

## **Cisco Conference Connection Administration Guide**

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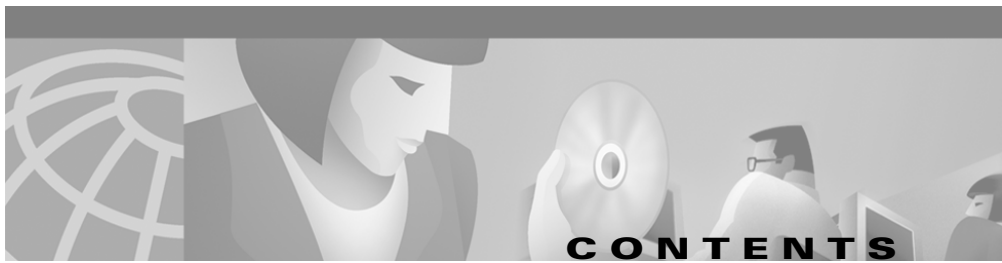
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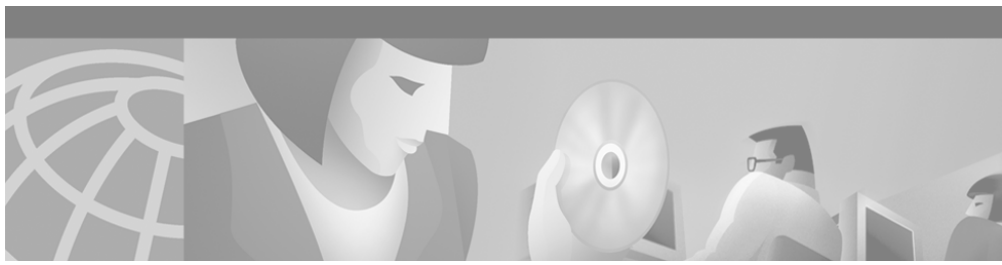
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# Preface

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This preface describes who should read this publication and the publication's document conventions.

The preface includes the following topics:

- [Overview, page ix](#)
- [Audience, page x](#)
- [Related Documentation, page x](#)
- [Conventions, page x](#)
- [Obtaining Documentation, page xi](#)
- [Obtaining Technical Assistance, page xiii](#)

## Overview

The *Cisco Conference Connection Administration Guide* provides you with the information you need to understand, install, configure, manage, use, and troubleshoot the Cisco Conference Connection application.

# Audience

Network engineers, system administrators, and telecommunications engineers should review this guide to learn the steps required to properly set up Cisco Conference Connection in the network. Because of the close interaction of Cisco Conference Connection with Cisco CallManager, you should be familiar with Cisco CallManager before deploying the software.

## Related Documentation

These documents will help you better understand Cisco Conference Connection and the software used with Cisco Conference Connection:

- Cisco Conference Connection documentation, available at:  
[http://www.cisco.com/univercd/cc/td/doc/product/voice/ccc\\_docs/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/ccc_docs/index.htm)
- Cisco CallManager documentation, available at:  
[http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_callmg/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_callmg/index.htm)
- Cisco Customer Response Applications documentation, available at:  
[http://www.cisco.com/univercd/cc/td/doc/product/voice/sw\\_ap\\_to/apps\\_22/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/sw_ap_to/apps_22/index.htm)

## Conventions

This publication 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.

Convention	Description
<b>boldface screen font</b>	Information you must enter is in <b>boldface screen font</b> .
<i>italic screen font</i>	Arguments for which you supply values are in <i>italic screen font</i> .
<b>Action&gt;Reports</b>	Command paths in a graphical user interface (GUI).

Notes use the following convention:



**Note**

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

Cautions use the following convention:



**Caution**

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

## Obtaining Documentation

These sections explain how to obtain documentation from Cisco Systems.

### World Wide Web

You can access the most current Cisco documentation on the World Wide Web at this URL:

<http://www.cisco.com>

Translated documentation is available at this URL:

[http://www.cisco.com/public/countries\\_languages.shtml](http://www.cisco.com/public/countries_languages.shtml)

## Documentation CD-ROM

Cisco documentation and additional literature are available in a Cisco Documentation CD-ROM package, which is shipped with your product. The Documentation CD-ROM is updated monthly and may be more current than printed documentation. The CD-ROM package is available as a single unit or through an annual subscription.

## Ordering Documentation

You can order Cisco documentation in these ways:

- Registered Cisco.com users (Cisco direct customers) can order Cisco product documentation from the Networking Products MarketPlace:  
[http://www.cisco.com/cgi-bin/order/order\\_root.pl](http://www.cisco.com/cgi-bin/order/order_root.pl)
- 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 Systems Corporate Headquarters (California, U.S.A.) at 408 526-7208 or, elsewhere in North America, by calling 800 553-NETS (6387).

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You can e-mail your comments to [bug-doc@cisco.com](mailto:bug-doc@cisco.com).

You can submit your comments by mail by using the response card behind the front cover of your document or by writing to the following address:

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Attn: Document Resource Connection  
170 West Tasman Drive  
San Jose, CA 95134-9883

We appreciate your comments.

## Obtaining Technical Assistance

Cisco provides Cisco.com as a starting point for all technical assistance. Customers and partners can obtain online documentation, troubleshooting tips, and sample configurations from online tools by using the Cisco Technical Assistance Center (TAC) Web Site. Cisco.com registered users have complete access to the technical support resources on the Cisco TAC Web Site.

### Cisco.com

Cisco.com is the foundation of a suite of interactive, networked services that provides immediate, open access to Cisco information, networking solutions, services, programs, and resources at any time, from anywhere in the world.

Cisco.com is a highly integrated Internet application and a powerful, easy-to-use tool that provides a broad range of features and services to help you with these tasks:

- Streamline business processes and improve productivity
- Resolve technical issues with online support
- Download and test software packages
- Order Cisco learning materials and merchandise
- Register for online skill assessment, training, and certification programs

If you want to obtain customized information and service, you can self-register on Cisco.com. To access Cisco.com, go to this URL:

<http://www.cisco.com>

## Technical Assistance Center

The Cisco Technical Assistance Center (TAC) is available to all customers who need technical assistance with a Cisco product, technology, or solution. Two levels of support are available: the Cisco TAC Web Site and the Cisco TAC Escalation Center.

Cisco TAC inquiries are categorized according to the urgency of the issue:

- Priority level 4 (P4)—You need information or assistance concerning Cisco product capabilities, product installation, or basic product configuration.
- Priority level 3 (P3)—Your network performance is degraded. Network functionality is noticeably impaired, but most business operations continue.
- Priority level 2 (P2)—Your production network is severely degraded, affecting significant aspects of business operations. No workaround is available.
- Priority level 1 (P1)—Your production network is down, and a critical impact to business operations will occur if service is not restored quickly. No workaround is available.

The Cisco TAC resource that you choose is based on the priority of the problem and the conditions of service contracts, when applicable.

## Cisco TAC Web Site

You can use the Cisco TAC Web Site to resolve P3 and P4 issues yourself, saving both cost and time. The site provides around-the-clock access to online tools, knowledge bases, and software. To access the Cisco TAC Web Site, go to this URL:

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

All customers, partners, and resellers who have a valid Cisco service contract have complete access to the technical support resources on the Cisco TAC Web Site. The Cisco TAC Web Site requires a Cisco.com login ID and password. If you have a valid service contract but do not have a login ID or password, go to this URL to register:

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

If you are a Cisco.com registered user, and you cannot resolve your technical issues by using the Cisco TAC Web Site, you can open a case online by using the TAC Case Open tool at this URL:

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

If you have Internet access, we recommend that you open P3 and P4 cases through the Cisco TAC Web Site.

## Cisco TAC Escalation Center

The Cisco TAC Escalation Center addresses priority level 1 or priority level 2 issues. These classifications are assigned when severe network degradation significantly impacts business operations. When you contact the TAC Escalation Center with a P1 or P2 problem, a Cisco TAC engineer automatically opens a case.

To obtain a directory of toll-free Cisco TAC telephone numbers for your country, go to this URL:

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

Before calling, please check with your network operations center to determine the level of Cisco support services to which your company is entitled: for example, SMARTnet, SMARTnet Onsite, or Network Supported Accounts (NSA). When you call the center, please have available your service agreement number and your product serial number.







# Planning for Cisco Conference Connection

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Cisco Conference Connection is a voice conferencing solution that uses voice over IP (VoIP) technology. Although you must have a voice over IP telephony system to install and use Cisco Conference Connection, callers on any type of telephone can join conference calls hosted by Cisco Conference Connection.

These topics introduce Cisco Conference Connection and help you understand how it fits into your existing telephony network:

- [Overview of Cisco Conference Connection Features, page 1-2](#)
- [How Cisco Conference Connection Fits Into Your Network, page 1-3](#)
- [How Conferences Work with Cisco Conference Connection, page 1-7](#)

# Overview of Cisco Conference Connection Features

Table 1-1 lists the major features of Cisco Conference Connection.

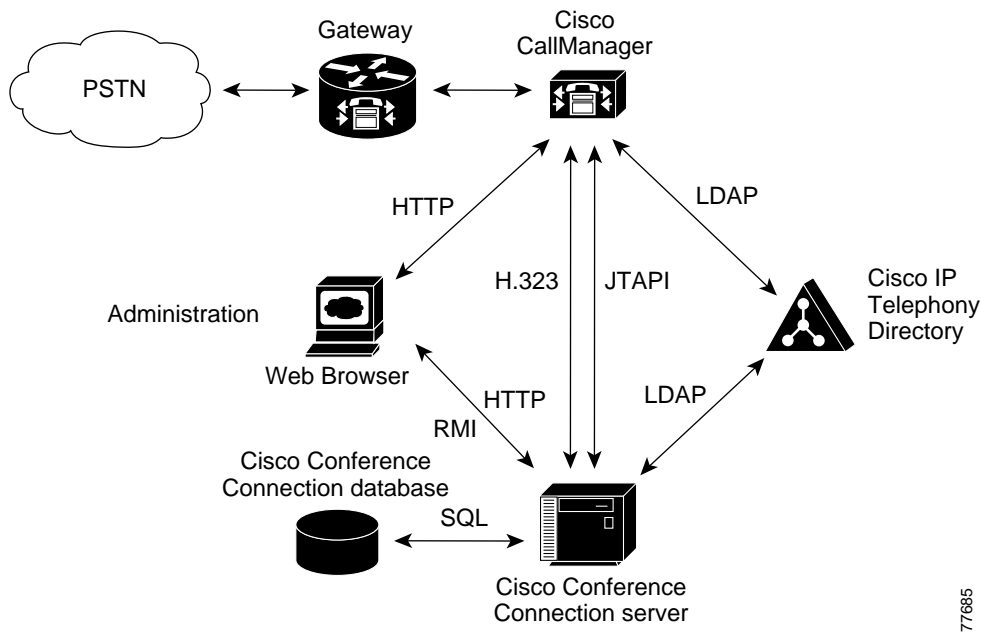
**Table 1-1 Cisco Conference Connection Features**

Feature	Description
Create conferences	Users can create new conferences, as well as change and delete conferences that they scheduled through the Cisco Conference Connection web interface.  If the conference requires security, users can set up passwords and hide the conference so that other users cannot view the conference information through the web interface or on their Cisco IP Phones.
Join conferences	Users can dial into a conference. They can also join a conference through the Services menu on their Cisco IP Phones that support IP Phone Services, if you set up the appropriate service.
View conferences in progress	Users can view and search for currently running conferences by using the web interface.
View scheduled conferences	Users can view and search for scheduled conferences by using the web interface.
View past conferences	Users can view and search for past conferences by using the web interface.
Perform administrative tasks and run reports	Beside doing all the regular user tasks, you can create usage reports, delete old conferences, customize the information shown to users, set up default system passwords to force password protection for all conferences, and manage the Cisco Conference Connection port licenses.

# How Cisco Conference Connection Fits Into Your Network

You must have a functioning voice over IP telephony network before you can install and configure Cisco Conference Connection. [Figure 1-1](#) illustrates the components required, including the Cisco Conference Connection server. [Table 1-2](#) describes the components in more detail.

**Figure 1-1** Cisco Voice Over IP Telephony Network for Cisco Conference Connection



**Table 1-2 Cisco VoIP Network Requirements for Cisco Conference Connection**

Item	Software Version	Description
Cisco CallManager	3.1 or later	The software that runs the telephony network. You must have a Cisco CallManager system installed and functioning correctly before you can install Cisco Conference Connection.
Cisco IP Telephony directory	Any version supported by Cisco CallManager	The LDAP directory installed for Cisco CallManager's use. Cisco Conference Connection uses the directory to obtain user information, store the CRA Engine configuration, and to store the Conference Director IVR application (this is stored in the repository subdirectory). The repository maintains a backup copy of the application, which you can restore if necessary.
Web browser	<ul style="list-style-type: none"> <li>• Netscape Navigator 4.5 or higher</li> <li>• Microsoft Internet Explorer 5.0 or later</li> </ul>	The configuration programs for Cisco CallManager and Cisco Conference Connection are web-based applications. This allows you to configure the system from remote locations.

**Table 1-2 Cisco VoIP Network Requirements for Cisco Conference Connection (continued)**

Item	Software Version	Description
Gateways	N/A	<p>The hardware that connects your telephony system to the public switched telephone network (PSTN).</p> <p>Configure your gateways to transmit caller IDs. This ensures that you see a conference call participant's telephone number instead of IP address when you view past conference information.</p> <p>Also, configure the gateways so they provide error or busy tones to callers.</p> <p>Cisco recommends that you disable Voice Activity Detection (VAD) on the gateways to prevent audio degradation. See the <a href="#">“Fixing Audio Clipping, Robotic Voice, and Silence Problems”</a> section on page 7-24 for more information.</p>
Cisco Conference Connection database	Installed with Cisco Conference Connection	The Microsoft Data Engine (MSDE) database used to hold conference call information. This is the Scheduling Database component of the Cisco Conference Connection server.

**Table 1-2 Cisco VoIP Network Requirements for Cisco Conference Connection (continued)**

Item	Software Version	Description
Cisco Conference Connection server	N/A	<p>The server that hosts conference calls. The server includes these components:</p> <ul style="list-style-type: none"> <li>• Conference Director—An interactive voice response (IVR) application that asks callers to identify the conference call they want to attend, and that transfers the caller to the appropriate call.</li> <li>• Cisco Customer Response Applications (CRA) Engine and Application Administration interface—The CRA Engine runs the Conference Director application. You use the Application Administration web interface to configure the Conference Director script and other elements used by Cisco Conference Connection.</li> <li>• Scheduling Engine and Web Interface—The web interface used to create and manage conference calls.</li> <li>• Call Control and Conference Mixer—The components that host the conference calls. The Conference Mixer is treated as an H.323 gateway.</li> </ul>
Cisco IP Phones (not shown)	Cisco IP Phones 7940/7960 series telephones or other phones that support IP Phone Services (Optional)	Callers on any type of phone can create and attend conference calls. However, if you set up the Cisco Conference Connection IP Phone Service, users who have these phone models can connect directly to conference calls through the Services menu on their phones, bypassing the Conference Director IVR application.

# How Conferences Work with Cisco Conference Connection

When someone wants to join a conference defined on the Cisco Conference Connection server, they call the conference call number (which is a CTI route point). Cisco Conference Connection then runs the Conference Director interactive voice response (IVR) application, requesting that the caller identify the desired conference. When someone calls the conference call number, Cisco Conference Connection:

- Plays a welcome prompt.
- Asks the caller to enter the conference ID followed by the # key.
  - The caller gets three attempts to enter a valid conference ID. The start time for the conference must be reached before callers can be connected to the conference, and Conference Director tells the caller if they are early.
  - If the conference ID is for a password-protected conference, the caller is also asked to enter the password.
  - If the caller cannot enter a valid conference ID or password in three tries, the caller is transferred to the operator (if you have identified one to Conference Director), or Conference Director hangs up.
  - The caller can get help by pressing the \* key.
- When the caller enters a valid conference ID (and password, if required), Conference Director transfers the caller to the conference call.
  - When connected, people on the conference call hear an entry tone that indicates a caller has joined the conference.
  - If there are not enough ports for all of the callers (the conference is already full), new callers hear a busy tone and are not connected to the call.

The conference owner cannot dynamically add ports to an in-progress conference. Instead, if the owner wants to add ports, everyone must hang up, and the owner must delete the conference and then create a new one with an adequate port count. Then, callers can dial into the new conference.

- Try not to put a conference on hold. When you put a conference on hold, conference attendees might hear music or other misleading announcements.
- Five minutes before the appointed end time for the conference, Cisco Conference Connection determines if the conference can be extended. If there are sufficient ports available, Cisco Conference Connection automatically extends the conference. If there are insufficient ports to extend the conference past the end time, Cisco Conference Connection announces how much time is left for the conference, and the conference call is disconnected promptly at the end time.
- If a caller hangs up on the conference call before the call ends, conference attendees hear an exit tone.





# Installing Cisco Conference Connection

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These topics describe how to install or upgrade Cisco Conference Connection.

- [Hardware and Software Requirements, page 2-1](#)
- [Installing Cisco Conference Connection on a New System, page 2-3](#)
- [Upgrading or Reinstalling Cisco Conference Connection, page 2-6](#)
- [Reimaging the Cisco Conference Connection Server, page 2-11](#)
- [Understanding Changes Required When Altering the Cisco CallManager Setup, page 2-16](#)
- [Obtaining Maintenance Releases and Upgrades from Cisco.com, page 2-19](#)

## Hardware and Software Requirements

You can install Cisco Conference Connection on any of the platforms described in [Table 2-1](#) or their Cisco-certified equivalents. The table shows the maximum number of Cisco Conference Connection ports that can be supported on each platform. This is the maximum number of telephones that can be connected to conference calls hosted on the server (that is, the sum of telephones connected to all concurrent conference calls). Select a server model that meets your conference call needs.

**Table 2-1 Supported Cisco Media Convergence Server Platforms**

Cisco Media Convergence Server Model	Maximum Cisco Conference Connection Ports
MCS 7825-800, 7825-1133 <ul style="list-style-type: none"> <li>• 200 MB free disk space minimum</li> <li>• 512 MB RAM minimum</li> </ul>	60
MCS 7835-1000, 7835-1266 <ul style="list-style-type: none"> <li>• 200 MB free disk space minimum</li> <li>• 1 GB RAM minimum</li> </ul>	100

Before you install Cisco Conference Connection, you must install and configure the Windows 2000 operating system on the server using the media included with your package. These topics describe some configuration requirements for the server.

- [IP Address and Network Interface Speed Requirements, page 2-2](#)
- [Domain Naming System \(DNS\) Requirements, page 2-2](#)

## IP Address and Network Interface Speed Requirements

You must configure the server to use static IP addresses and 100 Mbps Full Duplex Ethernet connections.

## Domain Naming System (DNS) Requirements

You should configure the server to use the same DNS servers that are used by the Cisco CallManager servers.

If you do not use DNS, you must create an LMHOSTS file on the Cisco Conference Connection server. This file must contain the host names for all of the Cisco CallManager servers in the cluster that the Cisco Conference Connection server supports.

This procedure explains how to create the LMHOSTS file if you do not use DNS.

### Procedure

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- Step 1** Create LMHOSTS.txt as a plain text file on the Cisco Conference Connection server. The file must have one line per Cisco CallManager server, in this format:
- IP-address host-name*
- where *IP-address* is the IP address of the Cisco CallManager server, and *host-name* is the Cisco CallManager server's host name. Separate the parameters with spaces or tabs. For example:
- ```
10.16.0.10 sanjose-cml
```
- Step 2** Open the Properties window for the Local Area Connection network connection (for example, select **Start>Settings>Control Panel>Network and Dial-up Connections>Local Area Network**).
- Step 3** Select **Internet Protocol (TCP/IP)** in the list of Components and click **Properties**.
- Step 4** On the Internet Protocol (TCP/IP) Properties window, click **Advanced**.
- Step 5** On the Advanced TCP/IP Settings window, click the **WINS** tab.
- Step 6** On the WINS tab, click **Import LMHOSTS**, find the LMHOSTS.txt file you created, and click **Open**.
- Ensure that **Enable LMHOSTS lookup** is selected on the WINS tab.
- Step 7** Click **OK** on each of the windows you opened during this procedure.
- 

## Installing Cisco Conference Connection on a New System

This topic describes how to install Cisco Conference Connection on a new system that does not have Cisco Conference Connection already installed. The procedure assumes you are installing from a CD-ROM. If you are installing a downloaded file, follow the instructions in the readme file that came with the download.

### Before You Begin

Before installing Cisco Conference Connection, you must install the Microsoft Windows 2000 operating system on the server. Use the operating system installation media supplied in the Cisco Conference Connection package. When you install the operating system, ensure that you configure it to use a static IP address; do not use DHCP or BOOTP to obtain a dynamic IP address.

