Configuring the Bulk Administration Tool (BAT)

This document describes the Bulk Administration Tool (BAT) and includes the following sections:

BAT Overview

The Bulk Administration Tool (BAT) is a plug-in application to the Cisco CallManager. BAT enables you to add up to 10,000 phones and users to the Cisco CallManager application. Using BAT, you can also perform bulk modifications to phones and delete several phones at one time.

This document provides you with information about using the BAT application.

Audience

This document is written for network administrators and engineers responsible for managing the Cisco CallManager system. A knowledge of telephony and IP networking technology is required.

CISCO SYSTEMS

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Related Documents

Refer to the following documents for more information on Cisco CallManager and related applications:

- *Cisco CallManager Administration Guide*
- *Release Notes for Cisco CallManager Release 3.0*

BAT Specifications

The following specifications apply to BAT Release 3.0:

- BAT Release 3.0 is compatible with Cisco CallManager Release 3.0.
- BAT must be installed on the Cisco CallManager, the primary publisher database, and Microsoft Posting Acceptor.
- The BAT application uses approximately 7 MB of disk space for the executable and the online documentation.
- The BAT application requires no maintenance other than possible upgrades when Cisco CallManager is upgraded.
- Only administrators have access to BAT.
- The expected performance of BAT is as follows:
  - Two phone/user transactions per second for updates and deletes
  - One phone/user transaction per second for inserts.

User Interface

BAT is accessible through Cisco CallManager Administration using Internet Explorer 4.01 Service Pack 2 or later, or Netscape 4.5. BAT has a common look and feel to the Cisco CallManager Administration window.

From the BAT Application menu, you can go to the Cisco CallManager Administration window.

Launching BAT

Procedure

Step 1 Click **Start** > **Program Files** > **Cisco CallManager 3.0** > **CallManager Administration**

The Cisco CallManager Administration main window displays.

Step 2 Select **Application** > **BAT**

The **Cisco CallManager Bulk Administration Tool** window displays.

Obtaining Online Help

You can access the BAT online Help system from any of the BAT pages by selecting:

Help > Contents and Index

Using BAT

As shown in Figure 1, BAT has three main menu options:

- Configure (includes the following submenu options):
  - Phone Template
  - Phones
  - Users
  - Phones/Users
- Application (Cisco CallManager is the submenu option)—returns you to the Cisco CallManager Administration window
- Help (includes the following submenu options):
  - Contents and Index
  - About Bulk Administration Tool

Figure 1   *BAT Window and Menu Options*
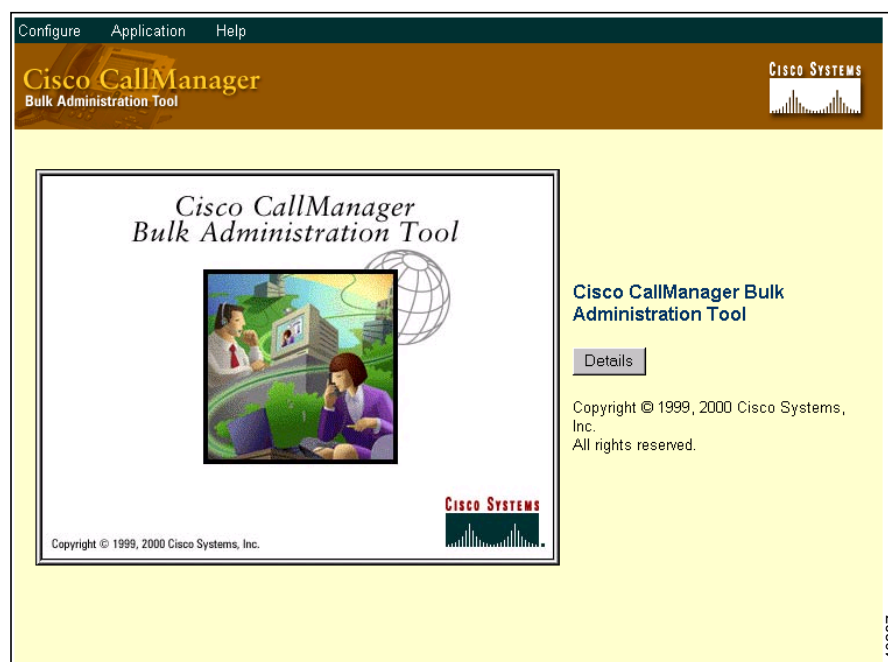
From the BAT window, the administrator can add, update, and delete devices, change system configurations, install option components, and view online documentation.

