• Capability<number>EMServiceName	Name of the extension mobility service.
• Capability<number>EMServiceURL	URL of the extension mobility service.
If Capability<number> is Unity Connection, following are the valid headers:	
• Capability<number>Version	Version of the Unity Connection device.
• Capability<number>IPAddress	IP Address of the Unity Connection device.
• Capability<number>Action	Action associated with Unity Connection device.
• Capability<number>UserName	Username to login to Unity Connection device.
• Capability<number>Password	Password to access the Unity Connection device.
• Capability<number>ConfirmPassword	Confirmation of the password to access the Unity Connection device.
If Capability<number> is Unity Express, following are the valid headers:	
• Capability<number>Version	Version of the Unity Express device.
• Capability<number>CUELineUserName	Username to login to the Unity Express device.
• Capability<number>CUELine Password	Line password associated with the username.
• Capability<number>ConfirmCUELinePassword	Confirmation of the password to access Unity Express device.
• Capability<number>ServiceEngineInterfaceNumber	Service engine interface number.
The following columns apply if the Unity columns are defined:	
• IP Address	IP Address of Unity device.
• Version	Version of Unity device.
• Username	Username for accessing the Unity device.
• Password	Password associated with the username.

Table 6-5   Batch Action File Columns for Adding, Modifying, or Deleting Devices (continued)

Column	Description
• Capability<number>createbyImport	Creating the device by importing the details.
• Capability<number>UMPPORT	Port of the Unity.
The following columns apply if the Unified Presence columns are defined:	
• Capability<number>Version	Version of the Unified Presence device.
• Capability<number>IPAddress	IP Address of the Unified Presence device.
• Capability<number>Action	Action associated with Unified Presence device.
• Capability<number>UserName	Username for accessing the Unified Presence device.
• Capability<number>Password	Password associated with the username.
• Capability<number>ConfirmPassword	Confirmation of the password.
• Capability<number>Protocol	Protocol of the Unified Presence device.
The following columns apply if the Call Manager Express columns are defined:	
• Capability<number>Version	Version of the Call Manager Express device.
The following columns apply if the Router with IOS columns are defined:	
• DeviceProtocol	Protocol of the Cisco IOS Router device.
• DeviceUserName	Username associated with the Cisco IOS Router device.
• DevicePassword	Password associated with the username.
• DeviceConfirmPassword	Confirmation of the password.
• DeviceEnablePassword	Enables the password for the Cisco IOS Router device.
• ConfirmDeviceEnablePassword	Confirmation of the password for enabling the device.

Table 6-6   Batch Action File Columns for Adding Analog Phone or Analog Phone Service

Column	Description
Analog Voice Gateway Reference	Analog Voice Gateway Reference field associated with the selected Analog phone.
VoicePort	Voiceport associated with the Analog Voice Gateway Reference.
Directory Number	Directory number associated with the Analog phone.

Table 6-7   Batch Action File Columns for Replacing Analog Phones

Column	Description
New Analog Voice Gateway Reference	New Analog Voice Gateway Reference field that would replace the existing Analog Voice Gateway Reference.
New VoicePort	New Voiceport field that would replace the existing Voiceport.

Table 6-8   Batch Action File Columns for Changing Analog Phones

Column	Description
AAR Calling Search Space	Specifies the collection of route partitions that are searched to determine how to route a collected (originating) number that is otherwise blocked due to insufficient bandwidth.

Guidelines for Creating Batch Action Files

Note   Sample batch files are provided for you. They are located on the Provisioning system in the /opt/cupm/sep/ipt/config/sample/batchProvisioning folder. You can add additional columns to the sample batch files as required.

When creating batch action files, follow these guidelines:

- While creating batch action values, colon delimiter must be used to enter multiples values. For example, while creating a new CallingSearchSpace that contains multiple Route Partitions, use RP1:RP2:RP3.

- If you want the users that will be created to have self-care accounts, you must enable the CreateSelfCareAccounts rule for all applicable Domains.

- MAC Address is required when ProductName is Phone (or a bundle containing a Phone) and Phone Type is not a virtual phone (for example, CTI Port).

- New MAC Address is required when changing phones.

- Object Name is required when canceling products, except for the Line and Extension Mobility Line products.

- When canceling a Line or an Extension Mobility Line product, the directory number and route partition are required.

- If you delete VG202,VG 204 and VG 224 products, all the phones in the Device and Provisioning will be deleted. You will get a warning message regarding this and only after the confirmation, the phones are deleted. Domain synchronization must be done to clean the customer records associated with the phones.

