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## Introduction

This document describes how to use the Import/Export menu in Cisco Unified Communications Manager (CUCM) Bulk Administration Tool (BAT) to export or import parts of the CUCM database to another server, or to the same server with modifications.

## Prerequisites

### Requirements

Cisco recommends that you have knowledge of CUCM.

### Components Used

The information in this document is based on CUCM 10.5.2.12900-14.

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, make sure that you understand the potential impact of any command.

## Background Information

Sometimes it is not possible to make changes to the phone and device profile or other components configuration in single job task with BAT update/validate menu if changes are meant to be for multiple phones and device profiles with different device pools or partitions. With this menu you can make changes to any random phones, device profiles and route patterns etc. in a single job task. This reduces the configuration time that is required by importing a preconfigured database to the installed CUCM server. These topics provide procedures to carry out these tasks:

- [Exporting Configuration](#)
- [Editing the .tar File](#)

- [Importing Configuration](#)

# Configure

## Exporting Configuration

To export configuration data from Cisco Unified Communications Manager, use the following procedure.

**Step 1.** Select **Bulk Administration > Import/Export > Export**.

The Export Data window displays this:

The screenshot shows the 'Export Data' window in Cisco Unified CM Administration. The 'Job Information' section has a 'Tar File Name\*' field. The 'Select Items to Export' section is divided into two main categories: 'System Data' and 'Call Routing Data'. Under 'System Data', there are checkboxes for items like 'Cisco Unified Communications Manager', 'Enterprise Parameters', 'Server', 'Physical Location', 'Device Mobility Info', 'LDAP Directory', 'Resource Priority Namespace List', 'Enterprise Phone Configuration', 'Audio Codec Preference Lists', 'Cisco Unified Communications Manager Group', 'Location', 'Service Parameters', 'Device Mobility Group', 'DHCP Server', 'LDAP Authentication', 'CUMA Server Security Profile', 'Certificate', 'Date/Time Group', 'Phone NTP Reference', 'SRST', 'Presence Group', 'DHCP Subnet', 'MLPP Domain', 'Geo Location Configuration', and 'LDAP Custom Filter'. Under 'Call Routing Data', there are checkboxes for 'Application Dial Rules', 'Time Period', 'Forced Authorization Codes', 'Call Pickup Group', 'SIP Dial Rules', 'Calling Search Space', 'Time Schedule', 'Directory Lookup Dial Rules', 'Directory Number (Unassigned)', 'Line Group', 'Partition (Class of Control)', 'Translation Pattern', 'Client Matter Codes', 'Meet-Me Number / Pattern', 'Route Group', 'Route Filter', 'AAR Group', 'Call Park', 'Directed Call Park', and 'Hunt List'.

**S**In the Job Information section, enter the .tar file name, without the extension, in the Tar File Name field. BPS uses this filename to export the configuration details.

All files that are exported at the same time get bundled together (.tar) and can be downloaded from the server.

This screenshot is identical to the previous one, but with a red rectangular box highlighting the 'Tar File Name\*' field in the 'Job Information' section. The text 'Phone-UDP' is entered into this field.

**Step 3.** In the Select items to Export section, check the appropriate check boxes under System

Data from the these options:

Phone and device profile are used as an example in this document. You can choose any option based on the requirement.

<input type="checkbox"/> Softkey Template	<input type="checkbox"/> Gatekeeper	<input type="checkbox"/> Trunk	<input type="checkbox"/> SIP Profile
<input type="checkbox"/> Phone Services	<input type="checkbox"/> Phone Button Template	<input type="checkbox"/> Common Phone Profile	<input type="checkbox"/> Gateway
<input type="checkbox"/> Device Defaults	<input checked="" type="checkbox"/> Device Profile	<input type="checkbox"/> Common Device Configuration	<input type="checkbox"/> CTI Route Point
<input checked="" type="checkbox"/> Phone	<input type="checkbox"/> Recording Profile	<input type="checkbox"/> Remote Destination	<input type="checkbox"/> Remote Destination Profile
<input type="checkbox"/> Feature Control Policy	<input type="checkbox"/> Default Device Profile	<input type="checkbox"/> SIP Normalization Script	<input type="checkbox"/> SDP Transparency Profile
<input type="checkbox"/> Wireless LAN Profile Group	<input type="checkbox"/> Wireless LAN Profile	<input type="checkbox"/> Network Access Profile	<input type="checkbox"/> Wi-Fi Hotspot Profile