You must log into Windows with Administrator authority to install Cisco Conference Connection.

Do not install the software using Terminal Services.

Dedicate the server to running the Cisco Conference Connection software; do not install other voice or server applications.

### Procedure

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- Step 1** Insert the Cisco Conference Connection Installation CD.
- Step 2** Install the Cisco Customer Response Application (CRA) Engine:
- a. Open the IPRV folder and launch setup.exe.
  - b. At the Cisco Extended Services Administrator Welcome window, click **Next**.
  - c. At the Software License Agreement windows, click **Yes** to accept each license agreement.
  - d. At the Choose Destination Location for Cisco Extended Services Administrator window, accept the default destination folder and click **Next**.
  - e. At the Choose Destination Location for administration web pages window, accept the default destination folder and click **Next**.
  - f. At the Service Username and Password window, enter your NT administrator user ID and password. Re-enter the password to confirm and click **Next**.
  - g. At the Select Program Folder window, accept the default program folder and click **Next**.
- The installation program begins copying files for the CRA Engine.
- h. After the CRA Engine files are installed, the installation program starts the installation of the JTAPI client. At the Welcome to JTAPI Client Setup window, click **Next**.
  - i. At the JTAPI Destination window, accept the default destination folder for the JTAPI class and click **Next**. If prompted to restart the computer, select “No.”

- j. At the Choose Destination Location window, accept the default destination folder for the JTAPI client and click **Next**.

The installation program begins copying files for the JTAPI client. If prompted to restart the computer, select “No.”

- k. At the Maintenance Complete screen, decide whether you want to view the readme file and click **Finish**. If prompted to restart the computer, select “No.”
- l. At the Setup Complete window, select “No, I will restart my computer later” and click **Finish**.

The CRA Engine and JTAPI subsystem installation is now complete.

**Step 3** Install Cisco Conference Connection:

- a. Open the CCC folder on the Cisco Conference Connection CD and launch setup.exe.
- b. At the Cisco Conference Connection Welcome window, click **Next**.
- c. At the Software License Agreement window, click **Yes**.
- d. At the Choose Directory to Install MSDE window, accept the default location of the Microsoft Data Engine (MSDE) destination folder and click **Next**.
- e. At the MSDE User Configuration window, enter a password for the user named “sa.” You cannot change the database user name that Cisco Conference Connection uses. Re-enter the password to confirm and click **Next**.
- f. At the Cisco CallManager Information window, enter the DNS name or IP address of the Cisco CallManager Directory Publisher machine, and a Windows administrator user name for the system, and click **Next**.
- g. At the Cisco CallManager Password Configuration window, enter the password for the administrator user name you specified. Re-enter the password to confirm and click **Next**.
- h. At the Standards Based Conference Configuration window, ensure that the displayed Windows NT machine name for this server is correct; change it if it is not correct. Click **Next**.
- i. Confirm the installation and click **Yes**.

The installation program begins copying files. The MSDE and Serviceability drivers and agents installation may take some time.

- j. Click **Finish** to complete the installation.
  - k. At the Setup Complete window, select “Yes I want to restart my computer now” and click **Finish** to restart the computer.
- Step 4** Select **Start>Programs>Cisco Conference Connection>Start Cisco Conference Connection** to start Cisco Conference Connection.
- Step 5** Configure Cisco CallManager as described in [Chapter 3, “Configuring Cisco CallManager for Cisco Conference Connection.”](#)
- Step 6** Configure the CRA Engine as described in [Chapter 4, “Configuring the CRA Engine for Cisco Conference Connection.”](#)
- Step 7** You might need to upgrade the JTAPI client. The client you require depends on the version of Cisco CallManager you are using in your telephony network. The [“Fixing JTAPI Subsystem Out-of-Service Status”](#) section on page 7-11 describes the symptoms to look for and how to upgrade the client. To be safe, you might want to upgrade the client at this point to avoid potential problems. This ensures that you are running the correct client.
- Step 8** Configure Cisco Conference Connection as described in these topics (see the [“Logging Into Cisco Conference Connection”](#) section on page 5-2 for information on how to log in).
- [Entering Cisco Conference Connection License Keys, page 5-3](#)
  - [Identifying Cisco Conference Connection Administrators, page 5-6](#)
  - [Customizing the Information Page and Configuring System Settings, page 5-7](#)
- 

## Upgrading or Reinstalling Cisco Conference Connection

Before you upgrade or reinstall Cisco Conference Connection, you should uninstall the software. When you uninstall Cisco Conference Connection, only the Cisco Conference Connection server software is uninstalled. The uninstallation process does not remove the database (thus, your conference schedules are preserved). It also does not remove the configuration information

stored in the Cisco CallManager directory; this configuration information is for the CRA Engine and the Conference Director application script that runs on the CRA Engine.

These are the steps required for upgrading or reinstalling Cisco Conference Connection. This procedure assumes you are not reinstalling the operating system; if you are reinstalling the operating system, see the “[Reimaging the Cisco Conference Connection Server](#)” section on page 2-11 for instructions.

### Before You Begin

Before reinstalling the software, ensure that you have this information:

- The password for the user named “sa” for the MSDE database. To verify the password, open a command prompt and run the `c:\mssql7\binn\osql -U sa` command. When prompted, enter the password. If you get a login failed response, the password is incorrect. If you cannot determine the correct password, you need to reimage the server; see the “[Reimaging the Cisco Conference Connection Server](#)” section on page 2-11.
- The Cisco Conference Connection license keys you purchased.
- The DNS name or IP address of the Cisco CallManager directory server, and the configuration profile name you are using to store the CRA Engine configuration. In Cisco CRA Application Administration, click **Directory**, and on the Directory Configuration page, note down the Configuration Profile Name. The “[Logging In and Configuring Directory Information](#)” section on page 4-2 describes how to log into Cisco CRA Application Administration.
- If you are installing an upgrade, review the release notes and readme file (if there is one) for the upgrade. You can find release notes for Cisco Conference Connection at this URL:  
[http://www.cisco.com/univercd/cc/td/doc/product/voice/ccc\\_docs/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/ccc_docs/index.htm)
- Uninstalling Cisco Conference Connection deletes the information you customized on the Information page (as described in the “[Customizing the Information Page and Configuring System Settings](#)” section on page 5-7). Make a copy of this information so that you can reenter it after installing the product.

Do not upgrade or reinstall the software while conferences are running.

## Procedure

- Step 1** If you are upgrading from version 1.1 (any maintenance release), you must first stop the metalink agreement between the Cisco CallManager directory server and Cisco Conference Connection. Cisco Conference Connection does not use metalink agreements in releases after 1.1(3).

To stop the metalink agreement, which stops the synchronization process between the Cisco CallManager directory server and the Cisco Conference Connection server:

- a. Find these files on the Cisco CallManager directory server:

| Cisco CallManager 3.1                                    | Cisco CallManager 3.2                                            |
|----------------------------------------------------------|------------------------------------------------------------------|
| C:\\$DCDSRVR\run\dcx500\config\delete.txt<br>odbcagr.txt | C:\\$DCDSRVR\run\dcx500\config\delete.txt.mmu<br>odbcagr.txt.mmu |

- b. In delete.txt (or delete.txt.mmu), change the agreementID parameter so that it is the same as the one in odbcagr.txt (or odbcagr.txt.mmu).
- c. Open a command prompt window (for example, **Start>Program>Accessories>Command Prompt**) and enter the appropriate command:

| Cisco CallManager 3.1                                                                                                                  | Cisco CallManager 3.2                                                                                                                            |
|----------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>dcdmlkag</b><br><i>\$DCDSRVR\run\dcx500\config\delete.txt</i><br>Where <i>\$DCDSRVR</i> is the directory path, normally c:\dcdsrvr. | <b>dcdmmu PROCESS</b><br><i>\$DCDSRVR\run\dcx500\config\delete.txt.mmu</i><br>Where <i>\$DCDSRVR</i> is the directory path, normally c:\dcdsrvr. |

- d. At the command prompt, enter this command:  
**dcdexprt ALL export.gen /o=cisco.com/ou=Users**
- e. At the command prompt, enter this command to delete all the entries under this subtree:  
**dcddel /o=cisco.com/ou=Users**



- f. At the command prompt, enter this command to reimport the exported data:  
**dcdimprt POPULATE export.gen**
- g. Delete the c:\dcdsrvr\lib\ConvEmail.dll file.

**Step 2** On the Cisco Conference Connection server, uninstall all Cisco Conference Connection components:

- a. Select **Start>Programs>Cisco Conference Connection>Uninstall** to uninstall the Cisco Conference Connection server software. *Do not* restart the server when the system finishes uninstalling the software.
- b. Select **Start>Programs>Cisco Extended Services Administrator>Uninstall Cisco Extended Services Administrator** to uninstall CRA Application Administration. If you are asked if you want to remove shared files, say **Yes**. *Do not* restart the server when the system finishes uninstalling the software.
- c. Select **Start>Settings>Control Panel>Add/Remove Programs**, and uninstall the Cisco JTAPI client.
- d. Restart the server.
- e. Select **Start>Run**, and run this command:  
**net stop SNMP /y**
- f. Remove these directories:
  - C:\Program Files\wfavvid
  - C:\Program Files\Cisco\ConferenceConnection

**Step 3** Install the upgrade or reinstall Cisco Conference Connection following the procedure described in the [“Installing Cisco Conference Connection on a New System” section on page 2-3](#). Keep these points in mind during the installation:

- When prompted for the password for the MSDE user named “sa,” enter the same password used previously; do not specify a different password.
- The [“Installing Cisco Conference Connection on a New System” section on page 2-3](#) includes steps for configuring Cisco CallManager, the CRA Engine, and Cisco Conference Connection. Do not complete these steps.

Your existing Cisco CallManager configuration is reusable, unless the release notes for the upgrade specify changes you need to make. If the release notes require Cisco CallManager changes, make them after installing Cisco Conference Connection.

**Step 4** Verify the CRA Engine configuration and restore it if necessary.

- a. Log into the Cisco CRA Application Administration page by opening `http://servername/AppAdmin` in your web browser, where *servername* is the DNS name or IP address of the Cisco Conference Connection server. Use a Windows NT network administrator account to log into the application.

If Cisco CRA Application Administration opens the setup page, you need to recover the configuration. Click **Setup** to open the Directory Configuration page, and enter the directory host name and configuration profile name you noted before reinstalling Cisco Conference Connection. Click **OK**, and Cisco CRA Application Administration retrieves the configuration from the directory server. Proceed with step c.

- b. Click **Directory**, and verify that the directory host name and configuration profile name are the same as you noted before reinstalling Cisco Conference Connection.

If they are not, enter the correct information, or select the profile name from the list of profiles, and click **OK**. Cisco CRA Application Administration retrieves the configuration from the directory server.

- c. Return to the main menu and complete the database configuration as described in the [“Configuring the Cisco CRA Engine’s Database Subsystem” section on page 4-4](#).
- d. Return to the main menu and click **Engine** to view the CRA Engine status. The engine should be running (start it if it is not running), and these subsystems should all be in service:
  - Database
  - Application
  - JTAPI

The correct subsystem status might take a few minutes to reflect correctly. If you are unsure of the status, stop and then restart the engine to get a clean view of the subsystems.

If the JTAPI subsystem is out of service, you probably need to upgrade the JTAPI client. See the [“Fixing JTAPI Subsystem Out-of-Service Status” section on page 7-11](#) for instructions.

- Step 5** Check the Cisco Conference Connection license keys and update them if necessary:
- Log into Cisco Conference Connection as described in the [“Logging Into Cisco Conference Connection”](#) section on page 5-2.
  - Update the license keys as described in the [“Entering Cisco Conference Connection License Keys”](#) section on page 5-3.
- Step 6** If you are installing an upgrade, make any configuration changes that are described as required in the release notes or readme file for the upgrade. Make optional configuration changes if you want to use the optional capabilities.
- Step 7** Select **Start>Programs>Cisco Conference Connection>Start Cisco Conference Connection** to start Cisco Conference Connection.
- The system is now ready to host conference calls.
- 

## Reimaging the Cisco Conference Connection Server

If you need to reimage the Cisco Conference Connection server, that is, if you need to destructively reinstall the operating system, first back up the Cisco Conference Connection database and the Cisco Conference Connection configuration files so that you can restore the conference information already configured. These are the steps; the sections cited provide further details for each step:

- Back up the Cisco Conference Connection database and configuration files, as described in the [“Backing Up the Cisco Conference Connection Database and Configuration Files”](#) section on page 2-12.
- Reinstall the software, recover the CRA Engine configuration, and check the configuration, as described in the [“Reimaging the Server and Restarting Cisco Conference Connection”](#) section on page 2-13.
- Restore the Cisco Conference Connection database and configuration files, as described in the [“Restoring the Cisco Conference Connection Database and Configuration Files”](#) section on page 2-15.

# Backing Up the Cisco Conference Connection Database and Configuration Files

Back up the Cisco Conference Connection database and configuration files before reimaging the server. You should also consider regularly backing up the database so that you can restore it if the database becomes corrupted due to system problems or virus attacks.

## Before You Begin

Do not back up the database while conferences are running.

Ensure that you have the Cisco Conference Connection database password that was configured during installation. You will need this when you reinstall the software.

## Procedure

- 
- Step 1** Select **Start>Programs>Cisco Conference Connection>Stop Cisco Conference Connection** to stop Cisco Conference Connection.
- Step 2** Stop the MSDE services:
- Select **Start>Programs>MSDE Service Manager**.
  - In MSDE Service Manager, stop all SQL services on the Cisco Conference Connection server.
  - After all SQL services have stopped, close Service Manager.
  - On the Windows taskbar, find and right-click the Service Manager icon and select **Exit**.
- Step 3** Copy c:\MSSQL7\Data\DCMS\_DATA.mdf and c:\MSSQL7\Data\DCMS\_log.ldf to a secure backup location. You will need to retrieve these files when you restore the Cisco Conference Connection database.

- Step 4** Copy the following configuration files to a secure backup location.
- all files with the “.properties” extension from the C:\Program Files\wfavvid directory.
  - c:\WINNT\system32\ccn\ccndir.ini
  - c:\Inetpub\Jenga\CUSTadmin.tem

You will need to retrieve these files when you restore the Cisco Conference Connection database.

---

## Reimaging the Server and Restarting Cisco Conference Connection

This procedure describes how to reimage the Cisco Conference Connection server. This involves reinstalling the operating system so that you have a fresh installation, and then installing the Cisco Conference Connection software. Because you are reinstalling Cisco Conference Connection, you can recover some configuration information that does not reside on the server.

### Before You Begin

If you intend to recover your existing Cisco Conference Connection configuration, ensure that you:

- Back up the database as described in the [“Backing Up the Cisco Conference Connection Database and Configuration Files”](#) section on page 2-12.
- Obtain the password for the user named “sa” for the MSDE database.
- Obtain the Cisco Conference Connection license keys you purchased.
- Write down the DNS name or IP address of the Cisco CallManager directory server, and the configuration profile name you are using to store the CRA Engine configuration. In Cisco CRA Application Administration, click **Directory**, and you can find this information on the Directory Configuration page. The [“Logging In and Configuring Directory Information”](#) section on page 4-2 describes how to log into CRA Application Administration.

If you are installing an upgrade, review the release notes and readme file (if there is one) for the upgrade. You can find release notes for Cisco Conference Connection at this URL:

[http://www.cisco.com/univercd/cc/td/doc/product/voice/ccc\\_docs/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/ccc_docs/index.htm)

**Note**

If you are upgrading from Cisco Conference Connection 1.1, you must first remove the metalink agreements with the Cisco CallManager directory, as described in the “[Upgrading or Reinstalling Cisco Conference Connection](#)” section on page 2-6.

Do not reimage the server while conferences are running.

**Procedure**

- 
- Step 1** Reinstall and configure the Windows operating system using the CD-ROM included with Cisco Conference Connection.
- Step 2** Install Cisco Conference Connection using the instructions in the “[Installing Cisco Conference Connection on a New System](#)” section on page 2-3. When prompted for a database password, ensure that you use the same password you noted down when backing up the database (see the “[Backing Up the Cisco Conference Connection Database and Configuration Files](#)” section on page 2-12). Do not redo the Cisco CallManager or CRA Engine configuration steps.
- Step 3** Restore the CRA Engine Configuration by following the procedure described in the “[Restoring the Cisco Conference Connection Database and Configuration Files](#)” section on page 2-15.
- Because reimaging the system does not remove the directory information, the profile still exists in the directory and the CRA Engine retrieves its configuration and the configuration for the Conference Director application script.
- Step 4** Select **Start>Programs>Cisco Conference Connection>Start Cisco Conference Connection** to restart Cisco Conference Connection.
- Step 5** Verify that the new database is working by logging into Cisco Conference Connection and creating a new conference.
-

# Restoring the Cisco Conference Connection Database and Configuration Files

After you reimage the Cisco Conference Connection server, you can restore the server's database and configuration files. This restores all of the conference definitions that were current when the database was backed up. If you make regular backups, you can restore the database if system problems or viruses corrupt the database.

## Before You Begin

Do not make configuration changes while restoring the database and configuration files.

## Procedure

- 
- Step 1** Select **Start>Programs>Cisco Conference Connection>Stop Cisco Conference Connection** to stop Cisco Conference Connection.
- Step 2** Stop the MSDE services:
- Select **Start>Programs>MSDE Service Manager**.
  - In MSDE Service Manager, stop all SQL services on the Cisco Conference Connection server.
  - After all SQL services have stopped, close Service Manager.
  - On the Windows taskbar, find and right-click the Service Manager icon and select **Exit**.
- Step 3** Copy the DCMS\_DATA.mdf and DCMS\_log.ldf backup files to c:\MSSQL7\Data\ and overwrite the files currently in that folder.
- Step 4** Restore the configuration backup files by copying them to their respective folders.
- copy the files with the .properties extension to C:\Program Files\wfavvid
  - copy ccndir.ini to C:\WINNT\system32\ccn\
  - copy CUSTadmin.tem to C:\Inetpub\Jenga\
- Overwrite the files currently in these folders.
- Step 5** Use MSDE Service Manager to restart SQL services.

- Step 6** Select **Start>Programs>Cisco Conference Connection>Start Cisco Conference Connection** to restart Cisco Conference Connection.
- Step 7** Restart the CRA Engine.
- a. Select **Start>Programs>Cisco CRA Administrator>Application Administrator**.
  - b. On the CRA Application Administration main menu, click **Engine**.  
The system displays the Engine Status page.
  - c. On the Engine Status page, click **Start Engine**.
- Step 8** Verify that the new database is working by logging into Cisco Conference Connection and creating a new conference.
- 

## Understanding Changes Required When Altering the Cisco CallManager Setup

If you upgrade your Cisco CallManager servers after installing Cisco Conference Connection, or alter the Cisco CallManager setup in certain ways, you might need to modify some configuration settings for Cisco Conference Connection to work properly. These topics describe configuration changes needed when upgrading from various versions of Cisco CallManager:

- [Changes Required When Upgrading Cisco CallManager \(Any Release\), page 2-17](#)
- [Changes Required When Changing Directory Support, page 2-17](#)



## Changes Required When Upgrading Cisco CallManager (Any Release)

When you upgrade Cisco CallManager, you should make these configuration changes for Cisco Conference Connection:

- **Route Pattern**—If you created the Cisco Conference Connection route pattern without using the # character (such as 11111.!), you must add # (such as 11111.!#). Select **Route Plan >Route Pattern** to find and change the route pattern. The [“Creating the Route Pattern”](#) section on page 3-10 explains how to create the route pattern.
- **JTAPI Subsystem**—If the JTAPI subsystem on the Cisco Conference Connection server does not start, upgrade the JTAPI plug-in on the server. The [“Fixing JTAPI Subsystem Out-of-Service Status”](#) section on page 7-11 explains how to upgrade the JTAPI plug-in.

## Changes Required When Changing Directory Support

You can use a variety of types of directory with Cisco CallManager (such as the built-in DC directory, Microsoft Active Directory, or Netscape Directory). If you decide to convert your Cisco CallManager directory from one type to another, or if you start using a different Cisco CallManager directory with Cisco Conference Connection, you must install new directory support on the Cisco Conference Connection server and reconfigure the server.

### Before You Begin

Before removing the old directory, ensure that you write down the CRA Engine configuration on the Cisco Conference Connection server. In Cisco CRA Application Administration, write down the directory, JTAPI, database, and Conference Director application settings.

Also, in Cisco Conference Connection, write down the list of administrators. Also ensure that the cccadmin user is defined in the new Cisco CallManager directory (as described in the [“Creating the Cisco Conference Connection Administrative User”](#) section on page 3-11).