⚠

Caution   BAT should only be used during initial installation or during off-peak hours. Otherwise, bulk transactions could affect the Cisco CallManager performance and call processing may be adversely affected if BAT is used during peak hours.

BAT provides statistical data on the time it takes to complete a bulk transaction. The statistics are approximations for a standard recommended configuration.

Adding Phones

You can use BAT to add hardware-based Cisco IP Phones to the Cisco CallManager database in batches, rather than adding 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 Separate Values (CSV) file to define individual values for each phone you want to add

Related Topics

- Creating a Phone Template, page 4
- Creating the CSV File for Phones, page 9
- Adding Phones to Cisco CallManager, page 10

Creating a Phone Template

The phone template and Comma Separate Values (CSV) files work together in bulk transactions. Based on the type of phone you want to add in batch, you can create a template that has the common features for all the phones in a batch, such as the Model, Device Pool, and so on. These templates are stored and are reusable for other phone batches. For example, you can configure a template for the Cisco 30 VIP Model with only two lines configured and another with four lines configured.

The CSV file has the details of all the phones that are individualistic in nature to a phone, such as its Name, Description, and so on. See "Creating the CSV File for Phones" section on page 9 for more details on the CSV file.

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

Related Topics

- Entering Phone Settings, page 5
- Adding Line Information, page 7

Entering Phone Settings

The phone settings required for the phone template are similar to the phone settings required when adding a phone to Cisco CallManager.

Procedure

Step 1 Select **Configure > Phone Template**.

Figure 2 displays the Phone Template window.

Figure 2   Phone Template Window

Step 2 Enter the appropriate settings as described in Table 1.

These settings are not available for all phone types. Only the settings appropriate to the model selected appear on your screen.

Table 1   IP Phone Template Configuration Settings

Field	Description	Usage Notes
Phone Template Name	Identifies the unique phone template used only in BAT	Required value
Model	Identifies the type of Cisco IP Phone	Required value

Table 1   IP Phone Template Configuration Settings (continued)

Field	Description	Usage Notes
Device Pool	Defines sets of common characteristics for devices, such as region, date/time group, Cisco CallManager group, and calling search space for auto-registration	Required value
Location	Specifies the remote location accessed using restricted bandwidth connections	
Calling Search Space	Specifies the collection of Route Partitions searched to determine how a dialed number should be routed	Optional
Button Template	Determines the configuration of buttons on a phone and identifies which feature (line, speed dial, and so on) is used for each button	Required value

✎

Note   If values appear in the previous fields, these values were previously configured in the system through the CallManager Administration.

| Load Information	Specifies custom software for a Cisco IP phone	Values entered here override the default values for the current model
Information	Specifies the help text for the information button	Used only for the Cisco IP Phone 7940 and Cisco IP Phone 7960
Directory	Specifies the primary and secondary servers from which the phone obtains directory information	Used for the Cisco IP Phone 79xx series only
Messages	Voice messaging access	A soft key for the Cisco IP Phone 7910; a fixed key on the Cisco IP Phone 7940 and Cisco IP Phone 7960
Services	Information access	Used only for the Cisco IP Phone 7940 and the Cisco IP Phone 7960

Step 3   Click **Insert**.

Step 4   Click **Add Line**.

Adding Line Information

For each template, add only the number of lines you want to define for all phones. Figure 3 illustrates the template for a Cisco IP Phone 7960.