**Step 4.** You can use the **Select All** button to check all the check boxes at once and the **Clear All** button to clear all the check boxes.

**Step 5.** In the Job Description field, enter the description that you want to provide for the job. Export Configuration is the default description.

**Job Information**

Job Description: Export Configuration

Run Immediately  Run Later (To schedule and activate this job, use Job Scheduler page.)

Check Dependency Submit Select All Clear All

**Step 6.** You can choose to run the job immediately or later by selecting the corresponding radio button.

**Job Information**

Job Description: Export Configuration

Run Immediately  Run Later (To schedule and activate this job, use Job Scheduler page.)

Check Dependency Submit Select All Clear All

**Step 7.** To check for interdependency of tables to make sure that the related records are also exported, click **Check Dependency**.

**Note:** {You can de-select any of the check boxes after checking dependency. You also have the option to skip checking dependency.}

Check dependency selects dependent items up to one level of dependency. For example, if an item depends on CSS, then only CSS will be selected and the items that CSS depends on will not be selected.

**Step 8.** To create a job for exporting the selected data, click **Submit**.

A message in the Status section lets you know that the job was submitted successfully.

**Job Information**

Job Description: Export Configuration

Run Immediately  Run Later (To schedule and activate this job, use Job Scheduler page.)

Check Dependency Submit Select All Clear All

**Step 9.** Use the Job Scheduler option in the Bulk Administration main menu to schedule and/or activate this job.

Choose **Bulk Administration > Job Scheduler > Click on Find** and search for the last Job Id.

<input type="checkbox"/>	Job ID	Start Time	End Time	Count	Function Name	Status
<input type="checkbox"/>	1458283845	March 18, 2016 12:20:45 PM IST	March 18, 2016 12:20:45 PM IST	1	Insert Phones - Specific Details	Completed
<input type="checkbox"/>	1458284211	March 18, 2016 12:26:51 PM IST	March 18, 2016 12:26:51 PM IST	1	Export Phones - Specific Details	Completed
<input type="checkbox"/>	1463140285	May 13, 2016 5:21:25 PM IST	May 13, 2016 5:21:25 PM IST	10	Update Phones - Query	Completed
<input type="checkbox"/>	1468478849	July 14, 2016 12:17:29 PM IST	July 14, 2016 12:17:29 PM IST	1	Export Configuration	Completed

Select All Clear All Delete Selected Activate Selected Stop Processing

Since you select the option **run** immediately, the job gets completed automatically. If you check option **run later**, then you need to select the Job Id and activate it manually to process it.

## Editing the .tar File

The tar file comprises a list of CSV files and a header file. Header file can be used to refer to the details of the server from where the export was carried out and the time when it was carried out. The header file also has details of the files in the package.

If you want to make any changes to the configuration after you have exported the required data, you can do so by editing the exported .tar file with this procedure:

**Step 10.** Now select **Bulk Administration > Upload/Download files**

From the Upload/Download window select the tar file and click on **Download Selected**.

The screenshot shows the Cisco Unified CM Administration interface. The 'Find and List Files' window is open, displaying a list of files. The file 'Phone-UDP\_07142016121904.tar' is selected, and the 'Download Selected' button is highlighted. The interface includes a search bar, a status indicator showing 16 records found, and a list of files with their names and function types.