The directory must be working properly with Cisco CallManager before you can reconfigure Cisco Conference Connection.

## Procedure

---

- Step 1** On the Cisco Conference Connection server, run this program:  
C:\Program Files\Cisco\ConferenceConnection\LDAPSync\RegCopy.exe
- Step 2** Follow the on-screen instructions to enter this information:
- The DNS name or IP address of the Cisco CallManager Publisher directory.
  - A Cisco CallManager administrator account name and password.
- The RegCopy program copies the directory support files required for the type of directory Cisco CallManager is using to the Cisco Conference Connection server. The server can now communicate with the new Cisco CallManager directory.
- Step 3** Select **Start > Programs > Cisco Conference Connection > Start Cisco Conference Connection** to restart Cisco Conference Connection. (If necessary, stop Cisco Conference Connection before restarting it.)
- Step 4** Log into Cisco Conference Connection and re-enter the list of administrators, as described in these topics:
- [Logging Into Cisco Conference Connection, page 5-2](#)
  - [Identifying Cisco Conference Connection Administrators, page 5-6](#)
- Step 5** Reconfigure the Cisco CRA Engine using the information you saved, as described in these topics:
- [Logging In and Configuring Directory Information, page 4-2](#)
  - [Configuring the Cisco CRA Engine's Database Subsystem, page 4-4](#)
  - [Configuring the JTAPI Subsystem on the Cisco CRA Engine, page 4-6](#)
  - [Adding the CTI Port Group, page 4-7](#)
  - [Configuring the Conference Director IVR Application, page 4-8](#)
- Step 6** Verify that the reconfigured directory connection is working properly:
- If you are able to log into the Cisco Conference Connection web interface, then the Cisco Conference Connection directory connection is working.
  - For the CRA Engine, any of these conditions indicate a configuration problem:
    - The CTI route point does not work. Check the Conference Director application configuration.

- The JTAPI subsystem is out of service. Check the JTAPI configuration. If the configuration is correct, try updating the JTAPI client as described in the “[Fixing JTAPI Subsystem Out-of-Service Status](#)” section on page 7-11.
  - The database subsystem is out of service. Check the database configuration.
- 

## Obtaining Maintenance Releases and Upgrades from Cisco.com

You can obtain maintenance releases and upgrades to Cisco Conference Connection, if any are available, from the cisco.com web site.

### Procedure

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- Step 1** Start the web browser on the Cisco Conference Connection server and open this URL:
- <http://www.cisco.com/cgi-bin/tablebuild.pl/ccc>
- Step 2** Select the desired upgrade and download it to the Cisco Conference Connection server.
- Step 3** Follow the instructions in the associated readme file to install the upgrade. Also see the “[Upgrading or Reinstalling Cisco Conference Connection](#)” section on page 2-6.
-





# Configuring Cisco CallManager for Cisco Conference Connection

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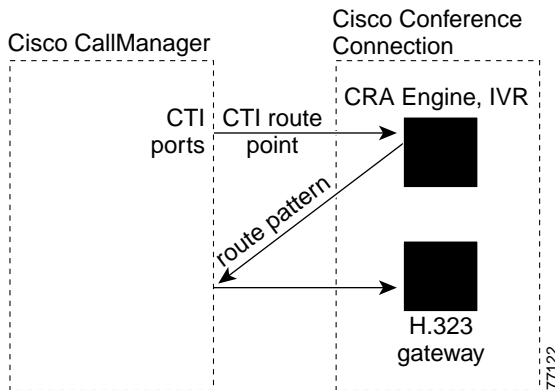
These topics describe how to configure Cisco CallManager in preparation for deploying Cisco Conference Connection. The procedures described are for Cisco CallManager 3.2. If you are using a different version of Cisco CallManager, some of the individual steps might be different, but the items you need to configure and their attributes are the same. See the Cisco CallManager online help for more specific information on using Cisco CallManager.

- [Overview of Cisco CallManager Configuration, page 3-2](#)
- [Creating the Conference Call CTI Route Point, page 3-4](#)
- [Creating the CTI Ports, page 3-5](#)
- [Creating a Cisco CallManager JTAPI User for Cisco Conference Connection, page 3-7](#)
- [Adding the Cisco Conference Connection Server as an H.323 Gateway, page 3-8](#)
- [Creating the Route Pattern, page 3-10](#)
- [Creating the Cisco Conference Connection Administrative User, page 3-11](#)
- [Creating the Cisco Conference Connection IP Phone Service, page 3-12](#)
- [Disabling Music On Hold for Conference Calls, page 3-15](#)

# Overview of Cisco CallManager Configuration

You must configure several elements in Cisco CallManager for Cisco Conference Connection to use. [Figure 3-1](#) illustrates the communication between Cisco CallManager and Cisco Conference Connection.

**Figure 3-1 Cisco CallManager Configuration for Cisco Conference Connection**



These are the interactions between Cisco CallManager and Cisco Conference Connection:

1. To attend a conference call, the user dials the CTI route point. This extension connects the user to the Conference Director interactive voice response (IVR) application, which asks the user to identify the desired conference. While connected to Conference Director, the user uses one of the CTI ports defined for the CTI route point. To make this work, you must:
  - a. Create the CTI route point. This is the telephone number people will call to use Cisco Conference Connection. See the [“Creating the Conference Call CTI Route Point”](#) section on page 3-4.
  - b. Create CTI ports for use by the CTI route point. The number of ports you create determines the number of simultaneous callers that can use the Conference Director application. This does not control the number of callers that can be on conference calls—it only controls the number of people who can interact with Conference Director at the same time. Callers only interact with the application while they are telling Conference Director to which conference call they want to be connected. See the [“Creating the CTI Ports”](#) section on page 3-5.

- c. Create a Cisco CallManager user for Cisco Conference Connection to control the CTI route point and CTI ports. See the [“Creating a Cisco CallManager JTAPI User for Cisco Conference Connection”](#) section on page 3-7.
2. After Conference Director validates that the user’s requested conference is in progress, and that the user has entered a valid password (if required), Conference Director forwards the caller to the Cisco Conference Connection H.323 gateway, which hosts the actual conference (this is called the Conference Mixer). The Conference Director application appends the conference ID to a route pattern, and Cisco CallManager forwards the call to the Cisco Conference Connection H.323 gateway based on this route pattern. Cisco Conference Connection places the caller into the correct conference by stripping the route pattern prefix and using the conference ID. At this point, if there is no available port, the caller hears a busy signal. (There might not be an available port if the conference is already using all the ports reserved for the conference.) To make this work, you must:
  - a. Configure the Cisco Conference Connection server as an H.323 gateway in Cisco CallManager. See the [“Adding the Cisco Conference Connection Server as an H.323 Gateway”](#) section on page 3-8.
  - b. Create a route pattern that forwards calls to the H.323 gateway. See the [“Creating the Route Pattern”](#) section on page 3-10.
3. You must also create a Cisco Conference Connection administrative user so that you can log into the software and configure it. Create this user in Cisco CallManager. See the [“Creating the Cisco Conference Connection Administrative User”](#) section on page 3-11.
4. Optionally, you can add a Cisco Conference Connection service to those Cisco IP Phones that support IP Phone Services. This gives users direct access into public conference calls. See the [“Creating the Cisco Conference Connection IP Phone Service”](#) section on page 3-12.
5. Optionally, you can disable music on hold for conference calls. This eliminates the annoyance of hearing music and misleading announcements on a conference call if one of the conference attendees places the call on hold. See the [“Disabling Music On Hold for Conference Calls”](#) section on page 3-15.

These topics assume you know how to use Cisco CallManager. If you do not, see the Cisco CallManager documentation or online help.

# Creating the Conference Call CTI Route Point

Create a CTI route point in Cisco CallManager for use as the conference call number used to access Cisco Conference Connection. This is the telephone number that callers will call to attend conferences. The Conference Director application answers calls to this CTI route point.

## Procedure

---

- Step 1** In Cisco CallManager, select **Device > CTI Route Point**.  
The Find and List CTI Route Points page displays.
- Step 2** Click **Add a new CTI Route Point**.  
The CTI Route Point Configuration page displays.
- Step 3** Fill in the CTI route point properties:
- Enter a unique name, such as **ConferenceConnection**, in the **Device Name** field to identify this as the Cisco Conference Connection number.
  - Select the appropriate device pool from the **Device Pool** menu.
- Step 4** Click **Insert** to add the new CTI route point.  
Cisco CallManager adds the route point and asks if you want to configure line 1. Click **OK** to configure line 1.  
Cisco CallManager opens the Directory Number configuration page.
- Step 5** In the **Directory Number** field, enter the directory number for this CTI route point. This is the number that callers will dial to reach this CTI route point (for example, 5000). You can also fill in other fields as appropriate for your telephony network.
- Step 6** Click **Insert**.  
Cisco CallManager adds the line to the device. Only create one line for the device.
-



**Tip**

- To start Cisco CallManager, open `http://servername/ccmAdmin` in your web browser, where *servername* is the DNS name or IP address of the system running Cisco CallManager.
- If you are using a version of Cisco CallManager other than 3.2, the steps for creating the CTI route point might be slightly different. See the Cisco CallManager online help for more specific information.

## Creating the CTI Ports

Create CTI ports for use with the Cisco Conference Connection CTI route point. The number of ports you create determines the number of simultaneous callers that can use the Conference Director IVR application to request the desired conference call. If all ports are in use when a caller calls, the caller hears a busy signal.

The CTI port is only used while a caller is using the Conference Director application. These ports are not used while a caller is on the conference call. Therefore, you do not need to create the same number of CTI ports as the number of Cisco Conference Connection ports. Instead, Cisco recommends you create the following number of CTI ports based on Cisco Conference Connection ports:

- Up to 60 Cisco Conference Connection ports—Create 10 CTI ports.
- More than 60 Cisco Conference Connection ports—Create 15 CTI ports.

### Before You Begin

All CTI ports in a CTI port group must have consecutive directory numbers. For example, if you want 10 CTI ports in a particular CTI port group, and the first is number 5001, the rest of the ports must be 5002, 5003, and so on up to 5010.

### Procedure

- 
- Step 1** In Cisco CallManager, select **Device > Phone**.  
Cisco CallManager opens the Find and List Phones page.

**Step 2** Click **Add a New Phone**.

Cisco CallManager opens the Add a New Phone page.

**Step 3** Select **CTI Port** for **Phone Type** and click **Next**.

Cisco CallManager opens the Phone Configuration page.

**Step 4** Configure the CTI Port, entering at minimum this information:

- **Device Name**—Enter something meaningful to you, for example, CTI5001.
- **Device Pool**—Select an appropriate device pool.

**Step 5** Click **Insert**.

Cisco CallManager creates the CTI port and asks if you want to configure line 1. Click **OK**. Cisco CallManager opens the Directory Number Configuration page.

**Step 6** In the **Directory Number** field, enter an unused extension number for the port, such as 5001. All subsequent numbers you configure for the Cisco Conference Connection CTI route point must be consecutive with this number.

**Step 7** Click **Insert**.

Cisco CallManager adds the line to the device. Repeat the procedure to create each CTI port that you require. Only create one line for each CTI port.

---



**Tip**

- To start Cisco CallManager, open <http://servername/ccmAdmin> in your web browser, where *servername* is the DNS name or IP address of the system running Cisco CallManager.
  - If you are using a version of Cisco CallManager other than 3.2, the steps for creating the CTI ports might be slightly different. See the Cisco CallManager online help for more specific information.
-

# Creating a Cisco CallManager JTAPI User for Cisco Conference Connection

Create a JTAPI user for Cisco Conference Connection in Cisco CallManager. Cisco Conference Connection uses this account to gain access to Cisco CallManager and control the CTI route points and CTI ports you defined for its use.

## Procedure

---

- Step 1** In Cisco CallManager, select **User > Add a New User**.  
Cisco CallManager opens the User Information page.
- Step 2** Complete the following required fields:
- **First Name**—Use a descriptive name such as “CCC”
  - **Last Name**—Use a descriptive name such as “JTAPI”
  - **UserID**—Use a descriptive name such as “cccjtapi”
  - **User Password and Confirm Password**—Enter a password and enter it again for confirmation
  - **PIN and Confirm PIN**—Enter a PIN and enter it again for confirmation
  - **Enable CTI Application Use**—Select this checkbox.
- Step 3** Click **Insert** to create the user.  
Cisco CallManager adds the user.
- Step 4** Click **Device Association** in the left-hand column.  
Cisco CallManager opens the Assign Devices subpage of the User Information page.
- Step 5** Enter search criteria to list the desired CTI route point and CTI ports, or enter nothing to list all devices, and click **Select Devices** to list the devices.

- Step 6** In the list that Cisco CallManager produces, select these devices:
- The CTI route point created for Cisco Conference Connection. See the [“Creating the Conference Call CTI Route Point”](#) section on page 3-4 for more information.
  - All CTI ports created for Cisco Conference Connection’s use. See the [“Creating the CTI Ports”](#) section on page 3-5 for more information.

Make sure you select the **No Primary Extension** radio button.

- Step 7** Click **Update** to save your changes.
- 

**Tip**

- To start Cisco CallManager, open `http://servername/ccmAdmin` in your web browser, where *servername* is the DNS name or IP address of the system running Cisco CallManager.
  - If you are using a version of Cisco CallManager other than 3.2, the steps for creating the user might be slightly different. See the Cisco CallManager online help for more specific information.
- 

## Adding the Cisco Conference Connection Server as an H.323 Gateway

You must define the Cisco Conference Connection server as an H.323 gateway in Cisco CallManager. The server must be defined as an H.323 gateway so that it can host conference calls.

### Procedure

---

- Step 1** Select **Device > Gateway**.
- Cisco CallManager opens the Find and List Gateways page.
- Step 2** Click **Add a New Gateway**.
- Cisco CallManager opens the Add a New Gateway page.

**Step 3** Select **H.323 Gateway** for Gateway Type, **H.225** for Device Protocol, and click **Next**.

Cisco CallManager opens the Gateway Configuration page.

**Step 4** Define the gateway configuration. These are the minimum settings:

- **Device Name**—The IP address or DNS name of the Cisco Conference Connection server.
- **Device Pool**—Select an appropriate device pool.
- **Caller ID DN**—Leave this field blank.
- **Calling Party Selection**—Select **Originator**. This sends the originator's directory number on outbound calls.
- **Presentation Bit**—Select **Allowed**. This transmits caller ID on calls.
- **Display IE Delivery**—Do not select this.
- **Gatekeeper Name**—Select **None**.
- **Media Termination Point Required**—Do not select this.
- **Num Digits**—Select **32**.
- **Sig Digits**—Do not select this.
- **Prefix DN**—Leave this field blank.
- **Run H225D On Every Node**—Select this.
- **Called Party IE Number Type**—Select **Cisco CallManager**.
- **Calling Party IE Number Type**—Select **Cisco CallManager**.
- **Called Numbering Plan**—Select **Cisco CallManager**.
- **Calling Numbering Plan**—Select **Cisco CallManager**.

**Step 5** Click **Insert**.

Cisco CallManager creates the gateway.

**Step 6** Click **Reset Gateway** to reset the gateway and apply the changes.

Cisco CallManager opens the Reset Gateway window. Read the information and click **Reset**.

---

**Tip**

- 
- To start Cisco CallManager, open `http://servername/ccmAdmin` in your web browser, where *servername* is the DNS name or IP address of the system running Cisco CallManager.
  - If you are using a version of Cisco CallManager other than 3.2, the steps for creating the gateway might be slightly different. See the Cisco CallManager online help for more specific information.
- 

## Creating the Route Pattern

Create a route pattern for Cisco Conference Connection's use. When a caller asks to be connected to a conference call, Conference Director appends the conference ID to the route pattern and forwards the call. The route pattern must be defined in Cisco CallManager so that these calls are forwarded to the H.323 gateway configured on the Cisco Conference Connection server.

### Procedure

---

**Step 1** Select **Route Plan > Route Pattern**.

Cisco CallManager opens the Find and List Route Patterns page.

**Step 2** Click **Add a New Route Pattern**.

Cisco CallManager opens the Route Pattern Configuration page.

**Step 3** Enter the information for the route pattern:

- **Route Pattern**—A unique pattern that can be routed to the Cisco Conference Connection H.323 gateway. Use *n.!#*, where *n* is a unique number in your dial plan. For example, **11111.!#**.

The route pattern must be different from the CTI route point created in the [“Creating the Conference Call CTI Route Point”](#) section on page 3-4.

- **Numbering Plan**—Select the numbering plan for your area.
- **Route Filter**—Select **None**.
- **Gateway/Route List**—Select the Cisco Conference Connection H.323 gateway.

- **Route Option**—Select **Route this pattern**.
- **Provide Outside Dial Tone**—Do not select this.
- **Urgent Priority**—Do not select this.
- **Calling Party Transformations**—Leave all of these fields blank, unselected, or defaulted.
- **Called Party Transformations**—Select **PreDot** for **Discard Digits**. Leave all other fields blank.

**Step 4** Click **Insert**.

Cisco CallManager saves the route pattern.

---



**Tip**

- To start Cisco CallManager, open `http://servername/ccmAdmin` in your web browser, where *servername* is the DNS name or IP address of the system running Cisco CallManager.
  - If you are using a version of Cisco CallManager other than 3.2, the steps for creating the route pattern might be slightly different. See the Cisco CallManager online help for more specific information.
- 

## Creating the Cisco Conference Connection Administrative User

Create a Cisco CallManager user for Cisco Conference Connection administration in Cisco CallManager. You must create this user so that you can log into Cisco Conference Connection with administrator authority. After you gain access to Cisco Conference Connection, you can assign other users administrator authority. You can then delete the cccadmin user from Cisco CallManager if you so desire.

### Procedure

---

**Step 1** In Cisco CallManager, select **User > Add a New User**.

Cisco CallManager opens the User Information page.

**Step 2** Complete the following required fields:

- **First Name**—Use a descriptive name such as “CCC”
- **Last Name**—Use a descriptive name such as “Admin”
- **UserID**—Enter `ccadmin`
- **User Password and Confirm Password**—Enter a password and enter it again for confirmation
- **PIN and Confirm PIN**—Enter a PIN and enter it again for confirmation

**Step 3** Click **Insert** to create the user.

Cisco CallManager adds the user.

---



#### Tip

- To start Cisco CallManager, open `http://servername/ccmAdmin` in your web browser, where *servername* is the DNS name or IP address of the system running Cisco CallManager.
  - If you are using a version of Cisco CallManager other than 3.2, the steps for creating the user might be slightly different. See the Cisco CallManager online help for more specific information.
- 

## Creating the Cisco Conference Connection IP Phone Service

You can create a service for Cisco IP Phones that support IP Phone Services that provides easy access to Cisco Conference Connection conference calls.



If you create this service, users can subscribe to the service from the Cisco CallManager User Options page that they use to configure their other telephone settings (such as speed dials). The service appears in the Services menu. Alternatively, you can define the service as a default service for all or for a set of users.

Hidden conference calls are only displayed to conference owners and Cisco Conference Connection administrators. Other users cannot see these conferences on the phone. This prevents unauthorized access to a conference.

### Procedure

---

**Step 1** Select **Feature**>**Cisco IP Phone Services**.

The Cisco IP Phone Services Configuration page appears.

**Step 2** Enter the information for the service:

- **Service Name**—The name of the service as it will appear on the phone. For example, ConferenceConnection.
- **Service Description**—A description of the service. For example, “Connect to conference calls.”

- **Service URL**—The URL required to connect to the service. The URL is:  
`http://CCCserver/servlet/DCL.MeetingServer.Admin.DCMSAdmin?Template=teleservice&DialPrefix=Number`

where:

- *CCCserver* is the IP address of the Cisco Conference Connection server.
- *Number* is the number from the route pattern created in the [“Creating the Route Pattern”](#) section on page 3-10. Do not include the dot or the wildcards. For example, if the route pattern is 11111.!,# , enter **11111** in the URL.

**Step 3** Click **Insert**.

Cisco CallManager adds the service. Now you must create the parameters for the service.

**Step 4** Click **New** to add the UserName parameter.

Cisco CallManager opens a separate window for creating the parameter. Enter these settings:

- **Parameter Name**—Enter **Name**.  
You can also define the Name parameter as any of these: UserName, name, username, Username, userName.
- **Parameter Display Name**—Enter **Name**.
- **Default Value**—Leave blank.
- **Parameter Description**—Enter a meaningful description, such as “Enter your Cisco CallManager user name.”
- **Parameter is Required**—Select this.

**Step 5** Click **Insert**.

Cisco CallManager adds the parameter.