Figure 3   Add Line Window
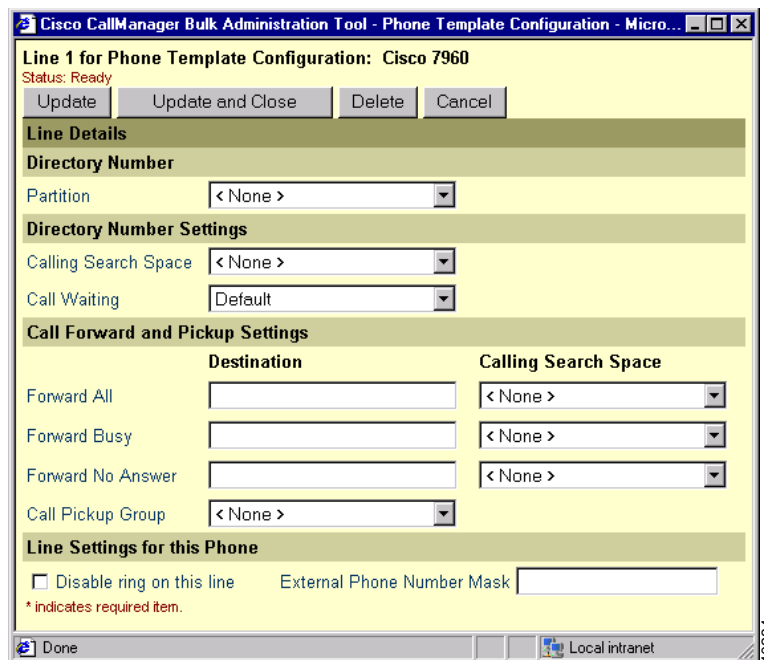
Procedure

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 as described in Table 2.

Table 2   Directory Line Configuration Settings

Field	Description	Usage Notes
Directory Number		
Partition	Indicates the route partition to which the directory number belongs	• Can appear in more than one partition • Unique in combination with the Directory Number • Required value

Table 2   Directory Line Configuration Settings (continued)

Field	Description	Usage Notes
Directory Number Settings		
Calling Search Space	Collection of partitions that are searched for numbers called from this directory number	• Changes cause update of the numbers listed in the Call Pickup Group field • Applies to all devices using this directory number
Call Waiting	Specifies whether this directory number uses call waiting when a line is busy (On), responds with a busy signal (Off), or uses the system-wide default setting (Default)	Applies to all devices using this directory number
Call Forward and Pickup Settings		
Forward All	Indicates the directory number to which all calls are forwarded	• Any dialable phone number, including an outside destination • Applies to all devices using this directory number
Calling Search Space	Indicates the Calling Search Space to use when forwarding to the specified destination	Applies to all devices using this directory number
Forward Busy	Indicates the directory number that a call is forwarded to when the line is in use	• Any dialable phone number, including an outside destination • Applies to all devices using this directory number
Calling Search Space	Indicates the Calling Search Space to use when forwarding to the specified destination	Applies to all devices using this directory number
Forward No Answer	Indicates the directory number that a call is forwarded to when no one answers after four rings	• Any dialable phone number, including an outside destination • Applies to all devices using this directory number
Calling Search Space	Indicates the Calling Search Space to use when forwarding to the specified destination	• Applies to all devices using this directory number • Appears only if configured in the system
Call Pickup Group	Indicates a number that can be dialed to answer calls to this directory number (in the specified partition)	

Table 2   Directory Line Configuration Settings (continued)

Field	Description	Usage Notes
Line Settings for this Phone		
Disable ring on this line	Stops the phone from ringing to indicate incoming calls	Applies only to the current device
External Phone Number Mask	Indicates phone number (or mask) used to send Caller ID information when placing a call from this line	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** and **Close**.

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

Creating the CSV File for Phones

The Comma Separate Values (CSV) file is a common textual way of providing tabular information. 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 number of configured lines. For example, you might create a CSV file for all the Cisco IP Phone 7960 two line phones and another for all the 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. The number of directory numbers entered in the CSV file must be equal to the number of lines configured in the phone template.

Figure 4 shows an example phone CSV file.