- Phone Button Template is required when ProductName is Phone (or a bundle containing a Phone) or Extension Mobility Access (or a bundle containing an Extension Mobility Access) and Phone Type is not a virtual phone (CTI Port) and when ordered in a Service Area associated with Cisco Unified Communications Manager only.

- Cisco Unity devices (Cisco Unity, Cisco Unity Connection, and Cisco Unity Express) do not support all products and services. If the batch action file is configured for a product which is not supported by the device in the specified Service Area, batch provisioning will fail.

- Product attributes that require user input during the manual order entry process are required to successfully complete the equivalent order in a batch project. Examples include:
  - Phone Type—Type of phone (for example, Cisco 7960, Cisco 7912) if ordered product is a Phone or a bundle that contains a Phone.
  - Line Type—Type of line (for example, Auto-Assigned Line or Chosen Line) if ordered product is a Line or a bundle that contains a Line.
  - Directory Number—Required when ProductName is *Line* and Type is *Chosen Line*. Additionally, ordering a product with a dependency that is not met by the order itself (for example, ordering a single Line) requires a column specifying the dependent object.
  - Route Partition—Required when ProductName is *Line* and Order Type is *Change*.
- If the product being ordered has a dependency that is not met by the order itself (for example, a single Line), a column specifying the dependent object is required. Examples include:
  - SelectedPhone—MAC address of the phone to add the line to.
  - SelectedLine—Directory number of the line to add voicemail to.
  - SelectedVoicemail—Directory number of the voicemail to add unified messaging to.
  - SelectedEM_Access—Name of the EM_Access (device profile) to add the EM_Line to.

  Bundles that contain more than one instance of a base product require their attributes to be specified with a (1), (2), and so on, at the end of the column name. For example, Line Type(1), Directory Number(1).

- For bundled products, if the product attribute name is the same for different base products, append the product name in the attribute to differentiate them.

  For example, Calling Search Space is an attribute in both Phone and Line. For the product Phone Service, you can specify Phone Calling Search Space and Line Calling Search Space.

- Speed dial information can be provided in the following ways:
  - Directly—Used where there is one column. The column header is Speed Dial Info. The expected format is index:number:label, repeated for each speed dial, semicolon delimited, where index is the position of the speed dial (for example; 1, 4, 5, and so on), number is the phone number, and label is the speed dial name (for example, 1:8675306:Joe;4:888:Voicemail).

    If you use this format to add an additional line, you must reenter all the speed dial information previously entered in the column and add the new speed dial information.

    This format is recommend for initial setup of speed dials. To add speed dials to an existing list of speed dials, you must use the format described in the next sub-bullet.

  - As matching sets of columns—One set of columns can be called Speed Dial n (where *n* is the speed dial position), and the other can be called Speed Dial n Name. This format appends new speed dials to the existing speed dial list.

    For example:

Speed Dial 1	Speed Dial 1 Name	Speed Dial 4	Speed Dial 4 Name
8675306	Joe	888	Voicemail

- Line Group information can be provided in the format LineGroupName:position. This is repeated for each Line Group, semicolon delimited. LineGroupName is the name of the line group. Position is the position of the directory number within the selected Line Group, and it can have values of last (or LAST), or numbers from 1 through 100; for example, LG1:1;LG2:5;LG3:last.

  To add an additional line, you must enter all of the Line Group information. The Line Group column headings must be listed as Line Groups(1) and Line Groups(2).

- If there are multiple instances of a column (for example, multiple directory numbers), each instance must be specified with a (1), (2), and so on, at the end of the column name; for example, Directory Number(1), Directory Number(2).

- In the provisioning attribute for the Cisco Unified Communications Manager Express Phone and Line configuration template, you must use a tilde (~) as a separator; for example, username AAAAA password BBBBBBBB~pin 676771. The column header for this attribute is CME Phone Configuration Template.

- 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 just enter an empty value, the provisioning attribute does not get unset in Cisco Unified Communications Manager.

- While placing an order for voicemail account, if you use the Chosen Line option and select E.164 format directory number, Provisioning will set the extension number by removing the + symbol from the directory number. But the Alternate Extension field will not be auto populated. You have to enter the directory number (along with the + symbol) in the Alternate Extension field in the batch file.

Keyword Usage in Batch Action Files

To perform specific functions, use the following keywords in batch action files:

- CUPM_BLANK—For the Add order type, no value will be provisioned for the attribute. For the Change order type, the current attribute value will be either cleared (if applicable), or set to the default value required by the processor.