**Step 6** Click **New** to add the Password Parameter. Enter these settings:

- **Parameter Name**—Enter **Password**.  
You can also define the Password parameter as any of these: password, UserPassword, userPassword, Userpassword, userpassword.
- **Parameter Display Name**—Enter **Password**.
- **Default Value**—Leave blank.
- **Parameter Description**—Enter a meaningful description, such as “Enter your Cisco CallManager password.”
- **Parameter is a Password (mask contents)**—Select this.

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

Cisco CallManager creates the parameter and closes the window.

**Step 8** Click **Update Subscriptions** on the Cisco IP Phone Services Configuration page.

The new service appears in the list of Cisco IP Phone Services and users can now select it.



**Tip**

- To start Cisco CallManager, open <http://servername/ccmAdmin> in your web browser, where *servername* is the DNS name or IP address of the system running Cisco CallManager.

- If you are using a version of Cisco CallManager other than 3.2, the steps for creating the IP Phone Service might be slightly different. See the Cisco CallManager online help for more specific information.
- 

## Disabling Music On Hold for Conference Calls

In Cisco CallManager, you can configure music on hold so that callers hear music when one of your users places a call on hold. This can be disruptive if a user places a conference call on hold. The music, and possible announcements, can prevent other callers on the conference call from continuing the call until the user who placed the call on hold returns to the call.

You can disable music on hold for conference calls by creating a Media Resource Group in Cisco CallManager for all music on hold resources, and adding all phones for which you want to enable music on hold to the resource group list with the group. This disables music on hold for callers within the same Cisco CallManager cluster, but does not disable music on hold for outside callers.

This procedure shows how to create a new Media Resource Group for music on hold resources.

### Procedure

---

**Step 1** Select **Service>Media Resource>Media Resource Group**.

Cisco CallManager opens the Media Resource Group Configuration page.

**Step 2** Enter this information:

- **Media Resource Group Name**—The name of the group. For example, MOHGroup.
- **Devices for this Group**—Select all of the music on hold servers in the available resources list and click the down arrow to add them to the selected resources list.

**Step 3** Click **Insert**.

Cisco CallManager adds the group.

**Step 4** Select **Service>Media Resource>Media Resource Group List**.

Cisco CallManager opens the Media Resource Group List Configuration page.

**Step 5** Enter this information:

- **Media Resource Group List Name**—The name of the resource group list. For example, MOHList.
- **Media Resource Groups for this List**—Select the music on hold resource group you just created in the available media resource groups list and click the down arrow to add them to the selected media resource groups list.

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

Cisco CallManager adds the group list.

**Step 7** Configure all phones for which you want to support music on hold to use the Media Resource Group List you just created. You can use the BAT tool to reconfigure many phones at one time.



---

**Note** Make sure you do not assign a music on hold Media Resource Group List to the Cisco Conference Connection H.323 gateway. This will re-enable music on hold for conference calls.

---



**Tip**

- To start Cisco CallManager, open <http://servername/ccmAdmin> in your web browser, where *servername* is the DNS name or IP address of the system running Cisco CallManager.
  - If you are using a version of Cisco CallManager other than 3.2, the steps for creating the media resource group and group list might be slightly different. See the Cisco CallManager online help for more specific information.
-



## Configuring the CRA Engine for Cisco Conference Connection

---

Cisco Conference Connection uses the Cisco Customer Response Applications Engine (CRA Engine) to run the Conference Director interactive voice response (IVR) application. This application is used to ask callers which conference call they want to attend. You must configure several elements for the CRA Engine using the CRA Application Administration web interface.

1. Log into CRA Application Administration and complete the initial directory configuration. See the [“Logging In and Configuring Directory Information” section on page 4-2](#) for more information.
2. Configure the database for the Cisco CRA Engine. The database maintains the conference scheduling information created by Cisco Conference Connection users. See the [“Configuring the Cisco CRA Engine’s Database Subsystem” section on page 4-4](#) for more information.
3. Configure the Cisco CRA Engine’s JTAPI subsystem to use the Cisco CallManager JTAPI user you created for Cisco Conference Connection. See the [“Configuring the JTAPI Subsystem on the Cisco CRA Engine” section on page 4-6](#) for more information.
4. Add a CTI port group in the Cisco CRA Engine’s JTAPI subsystem that contains the CTI ports that you created for Cisco Conference Connection’s use. See the [“Adding the CTI Port Group” section on page 4-7](#) for more information.

5. Add the Conference Director application to the Cisco CRA Engine. See the “[Configuring the Conference Director IVR Application](#)” section on page 4-8 for more information.
6. Optionally, replace the Conference Director’s prompts with Japanese prompts, if your conference call attendees are primarily Japanese speakers. See the “[Using Japanese Voice Prompts](#)” section on page 4-10 for more information.

For more detailed information about configuring the CRA Engine and using the CRA Application Administration web interface, see the online help.

## Logging In and Configuring Directory Information

The Cisco IP Telephony Directory server stores two types of information used by the Cisco Customer Response Application (Cisco CRA) Engine. First, it stores directory information, which includes CTI port and routing configurations. Second, it contains the repository subdirectory, which stores the applications used with the Cisco CRA Engine.

Cisco recommends that you use one IP Telephony Directory with Cisco Conference Connection, rather than split the directory information and repository subdirectories onto separate servers.

### Procedure

- 
- Step 1** Log into the Cisco CRA Application Administration page by opening `http://servername/AppAdmin` in your web browser, where *servername* is the DNS name or IP address of the Cisco Conference Connection server. Use a Windows NT network administrator account to log into the application.

When you initially log in, you are presented with the setup page.

Click **Help** for detailed information when using the application.



---

**Note** If you are using the computer that is running Cisco CRA, you can open Cisco CRA Application Administration by selecting **Start>Programs>Cisco CRA Administrator>Application Administrator**.

---

**Step 2** Select **Setup** on the setup page.

Cisco CRA Application Administration opens the Directory Configuration page.

**Step 3** Use [Table 4-1](#) to fill in the fields on the Directory Configuration page. Look at your existing IP Telephony Directory to determine the correct values.

**Table 4-1 Directory Configuration**

| Field                      | Description                                                                                                                                                                                                                                                                                                  | Default for DC Directory             |
|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
| Directory hostname         | DNS name or IP address of the Cisco IP Telephony Directory server to be used for the Cisco CRA Engine profile. Normally, this is the Publisher Cisco CallManager directory server.                                                                                                                           |                                      |
| Directory port number      | The port number of the Cisco IP Telephony Directory.                                                                                                                                                                                                                                                         | 8404                                 |
| Directory user (DN)        | The user name (also called the distinguished name) configured on the directory server for the user that has permission to modify the Cisco IP Telephony tree and object entries.                                                                                                                             | cn=Directory Manager,<br>o=cisco.com |
| Directory password         | The password for the Directory user.                                                                                                                                                                                                                                                                         | ciscocisco                           |
| User Base                  | The branch of the Cisco IP Telephony Directory tree that contains user-defined information.                                                                                                                                                                                                                  | ou=Users, o=cisco.com                |
| Base Context               | The branch of the Cisco IP Telephony Directory tree that contains the Cisco configuration information.                                                                                                                                                                                                       | o=cisco.com                          |
| Server Type                | The type of LDAP directory—MS Active Directory, Netscape Directory Server, or DC Directory.                                                                                                                                                                                                                  | DC Directory                         |
| Configuration Profile Name | The profile name that identifies this engine configuration.<br><br>If you are reinstalling or upgrading Cisco Conference Connection, enter the profile name you previously used. This will recover your previous configuration for the CRA Engine subsystems and the Conference Director application script. |                                      |

**Step 4** Select **Initialize profile**.

If you want to maintain separate profiles for your directory and repository configurations, select **Use a Different Repository Profile**. However, Cisco recommends that you do not select this for Cisco Conference Connection. If you leave this unchecked, the Cisco Conference Connection server uses the directory configuration information to build the application repository configuration.

**Step 5** Click **OK**.

If you elected to use a different repository profile, the repository configuration window appears. Complete these fields with the configuration information appropriate for your repository directory.

---

## Configuring the Cisco CRA Engine's Database Subsystem

You must configure the Cisco CRA Engine's database subsystem so that Cisco Conference Connection can control entry into conferences. The conference scheduling information is kept in this database. If the database is not available (or configured incorrectly):

- If the Conference Director default password is "null," callers are transferred to conferences without any validation. The default password is described in the ["Configuring the Conference Director IVR Application" section on page 4-8](#).
- If the default password is not null, users hear the "system problem" message described in the ["Caller Gets "System Problem" Message" section on page 7-21](#) and are not transferred to conferences.

### Procedure

---

**Step 1** In Cisco CRA Application Administration, at the Application Administration Main Menu, click **Database** in the Options column.

Cisco CRA Application Administration opens the Enterprise Database Subsystem Configuration page.



**Step 2** Click **Add New Data Source**.

Cisco CRA Application Administration opens the Data Source Configuration page.

**Step 3** Enter this information:

- **Data Source Name—DCMS**
- **Username—sa**
- **Password and Confirm Password**—The password for the sa user specified when you installed MSDE during Cisco Conference Connection installation.
- **Maximum Number of Connections**—The number of CTI ports you defined for Cisco Conference Connection as described in the [“Creating the CTI Ports”](#) section on page 3-5.

**Step 4** Click **Update**.

Cisco CRA Application Administration creates the data source.

---

**Tip**

- To start Cisco CRA Application Administration, open `http://servername/AppAdmin` in your web browser, where *servername* is the DNS name or IP address of the application server. Click Help for detailed information on using the interface. If you are using the computer that is running Cisco CRA, you can start it by selecting **Start>Programs>Cisco CRA Administrator>Application Administrator**.
-

# Configuring the JTAPI Subsystem on the Cisco CRA Engine

You must configure the JTAPI subsystem on the Cisco CRA Engine. The Cisco CRA Engine uses the JTAPI subsystem to send and receive calls from Cisco CallManager. This enables callers to connect to the Conference Director IVR application, and have their calls connected to a conference.

## Procedure

---

- Step 1** In Cisco CRA Application Administration, at the Application Administration Main Menu, click **JTAPI** in the Options column.
- Cisco CRA Application Administration opens the JTAPI Configuration page.
- Step 2** Enter the JTAPI configuration information:
- **JTAPI providers**—The IP address or DNS name of the CTI Manager for the Cisco CallManager cluster. You can specify up to two CTI Managers, separated by a space. If the first CTI Manager becomes unavailable, the second CTI Manager takes over the conference calls without dropping the calls.
- However, the first system you list must be available when the CRA Engine starts or the JTAPI subsystem will not start.
- **UserID**—The user ID for the JTAPI user you defined in the [“Creating a Cisco CallManager JTAPI User for Cisco Conference Connection”](#) section on page 3-7. For example, **cccjtapi**.
  - **Password**—The password for this user.
- Step 3** Click **Update** to enter your changes. Now, create the CTI port group as described in the [“Adding the CTI Port Group”](#) section on page 4-7.
- 



### Tip

- To start Cisco CRA Application Administration, open <http://servername/AppAdmin> in your web browser, where *servername* is the DNS name or IP address of the application server. Click Help for detailed

information on using the interface. If you are using the computer that is running Cisco CRA, you can start it by selecting **Start>Programs>Cisco CRA Administrator>Application Administrator**.

---

## Adding the CTI Port Group

Identify the CTI ports you created for Cisco Conference Connection's use on the JTAPI Configuration page in the Cisco CRA Application Administration configuration. The collection of these ports are called a *CTI port group*.

### Procedure

---

- Step 1** In Cisco CRA Application Administration, at the Application Administration Main Menu, click **JTAPI** in the Options column.
- Step 2** On the JTAPI configuration page, click **Add new CTI Port Group**.
- Step 3** On the Add a new CTI Port Group page, select **Applications** for **CTI Port Group Type** and click **Next**.
- Step 4** On the CTI Port Group Configuration page, enter this information:
- Number—Enter **1** or another number of your choosing.
  - Initial CTI Port—The first CTI port directory number you created for Cisco Conference Connection in the [“Creating the CTI Ports” section on page 3-5](#). For example, **5001**.
  - Last CTI Port—The CTI port directory number of the last CTI port you defined for Cisco Conference Connection. For example, **5010**.
- The port group contains all CTI ports from the first port to the last port, inclusive of these ports. Ensure that you have defined all of these ports in Cisco CallManager.
- Step 5** Click **Update**.
-

**Tip**

- To start Cisco CRA Application Administration, open `http://servername/AppAdmin` in your web browser, where *servername* is the DNS name or IP address of the application server. Click Help for detailed information on using the interface. If you are using the computer that is running Cisco CRA, you can start it by selecting **Start>Programs>Cisco CRA Administrator>Application Administrator**.

## Configuring the Conference Director IVR Application

After you have configured the Cisco CRA Engine subsystems, you can configure the Cisco Conference Connection IVR application. After you complete this configuration, users will be able to call the Cisco Conference Connection CTI route point and request to be connected to specific conference calls.

### Procedure

- 
- Step 1** In Cisco CRA Application Administration, at the Application Administration Main Menu, click **Telephony Application** in the Options column.
- Step 2** Click the **Add New Application** link on the Application page.  
Cisco CRA Application Administration opens the Application Configuration page.
- Step 3** Enter this information on the Application Configuration page:
- **Application Name**—Enter a name for the application that you will find meaningful, for example, **Conference Connection**.
  - **Script Name**—Use the drop-down box to select **conference.aef**.
- Step 4** Click **Next**.  
Cisco CRA Application Administration opens the Application Parameters Configuration page.
- Step 5** Enter this information on the Application Parameters Configuration page:

- **CTI Route Point**—The CTI route point that you created for Cisco Conference Connection as described in the [“Creating the Conference Call CTI Route Point”](#) section on page 3-4. For example, **5000**.
- **Maximum Number of Sessions**—The number of CTI ports you added in Cisco CallManager as described in the [“Creating the CTI Ports”](#) section on page 3-5. For example, **10**.
- **Enabled**—Select **Yes** to start the Conference Director IVR application.
- **GWPrefix**—The number from the route pattern you created for Cisco Conference Connection as described in the [“Creating the Route Pattern”](#) section on page 3-10. Only enter the number; do not include the dot or wildcards. For example, if the route pattern is 11111.!, enter **11111**.
- **OperExtn**—The extension of the phone that will be used by the human operator. Callers are transferred to the operator if they fail to supply a valid conference ID in three tries. If you do not want callers to be transferred to an operator, enter the word **null**. If enter an invalid extension, callers will hear a message that the extension is invalid.
- **DefaultPassword**—The default conference call password. If you enter a password, it must be a numeric string from 1 to 10 digits long. If a conference call is created without an owner-supplied password, callers must enter this default password to attend the conference. If you do not want to password-protect conferences when the owner does not supply a password, enter the word **null**.

If you enter a password with non-numeric characters, or one that is longer than 10 digits or shorter than 4 digits, callers hear the “system problem” message mentioned in the [“Caller Gets “System Problem” Message”](#) section on page 7-21 and are disconnected.

The default password is only used for callers who try to join a conference by calling the CTI route point. Callers who use the IP Phone Service bypass this application and are only required to enter owner-specified passwords (if any). If you want to force all callers to supply passwords, configure Cisco Conference Connection to require them for all conferences, as described in the [“Customizing the Information Page and Configuring System Settings”](#) section on page 5-7.

See the [“Scheduling Conferences”](#) section on page 6-1 for a more thorough explanation of password protection for conference calls.

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

Cisco CRA Application Administration adds the application and returns to the Applications page.

**Step 7** Select **Main Menu>Engine**.

**Step 8** On the Engine page, click **Start**.

When the Engine status is “running” and the subsystems indicate they are “in service,” Cisco Conference Connection is functional. People can call into the Cisco Conference Connection by dialing the directory number of the CTI route point.



**Tip**

- To start Cisco CRA Application Administration, open `http://servername/AppAdmin` in your web browser, where *servername* is the DNS name or IP address of the application server. Click Help for detailed information on using the interface. If you are using the computer that is running Cisco CRA, you can start it by selecting **Start>Programs>Cisco CRA Administrator>Application Administrator**.

## Using Japanese Voice Prompts

You can replace the Conference Director’s voice prompts with equivalent Japanese voice prompts if you are supporting Japanese speakers. However, adding Japanese voice prompts does not change the language used on the Cisco Conference Connection web pages.

### Before You Begin

You must complete the Cisco CRA Engine and Cisco Conference Connection configuration before you replace the voice prompts. Ensure the Conference Director application is running correctly before proceeding.

## Procedure

---

**Step 1** Run this batch file:

```
C:\Program Files\Cisco\ConferenceConnection\InternationalPrompts\  
setupJapanesePrompts.bat
```

**Step 2** When asked if you want to overwrite the existing .wav files, reply **All**.

The batch file copies the Japanese voice prompts into the appropriate directories, and creates backup copies of the English prompts. You can restore the English prompts from these backup directories:

- C:\Program Files\wfvavvid\Prompts\system\en\_US\defaultbakup
- C:\Program Files\wfvavvid\Prompts\user\en\_US\defaultbakup
- C:\Program Files\Cisco\ConferenceConnection\Prompts\defaultbakup

**Step 3** Restart the Cisco CRA Engine:

- a. In Cisco CRA Application Administration, at the Application Administration Main Menu, click **Engine** in the Options column.
  - b. Click **Stop Engine**.
  - c. After the engine is stopped, click **Start Engine**.
- 



### Tip

- To start Cisco CRA Application Administration, open <http://servername/AppAdmin> in your web browser, where *servername* is the DNS name or IP address of the application server. Click Help for detailed information on using the interface. If you are using the computer that is running Cisco CRA, you can start it by selecting **Start>Programs>Cisco CRA Administrator>Application Administrator**.
-







# Managing Cisco Conference Connection

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These topics describe how to manage the Cisco Conference Connection server.

- [Starting and Stopping Cisco Conference Connection, page 5-2](#)
- [Logging Into Cisco Conference Connection, page 5-2](#)
- [Entering Cisco Conference Connection License Keys, page 5-3](#)
- [Managing Users, page 5-5](#)
- [Customizing the Information Page and Configuring System Settings, page 5-7](#)
- [Creating a Port Usage Report, page 5-11](#)
- [Deleting a Group of Past Conferences, page 5-13](#)
- [Tips for Managing Cisco Conference Connection, page 5-14](#)

# Starting and Stopping Cisco Conference Connection

The Cisco Conference Connection software must be started and running before users can log in and create and manage conference calls.

To start the Cisco Conference Connection server, select **Start>Programs>Cisco Conference Connection>Start Cisco Conference Connection**.

To stop the Cisco Conference Connection server, select **Start>Programs>Cisco Conference Connection>Stop Cisco Conference Connection**.

## Logging Into Cisco Conference Connection

You must log into the Cisco Conference Connection web interface to set up the Cisco Conference Connection license and to manage conference calls. Users and administrators log into the same interface, but administrative capabilities are not visible to regular users.

### Before You Begin

To do administrative tasks, you must log into Cisco Conference Connection using a user ID that has been identified as an administrator in Cisco Conference Connection (as described in the [“Identifying Cisco Conference Connection Administrators”](#) section on page 5-6).

The cccadmin user is always given administrator privilege: if you are logging in for the first time, use the cccadmin user ID. You must create the cccadmin user in Cisco CallManager before you can log in using the ID; see the [“Creating the Cisco Conference Connection Administrative User”](#) section on page 3-11 for more information.

### Procedure

---

- Step 1** In your web browser, open `http://servername`, where *servername* is the DNS name or IP address of the Cisco Conference Connection server.
- The browser opens the Login for Cisco Conference Connection page.
- Step 2** Enter your user name and password, and click **Login**.
- Cisco Conference Connection logs you into the interface. If your account has administrative privileges, you will see the **Administration Tasks and Reports** link in the left-hand column along with the other links.
- When you are finished, log out of the interface by clicking **Logout**.
- 

## Entering Cisco Conference Connection License Keys

You must enter a valid license key for the number of ports you purchased for use with Cisco Conference Connection. The number of ports determines the number of simultaneous callers that can be hosted on concurrent conference calls. For example, to support two simultaneous conference calls, one with 12 callers, the other with 8 callers, you would need a 20-port license.

One port is required for each telephone connected to the conference, not for each caller. For example, if five people meet in an office and use one telephone to dial into a conference, they count as one caller.

When users create conference calls, they reserve these ports. Other users cannot reserve ports that are already reserved for another conference. For example, if someone reserves 12 out of the 20 ports for a conference, anyone else who wants to schedule a conference for the same time can reserve at most 8 ports. When the conference starts, these ports remain reserved for the entire call, even if they are not all used. This ensures that late callers can still connect to their conferences.

### Authorization Requirement

You must log in as a Cisco Conference Connection administrator to perform this task.

### Before You Begin

When you install Cisco Conference Connection, it automatically enables a 6-port license. You do not have to enter a license key to use these 6 ports.