Figure 4   Phone CSV File

```
MAC Address (String[12] MANDATORY*),Description (String[50] OPTIONAL),Directory Number (String[15] OPTIONAL)
1231123245AB,SEP1231123245AB,9728437154

Instructions: 1.The actual file will not contain field names (displayed in the first line).
              2.Delimiters have to be specified even if a field is blank.
                e.g.If the Description for a phone is blank, a sample record can be:
                1231123245AB,,9728437154
              3.If the selected Phone Template supports maximum 6 lines and,
                a.You don't require any active line, a sample record can be:
                  1231123245AB,SEP1231123245AB
                b.You don't require any active line and description is also blank, a sample record can be:
                  1231123245AB,
                c.You require two active lines, a sample record can be:
                  1231123245AB,SEP1231123245AB,9728437154,9728437155

* Either write MAC Address values or check the option for creating dummy MAC Address.
  e.g.If the option for dummy MAC Address is checked, a sample record can be:
      ,SEP1231123245AB,9728437154
```
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Procedure

Step 1   Open a text editor 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,Directory Number
```

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.

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

Step 1   Select **Configure > Phones**.

The Insert Phones window displays as shown in Figure 5.

Figure 5   *Insert Phones Window*

Step 2   Click **Browse** to select a CSV file from anywhere on the network.

Step 3   Select the name of the Phone Template you created for this type of bulk transaction.

Step 4   Select **Create Dummy MAC Address**, if you do not have a MAC address.

The fields are described in Table 3.

Table 3   *Insert Phones Settings*

Field	Description	Usage Notes
File Name	Indicates the CSV file that includes the phones to be added.	• Required field. • See the "Creating the CSV File for Phones" section on page 9 for tips on creating the CSV file.

Table 3   Insert Phones Settings

Field	Description	Usage Notes
Phone Template Name	Indicates the phone template to be used for this set of phones.	• Required field. • See "Creating a Phone Template" section on page 4 for information on creating the phone template. • If you want to insert phones that require different phone templates, you must create separate CSV files.
Create Dummy MAC Addresses	Automatically generates fake MAC addresses in this format: *XXXXXXXXXXXX* where *X* is any 12-character hexadecimal (0-9 and A-F) number. **✎** **Note** To obtain a list of all phones added using a Dummy MAC address, type **BAT*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. • When phones are assigned, remember to update the phone records with the valid MAC address.

Step 5   Click **Insert**.

Step 6   View the log file. See the "Viewing Insert Phones Results" section on page 13 for details.
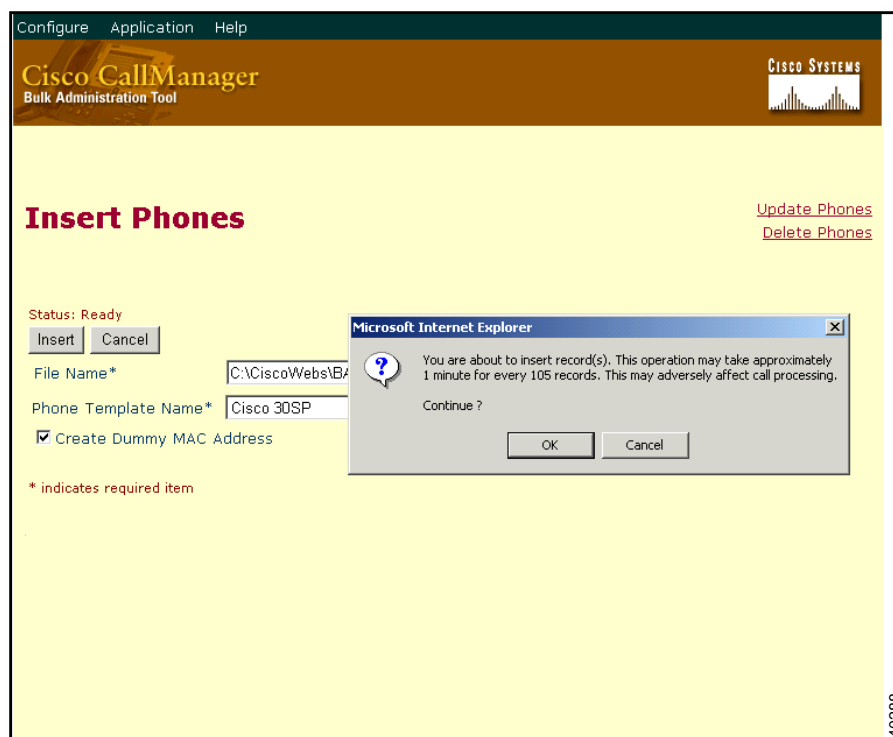
Related Topics

Viewing Insert Phones Results

Figure 6 shows a sample of the Insert Phones confirmation window.

Figure 6   Sample Insert Phones Confirmation Window

After the phones are added, the BAT application generates a log file indicating the number of records added and the number of records failed, including an error code. For more information on log files, see the "Troubleshooting" section on page 20.

Modifying Phones

