



## Configuring Cisco WebAttendants

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Cisco WebAttendant, a client-server application, enables you to set up Cisco IP Phones as attendant consoles. The Cisco WebAttendant client provides a graphical user interface for controlling a Cisco IP Phone for use as an attendant console and includes speed dial buttons and quick directory access for looking up phone numbers, monitoring phone status, and directing calls.

A receptionist or administrative assistant can use the Cisco WebAttendant client to handle calls, or an individual can use it with a Cisco IP Phone.

This section describes the following configuration procedures for Cisco WebAttendants:

- Configuring Pilot Points, page 32-2
- Configuring Hunt Groups, page 32-5
- Installing the Cisco WebAttendant Client, page 32-13
- Configuring Cisco WebAttendant Client Settings, page 32-14
- Setting Up the wauser Shared Directory for Cisco WebAttendant, page 32-20
- Starting the Telephony Call Dispatcher, page 32-21

### Related Topics

- Understanding Cisco WebAttendant, page 8-1

# Configuring Pilot Points

Ensure pilot points and hunt groups are configured before the Cisco Telephony Call Dispatcher can route calls to Cisco WebAttendants. A Cisco WebAttendants pilot point serves as a virtual directory number that receives and redirects calls to the members of its associated hunt group. The order in which the members of the hunt group are listed determines the call redirection order. The first available (not busy) member in a hunt group receives the call.

## Related Topics

- Adding a Pilot Point, page 32-2
- Viewing, Updating, or Deleting a Pilot Point, page 32-4
- Configuring Cisco WebAttendants, page 32-1
- Understanding Pilot Points and Hunt Groups, page 8-6

## Adding a Pilot Point

### Procedure

Perform the following steps to add a new pilot point.

- 
- Step 1** Open Cisco CallManager Administration.
  - Step 2** Choose **Service > Cisco WebAttendants**.
  - Step 3** Enter the appropriate settings as described in Table 32-1.
  - Step 4** Click **Insert**.

Now that the pilot point is created, the Pilot Point Configuration page refreshes to display the name of the new pilot point in the list on the left. The new pilot point and its settings display.

Once the pilot point is created, you must configure a hunt group to specify how the calls that come in to the pilot point are redirected.

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**Table 32-1 Pilot Point Configuration Settings**

Field	Description	Usage Notes
<b>Device Information</b>		
Pilot Name	Specifies descriptive name for the pilot point.	Enter up to 50 characters.
Primary Cisco CallManager	Specifies name or IP address of the Cisco CallManager whose Telephony Call Dispatcher (TCD) service will be used to service this pilot point.	Take call processing and device load balancing into account when selecting the Primary Cisco CallManager.
Partition	Choose None from the drop-down list box.	Cisco WebAttendant pilot points do not use partitions.
Calling Search Space	The calling search space determines which partitions the pilot point searches when attempting to route a call.  Choose a calling search space from the drop-down list.	Ensure directory-based hunt group members associated with a Cisco WebAttendant pilot point are in a partition that is visible to the calling search space for the pilot point number.
Pilot Number (DirN)	Designates directory number for this pilot point.	Ensure this number is unique throughout the system (that is, it cannot be a shared line appearance).

**Related Topics**

- Viewing, Updating, or Deleting a Pilot Point, page 32-4
- Configuring Hunt Groups, page 32-5
- Understanding Pilot Points and Hunt Groups, page 8-6

## Viewing, Updating, or Deleting a Pilot Point

Perform the following steps to view, update, or delete pilot points.

**Note**

You do not have to restart TCD or Cisco CallManager after deleting a pilot point for the deletion to take effect.

**Procedure**

- 
- Step 1** Open Cisco CallManager Administration.
- Step 2** Choose **Service > Cisco WebAttendant**.
- The Pilot Point Configuration page displays, and the list on the left side of the page shows all currently configured pilot points.
- Step 3** Click the name of the pilot point you wish to modify or delete. The page refreshes to display information for the selected pilot point.
- Step 4** Make the desired changes. Refer to Table 32-1 for a description of pilot point configuration settings.
- Step 5** Click **Update** to modify the pilot point or click **Delete** to remove the pilot point.
- After you delete a pilot point, TCD will stop directing calls to any hunt group members associated with that pilot point within approximately 10 minutes.
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**Related Topics**

- Adding a Pilot Point, page 32-2
- Configuring Hunt Groups, page 32-5
- Understanding Pilot Points and Hunt Groups, page 8-6

# Configuring Hunt Groups

Once you have created a pilot point, you must configure a hunt group to specify how the calls that come in to the pilot point number are redirected. A hunt group provides a list of destinations (either directory numbers or Cisco WebAttendant user /line number references) that are used to determine the call redirection order for calls received by the pilot point. The first available (not busy) member of the hunt group receives the call.

