



Adding Phones

You can use BAT to add hardware-based Cisco IP Phones to the Cisco CallManager database in batches, rather than add each phone individually.

To add phones to Cisco CallManager, you must

- Create a phone template to define common values for a set of phones.
- Create a Comma Separated Values (CSV) file to define individual values for each phone you want to add.

Related Topics

- [Chapter 4, “TAPS Overview”](#)
- [Creating a Phone Template, page 5-1](#)
- [Creating the CSV File for Phones, page 5-6](#)
- [Adding Phones to Cisco CallManager, page 5-11](#)

Creating a Phone Template

The phone template and Comma Separated Values (CSV) files work together in bulk transactions. Based on the type of phone you want to add in a batch, you can create a template that has the common features for all the phones in that batch, such as the Model, Device Pool, and so on. The system stores these templates, so they are reusable for other phone batches. For example, you can configure a template for the Cisco IP Phone 7960 with only two lines configured and another Cisco IP Phone 7960 with four lines configured.

The CSV file stores the details for each individual phone, such as its Name, Description, and so on. See “[Creating the CSV File for Phones](#)” section on [page 5-6](#) for more details about CSV files.

To create a phone template, you must first enter the required phone settings and then add the appropriate number of lines to each phone.

Related Topics

- [Entering Phone Settings, page 5-2](#)
- [Adding Line Information, page 5-4](#)

Entering Phone Settings

The phone settings required for the BAT phone template are similar to the phone settings required when adding a phone to Cisco CallManager. However, you must use the BAT phone template when performing batch operations rather than the Cisco CallManager phone template.

To configure the phone template, perform the following steps.

Procedure

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- Step 1** Choose **Configure > Phone Template**.
- Step 2** Enter the settings for the following fields.



Note The settings are not available for all phone types. Only settings appropriate for a selected model appear on your screen.



Note Values appear in the Phone Template Name, Model, Device Pool, Location, Calling Search Space, or Button Template fields. Configure these values in the system through Cisco CallManager Administration.

- Phone Template Name—this field requires an alphanumeric text value that identifies the unique phone template used only in BAT.

- **Model**—this field requires a value that identifies the type of Cisco IP Phone.
- **Device Pool**—this field requires a value that defines sets of common characteristics for devices, such as region, date/time group, Cisco CallManager group, and calling search space for auto-registration.
- **Location**—this field requires a valid value for the remote location accessed using restricted bandwidth connections.
- **Calling Search Space**—this optional field specifies the collection of Route Partitions searched to determine how a dialed number should be routed.
- **Button Template**—this field requires a value that determines the configuration of buttons on a phone and identifies which feature (line, speed dial, and so on) is used for each button.
- **Load Information**—values entered in this field override the default values for the current model and specify the custom software for a Cisco IP Phone.
- **Information**—use this field only for the Cisco IP Phone 7940 and Cisco IP Phone 7960 to specify the help text URL for the information button.
- **Directory**—use this field only for the Cisco IP Phone 79XX series to specify the URL of the directory server.
- **Messages**—this field defines a soft key for the Cisco IP Phone 7910 or a fixed key on the Cisco IP Phone 7940 and Cisco IP Phone 7960 for the voice messaging access pilot number.
- **Services**—this field shows the URL for the services menu for the Cisco IP Phone 7940 and the Cisco IP Phone 7960.

Step 3 Click **Insert**—to insert the BAT phone template.
Scroll down the page.

Step 4 Click **Add Line**.



Note The maximum number of lines that appear for a BAT template depends on which model and corresponding button template you chose.

Adding Line Information

For each template, add only the number of lines you want to define for all phones.

Procedure

To add lines, perform the following steps:

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- Step 1** Click one of the phone templates you created.
- Step 2** In the Line Details section, click on the line number you want to configure.
- Step 3** Enter the appropriate settings for the following settings:

Directory Number

- **Partition**—This field requires a value that indicates the route partition to which the directory number belongs.



Note The directory number can appear in more than one partition. The partition is unique in combination with the Directory Number.

Directory Number Settings

- **Calling Search Space**—This field contains a collection of partitions that are searched for numbers that are called from this directory number.



Note Changes cause an update of the numbers listed in the Call Pickup Group field. The setting applies to all devices using this directory number.

- **Call Waiting**—This field applies to all devices using this directory number and specifies whether this directory number uses call waiting when a line is busy (On), responds with a busy signal (Off), or uses the systemwide default setting (Default).

