



# **Bulk Administrative Tool User Guide for Release 4.1(1)**

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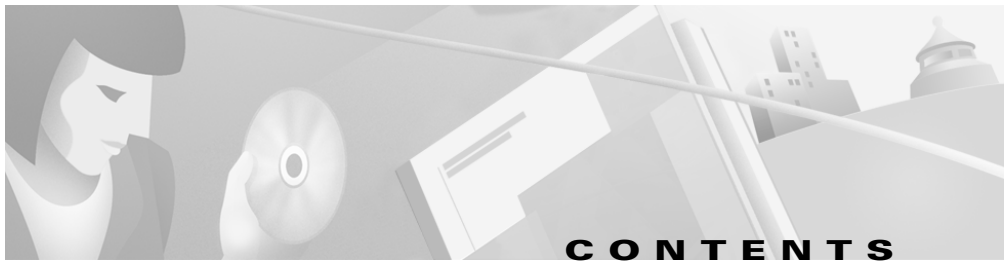
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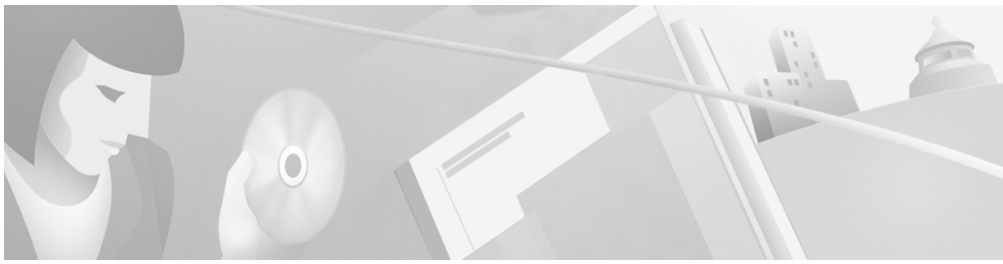
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# Preface

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This preface describes the purpose, audience, organization, and conventions of this guide, and provides information on how to obtain related documentation.

The preface covers these topics:

- [Purpose, page vii](#)
- [Audience, page vii](#)
- [Organization, page viii](#)
- [Related Documentation, page viii](#)
- [Conventions, page ix](#)
- [Obtaining Documentation, page x](#)
- [Obtaining Technical Assistance, page xi](#)

## Purpose

The *Book Title* provides instructions for using the Bulk Administrative Tool (BAT).

## Audience

This document provides information for network administrators and engineers who are responsible for managing the Cisco CallManager system. Administering BAT requires knowledge of telephony and IP networking technology is required.

# Organization

This guide is organized as follows:

Chapter	Description
Chapter 1, “ <a href="#">Overview</a> ”	Provides an overview of the Bulk Administration Tool.
Chapter 2, “ <a href="#">Installation</a> ”	Describes the installation procedures for BAT.
Chapter 3, “ <a href="#">Working with Phones</a> ”	Describes how to add phones and lines in batches, rather than adding each phone individually, as well as how to update and delete phones.
Chapter 4, “ <a href="#">Working with Users</a> ”	Describes how to add multiple users and phone/user or phone/CTI port combinations.
Chapter 5, “ <a href="#">Working with Gateways and Ports</a> ”	Describes how to add Cisco VG200 gateways and ports, Cisco Catalyst 6000 FXS ports, and gateway directory numbers to ports.
Chapter 6, “ <a href="#">Working with TAPS</a> ”	Describes how to install and use the TAPS application.
Chapter 7, “ <a href="#">Troubleshooting BAT and TAPS</a> ”	Describes some common scenarios for bulk transaction log files and provides an explanation or resolution for the error messages.

## Related Documentation

Refer to the following documents for further information about related Cisco IP Telephony applications and products:

- *Cisco CallManager Administration Guide*
- Release Notes for Cisco CallManager Release 3.0(5a) or later
- *Installing Cisco CallManager on the Cisco Media Convergence Server*
- *Cisco CallManager v3.0 Remote Serviceability Users Guide*
- *Hardware Configuration Guide for the Cisco Voice Gateway 200*
- *Software Configuration Guide for the Cisco Voice Gateway 200*
- Cisco IP Phone 7900 Family Administration Guide

# Conventions

This document uses the following conventions:

Convention	Description
<b>boldface</b> font	Commands and keywords are in <b>boldface</b> .
<i>italic</i> font	Arguments for which you supply values are in <i>italics</i> .
string	A nonquoted set of characters. Do not use quotation marks around the string or the string will include the quotation marks.
screen font	Terminal sessions and information the system displays are in screen font.
<b>boldface screen</b> font	Information you must enter is in <b>boldface screen</b> font.

Notes use the following conventions:



## Note

Means *reader take note*. Notes contain helpful suggestions or references to material not covered in the publication.

Timesavers use the following conventions:



## Timesaver

Means *the described action saves time*. You can save time by performing the action described in the paragraph.

Tips use the following conventions:



## Tips

Means *the information contains useful tips*.

Cautions use the following conventions:



## Caution

Means *reader be careful*. In this situation, you might do something that could result in equipment damage or loss of data.

Warnings use the following conventions:



---

**This warning symbol means danger. You are in a situation that could cause bodily injury. Before you work on any equipment, you must be aware of the hazards involved with electrical circuitry and familiar with standard practices for preventing accidents.**

---

## Obtaining Documentation

The following sections provide sources for obtaining documentation from Cisco Systems.

### World Wide Web

You can access the most current Cisco documentation on the World Wide Web at the following sites:

- <http://www.cisco.com>
- <http://www-china.cisco.com>
- <http://www-europe.cisco.com>

### Documentation CD-ROM

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- Registered Cisco.com users can order the Documentation CD-ROM through the online Subscription Store:

<http://www.cisco.com/go/subscription>

- Nonregistered Cisco.com users can order documentation through a local account representative by calling Cisco corporate headquarters (California, USA) at 408 526-7208 or, in North America, by calling 800 553-NETS(6387).

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We appreciate your comments.

## Obtaining Technical Assistance

Cisco provides Cisco.com as a starting point for all technical assistance. Customers and partners can obtain documentation, troubleshooting tips, and sample configurations from online tools. For Cisco.com registered users, additional troubleshooting tools are available from the TAC website.

## Cisco.com

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To access Cisco.com, go to the following website:

<http://www.cisco.com>

## Technical Assistance Center

The Cisco TAC website is available to all customers who need technical assistance with a Cisco product or technology that is under warranty or covered by a maintenance contract.

### Contacting TAC by Using the Cisco TAC Website

If you have a priority level 3 (P3) or priority level 4 (P4) problem, contact TAC by going to the TAC website:

<http://www.cisco.com/tac>

P3 and P4 level problems are defined as follows:

- P3—Your network performance is degraded. Network functionality is noticeably impaired, but most business operations continue.

- P4—You need information or assistance on Cisco product capabilities, product installation, or basic product configuration.

In each of the above cases, use the Cisco TAC website to quickly find answers to your questions.

To register for Cisco.com, go to the following website:

<http://www.cisco.com/register/>

If you cannot resolve your technical issue by using the TAC online resources, Cisco.com registered users can open a case online by using the TAC Case Open tool at the following website:

<http://www.cisco.com/tac/caseopen>

## Contacting TAC by Telephone

If you have a priority level 1 (P1) or priority level 2 (P2) problem, contact TAC by telephone and immediately open a case. To obtain a directory of toll-free numbers for your country, go to the following website:

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

P1 and P2 level problems are defined as follows:

- P1—Your production network is down, causing a critical impact to business operations if service is not restored quickly. No workaround is available.
- P2—Your production network is severely degraded, affecting significant aspects of your business operations. No workaround is available.





# Overview

---

The Bulk Administration Tool (BAT), a plug-in application to Cisco CallManager, lets you add, update, or delete a large number of phones, users, Cisco VG200 gateways and ports, and Cisco Catalyst 6000 24 Port FXS analog interface modules to the Cisco CallManager database. Where this was previously a manual operation, BAT helps you automate the process and achieve much faster add, update, and delete operations.

## Related Topics

- [BAT Specifications, page 1-1](#)
- [Using BAT, page 1-2](#)
- [Starting BAT, page 1-3](#)
- [Stopping BAT, page 1-4](#)

## BAT Specifications

The following specifications apply to BAT Release 4.1(1):

- BAT Release 4.1(1) is compatible with Cisco CallManager Release 3.0(5a) or later.
- You must install BAT on the same server as the Publisher database for Cisco CallManager.

- The BAT application, along with the Tool for Auto-Registered Phones Support (TAPS) application, uses approximately 16 MB of disk space for the applications and the online documentation.
- Only Cisco CallManager system administrators require access to BAT; however, end users can use TAPS when instructed to do so by the system administrator.

**Related Topics**

- [Using BAT, page 1-2](#)
- [Starting BAT, page 1-3](#)
- [Learning the BAT Version, page 1-3](#)

## Using BAT

BAT is a web-based application that requires Internet Explorer 4.01 Service Pack 2 or later or Netscape 4.5 or later. Cisco CallManager Administration provided the model for the look and feel of BAT.

You can access BAT from Cisco CallManager Administration and vice versa using the **Application** menu.

**Caution**

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Use BAT only during off-peak hours. Otherwise, bulk transactions could affect the Cisco CallManager performance, and call processing may be adversely affected.

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**Related Topics**

- [Starting BAT, page 1-3](#)
- [Learning the BAT Version, page 1-3](#)

## Starting BAT

Start BAT from Cisco CallManager Administration (**Application > BAT**), the Start menu (**Start > Program > Cisco CallManager 3.0 > Bulk Admin Tool > BAT 4.1**), or by double-clicking the BAT desktop icon. You can also access BAT by browsing into Cisco CallManager Administration from a remote PC. To begin using BAT, click or open Cisco CallManager Administration and click **Application > BAT**.

### Related Topics

- [Using BAT, page 1-2](#)
- [Stopping BAT, page 1-4](#)

## Obtaining Online Help

To access BAT online, click the Help menu. Help provides two help features: Contents and Index and For This Page.

**Contents and Index** opens the BAT help file and allows you to browse for information or search the Index.

**For This Page** opens the help directly on the page you are currently viewing. You can still browse the remainder of the help or use the Index to search for additional information. The online help provides the same information in this document.

### Related Topics

- [Learning the BAT Version, page 1-3](#)

## Learning the BAT Version

You can learn the current version of BAT by clicking **Help > About Bulk Administration Tool** and click the **Details** button.

You can also right-click on **BulkAdministrationTool.exe** and click **Properties**, and then **Version**.

### Related Topics

- [Obtaining Online Help, page 1-3](#)

## Stopping BAT

BAT provides a tool to stop BAT transactions if they are in progress. This can be useful when you have started a BAT transaction but are noticing a degradation in Cisco CallManager performance and want to stop the transaction. You can always run the BAT transaction later when impact to Cisco CallManager performance may be reduced.

You can access the Stop BAT feature only from the server. StopBAT does not halt the BAT process immediately because it can take some time to stop the transaction.

To stop BAT, choose **Start > Programs > Cisco CallManager 3.0 > Bulk Admin Tool > Stop BAT**

View the log file for details about how many records were processed passed or failed. See [Chapter 7, “Troubleshooting BAT and TAPS,”](#) for information on log files.