<input type="checkbox"/>	File Name	Function Type
<input type="checkbox"/>	EMexport.tar	Import Configuration
<input type="checkbox"/>	LOAD_11252015185004.tar	Export Configuration
<input checked="" type="checkbox"/>	Phone-UDP_07142016121904.tar	Export Configuration
<input type="checkbox"/>	Phones-03182016122736.txt	Insert Phones - Specific Details
<input type="checkbox"/>	UDP-7821_11252015174308.txt	Export UDP - All Details
<input type="checkbox"/>	UDP.csv	Update UDP - Custom File
<input type="checkbox"/>	UDP.txt	Update UDP - Custom File
<input type="checkbox"/>	UDP1.csv	Update UDP - Custom File
<input type="checkbox"/>	UDP2_11252015182500.tar	Export Configuration
<input type="checkbox"/>	bat.xls	BAT Excel CSV Tool
<input type="checkbox"/>	deviceprofile.tar	Import Configuration
<input type="checkbox"/>	hari_03182016073115.tar	Export Configuration
<input type="checkbox"/>	krishna_03182016122654.txt	Export Phones - Specific Details
<input type="checkbox"/>	qwqw_03012016190544.txt	Export Phones - Specific Details
<input type="checkbox"/>	test.phone_10302015175747.txt	Export Phones - All Details
<input type="checkbox"/>	testphones1_10302015180037.txt	Export Phones - All Details

Add New Select All Clear All Delete Selected Download Selected

**Step 11.** Un-tar the .tar file to some location on your machine with the tar -xvf command.

The .csv file gets extracted to the location that you specified.

**Note:** {The **tar -xvf** command may not work on a Windows server, TAR and UNTAR operations are possible in Windows with 7-Zip, which is a freeware available on the World

## Wide Web (WWW).}

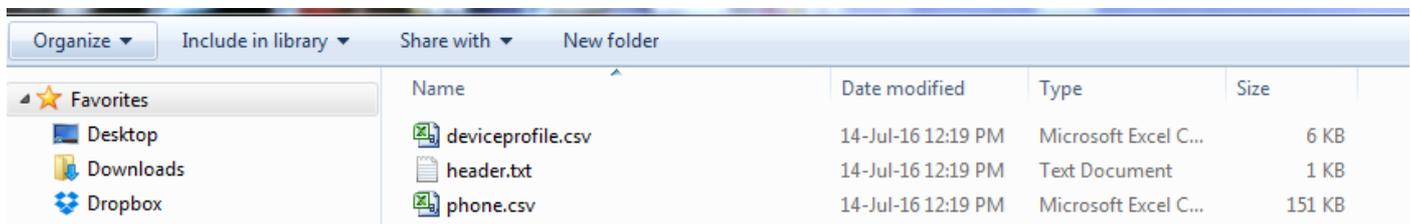
The name of the .csv file is always the same as the item name.

Use MS Excel to edit the .csv file and save your changes.

You can edit the .csv file with Notepad/WordPad also, but Cisco recommends to make use of MS Excel to edit the .csv file.

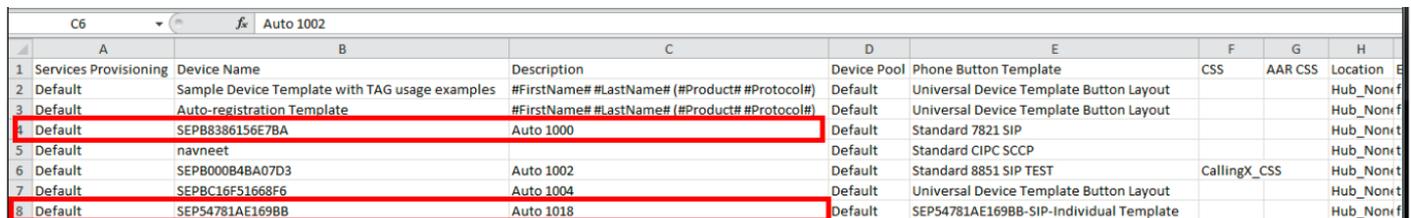
If you decide to use notepad or WordPad for the edit, ensure that you add a comma for every new entry in the file format.