Call Forward and Pickup Settings

- Forward All—This field indicates the directory number to which all calls are forwarded.

**Note**

Setting applies to any dialable phone number, including an outside destination and to all devices using this directory number.

- Calling Search Space—This setting applies to all devices using this directory number and indicates the calling search space to use when forwarding to the specified destination.
- Forward Busy—This field indicates the directory number to which a call is forwarded when the line is in use

**Note**

Setting applies to any dialable phone number, including an outside destination and to all devices using this directory number.

- Calling Search Space—This setting applies to all devices using this directory number and indicates the calling search space to use when forwarding to the specified destination.
- Forward No Answer—This field indicates the directory number to which a call is forwarded when no one answers after four rings.

**Note**

Setting applies to any dialable phone number, including an outside destination and to all devices using this directory number.

- Calling Search Space—This setting applies to all devices using this directory number and indicates the calling search space to use when forwarding to the specified destination. The setting appears only if configured in the system.
- Call Pickup Group—This field indicates a number that can be dialed to answer calls to this directory number (in the specified partition); for example, 3003/Partitionl.

Line Settings for this Phone

- Disable ring on this line—This setting applies only to the current device and stops the phone from ringing to indicate incoming calls.

- External Phone Number Mask—This setting indicates the phone number (or mask) used to send Caller ID information when placing a call from this line.



Note Setting uses a maximum of 30 number and “X” characters; the X characters must appear at the end of the pattern.

Step 4 Repeat Steps 2 and 3 until all lines are configured.

Step 5 Click **Insert**.

Step 6 Click **Close**.

After setting up the lines for the template, use the template to add phones with CSV files.

Creating the CSV File for Phones

BAT includes a Microsoft Excel file (BAT.xlt) that provides data file templates with macros, support for multiple phone lines, error checking, and exports the values into CSV files for phones, users, and phone/user combinations.

The CSV file for phones contains information about each phone as a record. All phones in a CSV file should be of the same model and have the same number of configured lines.

Example 5-1 *You might create a CSV file for Cisco IP Phone 7960 two-line phones and another CSV file for Cisco IP Phone 30 VIP ten-line phones.*

The CSV file for phones can contain multiple directory numbers depending on whether the phone template in question supports multiple lines.



Note The number of directory numbers entered in the CSV file must equal the number of lines configured in the phone template.

Using the Phone Tab in BAT.xlt

Follow this procedure for fast bulk input of phones.

Procedure

- Step 1** Open BAT.xlt to open the BAT Microsoft Excel file.
- Step 2** Click the **Phones** sheet tab.
- Step 3** Complete all mandatory fields and any relevant optional fields. Each column heading specifies the length of the field.
Click **View Sample File** on the BAT interface for the data value requirements and see [“CSV String Formats for Phones.”](#)



Note

The system treats blank rows in the spreadsheet as “End of File” and discards subsequent records.

- Step 4** Enter the number of lines in the Number of Phone Lines box equal to the number of directory numbers.
- Step 5** Check the Create Dummy MAC Address box to use the dummy MAC address option.
You must enter the MAC address or use the dummy MAC address option (the MAC address updates when a phone is plugged in).
- Step 6** Click **Export to BAT Format** to transfer the data from the BAT Excel spreadsheet into a CSV file.
The file is saved in **C:\XLSDataFiles** (or to your choice of another existing folder) as

phones#timestamp.txt

- Step 7** Click **View File** to view the CSV file that you created.
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CSV String Formats for Phones

The following example format shows the required field length and string types followed by an example of a CSV file for phones.

**Note**

If values are set for Location, Forward Busy Destination, or Call Pickup Group in the CSV file, those values override the preset values of these attributes in a selected phone template.

If you leave no values for Location, Forward Busy Destination, or Call Pickup Group for any record on the CSV file, the system uses values from the phone template for these fields.

Example 5-2 *If FwdBusy Destination is 3001 on a template, all records in a CSV file that have no value for FwdBusy Destination use 3001.*

MAC Address (String[12]MANDATORY),Description (String[50] OPTIONAL),Location (String[50] OPTIONAL),Directory Number (String[15] OPTIONAL),Display (String[30] OPTIONAL),Forward Busy Destination (String[15] OPTIONAL),Call Pickup Group (String[15/50] OPTIONAL)

Example

```
1231123245AB, SEP1231123245AB, Dallas, 9728437154, 9728437154, 9728437172, 9728437121/TollByPass
```

The actual file does not contain field names (displayed in the first line). Always include comma separators, even if a field is blank. Specify Call Pickup Group as either a Directory Number or Directory Number/Route Partition Name, if the access to the call pickup group is restricted by a Route Partition.