### Related Topics

- [Starting BAT, page 1-3](#)



## Installation

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This chapter provides information about installing and uninstalling BAT. BAT must be installed on the same server as the Publisher database for Cisco CallManager. During BAT installation or reinstallation, the setup program halts the following services:

- IIS Admin
- World Wide Web publishing
- FTP publishing

These services automatically restart once the installation is complete.

Also, this chapter includes the uninstall procedure.

See [Installing TAPS, page 6-3](#), for instructions on installing the Tool for Auto-Registered Phones Support (TAPS).

### Related Topics

- [Installing TAPS, page 6-3](#)

## Installing BAT

The BAT installation process includes BAT Excel template files that are located in the BAT\Excel template folder. Because you are unlikely to have Microsoft Excel installed on the Publisher database server, copy and paste these templates where you have Microsoft Excel installed and use the templates from that location.

### Procedure

Follow these steps to install BAT:

- 
- Step 1** Log on to the system with administrator privileges.
  - Step 2** Double click on the file **BulkAdministrationTool.exe**.
  - Step 3** If you are reinstalling BAT, a dialog box displays the question Do you want to reinstall BAT?  
Click **Yes** to reinstall BAT.  
Click **No** to exit the installation.
  - Step 4** Within the setup, click **Next**.
  - Step 5** The Choose Destination Folder dialog box displays.  
Click **Next** to install the default destination folder C:\CiscoWebs\BAT.  
To install into another folder, click **Browse** and select the required path.
  - Step 6** Click **OK**.
  - Step 7** Click **Next**.
  - Step 8** The installer displays a summary of your selections.  
Click **Next** to continue.  
Click **Back** to change your selections.
  - Step 9** Click **OK**. Display returns:  
“Do you wish to install Tool for Auto-Registered Phones Support?”
  - Step 10** Click **Yes** or **No** to indicate whether you want to install TAPS, the Tool for Auto-Registered Phones Support. TAPS allows you to bulk-add phones using dummy MAC addresses. You can later update the phones by dialing a TAPS directory number. The configuration for the phone is downloaded to the phone, and the MAC address is updated seamlessly in Cisco CallManager. See [Using TAPS, page 6-5](#), for more information.
  - Step 11** If you select “Yes,” BAT will install TAPS on Cisco CallManager and will prompt you to run “BAT-TAPS-ffr.4-1-1.exe” on IP IVR/IP AA server. See [Installing TAPS, page 6-3](#), for instructions.
  - Step 12** Click **Finish** once the installation process completes.
- 

### Related Topics

- [Uninstalling BAT, page 2-3](#)

# Uninstalling BAT

Running the uninstall program for BAT removes the BAT application and BAT files in the BAT\Excel template folder but does not remove any CSV files or BAT templates that you created and saved to the C:\BATFiles folder.

Perform the following steps to uninstall BAT.

---

**Step 1** Click **Start > Programs > Cisco CallManager 3.0 > Bulk Admin Tool > UnInstall BAT**.

A dialog box displays “Are you sure you want to completely remove BAT and all of its components?”

**Step 2** Click **Yes** to uninstall BAT or **No** to exit the uninstaller.

A dialog box displays “Uninstall successfully completed.” Continue to [Step 3](#).

**Step 3** Click **OK**.

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## Related Topics

- [Installing BAT, page 2-1](#)
- [Uninstalling TAPS, page 6-5](#)





# Working with Phones

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BAT helps you add, update, or delete large numbers of phones.

## Related Topics

- [Adding Phones or CTI Ports, page 3-1](#)
- [Creating a Phone Template, page 3-2](#)
- [Creating CSV Files for Phones and CTI Ports, page 3-8](#)
- [Adding Phones to Cisco CallManager, page 3-12](#)
- [Entering Phone Settings and Adding Lines, page 3-3](#)
- [Updating Phone Records, page 3-14](#)
- [Deleting Phones, page 3-17](#)

## Adding Phones or CTI Ports

You can use BAT to add Cisco IP Phones to the Cisco CallManager database in batches, rather than individually.

BAT can also associate the phones to existing users. BAT also allows you to “Enable CTI Application Use” while associating CTI ports to existing users. This ability proves useful if you are adding users who will have applications that requires a CTI port, such as Cisco IP SoftPhone.

To add phones to Cisco CallManager, you must perform these steps:

1. Create a phone template to define common values for a set of phones.

2. Create a comma separated values (CSV) file to define individual values for each phone you want to add.
3. Insert the BAT/CSV files.
4. Plug in the phones.
5. (Optional) Update the phones using TAPS if you created dummy MAC addresses in the CSV file.

#### Related Topics

- [Chapter 6, “Working with TAPS”](#)
- [Creating a Phone Template, page 3-2](#)
- [Creating CSV Files for Phones and CTI Ports, page 3-8](#)
- [Adding Phones to Cisco CallManager, page 3-12](#)
- [Adding User Combinations to Cisco CallManager, page 4-9](#)

## 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 features that are common to all the phones in that batch, such as model, Device Pool, and so on. The system stores these templates, so they are reusable for future bulk transactions. For example, you can configure a template for the Cisco IP Phone 7960 with two lines configured and another Cisco IP Phone 7960 with four lines configured. Then when you need to add a large number of phones with the same configuration, you can reuse the existing template.

The CSV file stores the details for each individual phone, such as its MAC address, description, and so on. See [“Creating CSV Files for Phones and CTI Ports” section on page 3-8](#) for more details about CSV files. Because you customize CSV files for each bulk transaction, you are less likely to reuse them than you might reuse BAT templates.

To create a phone template, first, enter the required phone settings. Second, add the appropriate number of lines to each phone. You must complete both steps to successfully create a phone template.

### Related Topics

- [Entering Phone Settings and Adding Lines](#), page 3-3
- [Using the Phone Tab in BAT.xlt](#), page 3-8
- [Creating CSV Files for Phones and CTI Ports](#), page 3-8

## Entering Phone Settings and Adding Lines

The phone settings for the BAT phone template require similar values to those you enter when adding a phone in Cisco CallManager Administration. However, you must use the BAT phone template when performing batch operations in BAT.

### Prerequisite

Make sure phone settings such as Device Pool, Location, Calling Search Space, and Button Template have already been configured in Cisco CallManager Administration prior to creating the template. You cannot create new settings in BAT.

To create the phone template and then add lines, perform the following steps. If you have already created the template but did not add lines, skip to [Adding Lines to an Existing Phone Template](#), page 3-7.

### Procedure

---

**Step 1** Start BAT. (Refer to [Starting BAT](#), page 1-3 for complete information about how to start BAT.)

**Step 2** Click **Configure > Template > Phones**.

Enter the settings for the phone model for which you are creating the template.



### Note

---

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

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- Phone Template Name—Type a name for this BAT template, up to 50 alphanumeric characters. This name identifies the unique phone template used only in BAT; for example, BAT 7960.

- **Model**—Select the type of Cisco IP Phone or CTI port.
- **Device Pool**—Select the Device Pool to which this group of phones/ports should belong.  
A 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.
- **Location**—This is an optional field. Select the Location to which this group of phones/ports should belong.  
A Location indicates the remote location accessed using restricted bandwidth connections.
- **Calling Search Space**—This is an optional field. Select the calling search space to which this group of phones/ports should belong.  
A calling search space specifies the collection of Route Partitions that are searched to determine how a dialed number should be routed.
- **Button Template**—Select the button template to be used for all phones in this group. This field does not get used if you selected CTI Ports in the Model field.  
Button templates determine the configuration of buttons on a phone and identify which feature (line, speed dial, and so on) each button designates.
- **Load Information**—This is an optional field. This field does not apply for CTI ports. Be aware that any value entered in this field overrides the default value for the selected model and specifies the custom software for a Cisco IP Phone. Type the custom phone load, if applicable.
- **Information**—This is an optional field. Type the help text URL for the information button for Cisco IP Phone models 7960 and 7940 only.
- **Directory**—This is an optional field and applies only to Cisco IP Phone models 7960 and 7940. Type the URL of the directory server.
- **Messages**—This is an optional field and applies only to Cisco IP Phone models 7960, 7940, and 7910. Type the voice mail access pilot number.
- **Services**—This is an optional field and applies only to Cisco IP Phone models 7960 and 7940. Type the URL for the services menu.

**Step 3** Click **Insert** to insert the BAT phone template in the Cisco CallManager database.

**Step 4** Once the status indicates the insert completed, scroll down the page to the Line Details area.

**Step 5** Click **Add Line**.

A popup window displays.



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

---

**Step 6** Type or select the appropriate values for the following settings. Remember that the settings you choose here will be used by all phones in this batch for this line. All fields are optional.

Directory Number

- Partition—Select a partition.

A partition indicates the route partition to which the directory number belongs.



---

**Note** The directory number can appear in more than one partition; however, make sure the directory number and Partition combination is unique.

---

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—The selection you make in 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 system-wide 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 unless restricted, and to all devices using this directory number.

---

- Calling Search Space—This is an optional field. 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** This setting applies to any dialable phone number, including an outside destination unless restricted, 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 the phone is not answered.




---

**Note** Setting applies to any dialable phone number, including an outside destination unless restricted, 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/Partition1.

#### 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. This setting uses a maximum of 30 number and “X” characters; the X characters must appear at the end of the pattern.

**Step 7** Click **Insert and Close**.

**Step 8** BAT inserts the line settings to the database and the popup window closes.

**Step 9** Repeat Steps 4 through 8 to add settings for any additional lines.

If an insert was not successful, you can view details about the insert attempt in the log file.

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

---

### Adding Lines to an Existing Phone Template

If you already created the phone template, but did not add the lines, you can use the following steps to complete the template. BAT cannot successfully use phone templates without line attributes.

---

**Step 1** Start BAT. (Refer to [Starting BAT, page 1-3](#), for complete information about how to start BAT.)

**Step 2** Click **Configure > Template > Phones**.

**Step 3** In the list of existing templates on the left, click the BAT template to which you want to add line attributes.

**Step 4** Scroll down to the Line Details area and click the link to Add Line.

**Step 5** Refer to Step 6 in the [“Entering Phone Settings and Adding Lines”](#) section on [page 3-3](#) for complete instructions.

**Step 6** Repeat Steps 4 and 5 until all lines are configured.

---

## Creating CSV Files for Phones and CTI Ports

The CSV file for phones or CTI ports contains information about each phone as a record. Make sure all phones in a CSV file are the same model and have the same number of configured lines. For CTI ports, enter device names instead of MAC addresses. You can also enable CTI applications while associating a new CTI port to an existing user.

You can associate the phones to an existing user. To associate more than one phone to an existing user, you need to write the required information in separate records. For example, to associate two new Cisco IP Phone 7960s to an existing user, you need to write two records in the BAT CSV file, one for each Cisco IP Phone 7960 but each with the same User ID.

The CSV file for phones can contain multiple directory numbers depending on whether the BAT 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.

---

Two ways exist to create a CSV file. You can use the Microsoft Excel template called BAT.xlt or create the CSV using a sample text file. Cisco recommends you use the BAT.xlt template because the data is validated automatically when you export to CSV format.

The file BAT.xlt provides data file templates with macros, support for multiple phone lines, and error checking and exports the values into CSV files for phones, users, and phone/user combinations.

## Using the Phone Tab in BAT.xlt

Follow this procedure for fast bulk input of phones.

**Procedure**

- 
- Step 1** On the Publisher database server, click C:\CiscoWebs\BAT\ExcelTemplate and double-click **BAT.xlt**.
  - Step 2** When prompted, click **Enable Macros**.
  - Step 3** Click the **Phones** sheet tab.