Always maintain the same filename and file format for the .csv file. If you add a new file to the tar package, ensure that the file has the same name and file format as it would have if it is exported from CUCM. Also, ensure that the new filename is added to the Header file.



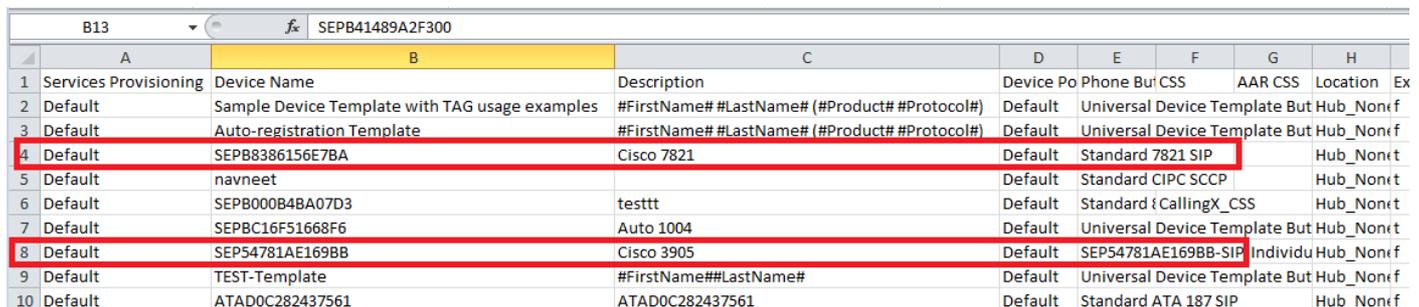
Name	Date modified	Type	Size
deviceprofile.csv	14-Jul-16 12:19 PM	Microsoft Excel C...	6 KB
header.txt	14-Jul-16 12:19 PM	Text Document	1 KB
phone.csv	14-Jul-16 12:19 PM	Microsoft Excel C...	151 KB

This is the original configuration of all the phones in my lab call manager. Changes have been made to the phone description field of 2 phones.



	A	B	C	D	E	F	G	H
1	Services Provisioning	Device Name	Description	Device Pool	Phone Button Template	CSS	AAR CSS	Location
2	Default	Sample Device Template with TAG usage examples	#FirstName# #LastName# (#Product# #Protocol#)	Default	Universal Device Template Button Layout			Hub_Nonf
3	Default	Auto-registration Template	#FirstName# #LastName# (#Product# #Protocol#)	Default	Universal Device Template Button Layout			Hub_Nonf
4	Default	SEPB8386156E7BA	Auto 1000	Default	Standard 7821 SIP			Hub_Nonf
5	Default	navneet		Default	Standard CIPC SCCP			Hub_Nonf
6	Default	SEPB000B4BA07D3	Auto 1002	Default	Standard 8851 SIP TEST	CallingX_CSS		Hub_Nonf
7	Default	SEPB16F51668F6	Auto 1004	Default	Universal Device Template Button Layout			Hub_Nonf
8	Default	SEP54781AE169BB	Auto 1018	Default	SEP54781AE169BB-SIP-Individual Template			Hub_Nonf

The description field has been changed here:



	A	B	C	D	E	F	G	H
1	Services Provisioning	Device Name	Description	Device Po	Phone Bu	CSS	AAR CSS	Location
2	Default	Sample Device Template with TAG usage examples	#FirstName# #LastName# (#Product# #Protocol#)	Default	Universal Device Template But			Hub_Nonf
3	Default	Auto-registration Template	#FirstName# #LastName# (#Product# #Protocol#)	Default	Universal Device Template But			Hub_Nonf
4	Default	SEPB8386156E7BA	Cisco 7821	Default	Standard 7821 SIP			Hub_Nonf
5	Default	navneet		Default	Standard CIPC SCCP			Hub_Nonf
6	Default	SEPB000B4BA07D3	testtt	Default	Standard i	CallingX_CSS		Hub_Nonf
7	Default	SEPB16F51668F6	Auto 1004	Default	Universal Device Template But			Hub_Nonf
8	Default	SEP54781AE169BB	Cisco 3905	Default	SEP54781AE169BB-SIP			Individu
9	Default	TEST-Template	#FirstName##LastName#	Default	Universal Device Template But			Hub_Nonf
10	Default	ATAD0C282437561	ATAD0C282437561	Default	Standard ATA 187 SIP			Hub_Nonf

