

Configuring Cisco WebAttendant Pilot and Hunt Groups in CallManager 3.1

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Introduction

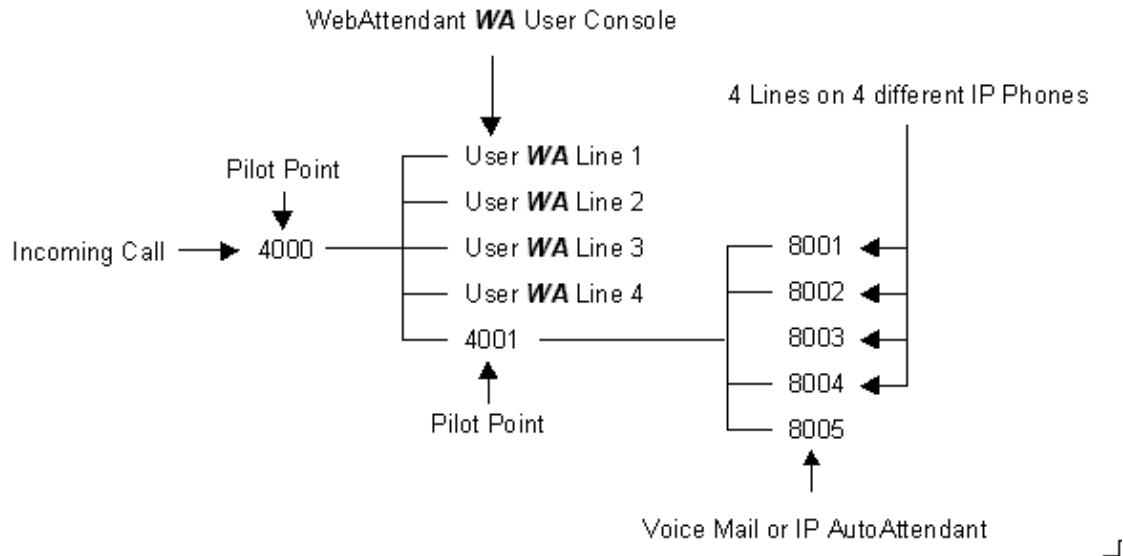
This document describes how to configure Cisco WebAttendant for Cisco CallManager from a server perspective. For information on how to install the Cisco WebAttendant client, please refer to [Installing and Configuring Cisco WebAttendant on the Client PC](#)

This document uses the Default Device Pool. In addition, all Locations are set to <None>, all Calling Search Spaces are set to <None>, and all Partitions are set to <None>. Make sure to adapt these fields' values to your topology when appropriate.

Cisco WebAttendant on the Cisco CallManager server uses a pilot point and an associated hunt group to control call routing. Multiple Cisco WebAttendant users can be cascaded with the hunt groups to allow for a possible over subscription of any individual user. If the first member of a hunt group has a four line phone that would make up the first four members of the hunt group, a fifth hunt group member can be added that points to another Cisco WebAttendant pilot point.

Cisco WebAttendant Hunt Groups Explained

The following figure shows a scenario where the first hunt group points to four lines on a single Cisco WebAttendant client (User ID = wa) and its associated phone. The second hunt group points to four different IP Phones and either Cisco IP AutoAttendant or a voice mail DN. If the WA user is not logged into his or her console, calls will immediately be routed to pilot point *4001*.



When you configure DNs in a hunt group (as shown in the right side of the figure above), an incoming call will only route to the next member if the previous member (DN – Line) is busy.

For example: If an incoming call is not handled by pilot point 4000 because the user WA is not logged into the Cisco WebAttendant application, it will be handed off to pilot point 4001. Pilot point 4001 will route the call to the first available DN. In this case, assume that 8001 is busy and 8002 is available. The call will be handed off to 8002 and the phone to which 8002 is assigned should ring.

At this point the call is no longer under the control of the hunt group. If the call to 8002 is not answered, it will be lost unless this line has been configured to **Forward on No Answer**. As this phone is not controlled by a Cisco WebAttendant client, the **Forward on No Answer** option is allowed. It is not allowed on phones controlled by a Cisco WebAttendant client. The point of this example is to demonstrate that you should only use DNs in a hunt group if you know for certain that there is a user available for every line whenever a call may be routed to it.

Task 1: Creating the Pilot Point

Pilot points and hunt groups must be configured before the Cisco Telephony Call Dispatcher (TCD) can route calls to Cisco WebAttendant. A Cisco WebAttendant pilot point is 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.

- A pilot point is a virtual directory number for which the TCD receives and directs calls based on a list of hunt group members. The pilot point number must be unique throughout the system (it cannot be a shared line appearance).
- A hunt group is a list of destinations that determines the call redirection order. (The Hunt Group is configured in Task 2, below.)