- Step 4** 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 5** Enter the number of lines in the Number of Phone Lines box equal to the number of directory numbers.

- Step 6** (Optional) 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. If you choose the dummy MAC address option, you can update the phones later with the correct MAC address by manually entering this information into Cisco CallManager Administration for each phone or by using the TAPS tool. See [Using TAPS, page 6-5](#), for more information about TAPS.

- Step 7** Click **Export to BAT Format** to transfer the data from the BAT Excel spreadsheet into a CSV file.

The system saves the file to **C:\XLSDataFiles** (or to your choice of another existing folder) as

**phones#timestamp.txt**

- Step 8** Click **View File** to view the CSV file that you created (if the files have been saved to the location C:\Batfiles\ on the Publisher database server).
- 

## 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 3-1** *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[50] OPTIONAL),Display (String[30] OPTIONAL),Forward Busy Destination (String[50] OPTIONAL),Call Pickup Group (String[50] OPTIONAL),User ID (String[30] OPTIONAL)

### Example

```
1231123245AB,SEP1231123245AB,Dallas,9725557154,9725557154,9725557172,9725557121/TollByPass,johns
```

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. Specify the user ID if the phone is to be associated to a user.

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

### Examples

If the description for a phone is blank

```
1231123245AB,,Dallas,9725557154,9725557154,9725557172,9725557121/TollByPass,johns
```

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

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

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

```
1231123245AB,SEP1231123245AB,,johns
```

If two active lines are required

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



#### 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,9725557154,9725557154,9725557172,9725557121/TollByPass,johns
```

## 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 to c:\BATFiles\Phones\ on the server running the Publisher database for Cisco CallManager.

#### Procedure

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

- Step 1** Open a text editor (such as Notepad) 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 you want to add to Cisco CallManager:

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

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 server running the Publisher database for Cisco CallManager.

**Note**

---

You cannot use CSV files saved anywhere 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

---

- Step 1** Start BAT. (Refer to [Starting BAT, page 1-3](#), for complete information about how to start BAT.)
- Step 2** Click **Configure > Phones**.  
The Insert Phones window displays.
- Step 3** Choose the name of the Phone Template you created for this type of bulk transaction.
- Step 4** If you do not want to enter individual MAC addresses, check **Create Dummy MAC Address**. If you choose the dummy MAC address option, you can update the phones later with the correct MAC address by manually entering this information into Cisco CallManager Administration for each phone or by using the TAPS tool. See [Using TAPS, page 6-5](#), for more information about TAPS.

**Step 5** 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 CSV Files for Phones and CTI Ports” section on page 3-8](#) 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 3-2](#) 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 6** Click **Insert**.

**Note**

---

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

---

**Step 7** 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.

**Note**

---

After the phones 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. For more information on log files, see [Chapter 7, “Troubleshooting BAT and TAPS”](#).

---

**Related Topics**

- [Creating CSV Files for Phones and CTI Ports, page 3-8](#)
- [Updating Phones, page 3-15](#)

## Updating Phone Records

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

**Related Topics**

- [Updating Phones, page 3-15](#)
- [Deleting Phones, page 3-17](#)

## Updating Phones

You can create a query to update a set of records. Creating a query requires defining a filter. You can also create multiple queries by clicking either the AND or the OR button.

### Procedure

To create a query, perform the following steps:

- 
- Step 1** Select **Configure > Phones** and click the link to **Update Phones** in upper right corner of screen.
- The Update Phones screen displays.
- Step 2** To locate the records you want to update, define the filter:
- From the drop-down list box, choose the field to query such as Model, Device Name, and so on.
  - From the drop-down list box, choose the search criteria such as begins with, contains, is empty, and so on.
  - In the search field, either choose or enter the value that you want to locate, such as a specific phone model.
  - Click **Add to Query** to add the defined filter to the query.



### Caution

---

If no filter is defined, the BAT tool applies the changes to all phone records.

---

- Click **AND** or **OR** to add multiple filters.
- Click **View Query Result** to display the records that are going to be affected.
- Specify the setting you want to update.
- Choose a setting from the Set Value list box by clicking the drop-down arrow.
- Enter the new value or click the drop-down arrow to select a value.
- Use the arrows to add the specified field and field values to the update box to indicate the fields that will change.

- Select the **Restart Devices after update** box to reset (power-cycle) the phones as soon as the update completes (if you are updating Device Pool) or select the **Re-Register Devices after update** box if you want to reset phones without power-cycling (for update of fields other than Device Pool).



**Note** If you want to wait and update the phones at a later time, do not select either Restart Devices or Re-Register Devices after update box.

**Step 3** Click **Run** to apply the new updates to the data records.

#### Related Topics

- [Adding Phones or CTI Ports, page 3-1](#)
- [Updating Lines, page 3-16](#)
- [Deleting Phones, page 3-17](#)

## Updating Lines

#### Procedure

To update lines, perform the following steps:

**Step 1** Start BAT. (Refer to [Starting BAT, page 1-3](#), for complete information about how to start BAT.)

**Step 2** Click **Configure > Phones** and click the link to **Update Lines** in the upper, right corner of the screen.

The Update Lines screen displays.

**Step 3** To locate the records in which to update the lines, define the filter.

- From the drop-down list box, choose the attributes to query such as Device Pool, Calling Search Space, and Line Number. Line Number designates the actual line number on the phone, such as line 1 or line 2. It does not specify the directory number associated with the line.
- From the drop-down list box, choose the search criteria such as begins with, contains, is empty, and so on.

- In the edit box, type or select the value that you want to locate, such as a specific phone model.
- Step 4** Click **Add to Query** to add the defined filter to the query. Click **AND** or **OR** to add multiple filters.
- Step 5** Click **View Query Result** to display the records that are going to be affected.
- Step 6** Specify the setting you want to update.
- Choose a setting from the Set Value list box by clicking the drop-down arrow.
  - Enter the new value or select a value from the list box.
  - 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 7** Click **Run** to apply the new updates to the data records.

#### Related Topics

- [Adding Phones or CTI Ports, page 3-1](#)
  - [Updating Phone Records, page 3-14](#)
  - [Deleting Phones, page 3-17](#)
- 

## Deleting Phones

You can delete multiple phones from the Cisco CallManager database using the following procedure.

#### Procedure

To delete phones, perform the following procedure:

- Step 1** Start BAT. (Refer to [Starting BAT, page 1-3](#), for complete information about how to start BAT.)
- Step 2** Click **Configure > Phones** and then click the link to **Delete Phones** in the upper, right corner of the screen.
- The Delete Phones screen displays.

- Step 3** From the drop-down list box, choose the field you want to search, such as model, device name, description, and so on.
- Step 4** From the drop-down list box, choose the search criteria, such as begins with, contains, is empty, and so on.
- Step 5** In the edit box, enter the value you want to locate, such as device name or phone model.
- Step 6** Click **Add to Query** to add the defined filter to the query.

**Caution**

---

If no information is entered into the query text box, all phone records are deleted.

---

- Step 7** Click **AND** or **OR** to add multiple filters to the query.
- Step 8** Click **View Query Results** to verify the records to be deleted.

**Note**

---

After the phones are deleted in Cisco CallManager, BAT generates a log file indicating the number of records deleted and the number of records failed, including an error code. For more information on log files, see [Chapter 7, “Troubleshooting BAT and TAPS”](#)

---

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

**Related Topics**

- [Adding Phones or CTI Ports, page 3-1](#)
- [Updating Phone Records, page 3-14](#)
- [Updating Lines, page 3-16](#)



# Working with Users

---

BAT allows you to add users to Cisco CallManager, and associate users to phones or CTI ports.

## Adding Users

You can add multiple users to the Cisco CallManager database/Cisco AVVID IP Telephony directory using the following procedures.



**Note**

---

During the adding users procedure, use the default password abcd in the CallManager Log On screen.

---

### Related Topics

- [Using TAPS, page 6-5](#)
- [TAPS for End Users, page 6-8](#)
- [Creating the CSV File for Users, page 4-2](#)
- [Adding Users to Cisco CallManager, page 4-4](#)
- [Adding User/Device Combinations, page 4-5](#)

## Creating the CSV File for Users

To add users into Cisco CallManager, you must create a CSV file by completing the BAT.xlt file.

### Using the User Tab in BAT.xlt

Follow this procedure to add multiple users.

#### Procedure

- 
- Step 1** On the Publisher database server, click C:\CiscoWebs\BAT\ExcelTemplate and double-click **BAT.xlt**.
  - Step 2** Click **Enable Macros** when prompted.
  - Step 3** Select the **Users** sheet tab.
  - Step 4** Complete all mandatory fields and any relevant optional fields. Each column heading specifies the length of the field.
  - Step 5** Select the CTI Port - Users tab to create a CSV data file to associate CTI ports to users.



---

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

---

- Step 6** Click the **Add Devices** button to enter additional MAC addresses that will be associated to a new user.
  - Step 7** Click **Export to BAT Format** to transfer the data from the BAT Excel spreadsheet into a CSV file.
-

## CSV String Formats for Users

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

First Name (String[50] MANDATORY),Last Name (String[50] MANDATORY),User Id (String[30] MANDATORY),Manager (String[30] OPTIONAL), MAC Address1 (String[12] OPTIONAL),Directory Number (String[50] OPTIONAL)MAC Address2 (String[12] OPTIONAL)

### Example

```
John,Smith,johns,Daviss,1231123245AB,9725557154
```

The actual file does not contain field names (displayed in the first line). You must specify delimiters even if a field is blank. Refer to the following example and sample CSV record when creating a CSV file.

### Example

If the Manager for a user is blank

```
John,Smith,johns,,1231123245AB,9725557154,12345677AC22
```

The Manager is the UserID of an existing user in the Cisco AVVID IP Telephony directory.

### Example

A user can control more than one device. You can add MAC addresses of additional devices at the end of the record.

If the user controls only one device, a sample record can be

```
John,Smith,johns,Daviss,1231123245AB,9725557154,12345677AC22
```

If the user controls three devices, a sample record can be

```
John,Smith,johns,Daviss,1231123245AB,9725557154,12345677AC22,1143487AB345
```

## Creating an Optional CSV Text File for Users

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

**Note**

---

Cisco recommends that you use the BAT.xlt file to input data because data validation is performed on that file.

---

**Procedure**

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

- 
- 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 Address1,Directory  
Number,MAC Address2
```
- You must enter the Name, User ID, and MAC address. You can leave other fields empty, but you must include the comma separators.
- You can associate any number of existing devices to a new user by entering the MAC address of all the devices separated by a comma at the end of the record.
- Step 3** Save the file to C:\BATFiles\Users\ on the server running the Publisher database.

**Note**

---

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

---

## Adding Users to Cisco CallManager

Follow this procedure to add batches of users to Cisco CallManager.

**Before You Begin**

You must create a CSV file before you add a batch of users to Cisco CallManager.

**Procedure**

To add users, perform the following procedure.

- 
- Step 1** Click **Configure > Users**.
- The Insert Users page displays.
- Step 2** In the File Name field, select the name of the Users Template you created for this type of bulk transaction.
- Step 3** (Optional) A check box provided on this page allows you to Enable CTI usage. Select the **Enable CTI Application Use** check box to enable CTI usage in the Cisco AVVID IP Telephony directory.
- Step 4** Click **Insert**.
- Step 5** Click **View Log File** to view the results.

**Note**

---

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. For more information on log files, see [Chapter 7, “Troubleshooting BAT and TAPS”](#).