This section covers the following procedures:

- Adding Hunt Group Members, page 32-5
- Viewing, Updating, or Deleting Hunt Group Members, page 32-9
- Understanding Pilot Points and Hunt Groups, page 8-6

## Adding Hunt Group Members

### Procedure

Perform the following steps to add a list of hunt group members to a new pilot point:

- 
- Step 1** Open Cisco CallManager Administration.
  - Step 2** Choose **Service > Cisco WebAttendant**. The Pilot Point Configuration page displays.
  - Step 3** Choose the pilot point for which you want to add hunt group members. A list of available pilot points appears on the left side of the Pilot Point Configuration page.
  - Step 4** Click the link to **Hunt Group Configuration** in the upper right corner of the Pilot Point Configuration page to add hunt group members to this pilot point.
  - Step 5** Click **New**. The Pilot Hunt Group Members list initially displays the text <<not configured>>.

- Step 6** Decide whether the hunt group member you want to add will be a directory number (device member) or a user and line number (user member).
- If you specify a directory number, TCD always attempts to route the call to that number.
  - If you specify a Cisco WebAttendant user and line number, TCD first checks whether the Cisco WebAttendant user is logged in to a Cisco WebAttendant client and online before attempting to route the call. The advantage to specifying a user and line number is that the user can be logged in to any Cisco IP Phone controlled by Cisco WebAttendant software in the cluster and still receive calls.
- Step 7** Enter the appropriate configuration settings for the new hunt group member as described in Table 32-2.
- If the hunt group member is a directory number, fill in only the Partition and Directory Number fields in the **Device Member Information** section. You cannot specify a user name or a line number if the hunt group member is a directory number. The optional Always Route Member check box also applies only to directory numbers.
  - If the hunt group member is a user and line number, fill in only the Cisco WebAttendant User Name and Line Number fields in the **User Member Information** section. You cannot specify a partition or a directory number if the hunt group member is a Cisco WebAttendant user.



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**Note** The User Name you specify is a Cisco WebAttendant User ID. Refer to “Adding a Cisco WebAttendant User” section on page 32-10 for more information. It is not the same as a User ID that is added through the Cisco CallManager User area of Cisco CallManager Administration.

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As you make selections, the Hunt Group Member list box reflects the information you choose. The Hunt Group Member list displays either the device directory number or the Cisco WebAttendant user name and line number; for example:

#1 Call directory number 35201 (directory number example)

#2 Direct Call to Mary Brown, Line 1 (user and line number example)

Table 32-2 Hunt Group Configuration Settings


Field	Description	Usage Notes
<b>Device Member Information (These fields only apply to directory number-based hunt group members)</b>		
Partition	<p>Designates route partition to which this directory number belongs.</p> <ul style="list-style-type: none"> <li>If the directory number for this hunt group member is in a partition, you must choose a partition.</li> <li>If the directory number is not in a partition, choose None.</li> </ul>	<p>You can only choose a partition for a directory-number-based hunt group member. You cannot choose a partition for a user and line number-based hunt group member.</p> <p> <b>Note</b> Ensure directory number-based hunt group members are in a partition that can be seen from the calling search space of the associated pilot point.</p>
Directory Number	Designates directory number of the hunt group member device.	<p>If a partition is specified, and the directory number is not in that partition, an error dialog box displays.</p> <p>You cannot enter a user name or line number if a directory number is specified in this field.</p>
Always Route Member	<p>If this box is checked (enabled), Telephony Call Dispatcher (TCD) always routes the call to this hunt group member, whether it is busy or not.</p> <p>The TCD does not check whether the line is available before routing the call.</p>	<p>You can enable this option for devices that can handle multiple, simultaneous calls, such as voicemail devices.</p> <p>Specify Always Route Member only for directory-number-based hunt group members.</p>