If 6 ports is insufficient for your needs, purchase the port license keys that meet your requirements, and have the license key documents on hand. You might need more than one key to enable the number of ports you require. For example, to upgrade to 100 ports, you must have a key to increase the 6-port license to 20 ports, and another key to increase the 20-port license to 100 ports.

At the time this document was written, these license key upgrades were available. See your Cisco representative for a current list of the key combinations you can purchase.

- 6- to 20-port upgrade
- 20- to 60-port upgrade
- 60- to 100-port upgrade
- 20- to 100-port upgrade

You must restart the Cisco Conference Connection server to update the license keys, so plan on doing this procedure during a time when there are no active conference calls.

### Procedure

- 
- Step 1** Click **Administration Tasks and Reports** in the left-hand column.  
Cisco Conference Connection opens the Administration Tasks and Reports page.
- Step 2** Click **Administer Licenses** in the Administration Tasks section.  
Cisco Conference Connection opens the License Settings for Cisco Conference Connection page.
- Step 3** Enter the license key and click **Update**.  
Cisco Conference Connection opens the License Settings Updated page and confirms the license update. If you have additional license keys to enter, click **Enter additional License Keys**.  
You cannot enter keys for more ports than are supported on the server hardware.

- Step 4** Restart the Cisco Conference Connection server.
- a. Click **Logout** to log out of Cisco Conference Connection.
  - b. Select **Start>Programs>Cisco Conference Connection>Stop Cisco Conference Connection** to stop the server. Wait until the server is completely stopped before restarting it.
  - c. Select **Start>Programs>Cisco Conference Connection>Start Cisco Conference Connection** to restart the server.
- 

## Managing Users

These topics describe the Cisco Conference Connection user types and how to create administrators:

- [Understanding Cisco Conference Connection Users, page 5-5](#)
- [Identifying Cisco Conference Connection Administrators, page 5-6](#)

## Understanding Cisco Conference Connection Users

Cisco Conference Connection users are defined in Cisco CallManager. All users you create in Cisco CallManager can log into Cisco Conference Connection using the same user name and password they use to log into the Cisco CallManager user pages (for configuring their telephones). These “regular users” can add and view conferences in Cisco Conference Connection, and modify or delete any conference they own.

In addition to regular users, you can create Cisco Conference Connection administrators. Administrators can perform all regular-user tasks plus system-management tasks such as updating license keys, running system reports, deleting old conferences, and modifying conferences scheduled by any user. The [“Creating the Cisco Conference Connection Administrative User” section on page 3-11](#) explains how to create the initial administrator, cccadmin. The [“Identifying Cisco Conference Connection Administrators” section on page 5-6](#) explains how to identify additional administrators (or remove them).

# Identifying Cisco Conference Connection Administrators

Initially, the cccadmin user is the only administrator. If this suits your needs, you do not need to identify other administrators. Otherwise, you can identify as many administrators as you require.

If the cccadmin user is defined in Cisco CallManager, that user can log into Cisco Conference Connection as an administrator even though cccadmin does not appear in the administrator's list in Cisco Conference Connection. If you want to prevent someone from logging in using the cccadmin account, ensure you assign administrative access to at least one user in Cisco Conference Connection, and then delete the cccadmin user from Cisco CallManager.

## Authorization Requirement

You must log in as a Cisco Conference Connection administrator to perform this task.

## Before You Begin

The user IDs you add must already be defined in Cisco CallManager. See the [“Creating the Cisco Conference Connection Administrative User”](#) section on [page 3-11](#) for an example of creating a user in Cisco CallManager.

If you upgraded from Cisco Conference Connection 1.1, you can see the previous list of administrators by clicking **Get list of initially configured Administrators** at the bottom of the page. You can select users from this list and click **Add** to add them as administrators. The names must be defined as users in Cisco CallManager.

## Procedure

- 
- Step 1** Click **Administration Tasks and Reports** in the left-hand column.  
Cisco Conference Connection opens the Administration Tasks and Reports page.
- Step 2** Click **Administer Users** in the Administration Tasks section.  
Cisco Conference Connection opens the User Administration page. Existing administrators are listed.

**Step 3** Identify the administrators:

- To add administrators, enter their user IDs (as defined in Cisco CallManager) in **Provide Administrator privileges** and click **Add**. If you enter more than one user ID, separate the IDs with spaces.
  - To remove users, select them in the administrators list and click **Remove**. Use Ctrl+click to select multiple users; Shift+click to select a range of users.
- 

## Customizing the Information Page and Configuring System Settings

Cisco Conference Connection includes an optional Information page that users can view by clicking **Info** in the web interface. Use this page to tell users the telephone numbers to use for calling into conferences, and to provide other useful information. If you wish, you can also disable the Information page to prevent users from viewing the information.

There are also several system-wide settings that control how users interact with Cisco Conference Connection.

### Authorization Requirement

You must log in as a Cisco Conference Connection administrator to perform this task.

### Before You Begin

Click the **Info** button to see how the page looks. This will help you decide what information to include in the various sections of the page.

### Procedure

---

**Step 1** Click **Administration Tasks and Reports** in the left-hand column.

Cisco Conference Connection opens the Administration Tasks and Reports page.

**Step 2** Click **Configure Settings/Information Page** in the Administration Tasks section.

Cisco Conference Connection opens the Admin Settings/Information Configuration page.

**Step 3** Modify the information settings as desired. [Table 5-1](#) explains the fields.

**Table 5-1 Information Page Settings**

| Field                         | Description                                                                                                                                                                                                                                                                                                                                                                                                  |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Display Button                | Select whether to display the <b>Info</b> button to the user.<br><br>If you do not display the Info button, users will not be able to open the Information page. Some information is still available: see individual descriptions for details.                                                                                                                                                               |
| Urgent Message                | Enter any urgent messages for your users. The information is displayed in the lower left of the web interface and on the Information page.<br><br>The maximum message length is 200 characters. Leave the field blank to display no urgent message.                                                                                                                                                          |
| News                          | Enter any news that might be useful for users, such as system down-time. The information is only displayed on the Information page.                                                                                                                                                                                                                                                                          |
| Primary Dial-In Information   | Enter the primary conference call number that users should dial to join a conference (the CTI route point for Cisco Conference Connection).<br><br>In the second edit box, enter instructions for using the number.<br><br>The information is displayed on the Information page, the Conference Information page for a given conference, and in the email notice conference owners can send to participants. |
| Alternate Dial-In Information | Enter any alternate conference call numbers. For example, external numbers, toll-free numbers, and so on.<br><br>In the second edit box, enter instructions for using these numbers.<br><br>The information is displayed on the Information page, the Conference Information page for a given conference, and in the email notice conference owners can send to participants.                                |



Table 5-1 Information Page Settings (continued)

| Field                                     | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Additional Notes                          | <p>Enter any additional information about connecting to conferences or for getting help.</p> <p>The information is displayed on the Information page, the Conference Information page for a given conference, and in the email notice conference owners can send to participants.</p>                                                                                                                                                                                                                                                                                                                                                                              |
| Support Information                       | <p>Enter information about who users should contact if they are having problems using Cisco Conference Connection, for example, if they need administrative intervention during a conference call.</p> <p>This information is displayed on the Information page.</p>                                                                                                                                                                                                                                                                                                                                                                                               |
| Alternate Conference Connection Resources | <p>Select whether to display information about other Conference Connection servers. If you display this information, it is displayed on the Information page.</p> <p>You can create active links by using HTML coding:</p> <pre>&lt;a href="http://secondary-server"&gt; Secondary Server&lt;/a&gt;</pre>                                                                                                                                                                                                                                                                                                                                                          |
| Conference Password                       | <p>Select whether conference calls must be password protected:</p> <ul style="list-style-type: none"> <li>• <b>Required</b>—Regular users must specify a password when creating or modifying conferences. Only administrators can still create non-password protected conferences.</li> <li>• <b>Optional</b>—It is up to the conference creator to determine if the conference needs to be password-protected.</li> </ul>                                                                                                                                                                                                                                         |
| Random Password Generation                | <p>Select whether passwords must be randomly generated:</p> <ul style="list-style-type: none"> <li>• <b>Required</b>—Conference creators must click <b>Random</b> to generate passwords; they cannot enter a password of their choosing. When they add a conference, Cisco Conference Connection primes the password field with a random password.</li> <li>• <b>Optional</b>—It is up to the conference creator to determine whether to use a random password or to specify a password of their choosing.</li> <li>• <b>Random Password Length</b>—Select the length of randomly generated passwords. The length must be between 4 and 10 (inclusive).</li> </ul> |

Table 5-1 Information Page Settings (continued)

| Field                          | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Password-Protected Conferences | <p>Select whether to hide conferences that are password-protected.</p> <ul style="list-style-type: none"> <li>Always Hide—If a conference is password protected, hide it. This overrides the Hide Conference setting for the conference. A regular user must know the conference name or ID to see the conference information for these conferences, although the password remains hidden. Otherwise, only administrators and the conference owner can see the conference in the web interface (these users can also see the password).</li> </ul> <p>The Cisco Conference Connection IP Phone Service only displays unhidden conferences. Thus, if you require passwords for all conferences, and specify that they are always hidden, the service will not be useful and you should consider not making it available (as described in the <a href="#">“Creating the Cisco Conference Connection IP Phone Service”</a> section on page 3-12).</p> <ul style="list-style-type: none"> <li>Do Not Hide—The Hide Conference setting controls whether password-protected conferences are hidden.</li> </ul> |
| Hidden Conference              | <p>Select whether the Hide Conference check box is checked or unchecked by default on the Add Conference page. The conference creator can change this selection.</p> <p>If a conference is hidden, only administrators and the conference creator can see the conference when listing conferences on the web interface.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Modify button                  | Click this button to save your changes.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Reset button                   | Click this button to reset the settings to the last saved selections.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

**Step 4** Click **Modify** to save your changes.

---

# Creating a Port Usage Report

You can create a port usage report to see how Cisco Conference Connection resources have been used during a specified period of time. This can help you identify whether you have sufficient ports, or whether a significant number of ports are being reserved but not used. You might be able to identify chronic waste and work with the user who is reserving an unnecessarily large number of ports.

## Authorization Requirement

You must log in as a Cisco Conference Connection administrator to perform this task.

## Procedure

- 
- Step 1** Click **Administration Tasks and Reports** in the left-hand column.
- Cisco Conference Connection opens the Administration Tasks and Reports page.
- Step 2** Click **Port Usage** in the Administration Reports section.
- Cisco Conference Connection opens the Port Usage Report for Cisco Conference Connection page.
- Step 3** Specify the search criteria for your report using these fields. A conference is only included in your report if it satisfies all search criteria:
- **Conference Name**—Optionally, the name of the conference. You can use wildcards to specify partial information, so you can make a report on a group of similar conferences:
    - \* (asterisk)—Matches one or more characters. For example, status\* would match anything that began with the word “status,” while \*status\* would match anything that included the word “status.”
    - ? (question mark)—Matches exactly one character. For example, ?ut matches “out” but does not match “debut.”
  - **Conference ID**—Optionally, the identifier for the conference. Use the \* or ? wildcard characters to specify partial IDs.

- **Conference Creator**—Optionally, the user ID of the person who created the conference. Use the \* or ? wildcard characters to specify partial names.
- **From** and **To**—The date range for the report. A conference must occur on the From date, the To date, or any date between them to appear on the report. Either use the drop-down boxes to select dates or click **Calendar** to select the dates from a calendar.

To generate a report of all conferences during a date range, select the date range in these fields and leave all other fields blank.

**Step 4** Click **Submit** to generate the report.

Cisco Conference Connection generates the port usage report. If any conferences match your search criteria, they are listed. Each row of the report includes this information:

| Conference name and conference creator.                                     | Conference ID. | Conference date. | Port usage, in the form <i>ports used / ports scheduled</i> .                                |
|-----------------------------------------------------------------------------|----------------|------------------|----------------------------------------------------------------------------------------------|
| Click the conference name to see detailed information about the conference. |                |                  | If <i>ports used</i> is 0, no one attended the conference, including the conference creator. |

In addition to the per-conference information, the report includes summary information about the number of conferences, the number of ports used verses those scheduled, and the number of conferences that no one attended.

Up to 100 conferences are displayed per page in the report. If your search criteria covers more than 100 conferences, you must page through the report to see all the information.

# Deleting a Group of Past Conferences

As an administrator, you can delete groups of old conferences rather than delete them one at a time. Deleting old conferences frees room in your database. As a guideline, consider deleting conferences that are older than 30 days.

## Authorization Requirement

You must log in as a Cisco Conference Connection administrator to perform this task.

## Procedure

- 
- Step 1** Click **Administration Tasks and Reports** in the left-hand column.  
Cisco Conference Connection opens the Administration Tasks and Reports page.
- Step 2** Click **Bulk Delete Past Conferences** in the Administration Tasks section.  
Cisco Conference Connection opens the Bulk Delete Past Conferences for Cisco Conference Connection page.
- Step 3** Select the start (**From** field) and end (**To** field) dates for the time period in which you want to delete all of the conferences. You can not select conferences within this date range to save or delete; all conferences in the range will be deleted.  
  
Click **Calendar** if you would like to choose see a calendar and select a date by clicking on it in the calendar. When viewing the calendar, click < or > to move through the months, and << or >> to move through the years. Or, select the month and year in the drop-down and edit boxes.
- Step 4** Click **Submit**.  
Cisco Conference Connection deletes all conferences within the selected date range.
-

# Tips for Managing Cisco Conference Connection

Here are some tips for managing conferences and getting good performance from Cisco Conference Connection:

- Restrict administrative changes to off hours.
- Reset gateways only when necessary. If any callers are connected to a conference through the gateway, they are dropped from the conference when you reset the gateway.
- Reset the Cisco Conference Connection server only when necessary. Resetting the server drops all active conferences.
- Before stopping a conference in progress, join the conference and warn attendees that the call is being stopped.



## Managing Conferences

---

As a system administrator, you can manage conferences through the Cisco Conference Connection web interface. When you log in as an administrator, you can modify any conferences, not just your own. You can also see all hidden and password-protected conferences.

These sections describe how to use Cisco Conference Connection to schedule, change, and delete conferences, and the various ways users can connect to conferences. The procedures described are the same procedures your users would use to accomplish the same tasks on conferences they have the authority to create, view, or modify.

- [Scheduling Conferences, page 6-1](#)
- [Viewing Conference Details, page 6-6](#)
- [Modifying Conferences, page 6-13](#)
- [Deleting Conferences, page 6-17](#)
- [Joining Conferences, page 6-18](#)

## Scheduling Conferences

To schedule a conference, you add it to the Cisco Conference Connection database. By adding a conference, you are reserving Cisco Conference Connection resources for your conference, and no one else can reserve or use those resources, even if you do not use all the resources you reserved for the conference. Try to estimate the resources you require accurately.

### Procedure

- Step 1** Click **Add a Conference** in the left-hand column.  
Cisco Conference Connection opens the Add a Conference page.
- Step 2** Enter the information for your conference. [Table 6-1](#) describes the fields on the page.

**Table 6-1 Add a Conference Page**

| Field                  | Description                                                                                                                                                                                                                            | Notes                                                                                                                                                                                                                                               |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Conference Name        | The name of your conference. This name appears in lists in Cisco Conference Connection. The name cannot duplicate the name of any concurrent conference.                                                                               | The name can be up to 27 characters, including letters, numbers, spaces, hyphens, and parentheses.                                                                                                                                                  |
| Description            | Optionally, a description of the conference.                                                                                                                                                                                           |                                                                                                                                                                                                                                                     |
| Start Time             | The time at which the conference will start. This time is based on the time zone of the Cisco Conference Connection server. If you are creating a conference in a server in a different time zone, adjust your start time accordingly. | The time is rounded down to the nearest 5 minute interval. The end time is rounded up to the nearest 5 minute interval. Best practice is to schedule conferences in at least 5 minute intervals (for example 1:00, 1:05, 1:10, 1:15, and so forth). |
| Duration               | The length of the conference.                                                                                                                                                                                                          |                                                                                                                                                                                                                                                     |
| Start Date             | The date of the conference. If you are scheduling a recurring conference, enter the date of the first conference in the series.                                                                                                        | You can click <b>Calendar</b> to select the start date from a calendar. You cannot select a year more than one year in the future.                                                                                                                  |
| Number of Participants | The number of telephones that will be connecting to the conference. If some conference participants dial in together from one telephone (for example, from a conference room), they count as one participant.                          | You cannot specify more participants than the number of reservations that are available on the server for your selected time slot. You are only informed if resources are unavailable after you click <b>Add Conference</b> .                       |



Table 6-1 Add a Conference Page (continued)

| Field          | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Notes                                                                                                                                                                                                                                                                                                                         |
|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Repeat Options | <p>How often the conference will occur:</p> <ul style="list-style-type: none"> <li>• <b>Single</b>—The conference occurs once.</li> <li>• <b>Weekly</b>—The conference occurs each week. If you select Weekly, a secondary window opens for you to specify this information: <ul style="list-style-type: none"> <li>– <b>Every X weeks</b>—The weekly frequency; every week (1), every other week (2), every third week (3), and so forth.</li> <li>– <b>On</b>—On which days of the week the conference will be held.</li> <li>– <b>Ending</b>—Either the ending date, or the number of conferences to be held before ending the series.</li> </ul> </li> <li>• <b>Monthly</b>—The conference occurs each month. If you select Monthly, a secondary window opens for you to specify this information: <ul style="list-style-type: none"> <li>– <b>On day of month</b>—The day of the month on which the conference occurs; either a specific date, or a specified day of the week (such as the third Monday).</li> <li>– <b>Ending</b>—Either the ending date, or the number of conferences to be held before ending the series.</li> </ul> </li> </ul> | <p>To set up a daily conference, select Weekly and select the days you want to hold the conference.</p> <p>If you specify a number of conferences to be held rather than an end date, these are the maximum numbers you can specify:</p> <ul style="list-style-type: none"> <li>• Weekly—120</li> <li>• Monthly—24</li> </ul> |

Table 6-1 Add a Conference Page (continued)

| Field                | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Notes                                                                                                                                                                                                                                                                                                                                                             |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Hidden Conference?   | Whether the conference should be hidden from other regular users. If you check this box, only you and administrators can view information about the conference in the web interface. This does not prevent callers from connecting to the conference if they know the telephone number and conference ID.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | The administrator can force all password-protected conferences to be hidden, so if you specify a password, your conference might be hidden regardless of your selection here.                                                                                                                                                                                     |
| Set Meeting Password | <p>The password for the conference, if one is desired. If you enter a password, callers must enter both the conference ID and password to join the conference. The password can be 4 to 10 numbers (no letters or other characters). Click <b>Random</b> to generate a random password.</p> <p>The administrator can make passwords a requirement for conferences, and can require that passwords be randomly generated and of a certain length. If random passwords are required, a random password appears in the field when you open the Add a Conference page, and you can only change it by clicking <b>Random</b>.</p> <p>The administrator can also decide if all password-protected conferences are hidden; the web interface will indicate whether setting a password hides the conference. Otherwise, the conference is hidden based on the <b>Hidden Conference?</b> setting.</p> | <p>If you enter a password, only you and administrators can see the password in the web interface.</p> <p>The administrator can set a default password, so that if you do not enter a password, callers must enter the default password to enter your conference. The administrator should make it clear whether there is a default password for conferences.</p> |

**Table 6-1 Add a Conference Page (continued)**

| Field                  | Description                                                                                                                                                                                                                    | Notes                                                                                                                                                |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| Override Conference ID | Optionally, enter a specific identifier for the conference. This is the number callers must enter when requesting your conference. If you do not specify a number, Cisco Conference Connection generates a unique one for you. | If you specify a conference ID, the number must be unique; that is, no other conference can be using that ID already. The ID can be up to 10 digits. |

**Step 3 Click Add Conference.**

Cisco Conference Connection adds the conference if there are sufficient resources and your conference information is adequately complete and satisfies administrative rules, and displays a conference confirmation. If possible, Cisco Conference Connection will modify some elements before adding the conference (such as conference ID); you can change these later if they do not suite your needs. You can find the conference by clicking **Scheduled Conferences** in the left-hand column.

If Cisco Conference Connection cannot add the conference, it tells you the reasons, and returns you to the Add a Conference page so that you can modify the conference details to resolve the problems.

**Step 4 Notify attendees about the conference.**

From the conference confirmation page, you can click **Email Conference Information** to add the conference information to an email message created in the email program configured for your browser. You can then address the email, modify it as desired, and send it to the intended conference participants.

**Related Topics**

- [Viewing Conference Details, page 6-6](#)
- [Modifying Conferences, page 6-13](#)
- [Deleting Conferences, page 6-17](#)
- [Joining Conferences, page 6-18](#)

# Viewing Conference Details

There are several ways in which you can view lists of conferences and access detailed information about a conference. Which conferences show up in the lists, and what information you can see in the conference details, depends on whether you created the conference, or whether you are a Cisco Conference Connection administrator.