---

## Adding User/Device Combinations

You can add combinations of multiple phones and users or CTI ports and users to the Cisco CallManager database using the following procedures.

**Related Topics**

- [Creating CSV Files for Phones and CTI Ports](#)
- [Creating the CSV File for Users](#)
- [Adding Phones to Cisco CallManager](#)
- [Adding Users to Cisco CallManager](#)

## Creating the CSV File for User/Device Combinations

To add phone and user combinations or CTI port and user combinations into the Cisco CallManager, you must create a CSV file.

### Related Topics

- [Using the Phone-User Tab in BAT.xlt, page 4-6](#)
- [CSV String Formats for Phone and User Combinations, page 4-7](#)

## Using the Phone-User Tab in BAT.xlt

Follow this procedure to quickly import batches of phone and user combinations.

### Procedure

- 
- Step 1** On the Publisher database server, click C:\CiscoWebs\BAT\ExcelTemplate and double-click **BAT.xlt**.
  - Step 2** When prompted, click **Enable Macros**.
  - Step 3** Click the **Phones-Users** sheet tab.
  - Step 4** Complete all mandatory fields and any relevant optional fields. Each column heading specifies the length of the field.
  - Step 5** Click the CTI Port - Users tab to create a CSV file to associate CTI ports to new users.



### Note

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

- 
- Step 6** Enter the number of lines in the **Number of Phone Lines** box that equals the number of directory numbers.
  - Step 7** Select the **Create Dummy MAC Address** check 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 8** Click **Export to BAT Format** to transfer the data from the BAT Excel spreadsheet into a CSV file.

## CSV String Formats for Phone and User Combinations

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

First Name (String[50] MANDATORY),Last Name (String[50] MANDATORY),User ID (String[30] MANDATORY),Manager (String[30] OPTIONAL),MAC Address (String[12] MANDATORY),Description (String[50] OPTIONAL),Location (String[50] OPTIONAL),Directory Number (String[50] MANDATORY),Display (String[30] OPTIONAL),Forward Busy Destination (String[50] OPTIONAL),Call Pickup Group (String[50/50] OPTIONAL)



### Note

For the Manager, use the UserID of an existing user in the USER Directory.

### Example

```
John,Smith,johns,Daviss,1231123245AB,SEP1231123245AB,Dallas,9725557154,9725557154,9725557172,9725557121/TollByPass
```

The actual file does not contain field names (displayed in the first line). You must specify delimiters even if a field is blank. Specify Call Pickup Group either as a Directory Number or as Directory Number/Route Partition Name, if a Route Partition restricts the access to the call pickup group.

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

### Examples

If the description for a phone is blank

```
John,Smith,johns,Daviss,1231123245AB,,Dallas,9725557154,9725557154,9725557172,9725557121/TollByPass
```

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

```
John,Smith,johns,Daviss,1231123245AB,SEP1231123245AB,Dallas
```

If no active line is required and the description is also blank

```
John,Smith,johns,Daviss,1231123245AB,SEP1231123245AB,
```

If two active lines are required

```
John,Smith,johns,Daviss,1231123245AB,SEP1231123245AB,Dallas,9725557154
,9725557154,9725557172,9725557121/TollByPass,9725557155,9725557155,972
5557133,9725557112/TollByPass
```


**Note**

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

If the option for a dummy MAC address is checked

```
John,Smith,johns,Daviss,1231123245AB,,Dallas,9725557154,9725557154,972
5557172,9725557121/TollByPass
```

## Creating an Optional CSV Text File for Users/Devices

If you do not use the BAT.xlt for data input for phones and users, 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.

**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,Location,Directory Number,Display,Forward Busy
Destination,Call Pickup Group
```

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). You may leave other fields empty, but you must include the comma separators.

If the dummy MAC address option is checked, the following example shows a sample CSV record:

```
John,Smith,johns,Daviss,,SEP1231123245AB,9725557154
```

- Step 3** Save the file to C:\BATFiles\PhonesUsers\ on the server running the Publisher for Cisco CallManager.



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

## Adding User Combinations to Cisco CallManager

Follow this procedure to add phone and user combinations or CTI port and user combinations to Cisco CallManager.

### Before You Begin

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

### Procedure

- Step 1** Click **Configure > Phones/Users**.
- The Insert Phones/Users page displays.
- Step 2** In the File Name field, select the name of the template you created for this type of bulk transaction.
- Step 3** In the Phone Template Name field, select the phone template you created for this type of bulk transaction.
- Step 4** (Optional) Select the **Create Dummy MAC Address** box to use the dummy MAC address option.

- Step 5** (Optional) Select the **Enable CTI Application Use** check box to enable CTI usage in the Cisco AVVID IP Telephony directory.
- Step 6** Click **Insert**.
- Step 7** Click **View Log File** to view the results.



---

**Note** After the users are added to Cisco CallManager, BAT 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 [Troubleshooting BAT and TAPS](#).

---

### Related Topics

[Creating the CSV File for User/Device Combinations, page 4-6](#)



## Working with Gateways and Ports

---

You can use BAT to add or delete Cisco VG200 gateways and ports and to add, update, and delete Cisco Catalyst 6000 24 Port FXS analog interface modules.

Gateway models other than Cisco VG200 must be added in Cisco CallManager Administration. You can click **Configure > Gateways > Catalyst 6000 (FXS)** and then click the link to **Add Gateways** in the upper right corner. This takes you to the Add Gateways window in Cisco CallManager Administration.

### Cisco VG200 Gateways and Ports

BAT allows you to bulk-add or bulk-delete Cisco VG200 gateways and ports.

#### Related Topics

- [Adding Cisco VG200 Gateways and Ports, page 5-1](#)
- [Creating a Gateway Directory Number Template, page 5-19](#)
- [Deleting Cisco VG200 Gateways, page 5-8](#)

### Adding Cisco VG200 Gateways and Ports

You can use BAT to add Cisco VG200 gateways and their ports to the Cisco CallManager database in batches, rather than add each gateway and ports individually.

To add Cisco VG200 gateways to Cisco CallManager, you must perform the following steps:

- Create a VG200 Gateway Template to define common values for a set of gateways.
- Create a comma separated value (CSV) file to define individual values for each gateway you want to add.
- Insert gateways in the Cisco CallManager database (using BAT).

#### Related Topics

- [Creating a Cisco VG200 Gateway Template, page 5-2](#)
- [Creating the CSV File for Adding VG200 Gateway, page 5-5](#)
- [Adding Cisco VG200 Gateways to Cisco CallManager, page 5-7](#)
- [Deleting Cisco VG200 Gateways, page 5-8](#)

## Creating a Cisco VG200 Gateway Template

The port template and comma separated values (CSV) file work together in bulk transactions. You can create a template that has the common settings for all the gateways to be added in that batch, such as the module in slot, type of endpoint identifier, and so on. BAT stores these templates, so they are reusable for other batches. You can configure a template with some attributes and use it for batches later.

The CSV file stores the details for each individual port, such as directory number, description of port, and partition. See [Creating the CSV File for Adding VG200 Gateway, page 5-5](#), for more details about CSV files.

To create the Cisco VG200 template and then add endpoint identifiers, perform the following steps. If you have already created the template but did not add endpoint identifiers, skip to [Updating the Endpoint Identifiers for Cisco VG200 Gateway, page 5-5](#).

#### Procedure

- 
- Step 1** Start BAT. (Refer to [Starting BAT, page 1-3](#), for complete information about how to start BAT.)
- Step 2** Click **Configure > Template > VG200 Gateway**.

The VG200 Gateway Template Configuration window displays.

**Step 3** Enter values for the following fields:

- **VG200 Gateway Template Name**—Type a name for this BAT template, up to 50 alphanumeric characters. This name identifies the unique Cisco VG200 gateway template used only in BAT; for example, BAT VG200.
- **Module in Slot 1**—Select the type of module that is installed in slot 1: NM-1V or NM-2V.

**Step 4** Click Insert.

The Status indicates the Insert completed, and a new field displays on the page.

In the VIC in SubUnit 0 field, select either FXS or FXO.

**Step 5** Click Update.

The Status indicates the update completed, and the endpoint identifiers display on the page.

**Step 6** Click the link for the endpoint identifier.

The Cisco VG200 Endpoint Configuration page displays with settings for the endpoints.

**Step 7** Enter values for the following fields:

MGCP Member Information

- **Port Type**—The values that appear in this field depend on whether the gateway is FXS or FXO. For FXS, choose POTS. For FXO, choose Ground Start or Loop Start.
- **Device Pool**—The values that appear in this field were configured in Cisco CallManager Administration. Select the Device Pool to which this group of gateways/ports should belong.

A 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.

- **Calling Search Space**—This is an optional field. Select the calling search space to which this group of gateways/ports should belong.

A calling search space specifies the collection of Route Partitions searched to determine how a dialed number should be routed.

- **Location**—This is an optional field. Select the Location to which this group of gateways/ports should belong.

A Location indicates the remote location accessed using restricted bandwidth connections.

- **Gateway Directory Number Template Name**—This is an optional field when you are inserting FXO ports.

**Port Information—FXS ports**

- **Prefix DN**—This is an optional field. Specifies the prefix digits that are appended to the digits received on incoming calls.
- **Num Digits**—This field specifies the number of digits to collect, from 0 to 32. Significant digits are counted from the right (last digit) of the number called.
- **Expected Digits**—This field specifies the number of digits expected on the inbound side of the trunk. Use the default value (zero) if you are unsure.

**Port Information—FXO ports**

- **Port Direction**—This is an optional field. Specifies the direction of calls passing through this port.
- **Attendant DN**—Type the directory number to which you want incoming calls routed; for example, zero for an attendant.

**Step 8** Click **Insert**.

**Step 9** In the column on the left, click on the next endpoint in the list. You can tell which endpoints have not been configured because a small question mark symbol displays next to the port icon. Repeat Steps 7 and 8 for any additional endpoint identifiers.

---

### Related Topics

- [Creating the CSV File for Adding VG200 Gateway, page 5-5](#)
- [Adding Cisco VG200 Gateways to Cisco CallManager, page 5-7](#)
- [Deleting Cisco VG200 Gateways, page 5-8](#)

## Updating the Endpoint Identifiers for Cisco VG200 Gateway

If you already created the Cisco VG200 gateway template, but did not add the endpoint identifiers, you can use the following steps to complete the template.

- 
- Step 1** Start BAT. (Refer to [Starting BAT, page 1-3](#), for complete information about how to start BAT.)
  - Step 2** Click **Configure > Template > VG200 Gateway**
  - Step 3** In the list of existing templates on the left, click the BAT template to which you want to add endpoint identifier attributes.
  - Step 4** In the Installed Voice Interface Cards area, select either FXO or FXS in the VIC in SubUnit 0.
  - Step 5** Refer to Step 5 in the [“Creating a Cisco VG200 Gateway Template” section on page 5-2](#) for complete instructions.
  - Step 6** Repeat Steps 4 and 5 until all endpoint identifiers attributes are configured.
- 

## Creating the CSV File for Adding VG200 Gateway

BAT includes a Microsoft Excel file (BAT.xlt) that provides data file templates with macros and error checking and exports the values into CSV files for Cisco VG200 gateway. Each record on the CSV file contains information about a Cisco VG200 gateway and its ports. You can open this file by double-clicking BAT.xlt on the Publisher database server in the C:\CiscoWebs\BAT\ExcelTemplate folder. When prompted, be sure to enable macros.

The following example format shows the required field length and string types followed by an example of a CSV file for a Cisco VG200 gateway.

Once you have created the Cisco VG200 gateway template in BAT and the CSV file as described in this section, you can insert the Cisco VG200 gateways into the Cisco CallManager database. See [Adding Cisco VG200 Gateways to Cisco CallManager, page 5-7](#), for more information.

MGCP Domain Name (String[64] MANDATORY),Description (String[100] OPTIONAL),Port 1 Description (String[50] OPTIONAL),Port 1 Directory Number (Integer[50] OPTIONAL),Port 1 Route Partition (String[50] OPTIONAL),Port 2 Description (String[50] OPTIONAL),Port 2 Directory Number (Integer[50] OPTIONAL),Port 2 Route Partition (String[50] OPTIONAL),Port 3 Description (String[50] OPTIONAL),Port 3 Directory Number (Integer[50] OPTIONAL),Port 3 Route Partition (String[50] OPTIONAL),Port 4 Description (String[50] OPTIONAL),Port 4 Directory Number (Integer[50] OPTIONAL),Port 4 Route Partition (String[50] OPTIONAL)

### Example