Table 32-2 Hunt Group Configuration Settings (continued)

Field	Description	Usage Notes
<b>User Member Information (these fields apply only to user and line number hunt group members)</b>		
User Name	Designates name of the Cisco WebAttendant user to choose as a hunt group member.	Choose a user name from the drop-down list. Only user names that were added using Cisco WebAttendant User Configuration appear in this list.
Line Number	Provides drop-down list of line numbers to choose.	When you define a user and line number pair as a hunt group member, the Telephony Call Dispatcher first checks whether that user is logged in to Cisco WebAttendant and online. If the user is not online, TCD automatically goes to the next member of the hunt group.

- Step 8** Repeat Steps 6 through 8 to add more hunt group members to this pilot point. You can change the order of the members in the hunt group by selecting the member you want to reorder from the list and using the up and down arrows to move that member to a new position in the list.

**Note**

Be sure to consider overflow conditions when assigning hunt group members. For example, you can handle overflow conditions by having one or more hunt groups that route calls to multiple Cisco WebAttendants with the final directory number being voicemail.

If TCD can see the line state of a voicemail number, enable the “Always Route Calls” option for that number. Otherwise, the voicemail number will not receive more than one call at a time.

- Step 9** Click **Update** to save the hunt group member information.  
The hunt group members are added to the pilot point.
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#### Related Topics

- Viewing, Updating, or Deleting Hunt Group Members, page 32-9
- Understanding Pilot Points and Hunt Groups, page 8-6

## Viewing, Updating, or Deleting Hunt Group Members

Perform the following procedure to view, update, or delete members of a hunt group.

#### Procedure

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- Step 1** Open Cisco CallManager Administration.
- Step 2** Choose **Service > Cisco WebAttendant**.  
The Pilot Point Configuration page displays.
- Step 3** Click the Hunt Group Configuration link at the top of the page.  
The Hunt Group Configuration group page displays, and the list on the left side of the page displays all currently configured pilot points.
- Step 4** Click the name of the pilot point associated with the hunt group for which you want to view, modify, or delete members.  
The Hunt Group Configuration page updates to display information for the chosen pilot point.
- Step 5** Make any desired changes. Refer to Table 32-2 for a description of hunt group configuration settings.
- To update settings for a hunt group member, select that member's name in the list; modify the settings as needed; then, click **Update** to save the changes.
  - To change the order of the hunt group members, select the name of the member you wish to move and use the arrow buttons to move it to a new position in the list.

- To delete a hunt group member, highlight that member's name in the list and click **Delete**.
- You can press **Cancel** at any time to restore any settings you changed before clicking **Update**.

**Step 6** Click **Update** to save the changes before leaving the Hunt Group Member Configuration screen.

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#### Related Topics

- Adding Hunt Group Members, page 32-5
- Understanding Pilot Points and Hunt Groups, page 8-6

## Configuring Cisco WebAttendant Users

This section covers the following procedures:

- Adding a Cisco WebAttendant User, page 32-10
- Viewing, Updating, and Deleting Cisco WebAttendant Users, page 32-12

## Adding a Cisco WebAttendant User

Users cannot log in to a Cisco WebAttendant client before they are added in Cisco WebAttendant User Configuration.



#### Note

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Cisco WebAttendant user IDs and passwords are *not* the same as Directory users and passwords entered in the User area of Cisco CallManager. The Cisco WebAttendant user and password database is completely separate from the Cisco CallManager Directory user database.

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**Procedure**

Perform the following procedure to add a Cisco WebAttendant user.

- 
- Step 1** Open Cisco CallManager Administration.
- Step 2** Choose **Service > Cisco WebAttendant**.
- Step 3** Click the Cisco WebAttendant User Configuration link in the upper right corner of the page.
- Step 4** Enter the appropriate configuration settings as described in Table 32-3.

**Table 32-3 Cisco WebAttendant User Configuration Settings**

Field	Action/Description
User ID	Enter the login name for the new Cisco WebAttendant user. Enter up to 50 alphanumeric characters.
Password	Enter a password of up to 50 alphanumeric characters.
Confirm	Re-enter the same password.
Station Type	Not used. If specified, Cisco WebAttendant ignores this setting.