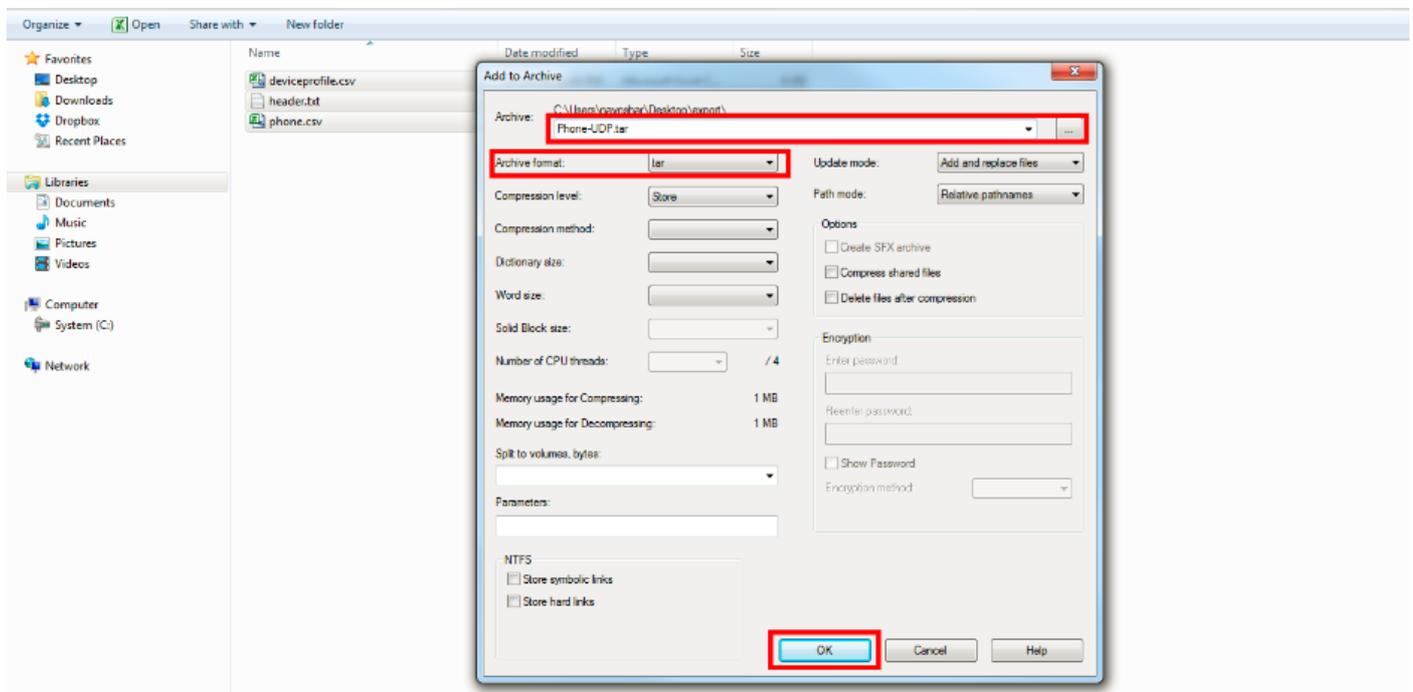
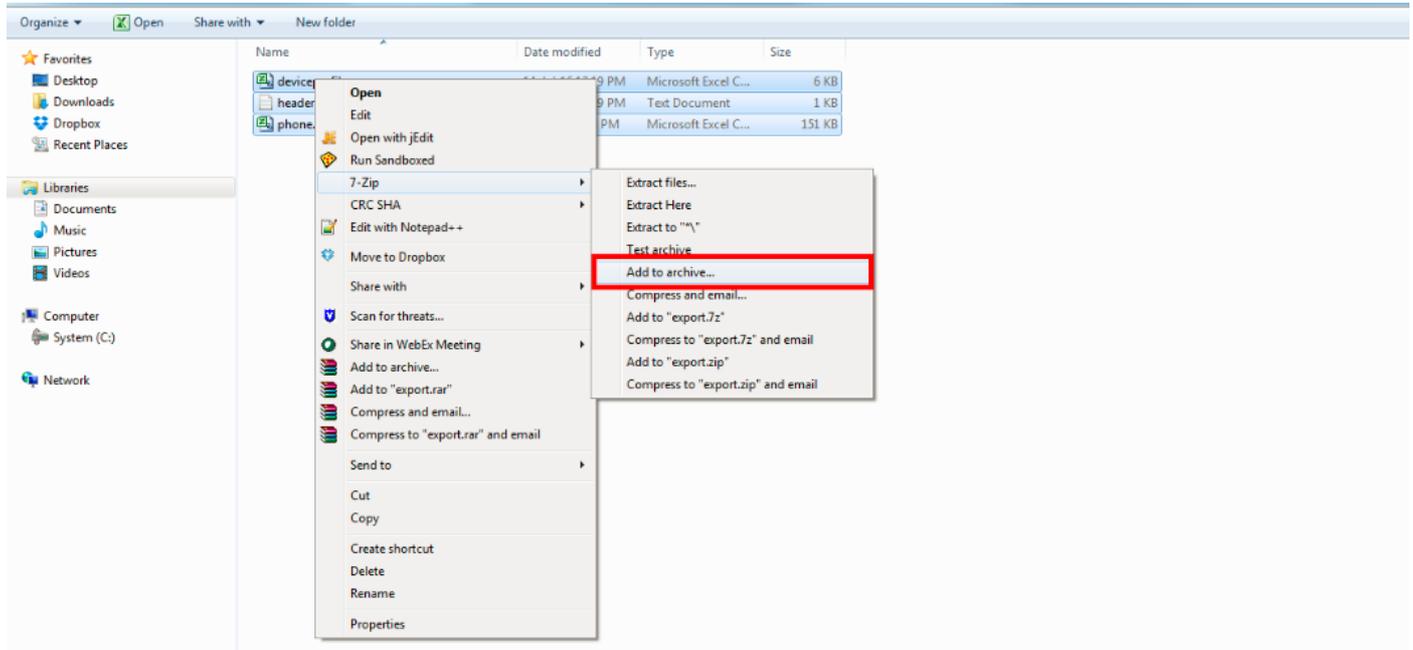
**Note:** Import/Export tool does not support updating the password and pin attributes. They are exported in encrypted form in the exported file and hence it cannot be changed to plain text. Entities which have credentials are - Common Phone Profile, SIP Realm, Application User, LDAP Authentication, LDAP Directory, Cisco Attendant Console, and Enduser. Know that you must not modify the User ID, User Pkid, Password, and Pin fields in the enduser.csv in the exported file.