```
MGCPTest,Gateway,Port Desc1,9725557154,Partition1,Port
Desc2,9725557155,Partition1,Port Desc3,9725557156,Partition2,Port
Desc4,9725557158,Partition3
```

The actual file does not contain field names. You must include comma separators even if a field is blank. Specify the directory number and route partition only if the port type in the Cisco VG200 gateway template is POTS.

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

### Examples

If the Description for a Cisco VG200 gateway is blank, a sample record can be

```
MGCPTest,,Port Desc1,9725557154,Partition1,Port
Desc2,9725557155,Partition2,Port Desc3,9725557156,Partition3,Port
Desc4,9725557158,Partition4
```

If the Cisco VG200 gateway template has only Port 1 and Port 2 as POTS type, sample record can be

```
MGCPTest,,Port Desc1,9725557154,Partition1,Port
Desc2,9725557155,Partition2,Port Desc3,,Port Desc4,,
```

### Related Topics

- [Adding Cisco VG200 Gateways to Cisco CallManager, page 5-7](#)
- [Deleting Cisco VG200 Gateways, page 5-8](#)

# Adding Cisco VG200 Gateways to Cisco CallManager

Follow this procedure to add several Cisco VG200 gateways to Cisco CallManager.

## Before You Begin

You must create a Cisco VG200 gateway template and CSV file before you add ports to Cisco CallManager. If you want to insert directory number details, you need to configure gateway directory number template.

## Procedure

- 
- Step 1** Start BAT. (Refer to [Starting BAT, page 1-3](#), for complete information about how to start BAT.)
- Step 2** Click **Configure > Gateways > VG200**.  
The Insert Gateways window displays.
- Step 3** In the File Name field, select the name of the CSV file that contains the Cisco VG200 gateways and ports to be added.
- Step 4** In the VG200 Gateway Template Name field, select the name of the VG200 gateway template that you created for this type of bulk transaction.
- Step 5** Click **Insert**.  
A message displays indicating the number of records that can be inserted per minute. This information helps you evaluate whether Cisco CallManager performance might be degraded if you perform the bulk transaction.
- Step 6** Click **OK** to start the transaction, or **Cancel** to cancel it.
- Step 7** If you clicked **OK**, a Transaction Status window displays. When the transaction completes, the Transaction windows disappears and the Insert Gateways page displays the Status of the insert.  
If the Status of the insert is anything other than Insert Completed, view the log file for transaction details. If the Status is Insert Completed, then the transaction was successful and you do not need to view the log file unless you're interested in statistical information.
- Step 8** 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.

**Note**

---

Note: After the ports are added to Cisco CallManager, BAT 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 [Chapter 7, “Troubleshooting BAT and TAPS”](#).

---

**Related Topics**

- [Creating a Cisco VG200 Gateway Template, page 5-2](#)
- [Deleting Cisco VG200 Gateways, page 5-8](#)

## Deleting Cisco VG200 Gateways

You can delete all Cisco VG200 gateway records from the Cisco CallManager database using the following procedure.

**Caution**

---

If you do not want to delete ALL Cisco VG200 gateways from the Cisco CallManager database, be sure to specify a query before clicking the Run button.

---

**Procedure**

To delete all Cisco VG200 gateways, perform the following procedure:

---

- Step 1** Start BAT. (Refer to [Starting BAT, page 1-3](#), for complete information about how to start BAT.)
- Step 2** Click **Configure > Gateways > VG200**.
- Step 3** Click the **Delete VG200 Gateways** link.  
The Delete Gateways page displays.
- Step 4** From the drop-down list box, select the field you want to search, such as MGCP Domain Name or Description.
- Step 5** From the drop-down list box, select the search criteria, such as begins with, contains, is empty, and so on.

**Step 6** In the search field, enter the value you want to locate, such as a specific MAC address or phone model.

**Step 7** Click **Add to Query** to add the defined filter to the query.

**Caution**

This action deletes all Cisco VG200 records if no information is entered into the query text box.

**Step 8** Click **AND** or **OR** to add multiple filters to the query.

**Step 9** Click View Query Results to verify the records that are going to be deleted.

**Note**

After the Cisco VG200 gateways are deleted from Cisco CallManager, BAT generates a log file indicating the number of records deleted and the number of records failed, including an error code. For more information on log files, see [Chapter 7, “Troubleshooting BAT and TAPS”](#).

**Step 10** Click **Run** to delete the records.

**Related Topics**

- [Creating a Cisco VG200 Gateway Template, page 5-2](#)
- [Creating the CSV File for Adding VG200 Gateway, page 5-5](#)
- [Updating the Endpoint Identifiers for Cisco VG200 Gateway, page 5-5](#)

## Cisco Catalyst 6000 24 Port FXS Analog Interface Module Ports

BAT allows you to bulk-add, bulk-update, and bulk-delete ports on Cisco Catalyst 6000 24 Port FXS analog interface module gateways.

**Related Topics**

- [Adding or Updating Ports to Cisco Catalyst 6000 24 Port FXS Analog Interface Module Gateways, page 5-10](#)

- [Deleting All Ports for Cisco Catalyst 6000 24 Port FXS Analog Interface Module Gateway, page 5-18](#)
- [Creating a Gateway Directory Number Template, page 5-19](#)

## Adding or Updating Ports to Cisco Catalyst 6000 24 Port FXS Analog Interface Module Gateways

You can use BAT to add or update ports of Cisco Catalyst 6000 24 Port FXS analog interface modules to the Cisco CallManager database in batches, rather than add each port individually. You can even add or update ports for more than one gateways in one batch.

To add or update ports to Cisco CallManager, you must perform the following steps:

- Create a Catalyst 6000 (FXS) Ports BAT template to define common values for a set of ports.
- (This is optional for adding ports, but required for adding directory number details to ports.) Create a Gateway Directory Number BAT template.
- Create a comma separated values (CSV) file to define individual values for each port you want to add.



### Note

---

BAT does not add Cisco Catalyst 6000 24 Port FXS analog interface module gateways. You need to add gateways using Cisco CallManager Administration and then use BAT to bulk-add or bulk-update ports for these gateways.

---

### Related Topics

- [Creating a Cisco Catalyst 6000 \(FXS\) Ports Template, page 5-11](#)
- [Creating the CSV File for Cisco Catalyst 6000 \(FXS\) ports, page 5-13](#)
- [Creating the CSV File for Cisco Catalyst 6000 \(FXS\) ports, page 5-13](#)
- [Adding Cisco Catalyst 6000 \(FXS\) Ports to Cisco CallManager, page 5-15](#)
- [Updating Cisco Catalyst 6000 24 Port FXS Analog Interface Module Ports in Cisco CallManager, page 5-16](#)
- [Deleting All Ports for Cisco Catalyst 6000 24 Port FXS Analog Interface Module Gateway, page 5-18](#)

## Creating a Cisco Catalyst 6000 (FXS) Ports Template

The port template and comma separated values (CSV) files work together in bulk transactions. You can create a template that has the common analog details for all the ports in that batch, such as the Port Direction, Port Level, and so on. The system stores these templates, so they are reusable for other batches.

The CSV file stores the details for each individual port, such as its gateway MAC address, Port Number (which you add in this section), Directory Number for this Port, and its Partition. See [Creating the CSV File for Cisco Catalyst 6000 \(FXS\) ports, page 5-13](#), for more details about CSV files.

### Procedure

Perform the following steps to create a Cisco Catalyst 6000 FXS Ports template. You must complete all fields unless otherwise noted.

- 
- Step 1** Start BAT. (Refer to [Starting BAT, page 1-3](#), for complete information about how to start BAT.)
  - Step 2** Click **Configure > Template > Catalyst 6000 (FXS) Ports**.  
The Catalyst 6000 (FXS) Ports Template Configuration window displays.
  - Step 3** In the Catalyst 6000 (FXS) Ports Template Name field, type a name for the template, up to 50 alphanumeric characters.
  - Step 4** In the Port Direction field, select the direction of calls passing through this port.
  - Step 5** In the Port Level field, select the gain of audio entering or leaving the span.
  - Step 6** In the Auto Signal Adjustment into IP Network field, select the gain or loss you want applied to the received audio signal.
  - Step 7** In the Auto Signal Adjustment from IP Network field, select the gain or loss you want applied to the transmitted audio signal.
  - Step 8** (Optional) In the Prefix DN field, specify the prefix digits to be appended to the digits received on incoming calls.
  - Step 9** In the Num Digits field, specify the number of digits to collect, from 0 to 32. Significant digits are counted from the right (last digit) of the number called.
  - Step 10** In the Expected Digits field, specify the number of digits expected on the inbound side of the trunk. Use zero if you are unsure

- Step 11** In the Call Restart Timer field, specify the time that must pass after the far end disconnects and the near end is still off-hook before reorder tone plays. Default is 500ms.
- Step 12** In the Offhook Validation Timer field, specify the time that must pass before Cisco CallManager recognizes a valid off-hook. Default is 100 ms.
- Step 13** In the Onhook Validation Timer field, specify the time that must pass before Cisco CallManager recognizes a valid on-hook.
- Step 14** In the HookFlash Timer field, specify the time that must pass after on-hook is recognized to go back off-hook and have it recognized as hook-flash and not disconnect.
- Step 15** In the SMDI Port Number field, type the SMDI port number.
- Step 16** Click **Insert**.  
The system inserts the new template to the Cisco CallManager database.
- Step 17** Create a CSV file. Go to [Creating the CSV File for Cisco Catalyst 6000 \(FXS\) ports, page 5-13](#), for more information.
- 

#### Related Topics

- [Creating the CSV File for Cisco Catalyst 6000 \(FXS\) ports, page 5-13](#)
- [Adding Cisco Catalyst 6000 \(FXS\) Ports to Cisco CallManager, page 5-15](#)
- [Updating Cisco Catalyst 6000 24 Port FXS Analog Interface Module Ports in Cisco CallManager, page 5-16](#)
- [Deleting All Ports for Cisco Catalyst 6000 24 Port FXS Analog Interface Module Gateway, page 5-18](#)
- [Creating a Gateway Directory Number Template, page 5-19](#)

## Creating the CSV File for Cisco Catalyst 6000 (FXS) ports

BAT includes a Microsoft Excel file (BAT.xlt) that provides data file templates with macros and error checking and exports the values into CSV files for Cisco Catalyst 6000 (FXS) Ports. You can open this file by double-clicking BAT.xlt on the Publisher database server in the C:\CiscoWebs\BAT\ExcelTemplate folder. When prompted, be sure to enable macros. Refer to [Using the Cisco Catalyst 6000 \(FXS\) Ports tab in BAT.xlt, page 5-14](#), to learn how to use this spreadsheet.

The CSV file for ports contains information about each port as a record. Each record specifies the gateway MAC address and port number on that gateway to which you want to add or update the port details.

The following example format shows the required field length and string types followed by an example of a CSV file for Catalyst 6000 (FXS) port.

**Note**

---

If values are set for Partition in the CSV file for some record, for that record value in CSV file, override the preset values of these attributes in a selected phone template.

---

If you provide no values for Partition for any record on the CSV file, the system uses values from the BAT phone template for these fields.

**Example 5-1** *If Partition is Partition\_1 on a template, all records in a CSV file that have no value for Partition use Partition\_1.*

MAC Address (String[12]MANDATORY),Port Number (Integer[2] MANDATORY),Directory Number (Integer[50] OPTIONAL),Route Partition (String[50] OPTIONAL)

**Example**