Note When using the Change order type for the set-only attributes that are an enumerated type that supports a static list of valid values (for example, Calling Search Space Activation Policy), CUPM_BLANK has no effect and the old values are retained.

- CUPM_SKIP—Skips the provisioning attribute when processing the action file. The attribute is not set during the order. The previous configured value is retained.

Note When using CUPM_SKIP with the Add order type, not all attributes can be skipped. The following attributes are not skipped:

- Mandatory attributes (for example, Device Pool and Location) are not skipped. They use the provisioning attribute settings configured at the Service Area level.

- Device Description and Display (Internal Caller ID). These settings have rules, so they use the values based on their rules.

Provisioning Attribute Precedence in Batch Action Files

The values of the attributes in the batch action files are parsed and applied based on the following precedence:

1. What is specified in the batch action file.

2. What was previously set for the provisioning attribute.

3. If neither of the above apply, the default setting is applied.

4. If the keyword CUPM_BLANK is entered, the value is set to an empty string.

5. If the keyword CUPM_SKIP is entered, the attribute is not set during order execution.

Configuring Provisioning Attributes for a Service Area

The new batch template with the name updatePA supports updating provisioning attributes at different levels (Service Area, Domain, and Subscriber Role). The Batch template contains a new column called Target Level, defined to set provisioning attributes at different levels. You much specify updatePA in the OrderType field.

In Provisioning, updatePA is supported only at the Service Area level. The following table provides descriptions of the fields in the updatePA batch file:

Table 6-9   updatePA Batch File Fields

Mandatory Field Names	Description
OrderType	Type should be updatePA.
UserID	ID of the user who uploads the batch file.
ProductName	Name of the product.
ServiceArea	Name of the Service Area.
Domain	Name of the Domain.
Target Level	Target level names should be one of the following: • Domain • Service Area • Subscriber
Subscriber Type	Valid only when target level is subscriber. It should contain single subscriber role.

If you are upgrading from Cisco Unity Connection 7.1.x or 8.x to 9.x version, you need to run a batch project for moving the Voicemail Alternate Extension field values to the Extension field (see E.164 Support, page 4-22 for more information). You need to run this batch project after the upgrade process.

Table 6-10 lists the columns that need to be included in the batch file.

Table 6-10   Batch Action File Columns for Moving Alternate Extension Field Values to Extension Field While Upgrading from Unity Connection 7.1.x or 8.x to 9.x

Columns	Description
OrderType	Type should be change.
UserID	ID of the Voicemail user.
First Name	(Optional) User's first name.
Last Name	User's last name.
Domain	Domain to place the new user in.
ProductName	Name of the product.
ServiceArea	Name of the Service Area.

Table 6-10 Batch Action File Columns for Moving Alternate Extension Field Values to Extension Field While Upgrading from Unity Connection 7.1.x or 8.x to 9.x

Columns	Description
Voicemail Alias	Voicemail Alias name.
MoveAEToExtension	Set this field to True to move the Voicemail Alternate Extension field values to the Extension field. If this value is set to False, extension numbers will not be changed.

Provisioning Infrastructure Products

Batch Provisioning support is provided for all the infrastructure products of Unified Communications Manager, Unity Connection, and Unity. Users with the Administration role can provision infrastructure products using batch provisioning. You can do the following:

- Creating Batch Projects, page 6-13
- Editing Batch Projects, page 6-14
- Deleting Batch Projects, page 6-14
- Working with Batch Projects, page 6-14

Note Sample batch files for all infrastructure products are available in the following directory: opt\cupm\sep\ipt\config\sample\batchProvisioning\infrastructureProducts folder.

Creating 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.

Note Sample batch files for all devices are available in the following directory: opt\cupm\sep\ipt\config\sample\batchProvisioning folder.

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.

Note 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, page 6-9.

To create a batch project:

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 **Add**.

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

- Upload another batch action file (repeat this procedure).

- Run the batch project immediately (see Running a Batch Project, page 6-15).

- Schedule the batch project to be run later (see Scheduling or Rescheduling a Batch Project, page 6-15).

Editing Batch Projects

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.

Deleting Batch Projects

You can delete batch projects that you no longer require.

To delete a batch project:

Step 1   Choose **Deploy > Batch Provisioning**.

Step 2   In the Configure a Batch Project page, click the Chooser icon (   ).

Step 3   Select the batch project that you require.

Step 4   In the Configure a Batch Project page, click the Delete icon (   ) beside the batch project name.