- Administrators can see all conferences and conference details.
- Regular users can see all their own conferences (and their details), but cannot see other users' hidden conferences. The only way for a regular user to see someone else's hidden conference is to search for the conference using the exact conference name or ID. You cannot see the conference passwords for other users' conferences.

These topics describe how to view conference information:

- [Viewing Conferences in Progress, page 6-6](#)
- [Viewing Scheduled Conferences, page 6-7](#)
- [Viewing Past Conferences, page 6-8](#)
- [Understanding Conference Information, page 6-9](#)
- [Searching for Conferences, page 6-11](#)

## Viewing Conferences in Progress

Click **Conferences in Progress** to see a list of conferences that are currently running. Conferences you created are listed separately.

If the list is long, you can locate a conference by entering the conference name in the Find box and clicking **Find**. If you want to search on other attributes, click **Search** in the page heading and enter your search criteria. See the "[Searching for Conferences](#)" section on page 6-11 for more information about running searches.

To view detailed information about a conference, click the conference name. The "[Understanding Conference Information](#)" section on page 6-9 explains conference details.

If there is more than one page's worth of conferences, use the **Next** and **Prev** links at the bottom of the page to move through the list.

### Related Topics

- [Viewing Scheduled Conferences, page 6-7](#)
- [Viewing Past Conferences, page 6-8](#)
- [Scheduling Conferences, page 6-1](#)
- [Modifying Conferences, page 6-13](#)
- [Deleting Conferences, page 6-17](#)
- [Joining Conferences, page 6-18](#)

## Viewing Scheduled Conferences

Click **Scheduled Conferences** to see a list of conferences that are scheduled. This includes conferences that are currently running and those that are scheduled to run in the future. Conferences you created are listed separately.

If the list is long, you can locate a conference by entering the conference name in the Find box and clicking **Find**. If you want to search on other attributes, click **Search** in the page heading and enter your search criteria. See the [“Searching for Conferences” section on page 6-11](#) for more information about running searches.

To view detailed information about a conference, click the conference name. The [“Understanding Conference Information” section on page 6-9](#) explains conference details.

If there is more than one page’s worth of conferences, use the **Next** and **Prev** links at the bottom of the page to move through the list.

If a conference is set up to repeat, each individual conference in the series is listed separately. There is no single entry for the entire series. To view a list of conferences in a repeating series, click a member of the series to see the conference information, and then click the links in the Recurrence section to see lists of past or future conferences in the series.

### Related Topics

- [Viewing Conferences in Progress, page 6-6](#)
- [Viewing Past Conferences, page 6-8](#)
- [Scheduling Conferences, page 6-1](#)
- [Modifying Conferences, page 6-13](#)

- [Deleting Conferences, page 6-17](#)
- [Joining Conferences, page 6-18](#)

## Viewing Past Conferences

Click **Past Conferences** to see a list of conferences that have already taken place. Only conferences that have ended are listed. Past conferences you created are listed separately.

If the list is long, you can locate a conference by entering the conference name in the Find box and clicking **Find**. If you want to search on other attributes, click **Search** in the page heading and enter your search criteria. See the “[Searching for Conferences](#)” section on page 6-11 for more information about running searches.

To view detailed information about a conference, click the conference name. The information includes a list of participants for the conference. The “[Understanding Conference Information](#)” section on page 6-9 explains conference details.

If there is more than one page’s worth of conferences, use the **Next** and **Prev** links at the bottom of the page to move through the list.

If a conference is set up to repeat, each individual conference in the series is listed separately. There is no single entry for the entire series. To view a list of conferences in a repeating series, click a member of the series to see the conference information, and then click the links in the Recurrence section to see lists of past or future conferences in the series.

### Related Topics

- [Viewing Conferences in Progress, page 6-6](#)
- [Viewing Scheduled Conferences, page 6-7](#)
- [Scheduling Conferences, page 6-1](#)
- [Modifying Conferences, page 6-13](#)
- [Deleting Conferences, page 6-17](#)
- [Joining Conferences, page 6-18](#)

## Understanding Conference Information

When you click on a conference name in a list of conferences (whether in-progress, scheduled, or past, or from a search results screen), Cisco Conference Connection displays the Conference Information page for the conference. The Conference Information page includes the information described in [Table 6-2](#).

**Table 6-2 Conference Information**

| Field                  | Description                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Conference Owner       | The user who create the conference (by user ID).                                                                                                                                                                                                                                                                                                                                                              |
| Number of Participants | The maximum number of participants (telephones) who can join the conference. This is the number of ports reserved for the conference.                                                                                                                                                                                                                                                                         |
| Start Date and Time    | The scheduled starting date and time for the conference.                                                                                                                                                                                                                                                                                                                                                      |
| End Date and Time      | The scheduled ending date and time for the conference.                                                                                                                                                                                                                                                                                                                                                        |
| Conference ID          | The identifier for the conference. Callers must enter this number to join the conference.                                                                                                                                                                                                                                                                                                                     |
| Dial-in Info           | Information about how a caller can dial into the conference or obtain assistance. The contents of this field are determined by what the administrator entered into the Information page.                                                                                                                                                                                                                      |
| Record Identifier      | The record number in the database for this conference. This information is only for the administrator's use in troubleshooting the system. The identifier is displayed in some Windows Event log messages.                                                                                                                                                                                                    |
| Repeat ID              | Indicates whether this is a repeating conference, that is, whether the conference was defined to be repeated (such as every week). <ul style="list-style-type: none"> <li>• 0—Indicates the conference does not repeat.</li> <li>• Non-0—Indicates the conference does repeat. The number is the database record number in the repeating conference table. This number is for diagnostic use only.</li> </ul> |
| Conference Password    | The password for the conference, if any. Only conference owners and administrators can see the password.                                                                                                                                                                                                                                                                                                      |
| Hidden Conference      | Whether the conference is hidden.                                                                                                                                                                                                                                                                                                                                                                             |

**Table 6-2** Conference Information (continued)

| Field                          | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|--------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Recurrence                     | If the conference is part of a recurring series, this section describes the series, including information about the type of recurrence (for example, monthly or weekly), how many conferences are in the series, the dates and times of the first and last conferences in the series, plus links to view lists of the past and future conferences in the series.                                                                                                                                                                                                                                                                                                                                                                |
| Email Conference Information   | Click this link to add the conference information to an email message created in the email program configured for your browser. You can then address the email, modify it as desired, and send it to the intended conference participants.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Participant Information        | <p>If you are viewing the details for a past conference, the page includes information about the conference participants:</p> <ul style="list-style-type: none"> <li>• Participant—The telephone number. The IP address of the gateway or the Cisco CallManager server is listed if the caller ID was not available. The caller ID might not be available if the gateway is not configured to transmit it, or if the caller's number is configured to not broadcast caller ID.</li> <li>• Start time—The time each participant joined the conference.</li> <li>• Duration—How long each participant remained in the conference.</li> <li>• Total number of participants—How many participants joined the conference.</li> </ul> |
| Conference Management Commands | <p>At the bottom of the page is additional information about the conference and links to perform actions you are authorized to perform on the conference. Actions might include deleting or modifying the conference. If the conference is one in a series, you might also be given the option to delete or modify the series.</p>                                                                                                                                                                                                                                                                                                                                                                                              |

**Related Topics**

- [Viewing Conferences in Progress, page 6-6](#)
- [Viewing Scheduled Conferences, page 6-7](#)
- [Viewing Past Conferences, page 6-8](#)
- [Searching for Conferences, page 6-11](#)



- [Scheduling Conferences](#), page 6-1
- [Modifying Conferences](#), page 6-13
- [Deleting Conferences](#), page 6-17
- [Joining Conferences](#), page 6-18

## Searching for Conferences

You can search for conferences while viewing the lists of in-progress, scheduled, or past conferences.

You can quickly search by conference name by entering the conference name in the Find box and clicking **Find**.

However, if you need to search by something other than conference name, or if you are searching for a hidden conference, use this procedure.

### Procedure

---

**Step 1** Click **Search** in the page heading when viewing in-progress, scheduled, or past conferences.

Cisco Conference Connection opens the Search page.

**Step 2** Enter your search criteria as described in [Table 6-3](#).

You can use wildcards to search using partial information, or to see a group of similar conferences:

- \* (asterisk)—matches one or more characters. For example, status\* would match anything that began with the word “status,” while \*status\* would match anything that included the word “status.”
- ? (question mark)—matches exactly one character. For example, ?ut matches “out” but does not match “debut.”
- If you want to start over entering search criteria, click **Reset** or simply type over your original entries.

**Table 6-3 Search Criteria**

| Field              | Description                                                                                                                                                                                                              |                                                                                                                                                                                                                                           |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Conference Name    | The name of the conference.                                                                                                                                                                                              | If you are a regular user, and enter the exact conference name, you can view the details of a hidden conference created by someone else.                                                                                                  |
| Conference ID      | The conference identification number.                                                                                                                                                                                    | If you are a regular user, and enter the exact ID, you can view the details of a hidden conference created by someone else.                                                                                                               |
| Conference Creator | The user ID of the person who created the conference. Cisco Conference Connection does not maintain information about the user's real name.                                                                              |                                                                                                                                                                                                                                           |
| From and To        | The start and end date for the search. Only conferences that occur between the from and to dates will satisfy the search criteria.<br><br>These fields do not appear when you are searching for in-progress conferences. | You can click <b>Calendar</b> to select dates from a calendar. When viewing the calendar, click < or > to move through the months, and << or >> to move through the years. Or, select the month and year in the drop-down and edit boxes. |

**Step 3** Click **Search** to search for the conferences.

Cisco Conference Connection lists the conferences matching your search criteria, if any. You can click the conference name to get more information about a conference.

#### Related Topics

- [Viewing Conferences in Progress, page 6-6](#)
- [Viewing Scheduled Conferences, page 6-7](#)

- [Viewing Past Conferences, page 6-8](#)
- [Scheduling Conferences, page 6-1](#)
- [Modifying Conferences, page 6-13](#)
- [Deleting Conferences, page 6-17](#)
- [Joining Conferences, page 6-18](#)

## Modifying Conferences

Regular users can modify any conference they created, while administrators can modify any conference. The characteristics you can modify for a conference depend on whether the conference is in progress or scheduled for a future time. These topics describe how to modify conferences based on this difference.

- [Modifying In-Progress Conferences, page 6-13](#)
- [Modifying Scheduled Conferences, page 6-15](#)

## Modifying In-Progress Conferences

If a conference is in progress, you can only stop the conference or modify its duration. These topics describe how to make these changes:

- [Stopping a Conference, page 6-13](#)
- [Changing the Duration of a Conference, page 6-14](#)

## Stopping a Conference

You can stop a conference while it is running. Callers on the conference are not warned that the conference is stopping. The call is simply dropped and all callers are disconnected.

### Procedure

---

- Step 1** Click **Conferences in Progress** in the left-hand column.  
Cisco Conference Connection opens the Conferences in Progress page.
- Step 2** Find the conference you want to stop and click the conference name.  
Cisco Conference Connection opens the Conference Information page.
- Step 3** Click **Stop this conference** in the maintenance commands section at the bottom of the page.
- Step 4** Cisco Conference Connection asks you to confirm that you want to stop the conference. Click **OK** to stop the conference.  
Cisco Conference Connection stops the conference and returns you to the Conferences in Progress page. The conference might still appear on this page initially, but you can click the refresh link at the bottom of the page after a few minutes to update the list.
- 

### Related Topics

- [Viewing Conferences in Progress, page 6-6](#)
- [Searching for Conferences, page 6-11](#)

## Changing the Duration of a Conference

You can change the duration of a conference while it is running if there are enough resources available for extending the conference. Because Cisco Conference Connection does this for you automatically, you do not need to extend a conference if the conference participants stay on line at the original end of conference. You only need to extend a conference if all callers plan to hang up and reconnect (for example, after taking a break).

Whether you modify the duration directly, or allow Cisco Conference Connection to do it automatically, the conference can only be extended if there are available resources. Thus, you might not be able to extend the conference.

### Procedure

---

- Step 1** Click **Conferences in Progress** in the left-hand column.  
Cisco Conference Connection opens the Conferences in Progress page.
- Step 2** Find the conference whose duration you want to change and click the conference name.  
Cisco Conference Connection opens the Conference Information page.
- Step 3** Click **Modify conference duration** in the maintenance commands section at the bottom of the page.  
Cisco Conference Connection opens the Modify Conference page.
- Step 4** Change the duration to the desired length of time. If you are shortening the conference, the minimum amount of time you can shorten it by is 10 minutes.
- Step 5** Click **Modify Conference**.  
Cisco Conference Connection changes the conference duration and opens the Conference Confirmation window.
- 

### Related Topics

- [Viewing Conferences in Progress, page 6-6](#)
- [Searching for Conferences, page 6-11](#)
- [Understanding Conference Information, page 6-9](#)

## Modifying Scheduled Conferences

If a conference is scheduled but not running, you can modify any characteristic of the conference within the limits of resource availability, administrative rules, and the requirement that the conference ID be unique.

## Procedure

---

- Step 1** Click **Scheduled Conferences** in the left-hand column.
- Cisco Conference Connection opens the Scheduled Conferences page.
- Step 2** Find the conference you want to modify and click the conference name.
- Cisco Conference Connection opens the Conference Information page.
- Step 3** Find the maintenance commands listed at the bottom of the page, and click the appropriate link:
- Click **Modify this conference** to change the displayed conference. If this is a single conference that is not in a series, this is the only modify command available. If this conference is part of a series, if you use this link to make a change you are only changing this one conference in the series; you are not changing the series. Changing one conference in a series unlinks it from the other conferences in the series and makes it a single conference.
  - Click **To modify the entire series, click here** to make your changes apply to every conference in the series.
- Cisco Conference Connection opens the Modify Conference page if you click either link.
- Step 4** Make your changes. If you are modifying a recurring conference, and you want to modify the repeat option without changing it from weekly or monthly, simply click the selected radio button, and Cisco Conference Connection opens the options page.
- [Table 6-1 on page 6-2](#) describes all of the conference scheduling options.
- Step 5** Click **Modify Conference** to save your changes.
- If system resources are available and other requirements are met, Cisco Conference Connection saves your changes and opens the Conference Confirmation window. If your changes are not acceptable, Cisco Conference Connection tells you the problems encountered so that you can make alternative changes.
- 

## Related Topics

- [Viewing Scheduled Conferences, page 6-7](#)
- [Scheduling Conferences, page 6-1](#)

- [Deleting Conferences, page 6-17](#)
- [Joining Conferences, page 6-18](#)
- [Understanding Conference Information, page 6-9](#)

## Deleting Conferences

Regular users can delete any conference they own. Administrators can delete any conference.

### Procedure

---

- Step 1** Click **Scheduled Conferences** in the left-hand column.  
Cisco Conference Connection opens the Scheduled Conferences page.
- Step 2** Find the conference you want to delete and click the conference name.  
Cisco Conference Connection opens the Conference Information page.
- Step 3** Find the maintenance commands listed at the bottom of the page, and click the appropriate link:
- Click **Delete this conference** to delete the displayed conference. If this is a single conference that is not in a series, this is the only delete command available. If this conference is part of a series, if you use this link you are only deleting this one conference in the series; you are not deleting the series.
  - Click **To delete the entire series, click here** to delete every conference in the series.
- Step 4** Cisco Conference Connection asks you to confirm that you want to delete the conference. Click **OK** to delete the conference.  
Cisco Conference Connection deletes the conference and returns you to the Scheduled Conferences page. The conference might still appear on this page initially, but you can click the refresh link at the bottom of the page after a few minutes to update the list.
-

**Related Topics**

- [Viewing Scheduled Conferences, page 6-7](#)
- [Scheduling Conferences, page 6-1](#)
- [Modifying Conferences, page 6-13](#)
- [Understanding Conference Information, page 6-9](#)

## Joining Conferences

Conference attendees can join a conference using any telephone that can dial into the conference telephone number. This is the basic method for joining a conference call.

If a caller is using a Cisco IP Phone that supports IP Phone Services, and the caller has registered for the service, the caller might be able to connect to the conference using the service.

These topics describe how to join conferences using these techniques:

- [Joining a Conference By Dialing the Conference Call Number, page 6-18](#)
- [Joining a Conference Using the Cisco Conference Connection IP Phone Service, page 6-19](#)

## Joining a Conference By Dialing the Conference Call Number

When you want to join a conference, dial the Cisco Conference Connection conference call telephone number and follow the prompts to specify the conference ID and password (if required). The person who created the conference should provide participants with the telephone number, conference ID, and password in advance of the conference.

You cannot enter a conference before the start time. If you try to enter a conference early, Conference Director will tell you the conference has not started yet, and that you must call back later.

When someone enters a conference, Cisco Conference Connection plays an entry tone to announce the arrival.

If you get a busy signal after entering a correct conference ID and password, that means that the conference is full and cannot accept more callers.



When you are ready to leave the conference, simply hang up. Callers who remain on the conference will hear an exit tone.

## Joining a Conference Using the Cisco Conference Connection IP Phone Service

If you are using a model of the Cisco IP Phone that supports IP Phone Services, such as the Cisco IP Phone 7940 or 7960 Series telephones, you can connect directly to unhidden conferences without entering the conference ID through the Conference Director interactive voice response system. These topics describe how to subscribe to the service and how to use it.

Even if your phone supports IP Phone Services, you can only subscribe to the service if the administrator sets it up on your network.

- [Subscribing to the Cisco Conference Connection IP Phone Service, page 6-19](#)
- [Joining a Conference Using the IP Phone Service, page 6-20](#)

### Subscribing to the Cisco Conference Connection IP Phone Service

If your administrator has enabled it, you can subscribe to the Cisco Conference Connection IP Phone Service through the Cisco CallManager User Options page where you set up your speed dials and subscribe to other phone services.

#### Procedure

- 
- Step 1** Using your web browser, log onto the Cisco CallManager User Options page. Ask your administrator if you do not know the URL.
  - Step 2** Select your phone from the Select a Device to Configure drop-down list.
  - Step 3** Click **Configure your Cisco IP Phone Service** from the list of available options. Cisco CallManager opens the Subscribe/Unsubscribe IP Phone Services page.
  - Step 4** Select **Cisco Conference Connection** from the list of available services. The name that appears here depends on what the administrator configured, so ask your administrator if you cannot identify Cisco Conference Connection.
  - Step 5** Click **Continue**.  
Cisco CallManager opens the parameters page for the service.

**Step 6** Enter your Cisco CallManager user ID and password. This is the same user ID and password you used to log into the User Options page.

**Step 7** Click **Subscribe**.

Cisco CallManager subscribes you to the service. See the [“Joining a Conference Using the IP Phone Service” section on page 6-20](#) for information on using the service.

If you want to unsubscribe from the service, you can do it through these pages. Simply select the service from your list of subscribed services and click **Unsubscribe**.

---

## Joining a Conference Using the IP Phone Service

After you subscribe to the Cisco Conference Connection IP Phone Service, you can connect directly to the conference using the service from your Cisco IP Phone.

### Before You Begin

Subscribe to the Cisco Conference Connection IP Phone Service as described in the [“Subscribing to the Cisco Conference Connection IP Phone Service” section on page 6-19](#). Your Cisco IP Phone must support IP Phone Services to use this feature.

### Procedure

---

**Step 1** Press the **Services** button on your Cisco IP Phone.

The phone displays a list of services to which you are subscribed.

**Step 2** Use the navigation buttons to scroll to the Cisco Conference Connection IP Phone Service and press the **Select** soft key.

Cisco Conference Connection displays the Conferences in Progress screen, which lists all non-hidden conferences that are currently taking place, if any. All of the conferences you own are listed even if hidden.

From this list, you can:

- Press **Refresh** to update the list of conferences.
- Press **Login** to log into Cisco Conference Connection using a different Cisco CallManager user ID.
- Press **Select** to view conference details for the highlighted conference.

**Step 3** Use the navigation buttons to select the conference you want to join and press the **Select** soft key.

Cisco Conference Connection shows detailed information about the conference. If the conference is password-protected, that fact is mentioned. If you are the conference owner, or a Cisco Conference Connection administrator, the actual password is displayed.

**Step 4** On the conference details page, press **JoinCnf** to join the conference.

- If the conference is password-protected, you are prompted to enter the password: enter it and press **Submit**. If you enter the correct password, Cisco Conference Connection tells you the password is verified: press **JoinCnf** again to join the conference.

If you enter an incorrect password, press **Back** and try again.

If you are the conference owner or an administrator, you are connected to the conference without having to enter the password.

- If the conference is not password-protected, you are connected directly to the conference.

When you want to leave the conference, hang up.