**Step 12.** Once you are done with the changes; Re-tar the files with the tar -cvf command while

you ensure that the new .tar file is saved in the default common location.

**Note:** The `tar -cvf` command might not work on a Windows server, TAR and UNTAR operations are possible in Windows with 7-Zip, which is a freeware available on the WWW.

The .tar files must maintain the original directory structure when you re-tar the files, because BPS looks for .tar files at the default location only. (Club the header file, phone.csv and deviceprofile.csv file into .tar file).



## Importing Configuration

Use this procedure to upload a file to the CUCM server:

**Step 13.** Select **Bulk Administration > Upload/Download Files**. The Find and List Files window

displays.

Click **Add New**. The File Upload Configuration window displays.

In the File text box, enter the full path of the file that you want to upload or click Browse and locate the file.

From the Select the Target drop-down list box, choose the target for which you want to use the file.

From the Transaction Type drop-down list box, choose the transaction type that the file defines.

If you want to overwrite a file that already exists with the same name, check the Overwrite File if it Exists check box.

Click **Save**. The status displays that the upload is successful.

**File Upload Configuration**

Save

Status: Ready

**Upload the CSV file**

File: \*  Phone-UDP.tar

Select The Target \*

Select Transaction Type \*

Overwrite File if it exists.\*\*

Save

\* - indicates required item.

\*\* If you are trying to upload a file which is already present for a particular transaction, it will be overwritten.

Now select **Bulk Administration > Import/Export > Validate Import File**

**Note:** Select Validate Import File if you make changes to the configuration that already exists and select the Import option if you add anything new to the existing configuration.

In this example, changes were made to the configuration that already existed, therefore Validate Import file option was chosen.

**Job Scheduler**

Delete

Status: Ready

Server Date and Time: July 14, 2016 1:52:50 PM IST

**Job Details**

Job id \* 1468484431

Job Status \* Completed

Scheduled Date Time 07/14/2016 13:50:31

Submit Date Time 07/14/2016 13:50:31

Sequence \* 1

Job Description Validate Configuration Items

Frequency \* Once

Job End Time

Last Modified By admin

**Transaction Details**

CSV File Name Phone-UDP.tar

**Job Results**

Job Launched Date Time Job Result Status Number Of Records Processed

Bulk Administration > Import/Export > Validate Import File

Select Tar File name and hit **Submit**.

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### Validate Import File

Submit

**Status**  
Status: Ready

**Select File to Validate**  
Tar File Name\* Phone-UDP.tar

**Job Information**  
Job Description: Validate Configuration Items

**Submit**

\*. indicates required item.

To see whether the Job completed successfully or not, navigate to **Bulk Administration > Job Scheduler > Click on the latest job scheduler with Job description as Validate Configuration Items**.

Ensure that Job result status is displayed as success, if not than it means the job wasn't completed successfully. (In failure scenario you will see Job result status as error).

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### Job Scheduler

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**Status**  
Status: Ready  
Server Date and Time: July 14, 2016 2:08:58 PM IST

**Job Details**  
Job id\*: 1468484431  
Job Status\*: Completed  
Scheduled Date Time: 07/14/2016 13:50:31  
Submit Date Time: 07/14/2016 13:50:31  
Sequence\*: 1  
Job Description: Validate Configuration Items  
Frequency\*: Once  
Job End Time:   
Last Modified By: admin

**Transaction Details**  
CSV File Name: [Phone-UDP.tar](#)

**Job Results**

Job Launched Date Time	Job Result Status	Number Of Records Processed	Number Of Records Failed	Total Number Of Records	Log File Name
07/14/2016 13:50:34	Success	2	0	2	<a href="#">1468484431#07142016135034.txt</a>
07/14/2016 13:50:34	Success	4	0	4	<a href="#">deviceprofile#07142016135034.txt</a>
07/14/2016 13:50:34	Success	87	0	87	<a href="#">phone#07142016135034.txt</a>

Delete

In this snapshot you can see that changes got reflected properly post successful Job result.

**Device Information**

Device is Active  
 Device is trusted

MAC Address\*: B8386156E7BA

Description: Cisco 7821

Device Pool\*: Default [View Details](#)

Select the Device Description field from the Bulk Administration tool in the Job Scheduler > Click on the latest job scheduler with Job description as Import Configuration.

There is currently no verification procedure available for this configuration.

## **Troubleshoot**

Navigate to Job Scheduler and click on the respective Job Id and check the log files in the Job results section and see the error description and make modifications accordingly. Also, you can collect bulk provisioning service logs from RTMT and check for the errors.