```
1231123245AB,24,9725557154,Partition1
```

The actual file does not contain field names (displayed in the first line). You must include comma separators even if a field is blank. Specify Partition only with Directory Number.

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

**Examples**

If the directory number for a port is blank

```
1231123245AB, 24 , ,
```

**Note**

For the MAC address, enter MAC address values for an existing Cisco Catalyst 6000 (FXS) gateway. This MAC address comprises the last 12 characters in the Gateway Name. BAT does not add Cisco Catalyst 6000 (FXS) gateways. It simply adds or updates ports to an existing gateway.

**Related Topics**

- [Adding Cisco Catalyst 6000 \(FXS\) Ports to Cisco CallManager, page 5-15](#)
- [Updating Cisco Catalyst 6000 24 Port FXS Analog Interface Module Ports in Cisco CallManager, page 5-16](#)

## Using the Cisco Catalyst 6000 (FXS) Ports tab in BAT.xlt

Perform the following steps to quickly add ports to Cisco Catalyst 6000 24 Port FXS analog interface modules.

**Procedure**

- Step 1** On the Publisher database server, click C:\CiscoWebs\BAT\ExcelTemplate and double-click **BAT.xlt**.
- Step 2** When prompted, click **Enable Macros**.
- Step 3** Select the **Catalyst 6000 (FXS) ports sheet tab**.
- Step 4** 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.

**Caution**

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

- Step 5** Fill in the values for different columns.

- Step 6** Click **Export to BAT Format** to transfer the data from the BAT Excel spreadsheet into a CSV file.
- The system saves the file in C:\XLSDDataFiles (or to your choice of another existing folder) as
- Catalyst6000\_24PortsFXSGateway#timestamp.txt**
- Step 7** Click **View File** to view the CSV file that you created.
- 

## Adding Cisco Catalyst 6000 (FXS) Ports to Cisco CallManager

Follow this procedure to add several ports on Cisco Catalyst 6000 24 Port FXS analog interface modules to Cisco CallManager.

### Before You Begin

You must create a Cisco Catalyst 6000 Ports template and CSV file before you add ports to Cisco CallManager. If you want to add or update Directory Number details, you need to create a Gateway Directory Number template.

### Procedure

---

- Step 1** Start BAT. (Refer to [Starting BAT, page 1-3](#), for complete information about how to start BAT.)
- Step 2** Click **Configure > Gateways > Catalyst 6000 (FXS)**.
- The Configure Ports window displays.
- Step 3** In the File Name field, select the CSV file for Cisco Catalyst 6000 Ports that you created for this type of bulk transaction.
- Step 4** In the Catalyst 6000 (FXS) Ports Template field, select the BAT template that you created for adding Cisco Catalyst 6000 FXS ports.
- Step 5** (This field is optional if you are adding ports; required if you are adding any records that have directory number details on the CSV file.) In the Gateway Directory Number Template Name, select the BAT template that you created for adding directory numbers to Cisco Catalyst 6000 FXS ports.



---

**Note** If you have not specified directory number details on the CSV file, BAT inserts only analog details for that port, but no number will be configured for the port.

---

**Step 6** Click **Insert**.

A message displays indicating the time it will take to perform the transaction. Be aware that performance on the gateways will be impacted, including dropped calls if any are active on the affected gateways.

After the ports are added to Cisco CallManager, BAT generates a log file indicating the number of records added and the number of records failed, including an error code.

**Step 7** The results of the Insert display. You can click **View Log File** to open the log file for this transaction. BAT adds ports only for existing Cisco Catalyst 6000 (FXS) gateways. If a port with this specified port number and gateway already exists, BAT rejects that record. Refer to [Chapter 7, “Troubleshooting BAT and TAPS”](#), for more information about errors.

---

**Related Topics**

- [Creating a Cisco Catalyst 6000 \(FXS\) Ports Template, page 5-11](#)
- [Creating the CSV File for Cisco Catalyst 6000 \(FXS\) ports, page 5-13](#)
- [Updating Cisco Catalyst 6000 24 Port FXS Analog Interface Module Ports in Cisco CallManager, page 5-16](#)

## Updating Cisco Catalyst 6000 24 Port FXS Analog Interface Module Ports in Cisco CallManager

Perform the following steps to update ports for Cisco Catalyst 6000 24 Port FXS analog interface modules to Cisco CallManager.

### Before You Begin

You must create a Cisco Catalyst 6000 (FXS) Ports BAT template and CSV file before you modify ports in Cisco CallManager. If you want to modify Directory Number details, you need to configure a Gateway Directory Number BAT template.

### Procedure

- 
- Step 1** Start BAT. (Refer to [Starting BAT, page 1-3](#), for complete information about how to start BAT.)
  - Step 2** Choose **Configure > Gateways > Catalyst 6000 (FXS)**.  
The Configure Ports window displays.
  - Step 3** In the File Name field, select the CSV file for Cisco Catalyst 6000 Ports that you created for this type of bulk transaction.
  - Step 4** In the Catalyst 6000 (FXS) Ports Template field, select the BAT template that you created for updating Cisco Catalyst 6000 FXS ports.
  - Step 5** (This field is optional if you are updating ports; required if you are updating any records that have directory number details on the CSV file.) In the Gateway Directory Number Template Name, select the BAT template that you created for updating directory numbers to Cisco Catalyst 6000 FXS ports.



---

**Note** If you have not specified directory number details on the CSV file, BAT inserts only analog details for that port, but no number will be configured for the port.

---

- Step 6** Click **Update**.

A message displays indicating the time it will take to perform the transaction. Be aware that performance on the gateways will be impacted, including dropped calls if any are active on the affected gateways.

After the ports are updated in Cisco CallManager, BAT generates a log file indicating the number of records updated and the number of records failed, including an error code.

- Step 7** The results of the Update display. You can click **View Log File** to open the log file for this transaction. BAT updates ports only for existing Cisco Catalyst 6000 (FXS) gateways. If a port with this specified port number and gateway already exists, BAT rejects that record. Refer to [Chapter 7, “Troubleshooting BAT and TAPS”](#), for more information about errors.
- 

#### Related Topics

- [Creating the CSV File for Cisco Catalyst 6000 \(FXS\) ports, page 5-13](#)
- [Adding Cisco Catalyst 6000 \(FXS\) Ports to Cisco CallManager, page 5-15](#)

## Deleting All Ports for Cisco Catalyst 6000 24 Port FXS Analog Interface Module Gateway

Perform the following steps to delete all ports of a Cisco Catalyst 6000 24 Port FXS analog interface module.

#### Procedure

---

- Step 1** Start BAT. (Refer to [Starting BAT, page 1-3](#), for complete information about how to start BAT.)
- Step 2** Click **Configure > Gateways > Catalyst 6000 (FXS)**.  
The Configure Ports window displays.
- Step 3** Click the **Delete All Ports** link in the upper, right side of the window.  
The Delete Ports window displays.
- Step 4** Select the name of the Cisco Catalyst 6000 Gateway(s) for which you want to delete all ports and click the arrow buttons to move the gateways between the **Available Gateways** and **Selected Gateways** lists. BAT deletes all the ports for only gateways shown in the Selected Gateways list box when you click Delete All Ports.
- Step 5** Click **Delete All Ports**.  
A message displays indicating the time it will take to perform the transaction.

BAT generates a log file indicating the number of gateways for which the Delete All operation was successful and the number of gateways for which it failed, including an error code.

- Step 6** The results of the Delete operation display. You can click **View Latest Log File** to open the log file for this transaction. Refer to [Chapter 7, “Troubleshooting BAT and TAPS”](#), for more information about errors.
- 

#### Related Topics

- [Adding Cisco Catalyst 6000 \(FXS\) Ports to Cisco CallManager, page 5-15](#)
- [Creating the CSV File for Cisco Catalyst 6000 \(FXS\) ports, page 5-13](#)
- [Creating the CSV File for Cisco Catalyst 6000 \(FXS\) ports, page 5-13](#)
- [Updating Cisco Catalyst 6000 24 Port FXS Analog Interface Module Ports in Cisco CallManager, page 5-16](#)

## Creating a Gateway Directory Number Template

The template and comma separated values (CSV) files work together in bulk transactions. You can create a template that has common directory number details such as partition, calling search space, and so on. The system stores these templates, so they are reusable for other batches.

The CSV file stores the details for each individual port, such as its gateway MAC address, Port Number (which you are adding in this section), Directory Number for this Port, and its Partition. See [Creating the CSV File for Cisco Catalyst 6000 \(FXS\) ports, page 5-13](#), or [Creating the CSV File for Adding VG200 Gateway, page 5-5](#), for more details about CSV files.

#### Procedure

Perform the following steps to create a Gateway Directory Number template. All fields are optional unless otherwise noted.

---

- Step 1** Start BAT. (Refer to [Starting BAT, page 1-3](#), for complete information about how to start BAT.)
- Step 2** Click **Configure > Template > Gateway Directory Number**.

The Gateway Directory Number Template Configuration window displays.

- Step 3** In the Gateway Directory Number Template Name field, type a unique name for this template, up to 50 alphanumeric characters.
- Step 4** In the Partition field, select the partition to which the directory number will be added.
- Step 5** In the Calling Search Space field, select the calling search space that represents the collection of Route Partitions searched to determine how a dialed number should be routed.
- Step 6** In the Call Forward and Pickup Settings area, complete the following fields. If you type a value for any of these fields, you can also select the Calling Search Space for that field:
- Forward All—Specifies the directory number to which all calls are sent. If there is a value in this field, then all calls destined for the gateway directory number will be automatically forwarded to the specified directory number.
  - Forward Busy—Specifies the directory number to which all calls are sent if the gateway directory number is busy.
  - Forward No Answer—Specifies the directory number to which calls are sent if the gateway directory number does not answer.
  - Call Pickup Group—Specifies the number that can be dialed to answer calls to this directory number (in the specified partition).
- Step 7** In the External Phone Number Mask field, type the phone number (or mask) used to send Caller ID information when placing a call from this directory number.
- Step 8** Click **Insert**.
- The new template is added.
- Step 9** Create a CSV file. Go to [Creating the CSV File for Cisco Catalyst 6000 \(FXS\) ports, page 5-13](#), or [Creating the CSV File for Adding VG200 Gateway, page 5-5](#), for more information.
- 

### Related Topics

- [Creating a Cisco VG200 Gateway Template, page 5-2](#)
- [Creating a Cisco Catalyst 6000 \(FXS\) Ports Template, page 5-11](#)



## Working with TAPS

---

Use the tool for auto-registered phones support (TAPS) in conjunction with BAT to provide two features:

- Update MAC addresses and download predefined configuration for new phones
- Reload configuration for replacement phones

When adding new phones to Cisco CallManager, TAPS works in conjunction with BAT to update phones that were added to BAT using dummy MAC addresses. After the phones with dummy MAC addresses have been bulk-added to Cisco CallManager Administration using BAT, you can plug the phones into the network. You or the phone's user can dial a TAPS directory number that causes the phone to download its configuration. At the same time, the phone is updated in Cisco CallManager Administration with the correct MAC address. Auto-registration must be enabled in Cisco CallManager Administration (**System > Cisco CallManager**) for TAPS to function.