1. From the main Cisco CallManager menu, select **Service/Cisco Web Attendant**.



2. Fill in the fields as required for your configuration.

Enter the appropriate configuration settings as described below.

Field	Description	Usage Notes
Pilot Name	Descriptive name for the pilot point.	Up to 50 characters can be entered.
Primary Cisco CallManager	Name or IP address of the Cisco CallManager whose TCD service will be used to service this pilot point.	Call processing and device load balancing should be taken into account when selecting the Primary Cisco CallManager.
Partition	Select 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. Select a calling search space from the drop-down list.	Directory-based hunt group members associated with a Cisco WebAttendant pilot point must be in a partition that is visible to the calling search space for the pilot point number.
Pilot Number (DirN)	Directory number for this pilot point.	This number should be unique throughout the system (it cannot be a shared line appearance).

When creating pilot point and hunt groups, be sure to consider overflow conditions. For example, if you have a single pilot point called "Support", with three directory numbers in its hunt group, it is possible that all three directory numbers are busy when a fourth call comes in. In that case, there are no additional directory numbers to which the call can be routed.

To handle overflow conditions, the final directory number in the hunt group should be either to voice mail or some other

Note:

application, such as Cisco IP AutoAttendant, which can accept multiple inbound calls simultaneously.

Make sure that **Always Route Member** is enabled for this voice mail number if TCD can see its line state. Otherwise, this voice mail number will not receive more than one call at a time.

Disable call waiting and call forwarding for lines and directory numbers on Cisco IP Phones used with Cisco WebAttendant consoles.

Do not use shared line appearances for any phone used with Cisco WebAttendant.

In this example:

Pilot name: *cisco*

Primary Cisco CallManager: *CM_CRUSADER*

Pilot number: *3000*

Note: The pilot number should be unique and should not have been associated with any phone.

System Route Plan Service Feature Device User Application Help

Cisco CallManager Administration
For Cisco IP Telephony Solutions

CISCO SYSTEMS

Pilot Point Configuration

[Hunt Group Configuration](#)
[Cisco WebAttendant User Configuration](#)
[Cisco WebAttendant Server Configuration](#)

Pilot Points
<Add a New Pilot Point>
There are no pilots

Pilot Point: New
Pilot Number (DirN): Not Assigned

Status: Ready

Insert Cancel Changes

Pilot Name* cisco

Primary Cisco CallManager* CM_CRUSADER

Partition <None >

Calling Search Space <None >

Pilot Number (DirN)* 3000

Route Calls to First Available Hunt Group Member

* indicates required item

3. Click **Insert**.

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

Task 2: Creating and Configuring the Hunt Group

When a call comes in to a pilot point, the TCD uses the hunt group list for that pilot point to determine the call destination. TCD goes through the members in the hunt group in order, until it finds the first available destination for routing the call. A hunt group member can be specified as a directory number (DN) or as a Cisco WebAttendant user plus a line number (user member).

- If a DN is specified, TCD checks to see whether the line is available (not busy) and if it is, routes the call. This is a DN associated with one Cisco IP phone – DNs for WebAttendant must be unique.
- If a user and line number are specified, TCD checks to see whether the user is logged in to a Cisco WebAttendant and online before checking to see whether the line is available. If the user is logged in and online, and the line is available, TCD routes the call.

The advantage of specifying a user and line number instead of a DN is that the Cisco WebAttendant user can be logged in and online at any Cisco IP Phone controlled by Cisco WebAttendant software in the cluster and receive calls. If a DN is specified, the Cisco WebAttendant user must be logged into the PC that is associated with the phone that owns the DN that was configured.