- Step 5** Click **Insert** to add the new user. The Cisco WebAttendant User Configuration page refreshes, and the new User ID displays in the list on the left side of the page.
- Step 6** Repeat Steps 4 and 5 to add additional users.
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**Related Topics**

- Viewing, Updating, and Deleting Cisco WebAttendant Users, page 32-12
- Understanding Cisco WebAttendant, page 8-1

## Viewing, Updating, and Deleting Cisco WebAttendant Users

Perform the following procedure to view, update, or delete Cisco WebAttendant users.

### Procedure

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- Step 1** Open Cisco CallManager Administration.
- Step 2** Choose **Service > Cisco WebAttendant**.
- Step 3** Click the Cisco WebAttendant User Configuration link in the upper, right corner of the page.
- The Cisco WebAttendant User Configuration page displays with a list of current users on the left side of the page.
- Step 4** Click the name of the user you wish to modify or delete.
- Step 5** Make the desired changes. Refer to Table 32-3 for a description of Cisco WebAttendant user configuration settings.
- Step 6** Click **Update** to save the changes, click **Delete** to remove the user, or click **Cancel** to exit the screen without making any changes.
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### Related Topics

- Adding a Cisco WebAttendant User, page 32-10
- Understanding Cisco WebAttendant, page 8-1

# Installing the Cisco WebAttendant Client

Perform the following steps to install the Cisco WebAttendant Client on a user's PC.

## Procedure

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- Step 1** Ensure you have added the Cisco WebAttendant user and the phone you wish to associate with Cisco WebAttendant to the Cisco CallManager database (refer to the “Adding a Cisco WebAttendant User” section on page 32-10).
- Step 2** Write down the MAC address of the phone that is to be associated with the Cisco WebAttendant client you are installing. The MAC address comprises a 12-character, hexadecimal number located on a label on the underside of the Cisco IP Phone.
- Step 3** Log in to the PC on which you want to install the Cisco WebAttendant client.
- Step 4** Open Internet Explorer (version 4.0 or greater), browse to Cisco CallManager Administration, and log in to Cisco CallManager Administration.
- Step 5** Choose **Application > Install Plugins**.
- Step 6** Click the icon for the Cisco WebAttendant client.  
The Cisco WebAttendant installation wizard runs.
- Step 7** Click **Next** at the initial screen; then, click **Yes** to accept the License Agreement.
- Step 8** Click **Next** to install the Cisco WebAttendant client to the default location or use the Browse button to specify a new location and then click **Next**.
- Step 9** Choose a Program Folder and click **Next**.
- Step 10** Enter the following information on the Customer Information screen:
- **Login ID** — Enter the Cisco WebAttendant user ID for the attendant.
  - **Password** — Enter the Cisco WebAttendant password for user ID just specified.
- Step 11** Click **Next**.

- Step 12** Enter the following information:
- **IP Address** — Enter IP address or host name of the primary Cisco CallManager for TCD (usually the Cisco CallManager with which the Cisco WebAttendant phone is registered).
  - **MAC ID** — Enter MAC address of the Cisco IP Phone that will be used with Cisco WebAttendant (see Step 2 for a description of the MAC address). You must use uppercase letters when entering the MAC address.
- Step 13** Click **Next**.
- Step 14** After the installation program finishes installing files, choose whether you want to restart the computer now or later; then, click **Finish**.
- Step 15** Restart the computer.

Once the application is installed, you can configure or update any client settings that you did not configure during the installation process.

Refer to “Configuring Cisco WebAttendant Client Settings” section on page 32-14 for more information.

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#### Related Topics

- Configuring Cisco WebAttendant Client Settings, page 32-14
- Adding a Cisco WebAttendant User, page 32-10
- Understanding Cisco WebAttendant, page 8-1

## Configuring Cisco WebAttendant Client Settings

After the Cisco WebAttendant client is installed, you must configure it before a user can log into Cisco WebAttendant. Use the procedure in this section to configure settings that were not specified during installation, to view current settings, or to update the client configuration.

Once it is configured, the Cisco WebAttendant client operates with the specified settings until they are changed.