**Tip**

- If you are asked to log into Cisco Conference Connection, then you did not enter a valid user name or password when you signed up for the Cisco Conference Connection service, or perhaps you changed your

password after you originally signed up for it. Resubscribe to the service as described in the [“Subscribing to the Cisco Conference Connection IP Phone Service”](#) section on page 6-19.

---



# Troubleshooting Cisco Conference Connection

---

These topics help you identify and resolve problems you might have when using Cisco Conference Connection:

- [Troubleshooting Installation Problems, page 7-1](#)
- [Resolving Server Startup Problems, page 7-5](#)
- [Monitoring and Troubleshooting the CRA Engine, page 7-7](#)
- [Integrating with Network Management Systems, page 7-16](#)
- [Troubleshooting Problems in Joining Conferences, page 7-18](#)
- [Troubleshooting Conference Call Audio Problems, page 7-22](#)
- [Troubleshooting Web or IP Phone Service Problems, page 7-25](#)

## Troubleshooting Installation Problems

These topics help you identify and troubleshoot problems that arise while installing Cisco Conference Connection or when trying to initially configure the system:

- [Error Messages During Installation, page 7-2](#)
- [The Cisco Conference Connection Web Interface Does Not Work Correctly, page 7-3](#)

## Error Messages During Installation

Table 7-1 lists some likely errors you might encounter while installing Cisco Conference Connection. In general, look at the c:\ciscoInstall.log file for any problems related to installation.

**Table 7-1 Cisco Conference Connection Installation Error Messages**

| Error Message                                                                                | Description/Solution                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| “MSDE user password failed...”                                                               | <p>Verify that Microsoft Data Engine (MSDE) is installed correctly on the Cisco Conference Connection server machine by selecting <b>Start&gt;Programs&gt;MSDE</b>.</p> <p>If you do not find the MSDE folder, then MSDE was not installed correctly. This might happen if you installed the software using Terminal Services (do not use Terminal Services to install the product).</p> <p>Reinstall Cisco Conference Connection as described in the <a href="#">“Upgrading or Reinstalling Cisco Conference Connection” section on page 2-6</a>.</p> |
| “Serviceability installation failed” or “Installation of Compaq drivers and agent failed...” | <p>Check the c:\ciscoInstall.log file for errors related to the serviceability installation.</p> <p>Reinstall Cisco Conference Connection as described in the <a href="#">“Upgrading or Reinstalling Cisco Conference Connection” section on page 2-6</a>.</p>                                                                                                                                                                                                                                                                                         |
| “Unable to create Virtual Directory”                                                         | <p>You may have to create the virtual directory yourself.</p> <p>Try to log on to the Cisco Conference Connection Web interface. If you can log on successfully, then ignore this message.</p> <p>Otherwise, create the virtual directory yourself as described in the <a href="#">“The Cisco Conference Connection Web Interface Does Not Work Correctly” section on page 7-3</a>.</p>                                                                                                                                                                |
| “Unable to access Cisco CallManager directory...”                                            | <p>Follow the procedure described in the <a href="#">“Changes Required When Changing Directory Support” section on page 2-17</a>. You do not need to redo the CRA Engine configuration as mentioned in this procedure.</p>                                                                                                                                                                                                                                                                                                                             |

**Table 7-1 Cisco Conference Connection Installation Error Messages (continued)**

| Error Message                                                 | Description/Solution                                                                                                                                                                                                                                                                                         |
|---------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| “You do not have administrator privileges on this machine...” | You must log into Windows with administrative privileges to install the software. Log out and log in with an account that has administrative privileges.                                                                                                                                                     |
| “Failed to identify the IIS...”                               | Check to see if Microsoft Internet Information Services (IIS) are installed on the Cisco Conference Connection server.<br><br>If it is not installed, reinstall Cisco Conference Connection as described in the <a href="#">“Upgrading or Reinstalling Cisco Conference Connection”</a> section on page 2-6. |
| “An error occurred during the move data process:- 115”        | You tried to upgrade or reinstall the software without first uninstalling it. Follow the procedure described in the <a href="#">“Upgrading or Reinstalling Cisco Conference Connection”</a> section on page 2-6.                                                                                             |

## The Cisco Conference Connection Web Interface Does Not Work Correctly

If you get a message during installation that a virtual directory could not be created, and when you try to use the Cisco Conference Connection web interface it does not work correctly (for example, graphics are missing), it is likely that the Scripts (and possibly the DC-MeetingServer) virtual directory did not get installed and that you need to create the virtual directory yourself. Instead of creating the directory yourself, you can first try reinstalling the software. If that does not work, use this procedure to create the Scripts virtual directory.

If you need to create the DC-MeetingServer directory, the procedure is similar: use DC-MeetingServer instead of Scripts when indicated in the procedure.



### Note

If the web page does not appear at all, verify that you have started Cisco Conference Connection. If it is started, you need to reinstall the software.

## Procedure

---

- Step 1** Select **Start > Programs > Administrative Tools > Internet Services Manager**.  
Internet Information Services opens.
- Step 2** Select the Cisco Conference Connection server in the left pane.  
Internet Information Services displays the server information in the right pane.  
The information is also available in the left pane if you open the server's folder.
- Step 3** Double-click **Default Web Site** in the right pane.  
Internet Information Services displays the virtual directories of the  
Cisco Conference Connection web site.
- Step 4** Check to see if the Scripts virtual directory appears in the list. If it does not  
appear, create it:
- a. Right-click **Default Web Site** in the left pane and select **New > Virtual Directory**.  
Internet Information Services starts the Virtual Directory Creation wizard.
  - b. Click **Next**.
  - c. On the Virtual Directory Alias window, enter **Scripts** and click **Next**.
  - d. On the Web Site Content Directory window, click **Browse** and locate the  
c:\Inetpub\Scripts folder. Click **OK** to select the folder, and then **Next** to  
move to the next window.
  - e. On the Access Permissions window, clear all check boxes so that nothing is  
selected. Click **Next**.
  - f. Click **Finish** to close the wizard.
  - g. Right-click the Scripts directory in the right pane and select **Properties**.
  - h. On the Properties window, select the Virtual Directory tab and then select  
**Scripts and Executables** in the **Execute Permissions** field.
  - i. Click **OK** to save your changes to the properties.
  - j. Reboot the server so that your change is recognized.
-



# Resolving Server Startup Problems

These topics describe some problems you might encounter when starting or rebooting the Cisco Conference Connection server:

- [Services Fail To Start, page 7-5](#)
- [Subsystems Fail to Start, page 7-6](#)

**Note**

---

If you change the IP address or machine name of the Cisco Conference Connection server, the server might not start or function correctly. Reinstall the software as described in the “[Upgrading or Reinstalling Cisco Conference Connection](#)” section on page 2-6.

---

## Services Fail To Start

Several services must start for Cisco Conference Connection to work properly. These services include:

- Cisco Conference Connection services. These services should be configured to start automatically.
  - Cisco Application Engine
  - Conferencing Gateway
  - Cisco AVVID Alarm Service
- Windows services.
  - IIS Admin Service
  - World Wide Web Publishing Service
  - Event Log

If some services fail to start when you start the Cisco Conference Connection server:

1. Select **Start > Programs > Administrative Tools > Services** to open the Services control panel.
2. Double-click the Cisco Application Engine service to open the properties window, and select the **Log On** tab. The account used to log on must have administrative privileges on the server. If the password contains spaces, change it here.

## Subsystems Fail to Start

If the CRA Engine subsystems fail to start even if the engine is shown as running, reboot the Cisco Conference Connection server. This will resolve the problem in most cases. See the [“Monitoring CRA Engine Subsystem Status” section on page 7-7](#) for information on how to monitor CRA Engine status.

If restarting the server does not resolve the problem:

- JTAPI subsystem—See the [“Fixing JTAPI Subsystem Out-of-Service Status” section on page 7-11](#).
- Database subsystem—Check these things:
  - MSDE installation—Ensure that **Start > Programs > MDSE** exists. This indicates that MSDE was installed. If MDSE does not appear on the Programs menu, reinstall the software.
  - ODBC source creation—Ensure that **Start > Programs > Administrative Tools > Data Sources (ODBC) > System DSN > DCMS** exists. This indicates that the ODBC source was created.

If the DCMS data source does not appear, log into the Cisco Conference Connection web interface and schedule a conference. Then, recheck the Start menu path. If DCMS still does not appear, reinstall the software.

# Monitoring and Troubleshooting the CRA Engine

These topics describe how to monitor the CRA Engine and troubleshoot problems you might encounter with the CRA Engine status and configuration.

- [Monitoring CRA Engine Subsystem Status, page 7-7](#)
- [Setting Up and Viewing CRA Engine Trace Files, page 7-8](#)
- [Fixing JTAPI Subsystem Out-of-Service Status, page 7-11](#)
- [Resolving Problems Configuring the Directory, page 7-13](#)
- [Viewing Windows Event Messages, page 7-14](#)

## Monitoring CRA Engine Subsystem Status

The CRA Engine's subsystems must be in service for Cisco Conference Connection to work properly. You can monitor the status of the Engine and its subsystem's through the CRA Application Administration interface.

### Procedure

- 
- Step 1** In Cisco CRA Application Administration, at the Application Administration Main Menu, click **Engine** in the Options column.
- Cisco CRA Application Administration opens the Engine page. This page shows the status of the CRA Engine and its subsystems.
- Step 2** Determine the system status:
- If the Engine status is “running” and all subsystems are “IN\_SERVICE,” then the CRA Engine and its subsystems should be running properly. If you are having problems with the Cisco Conference Connection server and everything looks right on this page, try rebooting the server.
  - If the Engine status is not running, or one or more subsystem is “OUT\_OF\_SERVICE,” restart the CRA Engine by clicking **Start Engine**. You might have to click **Stop Engine** before you can restart it.

If the JTAPI subsystem remains out of service even after you restart the engine or reboot the server, you probably need to upgrade the JTAPI client to the most recent version. See the [“Fixing JTAPI Subsystem Out-of-Service Status” section on page 7-11](#) for more detailed information.

**Tip**

- To start Cisco CRA Application Administration, open `http://servername/AppAdmin` in your web browser, where *servername* is the DNS name or IP address of the application server. Click Help for detailed information on using the interface.

## Setting Up and Viewing CRA Engine Trace Files

The CRA Engine includes trace file facilities to help you and Cisco Technical Support track down persistent problems. Because tracing reduces the performance of the server, only turn on tracing when trying to troubleshoot. Do not leave tracing on under normal conditions.

### Procedure

- Step 1** In Cisco CRA Application Administration, at the Application Administration Main Menu, click **Engine** in the Options column.  
Cisco CRA Application Administration opens the Engine page.
- Step 2** Click **Trace Configuration**.  
Cisco CRA Application Administration opens the Trace Configuration page.
- Step 3** Select **Trace File Output** to enable tracing, and fill in the required information. Click **Help** and read the online help for detailed information about these settings and the trace level options you can select. Select the options by selecting the option's check box in the **Debugging** column.
- Step 4** To view the trace files, click **Trace Files**.

Cisco CRA Application Administration opens the Trace Files page. This page lists all the trace files that have been created. To view a file, click the file name in the list.

Table 7-2 explains some of the messages you might see.

**Table 7-2 Cisco Conference Connection CRA Engine Trace Messages**

| Summary Content                  | Description/Cause                                                      | Example                                                                                                                                                                        |
|----------------------------------|------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ProcessStart notification        | Usually the first line of a log, indicates that the engine was started | 0: Jul 10 10:09:59.984 PDT<br>%MIVR-ENG-7-UNK:ProcessStart notification signifies that a process has just started. : ProcessId = 2632<br>ModuleName = Cisco Application Engine |
| OUT OF SERVICE                   | Engine is not ready to receive calls (normal during startup)           | 179: Jul 10 10:10:02.828 PDT<br>%MIVR-SS_TEL-2-SS_OUT_OF_SERVICE:JTAPI subsystem in out of service                                                                             |
| Adding CTI Group                 | Shows the route number being selected                                  | 189: Jul 10 10:10:07.453 PDT<br>%MIVR-SS_TEL-7-UNK:Adding CTI Port Group: type = Workflow, id = 31517, initial CTI Port = 13050, max ports = 10                                |
| Successfully Registered CTI Port | Indicates CTI port is ready                                            | 190: Jul 10 10:10:07.890 PDT<br>%MIVR-SS_TEL-7-UNK:<br>Successfully registered CTI Port: 13050                                                                                 |
| Service Address Observer         | Now monitoring the port for incoming calls                             | 191: Jul 10 10:10:07.890 PDT<br>%MIVR-SS_TEL-7-UNK:<br>ServiceAddressObserver received CiscoAddrInService for port TPG[type = Workflow, id = 31517]-TP[num = 13050]            |

Table 7-2 Cisco Conference Connection CRA Engine Trace Messages (continued)

| Summary Content | Description/Cause                           | Example                                                                                                                                                                                    |
|-----------------|---------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Call Received   | Received a call from the number shown (ani) | 405: Jul 10 10:10:28.953 PDT<br>%MIVR-SS_TEL-7-UNK:<br>Call.received() Call[id: 1, media:<br>3555/3, state = RECEIVED, dn =<br>31517, ani = 67927, lrd = null, type =<br>DIRECT_CALL ...   |
| Call Answered   | Call is answered by the Engine              | 425: Jul 10 10:10:30.750 PDT<br>%MIVR-SS_TEL-7-UNK:<br>Call.answered() Call[id: 1, media:<br>3555/3, state = ANSWERED, dn =<br>31517, ani = 67927, lrd = null, type =<br>DIRECT_CALL ...   |
| Playing Prompt  | Indicates the media that is played          | 428: Jul 10 10:10:30.968 PDT<br>%MIVR-SS_TEL-7-UNK:<br>MediaManager playing C:\Program<br>Files\wfaavid\Prompts\user\en_US\<br>Rv_welcome.wav                                              |
| Collect Input   | Waiting for user to enter digits            | 434: Jul 10 10:10:33.750 PDT<br>%MIVR-ENG-7-UNK:Execute step of<br>Task 9000000001 : Parse Input (store in<br>User_Enter_Digit)                                                            |
| Call abandoned  | Caller hung up or was disconnected          | 440: Jul 10 10:10:34.359 PDT<br>%MIVR-SS_TEL-7-UNK:<br>Call.abandoned() Call[id: 1, media:<br>3555/3, state = ABANDONED, dn =<br>31517, ani = 67927, lrd = null, type =<br>DIRECT_CALL ... |
| Digit Received  | User digits received                        | 1237: Jul 10 12:06:36.531 PDT<br>%MIVR-SS_TEL-7-UNK:CallID:24<br>MediaId:3753/2 Task:9000000023<br>Digit received: 1                                                                       |

Table 7-2 Cisco Conference Connection CRA Engine Trace Messages (continued)

| Summary Content                      | Description/Cause                                       | Example                                                                                                                                                                                                                       |
|--------------------------------------|---------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Play Confirmation Prompt             | User has entered Conference ID followed by #            | 1254: Jul 10 12:06:44.062 PDT<br>%MIVR-SS_TEL-7-UNK:<br>MediaManager playing C:\Program Files\wfavvid\Prompts\user\en_US\Rv_confirm.wav                                                                                       |
| Redirect Participant into Conference | The caller is being transferred into the conference     | 1262: Jul 10 12:06:47.203 PDT<br>%MIVR-SS_TEL-7-UNK:CallID:24<br>MediaId:3753/2 Task:9000000023,<br>Redirecting call to: 15700111222<br>Unconditional: false<br>ResetOrigCalledAddr:true                                      |
| Transferred                          | Caller was successfully transferred into the conference | 1272: Jul 10 12:06:47.453 PDT<br>%MIVR-SS_TEL-7-UNK:<br>Call.transferred(15700111222) -<br>transferring Call[id: 24, media: 3753/2,<br>state = TRANSFERRED, dn = 31517,<br>ani = 71174, lrd = null, type =<br>DIRECT_CALL ... |

**Tip**

- To start Cisco CRA Application Administration, open `http://servername/AppAdmin` in your web browser, where *servername* is the DNS name or IP address of the application server. Click Help for detailed information on using the interface.

## Fixing JTAPI Subsystem Out-of-Service Status

If the CRA Engine's JTAPI subsystem is out of service, and restarting the CRA Engine (as described in the [“Monitoring CRA Engine Subsystem Status” section on page 7-7](#)) does not resolve the problem, you might need to upgrade the JTAPI client.

Before upgrading the client, first check to ensure that these things are correct. If they are not correct, fix them and recheck the JTAPI subsystem on the Cisco Conference Connection server.

- The Cisco CallManager and CTI Manager servers are up and running. Also check that the Cisco CallManager and CTI Manager services are running on those machines (check the Windows Services administrative tool).

If you have configured two JTAPI providers in the CRA Engine configuration, the first one listed must be up and running for the JTAPI subsystem to start correctly. If the first one listed is not operational, try switching them (or fix the problem with the first one).

- The IP address configured for the CRA Engine is the same address used on the server. To check the CRA Engine's IP address
  - In Cisco CRA Application Administration, at the Application Administration Main Menu, click **Engine** in the Options column.
  - Then, click **Configure**. If the IP address does not match the server's IP address, correct it and click **Update**. See the online help for more information about the Configuration page.

If none of these is the cause of the JTAPI subsystem problem, upgrade the JTAPI client on the Cisco Conference Connection server using this procedure:

### Procedure

- 
- Step 1** In Cisco CRA Application Administration, at the Application Administration Main Menu, click the **Engine** link in the Options column.  
Cisco CRA Application Administration opens the Engine page.
- Step 2** Click **Stop Engine**.  
Cisco CRA Application Administration stops the CRA Engine.
- Step 3** Open the browser on the Cisco Conference Connection server and log into the Cisco CallManager administration interface.
- Step 4** Select **Application > Install Plugins**.  
Cisco CallManager opens the Install Plugins page.
- Step 5** Click **Cisco JTAPI** in the list of plugins.  
The browser opens a file download window and asks whether you want to run the program from the current location or download it.



- Step 6** Select **Run this program from the current location** and click **OK**.  
The JTAPI client installation program starts.
- Step 7** Follow the on-screen instructions for installing the client. Reboot the Cisco Conference Connection server when the installation is complete.
- 

**Tip**

- To start Cisco CRA Application Administration, open `http://servername/AppAdmin` in your web browser, where *servername* is the DNS name or IP address of the application server. Click Help for detailed information on using the interface.
  - To start Cisco CallManager, open `http://servername/ccmAdmin` in your web browser, where *servername* is the DNS name or IP address of the system running Cisco CallManager.
  - If you are using a version of Cisco CallManager other than 3.2, the steps for installing the plug-in might be slightly different. See the Cisco CallManager online help for more specific information.
- 

## Resolving Problems Configuring the Directory

If you encounter problems trying to configure the Cisco CallManager directory in Cisco CRA Application Administration (as described in the [“Logging In and Configuring Directory Information”](#) section on page 4-2), it is likely that the directory server is unavailable.

Try pinging the directory server from the Cisco Conference Connection server to see if there is a network path between the servers. Check the directory server to ensure it is up and running correctly.

Also, check to ensure you have the correct password in the directory configuration.

## Viewing Windows Event Messages

You can view Cisco Conference Connection messages in the Windows Event Viewer to help diagnose problems with the system. See the Microsoft online help for information on using the Event Viewer administration tool.

To open the Event Viewer, select **Start>Programs>Administrative Tools>Event Viewer**. Select the application log to view Cisco Conference Connection messages. Cisco Conference Connection messages are from the DCMS source.

Some of the key messages to review are listed in [Table 7-3](#).