1. Click **Hunt Group Configuration**.

System Route Plan Service Feature Device User Application Help

Cisco CallManager Administration
For Cisco IP Telephony Solutions

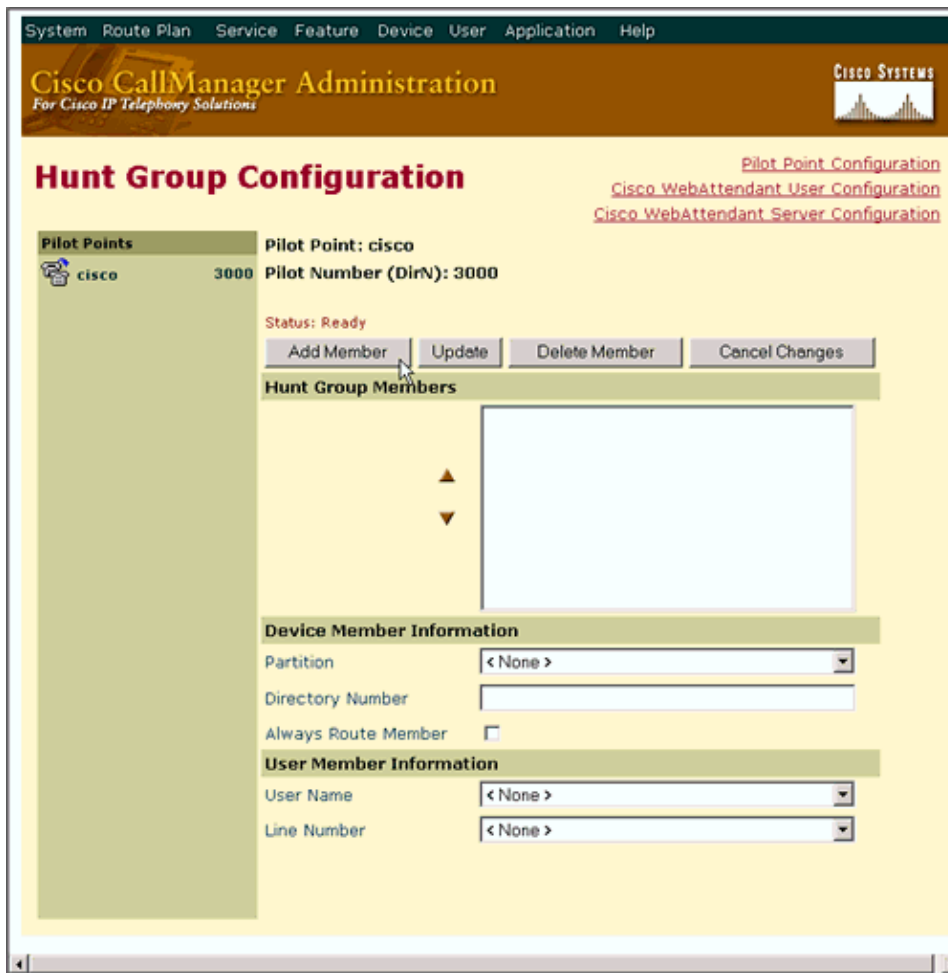
CISCO SYSTEMS

Pilot Point Configuration

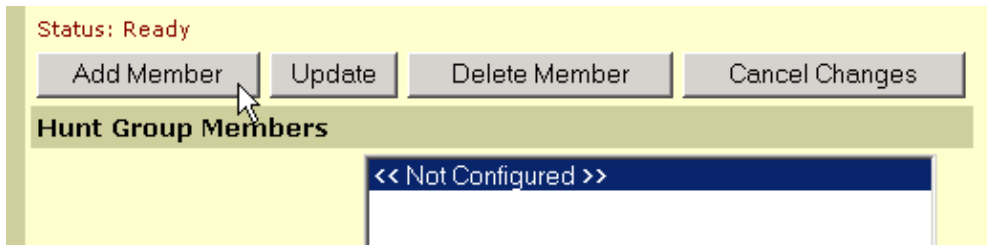
[Hunt Group Configuration](#)
[Cisco WebAttendant User Configuration](#)
[Cisco WebAttendant Server Configuration](#)

Pilot Points	Pilot Point: cisco
<Add a New Pilot Point>	Pilot Number (DirN): 3000
cisco 3000	Status: Insert completed
	<input type="button" value="Update"/> <input type="button" value="Delete"/> <input type="button" value="Cancel Changes"/>
	Pilot Name* <input type="text" value="cisco"/>
	Primary Cisco CallManager* <input type="text" value="CM_CRUSADER"/>
	Partition <input type="text" value="<None >"/>
	Calling Search Space <input type="text" value="<None >"/>
	Pilot Number (DirN)* <input type="text" value="3000"/>
	Route Calls to <input type="text" value="Longest Idle Hunt Group Member"/>
	* indicates required item

2. Select the Pilot number configured in Task 1 from the left pane (3000 in this example).



Click **Add Member**. This will create a member that will initially appear as <<not configured>>.



3. Fill in the user and line number in the **User Member Information** section. Members are entered either as Device members or User members.

Enter the appropriate configuration settings as described below.

Field	Description	Usage Notes
Device Member Information (these fields only apply to directory number based hunt group members)		
Partition	Route partition to which this directory number belongs. If the directory number for this hunt group	You can only select a partition for a directory number based hunt group member. You can not select a partition for a user and line number-based hunt group member.