### Procedure

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- Step 1** On the PC where the Cisco WebAttendant is installed, choose **Start > Programs > Cisco CallManager > Cisco WebAttendant**; then, click Yes to allow the ActiveX controls to launch Cisco WebAttendant.
- Step 2** Click **Settings**.
- Step 3** Enter the appropriate configuration settings, as described in Table 32-4.
- Step 4** Click OK. The settings for Cisco WebAttendant client have been configured and can now be used for call distribution activities.



**Note** If the Cisco WebAttendant client does not display directory information, check whether the wauser shared directory is configured correctly and that the Cisco WebAttendant user and client PC have read/write access to the wauser shared directory.

See the “Setting Up the wauser Shared Directory for Cisco WebAttendant” section on page 32-20 for instructions.

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### Related Topics

- Installing the Cisco WebAttendant Client, page 32-13
- Understanding Cisco WebAttendant, page 8-1
- Setting Up the wauser Shared Directory for Cisco WebAttendant, page 32-20

**Table 32-4 Cisco WebAttendant User Configuration Settings**

Field	Action
MAC Address	<p>Enter SEP plus the media access control (MAC) address for the Cisco IP Phone you want to use in conjunction with Cisco WebAttendant.</p> <p>The MAC address comprises a 12-character number on a label on the underside of the Cisco IP Phone. You must enter SEP, then the MAC address, eliminating any dashes. You must use uppercase letters; for example, SEP0010EB001234.</p>
Cisco TCD Database Path	<p>Leave this setting blank if you want to use the default database from the TCD associated with this Cisco IP Phone. This is the recommended default setting. Refer to the “Setting Up the wauser Shared Directory for Cisco WebAttendant” section on page 32-20 for additional steps required to ensure that this setting works correctly.</p> <p>As an alternative to using the default setting (leaving the field blank), copy the file on the Cisco CallManager server named  C:\Program Files\Cisco\Users\UsersDB1.mdb or  C:\Program Files\Cisco\UsersDB2.mdb to a different location (such as a file in a different shared directory on the network or a file on the Cisco WebAttendant user’s PC) and enter the path to the file in this field. If you choose to do this, any database changes made through Cisco CallManager are not automatically made available to the Cisco WebAttendant client. You must manually copy a new version of the database file to the new location when you need to update Cisco WebAttendant clients with database changes. Also, if you manually specify a TCD Database Path in the Settings dialog for the client, the client uses that path until you change it.</p> <p>If you change the TCD Database Path setting for a Cisco WebAttendant client, you must restart the client for the change to take effect.</p>

**Table 32-4 Cisco WebAttendant User Configuration Settings (continued)**

Field	Action
<b>Cisco Telephony Call Dispatcher (TCD) Settings</b>	
IP Address or Host Name	Enter the IP address or host name of the TCD server. This entry designates the Cisco CallManager to which the Cisco IP Phone specified by MAC address field is normally registered.
IP Port	The default value is 4321. Do not modify this value.
WebAttendant User ID	<p>Designates User ID for this Cisco WebAttendant user as specified in the Cisco WebAttendant User Configuration page Cisco CallManager Administration. Refer to the “Adding a Cisco WebAttendant User” section on page 32-10 for more information.</p> <p> <b>Note</b> The Cisco WebAttendant User ID is not the same as a Cisco CallManager User ID entered in the User area of Cisco CallManager Administration.</p>
WebAttendant Password	<p>Specifies password for this Cisco WebAttendant user as specified in the Cisco WebAttendant User Configuration page in Cisco CallManager Administration. Refer to the “Adding a Cisco WebAttendant User” section on page 32-10 for more information.</p> <p> <b>Note</b> The Cisco WebAttendant password is not the same as a Cisco CallManager password entered in the User area of Cisco CallManager Administration.</p>

**Table 32-4 Cisco WebAttendant User Configuration Settings (continued)**

<b>Field</b>	<b>Action</b>
Connected To	Designates view-only field that displays the IP address of the Cisco CallManager to which this Cisco WebAttendant client is currently connected.
<b>Line State Server Settings</b>	
IP Address or Host Name	Enter the IP address or host name of the line state server. This entry usually designates the same as the Cisco CallManager to which the Cisco IP Phone specified by the MAC address field is registered.
IP Port	Designates line state server IP port number. The default value is 3224.  Do not change this setting unless advised to do so by the Cisco Technical Assistance Center.
Connected To	Designates view-only field that displays the IP address of the Line State Server to which this Cisco WebAttendant client is currently connected.