Step 5   In the confirmation message box, click **OK** to delete the batch project.

Working with Batch Projects

You can run a batch project immediately, or schedule it to run at a specific time. You can pause a batch project that is currently running, and then restart it or cancel it. After a project has been scheduled, you can pause it, or cancel it entirely. You can also schedule a project to be paused at a later time, for example, if you want to ensure that a project is paused before a scheduled maintenance down-time.

Running a Batch Project

To run a batch project:

Step 1   Choose **Deploy > Batch Provisioning**.

Step 2   In the Configure a Batch Project page, click the Chooser icon ( ).

Step 3   Select the batch project that you require.

Step 4   In the Project Schedule pane, click **Now** next to the Project Start Date/Time.

Step 5   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.

Scheduling or Rescheduling a Batch Project

To schedule or reschedule a batch project:

Step 1   Select the batch project that you require (see).

Step 2   In the Project Schedule pane, click the Chooser icon ( ), next to Project Start Date/Time.

Step 3   In the confirmation message box, click **OK**.

Step 4   Specify a date and time, as well as a Coordinated Universal Time (UTC) Offset or Location (if required), in the dialog box that appears, and then click **Select**.

A clock icon ( ) appears in the Status section to indicate that the batch project has been scheduled.

Note   Batch projects created for infrastructure configuration cannot be restarted if there is a failure.

Canceling a Batch Project

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.

To cancel a batch project:

Step 1   Select a batch project that you require (see).

Step 2   In the Project Schedule pane, click **Abort**.

Step 3   Click **OK** to cancel the batch project.

Pausing a Batch Project

When you pause a batch project, Provisioning completes actions that are in progress, but does not submit any more.

To pause a batch project:

Step 1   Select a batch project that you require (see Running a Batch Project, page 6-15).

Step 2   In the Project Schedule pane, click **Pause** next to Project Pause Date/Time.

Step 3   In the confirmation message box, click **OK**. A message appears, indicating that the batch project has been paused.

Step 4   Click the Refresh icon ( ). The status of the project is changed to Paused.

Step 5   You have the following options:

- To restart the batch project, click **Restart**. The batch project is restarted.
- To cancel the batch project, click **Abort**. The batch project is canceled.

Scheduling a Batch Project to Pause

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.

To schedule a batch project to pause:

Step 1   Select the batch project that you require (see Running a Batch Project, page 6-15).

Step 2   In the Configure a Batch Project page, in the Pause Execution section, click the Chooser icon ( ), next to Project Pause Date/Time.

Step 3   Click **OK** to confirm. The Select Date and Time dialog box appears.

Step 4   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.

Canceling a Scheduled Batch Project

You can cancel a scheduled batch project provided that it has not started processing.

To cancel a scheduled batch project:

Step 1   Select the batch project that you require (see Running a Batch Project, page 6-15).

Step 2   In the Configure a Batch Project page, under the Project Schedule pane, click the Clear icon ( ) next to the Project Start Date/Time.

Step 3   Click **OK** to confirm.

Canceling a Scheduled Pause for a Batch Project

To cancel a scheduled pause for a batch project:

Step 1   Select the batch project that you require (see Running a Batch Project, page 6-15).

Step 2   In the Project Schedule section, click the Clear icon ( ).

Step 3   Click **OK** to confirm. The scheduled pause for the batch project is cleared.

Viewing Batch Project Details

You can view the details of a batch project by viewing the details of the batch project actions.

✎

Note   In Batch Provisioning, during Phone order, users with any subscriber role can add a new phone. Even a pseudo user can add a phone.

To view the batch project details:

Step 1   Select the batch project that you require (see Running a Batch Project, page 6-15).

Step 2   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.

Viewing the Current Status of a Batch Project

You can view the status of batch projects that are in progress. As a batch project is being run, Provisioning updates the status of the batch actions. You can identify at a glance the actions that are being processed and their status.

To view the current status of a batch project:

Step 1   Choose **Deploy > Batch Provisioning**.

Step 2   In the Configure a Batch Project page, click the Chooser icon (🖳).

The Choose a Batch Project dialog box appears. To see details of a single running order within a batch project, administrators can also use My Activities (**Deploy > Order Management > My Activities**) to view each order as it is executed in the workflow.

Step 3   Select the batch project that you require.

The Configure a Batch Project page appears. The Batch Project Actions pane displays the status of each batch action project. After a batch project has completed, you can check the subscriber records of the users to verify that orders have been processed.