For example, you have 100 new hires starting on Monday. You must add these users and their new phones to Cisco CallManager Administration. You can use BAT to create a phone template for these 100 users and a CSV file for phones and users. By using the dummy MAC address option in the CSV file, you do not need to input the individual MAC addresses for the 100 new phones. Now, as long as auto-registration is enabled, the phones can be plugged directly into the network, and simply dialing the TAPS directory number (by you or the new hire) configures the phones.

When replacing an existing phone (due to damage, for example), use Configure TAPS so that the user can receive a new phone, plug it into the network, and dial the TAPS directory number to download the configuration used by the previous

phone. Auto-registration must be enabled for Configure TAPS to work. No configuration changes need to be made by the user or in Cisco CallManager Administration.

For example, John's Cisco IP Phone 7940 gets short-circuited during a lightning storm. He receives a new Cisco IP Phone 7940 and plugs it into the network. John can dial the TAPS directory number, and the new phone will download the configuration previously used for the damaged phone. No need exists to change directory numbers or update device information in Cisco CallManager Administration — it is done automatically by TAPS. See the [“Configuring TAPS” section on page 6-9](#) for more information.

You must enable auto-registration in Cisco CallManager Administration (**System > Cisco CallManager**) for TAPS to function. If auto-registration is not enabled in Cisco CallManager Administration (**System > Cisco CallManager**), TAPS will not function.

Because TAPS can replace a directory number, you may want to protect certain directory numbers from being overwritten. You can protect important numbers by using the SecureTAPS application. See the [“Securing TAPS” section on page 6-9](#) for more information.

The TAPS application, which is installed on a Cisco IP IVR/IP AA server, also requires components to be installed on the server running the Cisco CallManager Publisher database.

Do not use TAPS if you are specifying each phone's MAC address during the bulk-add.

### Related Topics

- [Changing the Logon ID, page 6-6](#)
- [Configuring TAPS, page 6-9](#)
- [Securing TAPS, page 6-9](#)
- [Stopping TAPS, page 6-10](#)

# Installing TAPS

TAPS requires a two-part installation. The first part stems from the BAT installation, where you have the choice to install TAPS along with BAT on the server running the Publisher databases for Cisco CallManager. The second part is installed on the Cisco IP IVR/IP AA server. See [Chapter 2, “Installing BAT”](#) for more information about the BAT installation process.

## Prerequisites

The following prerequisites apply to the TAPS installation for BAT Release 4.1(1):

- Make sure the Publisher database for Cisco CallManager is configured and running. The Publisher database can be on its own server or on the same server as Cisco CallManager.
- Make sure a Cisco Application Server (Cisco IP IVR/IP AA server) is configured.
- Make sure the Windows 2000 Services window is closed.



### Note

---

Before running TAPS install on Cisco CallManager, close the Services window if it is open.

---

## Prerequisite

BAT must be installed on the server running the Publisher database for Cisco CallManager. The following steps pick up where the BAT installation left off.

Perform the following steps to complete the TAPS installation.

---

**Step 1** At the conclusion of the BAT installation, you are prompted to install TAPS. See [Installing BAT, page 2-1](#), for instructions on installing BAT. Click **Yes** to install TAPS.

The system copies all TAPS files onto the server running the Publisher database.

**Step 2** On the Cisco IP IVR/IP AA server, launch the TAPS installation file **ToolforAutoRegisteredPhonesSupport.exe**.

The installation process begins.

**Step 3** Click **Next**.

- Step 4** Enter the primary Cisco CallManager server IP address.
  - Step 5** Click **OK**.
  - Step 6** Click **Next**.
  - Step 7** Click **Finish** to complete the installation.
  - Step 8** Upload TAPS to the Cisco IP IVR/IP AA server. See [Uploading TAPS to the Cisco IP IVR/IP AA Server, page 6-4](#), for instructions.
- 

#### Related Topics

- [Changing the Logon ID, page 6-6](#)
- [Securing TAPS, page 6-9](#)
- [Configuring TAPS, page 6-9](#)

## Uploading TAPS to the Cisco IP IVR/IP AA Server

TAPS requires uploading a file to the Cisco IP IVR/IP AA server. Perform the following steps.

#### Procedure

---

- Step 1** On the Cisco IP IVR/IP AA server, click **Start > Programs > Cisco IP IVR > Repository Manager**.  
The Repository Manager window displays.
- Step 2** Click **Upload**.  
The Repository Manager dialog box displays.
- Step 3** Select **TAPS** and click **Open**.  
The file TAPS.aef uploads to the Cisco IP IVR/IP AA server.
- Step 4** Click **OK** on the message box that indicates the upload was successful. You must refresh the Application Engine for the change to take effect.
- Step 5** Click **Start > Programs > Cisco IP IVR > Application Administrator**.  
The Application Administration page displays.

- Step 6** Click **Engine**.
- Step 7** Click **Refresh Scripts**.
- Step 8** Click **Refresh**.
- 

## Uninstalling TAPS

You cannot uninstall TAPS separately from BAT. Uninstalling BAT also uninstalls TAPS from the server running the Publisher database. Perform the following steps to uninstall TAPS from the Cisco IP IVR/IP AA server.

- Step 1** On the Cisco IP IVR/IP AA server, click **Start > Settings > Control Panel > Add/Remove Programs**.
- Step 2** Select **Taps** and click the **Change/Remove** button.
- TAPS is uninstalled from the IP IVR/IP AA server.
- 

### Related Topics

- [Installing TAPS, page 6-3](#)

## Using TAPS

Before you can use TAPS, you must change the logon password and login ID for the TAPS service on the server running the Publisher database and configure the application.

### Related Topics

- [Changing the Logon ID, page 6-6](#)
- [Configuring the TAPS Application, page 6-6](#)
- [Starting TAPS, page 6-7](#)
- [TAPS for End Users, page 6-8](#)

## Changing the Logon ID

When first installed, the TAPS service uses a local system account for logon. You must change the administrator logon and password for the server. Perform the following step to change the logon ID.

### Procedure

Perform the following steps to change the logon ID.

- 
- Step 1** On the Cisco IP IVR/IP AA server, click **Start > Programs > Administrative Tools > Services**.
- The Services window displays.
- Step 2** Right-click on TAPS and select **Properties**.
- The TAPS Properties window displays.
- Step 3** Click the **Logon** tab.
- Step 4** Click **This Account** and then the **Browse** button.
- The Select User dialog box displays.
- Step 5** Select **Administrator** in the list of users and click **OK**.
- Step 6** Click **OK** on the TAPS Properties window.
- The logon ID changes to match the administrator logon and password for this server.
- 

## Configuring the TAPS Application

You must configure TAPS by adding a CTI route point, CTI ports, and users. Like any other application in the Cisco AVVID IP Telephony system, TAPS requires configuring. Refer to the Cisco IP IVR/IP AA Release Notes for complete information. You can review the Application Server documentation by browsing to <http://www.cisco.com> and clicking **Software Center > Voice Software > IP IVR/IP AA**. Open the documentation for instructions on how to configure an application.

You need only one CTI route point for TAPS. You will need at least one CTI port, but you can configure as many ports as you would like available to TAPS users.

In the Cisco CallManager Administration

- Create a CTI Route point and assign it a unique directory number.
- Set call forward no answer (CFNA) on the CTI Route point. If all CTI ports are in use, the system forwards incoming calls to the CFNA number.
- Create one or more CTI ports with consecutive directory numbers.

TAPS supports a maximum number of sessions equal to the number of CTI ports configured for TAPS. For example, if you have configured five CTI ports, up to five users can be dialed into TAPS at any time. The sixth caller cannot connect to TAPS.

- Create a user. The TAPS route point and ports should be in the user's control devices list.
- Create an auto-registration Partition/Calling Search Space to prevent phones that have auto-registered from dialing any directory number other than the directory number assigned to the TAPS CTI route point. Restricting access to this directory number ensures that users download the proper configuration information for their phone.
- Upload TAPS.aef using the Repository Manager on the IP IVR/IP AA server. See [Uploading TAPS to the Cisco IP IVR/IP AA Server, page 6-4](#), for instructions.

For information about how to add or assign these values, refer to the *Cisco CallManager Administration Guide*.

## Starting TAPS

You must start the TAPS service manually. Perform the following steps to start TAPS.

### Procedure

- 
- Step 1** On the primary Cisco CallManager server, click **Start > Programs > Administrative Tools > Services**.

The Services window displays.

**Step 2** Double-click **TAPS**.

The TAPS service is now running. If the server should fail, you must manually restart TAPS again.

---

#### Related Topics

- [Using TAPS, page 6-5](#)
- [Stopping TAPS, page 6-10](#)

## TAPS for End Users

Follow these steps to configure your new phone:

---

**Step 1** Plug the phone into a port.

The phone automatically registers and displays a number.

**Step 2** Dial the TAPS extension provided by your system administrator.

**Step 3** Dial your personal extension number provided by your system administrator, followed by #.



**Note** You may be instructed to enter the complete telephone number (including area code).

---

**Step 4** To confirm, enter your personal extension number again, followed by #. A confirmation displays.

**Step 5** Hang up the phone.

The phone resets and displays your extension number.

---

Contact your system administrator if you experience any problems.

# Configuring TAPS

The application **ConfigureTAPS** allows you to use TAPS to update phones regardless of whether they were entered into the Cisco CallManager database via Cisco CallManager Administration or via BAT using a dummy MAC address. Use this feature when you need to replace one phone with a same model phone. As long as auto-registration is enabled in Cisco CallManager Administration, the user can plug in the new phone and then dial the TAPS directory number to retrieve the configuration previously used by their old phone.

You can access ConfigureTAPS from the IP IVR/IP AA server by clicking **Start > Programs > Cisco CallManager > Bulk Admin Tool > Configure TAPS**.

## Related Topics

- [Using TAPS, page 6-5](#)
- [Securing TAPS, page 6-9](#)

# Securing TAPS

Secure TAPS gives you the option to specify directory numbers that the TAPS feature cannot access. Use this capability when you want to protect directory numbers from being accidentally assigned.

For example, the directory number 5000 provides voice mail access. You do not want a new user to mistakenly configure 5000 on their new phone. SecureTAPS allows you to specify the directory numbers that cannot be accessed by TAPS.

From the IP IVR/IP AA server, click **Start > Programs > Cisco CallManager > Bulk Admin Tool > Secure TAPS**. Users cannot reach any directory numbers you specify here by using TAPS.

By default, TAPS allows new phones that have auto-registered to be updated with a phone that was added to Cisco CallManager using BAT.

## Related Topics

- [Configuring TAPS, page 6-9](#)