Refer to the following examples and sample CSV records when creating CSV files.

Examples

If the description for a phone is blank

```
1231123245AB, , Dallas, 9728437154, 9728437154, 9728437172, 9728437121/TollByPass
```

If the selected phone template supports a maximum of six lines and no active line is required

```
1231123245AB, SEP1231123245AB, Dallas
```

If no active line is required and the location is also blank:

```
1231123245AB, SEP1231123245AB,
```

If two active lines are required

```
1231123245AB,SEP1231123245AB,Dallas,9728437154,9728437154,9728437172,9728437121/TollByPass,9728437155,9728437155,9728437133,9728437112/TollByPass
```

**Note**

For the MAC Address, enter MAC Address values or check the option for creating dummy MAC addresses.

If the option is checked for a dummy MAC address and you want one line

```
,SEP1231123245AB,,Dallas,9728437154,9728437154,9728437172,9728437121/TollByPass
```

Creating an Optional CSV Text File for Phones

If you do not use the BAT.xlt for data input when adding phones, follow this optional procedure to create lines of ASCII text with values separated by commas.



Tips

Use the BAT.xlt file to input data because data validation is performed on that file.

The Comma Separated Values (CSV) file provides a common textual way of providing tabular information. You can create a data file using any file format, such as Microsoft Notepad, Microsoft Windows, and so on. Save the CSV file anywhere on the network.

Procedure

To create a CSV text file for phones, perform the following steps:

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- Step 1** Open a text editor (such as Notepad) or any application that allows you to export or create a CSV file.
- Step 2** Enter the following values for each phone you want to add to Cisco CallManager using a separate line for each phone:

```
MAC Address,Description,Location,Directory Number,Display,Forward Busy
Destination,CallPickup Group
```

You must enter the MAC address or use the dummy MAC address option on the Insert Phones page (the MAC address updates when a phone is plugged in). You can leave the other fields empty, but you must include the comma separators.



Note

An error occurs if there are any blank lines in the CSV file.

- Step 3** Save the file to C:\BATFiles\Phones on the Cisco CallManager server.



Note

You cannot use CSV files saved anywhere else for BAT inserts.

Adding Phones to Cisco CallManager

Follow this procedure to add several phones to Cisco CallManager.

Before You Begin

You must create a phone template and CSV file before you add phones to Cisco CallManager.

Procedure

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- Step 1** Choose **Configure > Phones** from the BAT main menu.
The Insert Phones window displays.
- Step 2** Choose the name of the Phone Template you created for this type of bulk transaction.
- Step 3** Check **Create Dummy MAC Address**, if you do not have a MAC address.
- Step 4** Enter values for the following fields:
- **File Name**—This field requires the name of the CSV file that includes the phones to be added. See the [“Creating the CSV File for Phones”](#) section on page 5-6 for tips on creating the CSV file.
 - **Phone Template Name**—This field requires the name of the phone template to be used for this set of phones. See [“Creating a Phone Template”](#) section on page 5-1 for information on creating the phone template.



Note If you want to insert phones that require different phone templates, you must create separate CSV files. The Line Details link shows how many lines are configured for the selected template.

- **Create Dummy MAC Addresses**—This field automatically generates fake MAC addresses in the following format:
XXXXXXXXXXXX
where X is any 12-character, hexadecimal (0-9 and A-F) number.
 - Use this option if you do not know the MAC address of the phone that will be assigned to the user.

- Once the phone is actually plugged in, a MAC address registers for that device.
- When phones are assigned, remember to update the phone records with the valid MAC address.

To obtain a list of all phones using a Dummy MAC address, in the Update Phones window

- Click **Device Name**.
- Click **begins with**.
- Enter **BAT**.



Note All phones added with a Dummy MAC address have device names that begin with BAT.

- Click **Add to Query**.
- Click **View Query Results**.

Step 5 Click **Insert**.



Note If any line information for a phone records fails, BAT does not insert that phone record.

Step 6 Click **View Log File**. The BAT application generates a log file indicating the number of records added and the number of records failed, including an error code.

Related Topics

- [Creating the CSV File for Phones, page 5-6](#)
- [Chapter 6, “Creating a Query to Update Phone Records”](#)