**Related Topics**

- Installing the Cisco WebAttendant Client, page 32-13
- Setting Up the wauser Shared Directory for Cisco WebAttendant, page 32-20
- Understanding Cisco WebAttendant, page 8-1

# Cisco WebAttendant Server Configuration

The Cisco WebAttendant Server Configuration page lists service parameters and enables you to configure trace parameters for the Telephony Call Dispatcher (TCD). The following service parameters are specific to TCD:

**Caution**

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Do not change any of the listed service parameters without permission of a Cisco Technical Assistance Center engineer. Doing so may cause system failure.

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- **CCN Line State Port**—This designates the TCP/IP port number in Cisco Call Manager that is used by the line state server to register and receive line and device information. The default value is 3223.
- **LSS Access Password**—This default password used at registration authenticates the line state server.
- **LSS Listen Port**—This TCP port designates where Cisco WebAttendant clients register with TCD for line and device state information. The default value is 3221.
- **TCDServ Listen Port**—This TCP port designates where Cisco WebAttendant clients register with TCD for call control. The default value is 4321.

**Related Topics**

- Understanding Service Parameters, page 10-1
- Understanding Trace Configuration, page 36-2
- Understanding Cisco WebAttendant, page 8-1

# Setting Up the wauser Shared Directory for Cisco WebAttendant

You must perform the following procedure to ensure that the Cisco WebAttendant client can display the directory information from the Cisco CallManager directory database.

**Note**

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If you are running Cisco CallManager in a cluster environment, perform this procedure on every Cisco CallManager in the cluster.

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- Step 1** Log in to the Cisco CallManager server.
- Step 2** Use Windows Explorer to browse to the following folder:  
**C:\Program Files\Cisco\Users**
- The Cisco WebAttendant client must have read/write access to the following two files in this directory to build its user directory information: UsersDB1.mdb and UsersDB2.mdb.
- Step 3** Right-click on the Users folder and choose **Properties**.
- Step 4** Click the **Sharing** tab.
- Step 5** Click **Shared As**.
- Step 6** Change the default share name from “Users” to “wauusers.” The share name is not case-sensitive. The share name must be “wauusers” for this to work properly.
- Ensure security and share permissions are set so that all Cisco WebAttendant client users have read and write access for this folder on the Cisco CallManager server.
- Step 7** Click **OK** to apply the changes and close the Properties dialog.
- Step 8** Perform this procedure on every Cisco CallManager in the cluster.



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**Note** To ensure that the changes made to the Shared As properties are visible to Cisco WebAttendant clients, have the Cisco WebAttendant users exit the client and log out of Windows and then log back in.

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Cisco CallManager automatically makes directory database information available to Cisco WebAttendant clients and updates the information every 24 hours with the latest changes.

#### Related Topics

- Sharing Default Directory Database Information, page 8-11
- Understanding Cisco WebAttendant, page 8-1

## Starting the Telephony Call Dispatcher

The Telephony Call Dispatcher (TCD) service starts up automatically when Cisco CallManager is started. The following procedure describes how to verify that the TCD service is running and how to start TCD if it is stopped.



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**Note** If you add new Cisco WebAttendant users or modify the user information or password for an existing user, you must wait approximately 6 minutes for the changes to take effect.

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#### Procedure

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- Step 1** Choose **Service > Control Center**.
- Step 2** Choose a Cisco CallManager server from the server list on the left side of the page. The page refreshes.
- The Service Name column lists all services that are configured on this server.

- Step 3** Look at the Service Status column for the Cisco Telephony Call Dispatcher.
- If an arrow icon displays, the TCD service is running
  - If a square icon displays, the TCD service is stopped.
- Step 4** If the TCD service is not running, click the **Start** button in the Service Control column.
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**Related Topics**

- Understanding Pilot Points and Hunt Groups, page 8-6
- Understanding Cisco WebAttendant, page 8-1