**Table 7-3** Cisco Conference Connection Event Viewer Application Log Messages

| Category | Summary                           | Description/Cause                                                              | Example                                                                   |
|----------|-----------------------------------|--------------------------------------------------------------------------------|---------------------------------------------------------------------------|
| 27       | Conference started                | A conference was started successfully                                          | Conference ID = 2368 started                                              |
| 28       | Conference...<br>entering endzone | Conference end time has arrived                                                | Conference 2008 entering the endzone with 0 clients connected             |
| 29       | Conference stopped                | Conference was ended                                                           | Conference ID = 2351 stopped and deleted from Slave's records             |
| 44       | Conference stop                   | Conference cannot continue due to resource restrictions (normal end initiated) | Master explicitly denied an extension for conference ID = 1837 so stop it |

**Table 7-3 Cisco Conference Connection Event Viewer Application Log Messages (continued)**

| Category | Summary         | Description/Cause                                                                                    | Example                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|----------|-----------------|------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 64       | Check schedule  | Normal checking to see if any conferences are ready to be stopped                                    | <p>Slave 1 tells Master that conference 2353 'CCC Roundtable' has stopped. +++++ updateType = 3. Found CCT entry. ScheduledConferenceTable doesn't exist. No conference error. Update CCS. Update existing CCT. Delete SCT entry (0 rows deleted). Archive conference. Ack sent to slave.</p> <p>Slave 1 tells Master that conference 2399 'CCC discussion' has been extended. +++++ updateType = 1. Found SCT entry. Found CCT entry. Compare endTime with SCT. endDateTime updated in SCT from 2001-07-09 15:00:00.0 to 2001-07-09 15:15:00.0. No conference error.</p> |
| 75       | No video        | Ignore this message, it does not apply                                                               | Failed to open outgoing video channel to node '70156' at address 0.0.0.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 86       | Call... dropped | Conference participant was dropped due to an end of conference, or entry of an invalid conference ID | H323 call with node '4085558184' at address 0.0.0.0 dropped for reason 0x2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 88       | Rejected call   | Call was rejected (many causes)                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 107      | Audio codecs    | Shown when first participant arrives in the conference                                               | Audio codecs for conference 'phantom 9' fixed to: Send 'g711Ulaw64k', Receive 'g711Ulaw64k'                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

**Table 7-3 Cisco Conference Connection Event Viewer Application Log Messages (continued)**

| Category | Summary         | Description/Cause                            | Example                                                                                                                                                                                                                               |
|----------|-----------------|----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 109, 110 | New call        | Participant added successfully to conference | New H323 call with node '70156' at address '0.0.0.0' in conference 'Apps'. H323 terminal label 0x101<br><br>New H323 call with node '71180' at address '10.34.42.11' (which already has a T120 connection) in conference 'CCC Issues' |
| 113      | Call ended      | Normal end of call                           | H323 call with node '71180' at address '10.34.42.11' in conference 'CCC Issues' has ended                                                                                                                                             |
| 125      |                 |                                              | WCM using CGPI to connect to conference 'SP test'                                                                                                                                                                                     |
| 126      | Outgoing jitter | Indicates a possible audio quality problem   |                                                                                                                                                                                                                                       |

**Tip**

- You might want to change the properties of the application log to ensure the log is large enough and that it does not stop collecting information once it is full. Cisco recommends you specify 10MB for the application log size, and that you select **Overwrite events as needed** for when the log is filled.

## Integrating with Network Management Systems

You can manage the status of the Cisco Conference Connection server remotely using CiscoWorks2000 or another SNMP-based network management system. CiscoWorks2000 is the standard Cisco network management system, but it is not

bundled with Cisco Conference Connection. For more information about CiscoWorks2000, Campus Manager, and Topology Services, refer to the documentation, available at the following URL:

<http://www.cisco.com/univercd/cc/td/doc/product/rtrmgmt/cw2000/index.htm>

These topics provide information to assist you in integrating Cisco Conference Connection with network management systems:

- [Understanding CDP Support, page 7-17](#)
- [Monitoring Cisco Conference Connection Subsystem Status, page 7-17](#)

## Understanding CDP Support

Cisco Conference Connection uses the Cisco Discovery Protocol (CDP) to periodically send out CDP messages, on the active interface, to a designated multicast address. These messages contain information such as device identification, interface name, system capabilities, SNMP agent address, and time-to-live. Any Cisco device with CDP support can locate a Cisco Conference Connection server by listening to these periodic messages.

Using information provided through CDP, the CiscoWorks2000 Server can detect the Cisco Conference Connection server, and the Campus Manager application, Topology Services, can build topology maps displaying the Cisco Conference Connection server.

## Monitoring Cisco Conference Connection Subsystem Status

Cisco Conference Connection supports the SYSAPPL-MIB that allows you to use CiscoWorks2000 or a third-party SNMP browser to remotely access information about the following Cisco Conference Connection components:

- Cisco Application Server
  - Application Subsystem—WFCCNEngineService.exe
  - Database Subsystem—WFCCNEngineService.exe
  - JTAPI Subsystem—WFCCNEngineService.exe
- Cisco Application Engine
  - WFCCNEngineService.exe

- AppAdmin.dll
- Cisco IP Conference Connection
  - gwsvc.exe
  - mp.exe

The SYSAPPL-MIB uses the Simple Network Management Protocol (SNMP). Cisco Conference Connection supports the following SYSAPPL-MIB tables:

- sysApplInstallPkgEntry Table—provides installed application information such as Manufacturer, Product Name, Version installed, Date installed, and Location, which is a partial URL for accessing the associated Application Administration web page (when applicable).
- sysApplRunEntry Table—describes the application starting time and run-time status.
- sysApplInstallElmtEntryTable—describes the individual application elements, or associated executables, which comprise the applications defined in the sysApplInstallPkgEntry Table.

## Troubleshooting Problems in Joining Conferences

These topics help you identify and troubleshoot problems that arise while users try to join conferences or while they are on a conference call:

- [Caller Does Not Hear Welcome Prompt, page 7-19](#)
- [Caller Hears Welcome Prompt But Then Hears Nothing, Gets Busy Tone, or Is Disconnected, page 7-19](#)
- [Caller Gets “System Problem” Message, page 7-21](#)
- [Caller Is Not Asked To Enter Password, page 7-21](#)
- [Caller Successfully Joins Conference But Is Then Dropped, page 7-21](#)

## Caller Does Not Hear Welcome Prompt

Callers calling the conference call number should hear a welcome prompt. If callers do not hear the prompt, but instead report that they get an error tone, busy tone, or are disconnected when they call the Cisco Conference Connection access number:

- First check to be sure that the number being dialed is correct (the CTI route point number; see the [“Creating the Conference Call CTI Route Point” section on page 3-4](#)).
- Next check that the CRA Engine is operating properly. The Engine status should be “running,” and all subsystems should be in service. The [“Monitoring CRA Engine Subsystem Status” section on page 7-7](#) explains how to check the CRA Engine and subsystem status.

Try stopping the engine (click **Stop Engine**), then restarting it (click **Start Engine**).

Stopping and restarting the Engine does not affect any callers currently in conferences. However, it does prevent new callers from joining conferences until the engine restarts.

- Next check the configuration of the conference.aef script. Click **Telephony Applications** in CRA Application Administration, then select the conference.aef script and click **Next**. Make sure that these items are set correctly:
  - The CTI route point
  - The maximum number of sessions is not zero (0)
  - The **Enabled** option is set to **Yes**.

The [“Configuring the Conference Director IVR Application” section on page 4-8](#) explains how to configure the conference.aef script.

## Caller Hears Welcome Prompt But Then Hears Nothing, Gets Busy Tone, or Is Disconnected

If callers calling the conference call number hear a welcome prompt and successfully request to join a conference, but report that they subsequently hear nothing, get an error tone, busy tone, or are disconnected:

- **Busy Tone or Hear Nothing**—The conference is already full (for example, if six participants is the scheduled limit, and six participants are currently present, then no more participants can join the conference). Cisco Conference Connection plays a busy tone when an attempt is made to join a valid, but full, conference.

If the caller has dialed in through an H.323 gateway, the busy signal might not be transmitted to the caller, so the caller will hear nothing. There is no way to resolve this problem.

- **Disconnection**—There are several possible causes for this. The most common are:
  - The conference call is already full, but the caller has connected through a gateway that is not properly configured to generate the appropriate tone. In this case the gateway might disconnect the caller. Consult your gateway configuration documentation to determine how to configure the gateway so that it does not disconnect callers in these cases (it varies according to gateway type).
  - The conference has just reached its end time and is being stopped.
  - The administrator has modified or reset the Cisco Conference Connection server. This includes modifications to the route pattern or H.323 gateway configuration in Cisco CallManager that the server uses.
  - The GWPrefix on the Application Parameters Configuration screen is incorrect. If an incorrect GWPrefix is given, the call will be incorrectly routed and may result in disconnection (or error tone). See the [“Configuring the Conference Director IVR Application”](#) section on [page 4-8](#) for information on configuring the script.
  - The route pattern is not configured correctly. See the [“Creating the Route Pattern”](#) section on [page 3-10](#).
  - The gateway through which the caller is connected to the conference was reset. Resetting a gateway drops all calls that are connected through the gateway.
  - The conference owner or administrator manually stopped the conference.



## Caller Gets “System Problem” Message

If you configure a default conference password (as described in the [“Configuring the Conference Director IVR Application”](#) section on page 4-8) callers must enter a password to join a conference. If the Cisco Conference Connection database is not working properly, or it is misconfigured, callers get this response based on the type of password the conference uses:

- **Default password**—If the conference is protected by the default password, Conference Director does not allow the caller to join the conference. Instead, the caller hears “We have encountered a system problem. Please contact your system administrator for help” and is disconnected.
- **Owner-supplied password**—If the conference is protected by an owner-supplied password and the default password is “null,” Conference Director allows the caller to join the conference. If the default password is not “null,” the caller hears the System Problem message mentioned above and is disconnected.

Callers also get this message if you entered an invalid default password (for example, one that is too short or too long, or one that contains non-numeric characters). If users get this message, ensure that:

- The default password is numeric and one to 10 digits.
- The database system is in service.
- The database system is correctly configured.

## Caller Is Not Asked To Enter Password

If you configure the default password as “null,” callers are only asked to enter a password if the conference owner defined a password for the conference. If callers are not asked to enter a password for password-protected conferences, it means there is a problem with the database. Ensure the database subsystem is in service, and that it is configured correctly.

## Caller Successfully Joins Conference But Is Then Dropped

If a caller makes it into the conference but then is dropped from the conference, these might be the possible causes:

- The conference may have been stopped by the conference owner or the administrator.
- The conference reached its end time and there were insufficient resources to automatically extend it. Cisco Conference Connection warns participants if a conference cannot be extended, and announces the end of the conference.
- The H.323 Gateway for Cisco Conference Connection might have been reset.

## Troubleshooting Conference Call Audio Problems

These topics help you resolve conference call audio problems:

- [Fixing Announcements, Entry or Exit Tone Problems, page 7-22](#)
- [Fixing Audio Echo Problems, page 7-22](#)
- [Fixing Audio Clipping, Robotic Voice, and Silence Problems, page 7-24](#)

### Fixing Announcements, Entry or Exit Tone Problems

If the Conference Director's announcements, or conference entry or exit tones, are not working, check that the .wav files are present in the c:\Program Files\Cisco\ConferenceConnection\Prompts folder.

If they are there, check to see if they have the proper format, which must be 8- or 16-bit mono 8000 kHz, PCM.

If either of these are the problem, try reinstalling the software as described in the [“Upgrading or Reinstalling Cisco Conference Connection” section on page 2-6](#).

### Fixing Audio Echo Problems

If conference attendees hear echoing on a conference call, first determine if all participants hear an echo. If one participant is not hearing an echo, the chances are very good that the echo is coming from the participant who does *not* hear the echo.

One way to help eliminate various participants as the source of the echo is to ask them to mute their phones one by one, or to momentarily drop out of the conference one by one.

There are two main sources of echo:

- Acoustic echo—This kind of echo may be induced by the use of a speakerphone, where some of the audio from the speaker is fed back into the microphone. This is especially true when certain devices are used in conference halls, or when PC speakers are facing a participant who is talking into a microphone. Other common causes of acoustic echo are:
  - The placement of a handset face down on a desk, especially if the handset volume is set at a very high level.
  - Feedback from some headsets and handsets.
  - Poor quality speakerphones.

To reduce acoustic echo, determine if any participant is using a speakerphone and request that they use a handset or headset.

- Network echo—This is caused by impedance mismatch problems between physical network components, such as between analog phones and their network connection, or between an analog trunk and the central office (CO) connection. This problem is generally caused by improper gateway configuration and thus is most prominent when external callers are involved in the conference. For gateways running Cisco IOS software, the most important parameter to adjust is the echo-cancel command.

To reduce the network echo, determine if any participant is calling from the Public Switched Telephone Network (PSTN), or is using a cellular phone. PSTN gateways include some form of echo cancellation; this may be set to a value that cannot handle the echo produced by some networks. Since it is not feasible to recommend a particular value for the echo cancellation parameter, check the gateway documentation to see how to vary echo cancellation, then try to experiment with different values.

If you need to contact the Cisco Technical Assistance Center (TAC) for help in resolving an audio quality problem, a sniffer program trace would be very helpful.

- Install the sniffer program on a separate machine, then connect this machine to a hub connected to the Cisco Conference Connection server. Read the sniffer program instructions on how to capture traces. Two common tools used are Netmon (Microsoft, ships with Windows 2000 Server) and Sniffer PRO (Network Associates).

- Try to run the sniffer at the endpoint where the poor audio is received. However, if this not possible, then trace the Cisco Conference Connection server input and output streams, and send them to the Technical Assistance Center (TAC), if necessary.

## Fixing Audio Clipping, Robotic Voice, and Silence Problems

During a conference, if participants hear jittery voices, which might sound like the speaker is underwater or robotic, or if voices are clipped, there might be a bandwidth problem on the network. This problem is most often observed when participants join a conference through gateways and in a highly routed or switched environment.

Cisco recommends this setup to avoid this type of audio problem:

1. Connect the Cisco Conference Connection server directly to a switch port.
2. Configure the switch port to run at 100Mbps Full Duplex (do not set it for automatic detection).
3. Configure the Network Interface Card (NIC) on the Cisco Conference Connection server to run at 100Mbps Full Duplex mode:
  - a. Select **Start>Settings>Control Panel>Network and Dial-Up Connections**.
  - b. Right-click the network connection the server is using and select **Properties**.
  - c. Select the General tab on the Properties window and click **Configure** to configure the NIC.
  - d. In the NIC's Properties window, select the Advanced tab, and then select the setting for link speed and duplex mode. Set this parameter to 100Mbps and Full Duplex mode (these might be two parameters instead of one). Click **OK** when finished.

If you try to run Cisco Conference Connection on a 10Mbps link, Cisco estimates that 60 participants will use all of the available bandwidth. Any other traffic on the network will adversely effect voice quality.

If the network speed is not the problem, and you are mainly getting short intervals of silence, or clicks and pops, check to see if the problem occurred during a call with a gateway. Voice Activity Detection (VAD) on the gateways, or intelligent

routers, can cause short periods of silence, if the volume of the audio stream is determined to be low. Try to lower the VAD, or remove it completely, and then check to see if the problem persists.

If none of the above procedures has any positive effect on the voice quality, then Cisco recommends that you install a network sniffer program as described in the [“Fixing Audio Echo Problems”](#) section on page 7-22.

## Troubleshooting Web or IP Phone Service Problems

These topics describe some problems users might encounter when using the Cisco Conference Connection web interface or the IP Phone Service:

- [User Cannot Access or Log Into the Cisco Conference Connection Web Interface, page 7-25](#)
- [User Cannot Add a Conference, page 7-26](#)
- [User Cannot Find a Conference, page 7-27](#)
- [User Cannot Extend or Delete an In-Progress Conference, page 7-27](#)
- [Conferences Do Not Appear on the Cisco IP Phone, page 7-28](#)
- [User Must Enter Logon Password When Using IP Phone Service, page 7-28](#)
- [User Gets “Service Not Appropriately Configured” Message When Using IP Phone Service, page 7-29](#)

### User Cannot Access or Log Into the Cisco Conference Connection Web Interface

If a user cannot access or log into the Cisco Conference Connection web interface:

- Check the URL the user is using for the Cisco Conference Connection web interface.
- Make sure the user is using the Cisco CallManager user ID and password.

- Make sure the directory server is functioning correctly and that there is a network path between Cisco Conference Connection and the directory. Cisco Conference Connection looks up the user ID and password in the Cisco CallManager directory to validate login attempts. If the directory is unavailable, no one can log into Cisco Conference Connection.
- If the user is getting a “Cannot find server” or “DNS error” message, either the URL is incorrect or the server is not available. Check to ensure that the Cisco Conference Connection server is running properly.
- Ensure that DNS is working properly and names can be resolved by the Cisco Conference Connection server.
- Ensure that the Cisco CallManager directory server is available. Check the c:\dcdsrvr\logs event log for errors.

## User Cannot Add a Conference

If a user is having problems adding a conference, check for these problems:

- Check these common errors first. Cisco Conference Connection tells the user if these problems arise, but the user might overlook the message or not understand it completely.
  - The conference end date or time precedes the conference start time (if the user is creating a recurring conference).
  - The conference name is missing or duplicates an existing name. The conference name must be unique.
  - The conference start or end date is invalid (for example, February 30)
  - There are insufficient resources available during the requested time to create the conference (for example, there are insufficient ports available).
- If it is not one of the common problems, check the Cisco Conference Connection web interface to ensure that the Add a Conference link appears in the left-hand column. If the interface says that the link is not available, stop and then restart the server. See the [“Starting and Stopping Cisco Conference Connection”](#) section on page 5-2.

## User Cannot Find a Conference

If a user cannot find a conference in the Cisco Conference Connection web interface:

- Try to search for the conference as described in the [“Searching for Conferences” section on page 6-11](#). If you can find the conference, check to see if it is hidden. (A conference that is not defined as hidden might also be hidden if you have configured the system to automatically hide password-protected conferences.) If the conference is hidden, and the user is not the conference owner, then the user can only see the conference by searching for it using the exact conference name or conference ID.

You will need to search in the Conferences In Progress, Scheduled Conferences, and Past Conferences pages separately, so ask the user whether this is a currently running, future, or past conference. The user might be looking for the conference in the wrong list.

- If the conference was deleted, it cannot be found. The user cannot obtain information about the conference.

## User Cannot Extend or Delete an In-Progress Conference

If a user is having problems extending or deleting an in-progress conference, consider these facts:

- When extending a conference, the user must extend it in increments of 5 minutes (for example, 5, 10, 15, 20, and so forth).
- A conference can only be extended if there are sufficient resources available on the Cisco Conference Connection server to continue hosting the conference. Note that if there are available resources, Cisco Conference Connection automatically extends the conference, so the user does not need to manually extend it.
- You cannot delete an active conference. First, you must stop the conference (as described in the [“Stopping a Conference” section on page 6-13](#)), then you can delete it.

## Conferences Do Not Appear on the Cisco IP Phone

If a user has a Cisco IP Phone that supports IP Phone Services, and you have created the service on the Cisco CallManager server, then users can subscribe to the service. Using the service, they can directly connect to conferences without going through the Conference Director application (that is, they do not have to enter conference IDs, although they do have to enter passwords).

If users cannot see a conference on the phone, first ensure that their phone supports services, that they have subscribed to the service as described in the [“Subscribing to the Cisco Conference Connection IP Phone Service” section on page 6-19](#), and that the phone is associated to their user ID in Cisco CallManager.

If the service is set up correctly, find out which conference they cannot find, and check the conference information in the web interface. Hidden conferences only appear for conference owners and administrators. If a conference is hidden, and the person is not the conference owner, the conference will not appear on the phone.

## User Must Enter Logon Password When Using IP Phone Service

When users use the Cisco Conference Connection IP Phone Service, they should immediately see a list of in-progress conferences without having to log into Cisco Conference Connection. If they are asked to enter their passwords, one of these problems might exist:

- The user did not enter the correct user name and password when subscribing to the service as described in the [“Subscribing to the Cisco Conference Connection IP Phone Service” section on page 6-19](#). Perhaps the user changed the password after subscribing to the service. Tell the user to resubscribe to the service using the correct Cisco CallManager user name and password.
- You did not create the IP Phone Service using the correct parameters, as described in [“Creating the Cisco Conference Connection IP Phone Service” section on page 3-12](#). This is probably the problem if every user must enter their passwords. Recreate the service using the correct parameter names, including capitalization.
- The phone is not associated with the person’s user ID in Cisco CallManager.

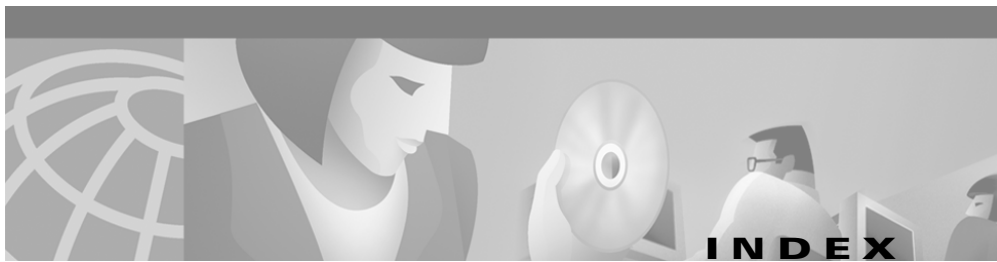


## User Gets “Service Not Appropriately Configured” Message When Using IP Phone Service

If users get the “Service not appropriately configured” message when trying to connect to a conference using the IP Phone Service, it means that the URL you entered when configuring the service contains an empty gateway prefix.

Reconfigure the service as described in the [“Creating the Cisco Conference Connection IP Phone Service”](#) section on page 3-12.





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