# Stopping TAPS

Stop the TAPS service from the Services window on the Publisher server (where BAT is installed).

## Related Topics

- [Using TAPS, page 6-5](#)
- [Starting TAPS, page 6-7](#)



# Troubleshooting BAT and TAPS

---

This section describes problems you may encounter when using BAT or TAPS, provides the error messages, and suggests actions to help you resolve the problems.

## Related Topics

- [BAT Log Files](#)
- [Troubleshooting BAT](#)
- [Troubleshooting TAPS](#)
- [Troubleshooting TAPS on the Cisco IP IVR/IP AA Server](#)
- [Java TAPS Exceptions](#)

## BAT Log Files

BAT generates log files for each bulk transaction and stores them on the Publisher database server in the following location: C:\CiscoWebs\BAT\logfiles\.

The log file also shows the key value of a record, so the administrator may re-examine the record. The MAC address of the phone serves as the key value when adding, updating, or modifying phones. When users are added, the User ID serves as the key value.

**View Log File** displays the summary view for the bulk transaction as well as the detail view for the failures.

**Caution**


---

Do not click the mouse button while a transaction is processing. Doing so prevents the log file or status messages from displaying.

---

## Viewing BAT Log Files

To view the log file for the bulk operation, select **View Log File** on the BAT interface or go to the following location:

**C:\CiscoWebs\BAT\LogFile** directory.

**Note**


---

The log file names designate the operation performed and the time the operation ended.

---

The timestamp format for the log file name is *mmddyyyhhmmss*.

[Table 1](#) shows examples of commands and log file names.

**Table 1**     *Log File Names*

| <b>Command</b> | <b>Log File Name</b>      | <b>Example</b>             |
|----------------|---------------------------|----------------------------|
| Insert         | File1#TimeStamp.log       | File1#05022000133431       |
| Update         | UpdatePhone#TimeStamp.log | UpdatePhone#05022000133431 |
| Delete         | DeletePhone#TimeStamp.log | DeletePhone#05022000133431 |

# Troubleshooting BAT

The following list describes some scenarios that could occur, and provides possible resolutions.

**Symptom** Failure details show on log file.

**Explanation** The message shows the MAC address or dummy MAC address for phones, or the User ID for users.

**Action** Open the file *<ModifiedDataFileName>#TimeStamp.dat* in Notepad and look for an error in one of the records. Access the log files in the C:\CiscoWebs\BAT\LogFile folder on the Publisher database server.

**Symptom** The page cannot be displayed.

**Explanation** Message can occur because of an unexpected termination of IIS Administrative service.

**Action** This is a display problem only. The process continues in the background. You can refer to the log file for transaction details.

**Symptom** Stop BAT does not work.

**Explanation** You have tried stopping BAT using the instructions in [Stopping BAT, page 1-4](#), but it is not working.

**Action** Close other applications and processes that are running on your system and try again.

**Symptom** Data files (CSV) format does not match Phone Template/Sample File.

**Explanation** The number of lines on the data file should exactly match the number of lines configured in the Phone Template, but do not. For example, the phone template has four lines, and, of these, Lines 1, 3, and 4 are configured. Phone data file should be used (in all the cases, there should be three fields)

1111,3333,4444 results in Line1-1111 Line2-None Line3-3333 Line4-4444

**Action** View the phone template files stored as a file on the server to look for a deleted record (such as location or line number).

**Symptom** Errors occur when using the dummy MAC address option.

**Explanation** Errors occur in the records for the dummy MAC addresses.

**Action** To map this to the records that actually had the problem, you can see another generated file with the name  
<ModifiedDataFileName>#<TimeStamp>.dat that shows the actual record with dummy MAC address. Access this file in the ...\\BAT\\LogFiles folder.

**Symptom** The Call Pickup Group entered does not exist.

**Explanation** You are attempting to add or update a record using a call pickup group that is not configured in the system.

**Action** Click **Application > Cisco CallManager Administration** and configure the call pickup group. You can then return to BAT, use the newly configured call pickup group, and proceed with the bulk transaction.

**Symptom** Route partition for the call pickup group must be a member of the calling search space for that line.

**Explanation** The route partition used in the call pickup group is not part of the calling search space for the line.

**Action** Click **Application > Cisco CallManager** and configure the calling search space with the appropriate route pattern. You can then return to BAT, use the updated call pickup group, and proceed with the bulk transaction.

**Symptom** Load information cannot be set for CYI ports.

**Explanation** CTI ports do not require load information.

**Action** Click **Configure > Template > Phone** and select the phone template you used for the transaction.

**Symptom** The location entered does not exist.

**Explanation** The location you are attempting to use does not exist in the system. Check your spelling and try again or add the location to Cisco CallManager.

**Action** Click **Application > Cisco CallManager** and configure the location. You can then return to BAT, use the new location, and proceed with the bulk transaction.

**Symptom** The User ID already exists.

**Explanation** The User ID you are attempting to add or update already has a user assigned to it, or you have added or updated using the same file as a previous transaction.

**Action** Click **Application > Cisco CallManager** and verify whether the user ID is correctly or incorrectly assigned. If incorrect, delete the user and return to BAT to start the bulk transaction again.

**Symptom** .The Manager entered does not exist.

**Explanation** You are trying to use a User ID for a Manager that does not exist.

**Action** Click **Application > Cisco CallManager** and verify whether the User ID of the Manager exists. If it does not exist, either use the User ID of an existing user, or insert the Manager's User ID in Cisco CallManager Administration or via BAT, and rerun the bulk transaction.

**Symptom** .Couldn't create user object. Check if DC Directory is running.

**Explanation** DC Directory is not running or it returned an error.

**Action** Click **Start > Programs > Administrative Tools > Services** and check whether the service "DC Directory Server" is running. If it is not, start the service and return to BAT to proceed with the bulk transaction.

## Troubleshooting TAPS

The following conditions may occur while running TAPS on the Publisher database server or on the Cisco IP IVR/IP AA server. Actions provided allow TAPS to properly execute.

## Java TAPS Exceptions


After starting the RMI registry and running Java TAPS using the command **taps**, you may encounter the following exceptions:

**Symptom** Security exception

**Explanation** Exception occurs because a policy file is not found for this user. The policytool.exe program, a Java application, allows you to manage policy files. A policy file contains a list of permissions that are associated with various sources of code. To allow an applet (or an application running under a security manager) to perform secured actions (such as reading or writing a

file), the applet (or application) must be granted permission for that particular action. In the default policy implementation, a grant entry in a policy configuration file must grant that permission.

**Action** Perform the following steps to correct this problem.


- 
- Step 1** Run the policy tool by double-clicking on the file **policytool.exe** that can be found in the following location: **C:\Program Files\JavaSoft\JRE\1.2\bin directory\**.
- Step 2** Grant all permissions.
- Step 3** Save the file in **C:\Documents and Settings\Administrator\Java.policy**.
-  **Note** In Step 3, there is a dot (.) before Java.policy
- 
- Step 4** Exit the policy tool.
- 

**Symptom** Already bound exception

**Explanation** Exception occurs because the TAPSCCM.txt file is trying to use a port that is already in use. TAPS runs on port number 9050 on the Cisco CallManager server.

**Action** Perform the following steps to change the port number in the TAPSCCM.txt file to a port that is not in use and copy the file to the Applications server.

- 
- Step 1** Open the file **TAPSCCM.txt** that can be found in the following location: **C:\CiscoWebs\BAT\TAPS\**.

 **Note** If the default path was changed during the TAPS install, locate this file in the path where TAPS is installed.

---

- Step 2** For *portno*: Enter a port number not currently in use.
- Step 3** Save the file.

**Step 4** Enter **taps**.




---

**Note** If any change is made to the TAPSCCM.txt file in the Cisco IP IVR/IP AA server, copy the C:\TAPS directory in the Cisco IP IVR/IP AA server and continue with the following steps.

---

**Step 5** Open **taps.bat** installed in the folder where TAPS is installed on the server running the Publisher database for Cisco CallManager.

**Step 6** Right click and choose **Edit**.

**Step 7** Change the port number.

**Step 8** Save the file.

**Step 9** Enter **taps**.

---

**Symptom** Class not found

**Explanation** Message occurs because the class path is not located where TAPS is installed.

**Action** Change the CLASSPATH to point to **C:\TAPS** in the system environment variable.

**Symptom** File not found

**Explanation** Message occurs because the java.exe is not found.

**Action** Perform the following steps to correct this problem.

---

**Step 1** Change the path to **C:\CiscoWebs\BAT\TAPS\bin** in the system “Path” variable on the Cisco CallManager server.

**Step 2** Run **java TAPS**.

---

## Troubleshooting TAPS on the Cisco IP IVR/IP AA Server

You may receive the following messages while running TAPS on the Cisco IP IVR/IP AA server.

**Symptom** When the IP IVR/IP AA server starts, the JTAPI subsystem shows partial service or out of service

**Explanation** Message occurs because of configuration problems in the Cisco CallManager.

**Action** Perform the following steps to correct this problem.

- 
- Step 1** Verify that Cisco CallManager started.
  - Step 2** Make sure JTAPI is properly configured on the Cisco IP IVR/IP AA server.
  - Step 3** Make sure the Route Points and CTI ports are properly configured on the Cisco CallManager.
  - Step 4** Verify that the directory numbers of the CTI ports are consecutive.
  - Step 5** Verify that the ports and the route point are associated to the user in the Cisco CallManager user configuration.
  - Step 6** Make sure Cisco CallManager is running properly.
- 

**Symptom** The workflow does not start properly

**Explanation** Message occurs when a wrong path is set for CLASSPATH.

**Action** Set the CLASSPATH to `C:\TAPS`.

**Symptom** Preprocess exception

**Explanation** Cisco IP IVR/IP AA server trace file shows “Preprocess exception” for TAPS.aef.

**Action** Perform the following steps to correct this problem.

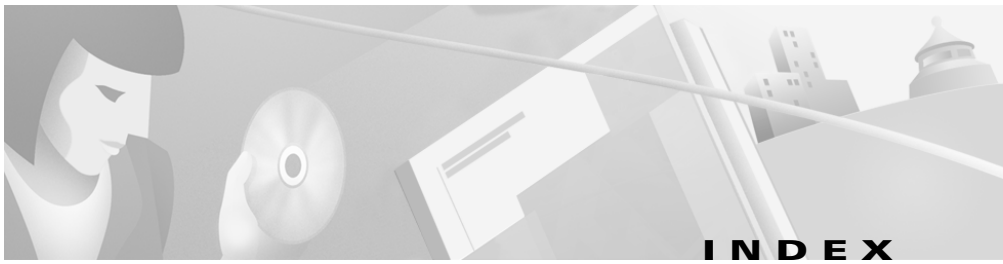
- 
- Step 1** Open the file **TAPS.aef** that can be found at the following location: **C:\Program Files\wfavvid\**.
  - Step 2** Click **Tools > Validate**.
  - Step 3** Save TAPS workflow.
  - Step 4** Close TAPS workflow.
  - Step 5** Delete TAPS.aef from the repository manager.
  - Step 6** Upload TAPS.aef from **C:\Program Files\wfavvid\**.
  - Step 7** Restart the IP IVR/IP AA engine.
- 

If you have problems after restarting IP IVR/IP AA, check the CLASSPATH on the IP IVR/IP AA server and append **C:\TAPS** to the IP IVR/IP AA server.

**Symptom** Provider exception

**Explanation** Trace file of the IP IVR/IP AA server shows this error.

**Action** Make sure the Cisco CallManager service is running on the Cisco CallManager server.



---

## A

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