You can update and delete several phone records from the Cisco CallManager database simultaneously.

Related Topics
- Updating Phone Records, page 13
- Deleting Phone Records, page 15

Updating Phone Records

The administrator can create a query to update a set of records. To create a query, a filter must be defined. The administrator can also create multiple queries by clicking either the AND or OR button.

Figure 7 shows the Update Phones window.

Figure 7   Update Phones Window

Procedure

Step 1   Select **Configure > Phones**.

Step 2   Click **Update Phones**.

Step 3   Define the filter to locate the records you want to update.

    a. Select the field to search from the drop-down list box, such as MAC address, description, and so on.

    b. Select the search criteria from the drop-down list box, such as begins with, contains, is empty, and so on.

    c. Enter the value to locate in the search field, such as a specific MAC address or phone model.

       In Figure 7, the filter is currently set to Device Pool = Default.

    d. Click **Add to Query** to add the defined filter to the query.

⚠ **Caution**   The BAT tool applies the changes to all phone records if no information is entered into the query text box.

    e. Click **AND** or **OR** to add multiple filters to the query.

    f. Click **View Query Result** to display the records that are going to be affected.

Step 4   Specify the setting you want to update.

    a.   Select a setting from the **Set Value** list box.

    b.   Enter the new value.

    c.   Use the arrows to add the specified field and field values to the update box to indicate that these are the fields that will change.

Step 5   Click **Run** to apply the new updates to the records.

Deleting Phone Records

You can delete multiple phone records from the Cisco CallManager database. See Figure 8.

Figure 8   Delete Phones Window

Procedure

Step 1   Select **Configure > Phones**.

Step 2   Click **Delete Phones**.

Step 3   Select the field to search from the drop-down list box, such as MAC address, description, and so on.

Step 4   Select the search criteria from the drop-down list box, such as begins with, contains, is empty, and so on.

Step 5   Enter the value to locate in the search field, such as a specific MAC address or phone model.

Step 6   Click **Add to Query** to add the defined filter to the query.

⚠

Caution   All phone records are deleted if no information is entered into the query text box.

Step 7   Click **AND** or **OR** to add multiple filters to the query.

Step 8   Click **View Query Results** to verify the records that are going to be deleted.

Step 9   Click **Run** to delete the records.

Viewing Update Phones Results

After the phones are updated in Cisco CallManager, the application generates a log file indicating the number of records updated and the number of records failed, including an error code. See the "Viewing Insert Phones Results" section on page 13 for information on confirmation windows.

Adding Users

You can add multiple users to the Cisco CallManager database using the following procedures. Figure 9 shows the Insert Users window.

Figure 9   Insert Users Window

Creating the CSV File for Users

To add users into the Cisco CallManager, you must create a CSV file. See Figure 10 for a sample CSV file for users.

Figure 10   Users CSV File

```
First Name (String[50] MANDATORY),Last Name (String[50] MANDATORY),User Id (String[10] MANDATORY),Manager (String[10] OPTIONAL),MAC Address
John,Smith,johns,Daviss,1231123245AB,9728437154