	<p>member is in a partition, you must select a partition.</p> <p>If the directory number is not in a partition, select None.</p>	<p>Note: Directory number based hunt group members must be in a partition that can be seen from the calling search space of the associated pilot point.</p>
Directory Number	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 is displayed.</p> <p>You can not 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), then the call is always routed to this hunt group member, whether it is busy or not.</p> <p>The TCDr does not check to see whether the line is available before routing the call.</p>	<p>This option can be enabled for devices that can handle multiple, simultaneous calls, such as voice mail devices.</p> <p>Always Route Member can only be specified for directory number based hunt group members.</p>
<p>User Member Information (these fields apply only to user and line number hunt group members)</p>		
User Name	Name of the Cisco WebAttendant user to select as a hunt group member.	Select a user name from the drop-down list. Only user names that have been added using Cisco WebAttendant User Configuration should appear in this list.
Line Number	Drop-down list of line numbers to select.	When you define a user and line number pair as a hunt group member, the TCD first checks to see whether that user is logged into Cisco WebAttendant and online. If the user is not online, TCD automatically goes to the next member of the hunt group.

Note: If you use Directory Numbers instead of User Names and Line Numbers, calls can only be routed to the phones for which the DNs have been assigned. Any user that wants to use the Cisco WebAttendant client to accept calls to their assigned extension (DN) must log into a WebAttendant enabled PC that has been configured to control the IP Phone that handles their DNs.

In this example:

User Name: *wa*

Line Number: *1*

Hunt Group Configuration

[Pilot Point Configuration](#)
[Cisco WebAttendant User Configuration](#)
[Cisco WebAttendant Server Configuration](#)

Pilot Points
cisco 3000

Pilot Point: cisco
Pilot Number (DirN): 3000

Status: Update completed

Add Member Update Delete Member Cancel Changes

Hunt Group Members

- #1: Direct call to wa, line 1

Device Member Information

Partition: < None >
Directory Number:
Always Route Member:

User Member Information

User Name: wa
Line Number: 1

Click **Update**.

You should see a screen similar to the following.

The screenshot shows the Cisco CallManager Administration interface. At the top, there is a navigation menu with options: System, Route Plan, Service, Feature, Device, User, Application, and Help. Below the menu is the Cisco CallManager Administration logo and the Cisco Systems logo. The main heading is "Hunt Group Configuration". To the right of the heading are three links: [Pilot Point Configuration](#), [Cisco WebAttendant User Configuration](#), and [Cisco WebAttendant Server Configuration](#).

On the left, there is a "Pilot Points" section with a table showing a pilot point named "cisco" with a number of "3000". To the right of this table, the "Pilot Point: cisco" and "Pilot Number (DirN): 3000" are displayed. Below this, the status is "Update completed". There are four buttons: "Add Member", "Update", "Delete Member", and "Cancel Changes".

The "Hunt Group Members" section contains a list of members. One member is visible: "#1: Direct call to wa, line 1". Below the list are two arrows, one pointing up and one pointing down, indicating that the list can be scrolled.

Below the members list are two sections: "Device Member Information" and "User Member Information". The "Device Member Information" section has a "Partition" dropdown menu set to "< None >", a "Directory Number" text input field, and an "Always Route Member" checkbox which is unchecked. The "User Member Information" section has a "User Name" dropdown menu set to "< None >" and a "Line Number" dropdown menu set to "< None >".

4. Repeat steps 2 and 3 to add additional user or DN members.

When you have finished entering the new users, you have completed this task.

Task 3: Restarting the TCD Service

Most changes to the Cisco WebAttendant server configuration require that the service be stopped and restarted for the changes to take effect.



Caution: Resetting the TCD service stops all TCD call routing until the service is back on-line.

1. Select **Application > Cisco CallManager Servicability**.



2. Select **Tools > Control Center**.



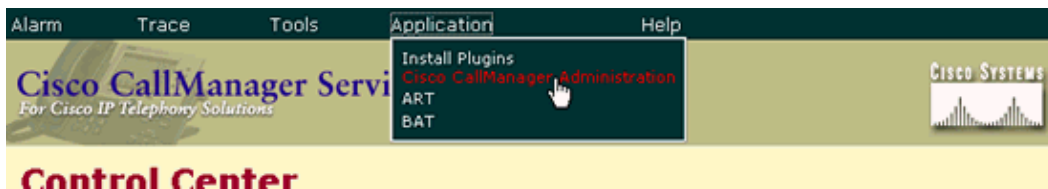
3. Select the server the operation needs to be done on. In this example, the server is named *Crusader*.



4. Click **Stop** for the Cisco Telephony Call Dispatcher. Wait until the arrow (▶) turns into a square (■), then click **Start**. The arrow should return, showing the service is running.



5. To return to the main admin page, select **Application > Cisco CallManager Administration**.



The task is complete.

Tools Information

For additional resources, refer to Cisco TAC Tools for Voice, Telephony and Messaging Technologies.

Related Information

- **Voice Technology Support**
- [Voice and Unified Communications Product Support](#)
- [Technical Support and Documentation – Cisco Systems](#)
- **Field Notices**

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