Instructions: 1.The actual file will not contain field names (displayed in the first line).
              2.Delimiters have to be specified even if a field is blank.
                e.g.If the Manager for a user is blank, a sample record can be:
                John,Smith,johns,,1231123245AB,9728437154
              3.Manager is the UserID of an existing user in the USER Directory.
```

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Procedure

Step 1   Open a text editor or any application that allows you to export or create a CSV file.

Step 2   Enter the following values for each user you want to add to Cisco CallManager:

    First Name,Last Name,User ID,Manager,MAC Address,Directory Number

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

Step 3   Save the file.

Adding Users to Cisco CallManager

Follow this procedure to add several users to Cisco CallManager.

Before You Begin

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

Procedure

Step 1   Select **Configure > Users**.

Step 2   Click **Browse** to select the CSV file containing the list of users you want to add to Cisco CallManager.

Step 3   Click **Insert**.

Step 4   View the log file. See the "Viewing Insert Users Results" section on page 18 for details.

Viewing Insert Users Results

After the users are added to Cisco CallManager, the application generates a log file indicating the number of records added and the number of records failed, including an error code. See the "Viewing Insert Phones Results" section on page 13 for information on the confirmation screen.

Adding Phones and Users Combinations

You can add combinations of multiple phones and users to the Cisco CallManager database using the following procedures. Figure 11 shows the Insert Phones/Users window.

Figure 11   Insert Phones/Users Window

Related Topics

- Creating the CSV File for Phones, page 9
- Creating the CSV File for Users, page 17
- Adding Phones to Cisco CallManager, page 10
- Adding Users to Cisco CallManager, page 17

Creating the CSV File for Phones and Users Combinations

To add users into the Cisco CallManager, you must create a CSV file. See Figure 12 for a sample CSV file for phones and users combinations.

Figure 12   Phones/Users CSV file

```
First Name (String[50] MANDATORY),Last Name (String[50] MANDATORY),User Id (String[10] MANDATORY),Manager (String[10]
John,Smith,johns,Daviss,1231123245AB,SEP1231123245AB,9728437154

Instructions: 1.The actual file will not contain field names (displayed in the first line).
              2.Delimiters have to be specified even if a field is blank.
                e.g.If the Description for a phone is blank, a sample record can be:
                John,Smith,johns,Daviss,1231123245AB,,9728437154
              3.Manager is the UserID of an existing user in the USER Directory.
              4.If the selected Phone Template supports maximum 6 lines and,
                a.You don't require any active line, a sample record can be:
                  John,Smith,johns,Daviss,1231123245AB,SEP1231123245AB
                b.You don't require any active line and description is also blank, a sample record can be:
                  John,Smith,johns,Daviss,1231123245AB,
                c.You require two active lines, a sample record can be:
                  John,Smith,johns,Daviss,1231123245AB,SEP1231123245AB,9728437154,9728437155

* Either write MAC Address values or check the option for creating dummy MAC Address.
  e.g.If the option for dummy MAC Address is checked, a sample record can be:
      John,Smith,johns,Daviss,,SEP1231123245AB,9728437154
```
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Procedure

Step 1   Open a text editor or any application that allows you to export or create a CSV file.

Step 2   Using a separate line for each phone, enter the following values for each phone and user combination you want to add to Cisco CallManager:

```
First Name,Last Name,User ID,Manager,MAC Address,Description,Directory Number
```

You must enter the Name, User ID, and MAC address or use the dummy MAC address option on the **Insert Phones/Users** page (the MAC address updates when a phone is plugged in). Other fields may remain empty, but you must include the comma separators.

Step 3   Save the file.

Adding Phones and Users Combinations to Cisco CallManager

Follow this procedure to add several phone and user combinations to Cisco CallManager.

Before You Begin

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

Procedure

Step 1   Select **Configure > Phones/Users**.

Step 2   Click **Browse** to select the CSV file containing the list of phones and users you want to add to Cisco CallManager.

Step 3   Click **Insert**.

Step 4   View the log file. See the "Viewing Insert Users Results" section on page 18 for details.

Viewing Insert Phones/Users Results

After the users are added to Cisco CallManager, the application generates a log file indicating the number of records added and the number of records failed, including an error code. See the "Viewing Insert Phones Results" section on page 13 for information on the confirmation screen.

Important Notes

The latest documentation and release notes for Cisco CallManager are available on Cisco Connection Online (CCO) at:

http://www.cisco.com/kobayashi/sw-center/internet/callmgr/callmgr.html

Cisco Year 2000 product compliance information can be found at:

http://www.cisco.com/warp/public/752/2000/

A local copy of the Help is installed with Cisco CallManager and is available by clicking **Start** > **Programs** > **Cisco CallManager** > **Cisco Help** > **System Guide**. However, the most current Cisco CallManager documentation can be found on the Web at:

http://www.cisco.com/documentation/ccm/v24/index.htm

Troubleshooting

Log files are generated for each bulk transaction and stored in a log file folder for viewing.

The log file will also show the key value of a record so the administrator may re-examine the record. The key value when adding, updating, or modifying phones is the MAC address of the phone. When adding users, the key value is the User ID.

A confirmation screen occurs after each bulk transaction. The confirmation screen shows the summary view for the bulk transaction as well as the detail view for the failures.

Note   The confirmation screen is the log file.

If the administrator performs several mouse clicks while waiting for the bulk transaction to complete, the BAT application concludes with the last mouse click and you lose the ability to view the confirmation message.

To view the log file for the bulk operation, go to the following location:

C:\CiscoWebs\BAT\LogFile

Note   The log files are named for the operation performed and the time the operation ended.

The time-stamp format for the log file name is "mmddyyyyhhmmss".

Table 4shows examples of commands and LogFiles names.

Table 4   Log File Names

Command	Log File Name	Example
Insert	FileName#TimeStamp.log	File1#05022000133431
Update	UpdatePhone#TimeStamp.log	UpdatePhone#05022000133431
Delete	DeletePhone#TimeStamp.log	DeletePhone#05022000133431

Service and Support

Service and support is provided by the Cisco Technical Assistance Center (TAC) at:

http://www.cisco.com/warp/public/687/Directory/DirTAC.shtml

Cisco Connection Online

Cisco Connection Online (CCO) is Cisco Systems' primary, real-time support channel. Maintenance customers and partners can self-register on CCO to obtain additional information and services.

Available 24 hours a day, 7 days a week, CCO provides a wealth of standard and value-added services to Cisco customers and business partners. CCO services include product information, product documentation, software updates, release notes, technical tips, the Bug Navigator, configuration notes, brochures, descriptions of service offerings, and download access to public and authorized files.

CCO serves a wide variety of users through two interfaces that are updated and enhanced simultaneously: a character-based version and a multimedia version that resides on the World Wide Web (WWW). The character-based CCO supports Zmodem, Kermit, Xmodem, FTP, and Internet e-mail, and it is excellent for quick access to information over lower bandwidths. The WWW version of CCO provides richly formatted documents with photographs, figures, graphics, and video, as well as hyperlinks to related information.

You can access CCO in the following ways:

- WWW: http://www.cisco.com
- WWW: http://www-europe.cisco.com
- WWW: http://www-china.cisco.com
- Telnet: cco.cisco.com
- Modem: From North America, 408 526-8070; from Europe, 33 1 64 46 40 82. Use the following terminal settings: VT100 emulation; databits: 8; parity: none; stop bits: 1; and connection rates up to 28.8 kbps.

For a copy of CCO's Frequently Asked Questions (FAQ), contact cco-help@cisco.com.

For additional information, contact cco-team@cisco.com.

Note If you are a network administrator and need personal technical assistance with a Cisco product that is under warranty or covered by a maintenance contract, contact Cisco Technical Assistance Center (TAC) at 800 553-2447, 408 526-7209, or tac@cisco.com. To obtain general information about Cisco Systems, Cisco products, or upgrades, contact 800 553-6387, 408 526-7208, or cs-rep@cisco.com.

Documentation CD-ROM

Cisco documentation and additional literature are available in a CD-ROM package, which ships with your product. The Documentation CD-ROM, a member of the Cisco Connection Family, is updated monthly. Therefore, it might be more current than printed documentation. To order additional copies of the Documentation CD-ROM, contact your local sales representative or call customer service. The CD-ROM package is available as a single package or as an annual subscription. You can also access Cisco documentation on the World Wide Web at http://www.cisco.com, http://www-china.cisco.com, or http://www-europe.cisco.com.

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