



Configuring Cisco CallManager for Personal Assistant

After installing Personal Assistant, you must perform the following tasks in Cisco CallManager:

- [Setting Up Cisco IP Phone Route Plans, page 3-2](#)
- [Setting Up Personal Assistant to Intercept Calls, page 3-5](#)
- [Setting Up the Personal Assistant Number, page 3-11](#)
- [Adding a Personal Assistant User, page 3-12](#)
- [Adding Media Ports for Personal Assistant, page 3-13](#)
- [Configuring Cisco Unity in Cisco CallManager for Integration with Personal Assistant, page 3-15](#)

Understanding the Cisco CallManager Examples

These sections represent an example setup, with sample values included for reference only. Your particular configuration depends on the needs of your network.

For these examples, you will be working with the following calling search spaces and partitions:

- EmployeeCSS—includes the PA and Employee partitions
- PACSS—includes the PAManagedEmployee and Employee partitions

The examples are based on a single Cisco CallManager cluster. If you have more than one cluster, you must repeat the configuration in each cluster. The route points and translation patterns will be different in each cluster, but you can use the same partition and calling search space names, and the same Personal Assistant user name.

For detailed information about how Personal Assistant uses calling search spaces and partitions, refer to the [“Understanding Partitions and Calling Search Spaces” section on page 1-6](#).

Setting Up Cisco IP Phone Route Plans

Before configuring Personal Assistant, you must ensure that the Cisco IP Phones are added and registered with Cisco CallManager. Refer to the documentation and online help included with Cisco CallManager if you need assistance completing this.

These sections provide an example setup for your network *before* adding Personal Assistant:

- [Creating a Phone Partition, page 3-2](#)
- [Creating a Phone Calling Search Space, page 3-3](#)
- [Assigning the Partition and Calling Search Space to Phones, page 3-4](#)
- [Using Partitions and Calling Search Spaces Without Personal Assistant, page 1-31](#)

Creating a Phone Partition

If you have not already created a partition for the Cisco IP Phones, follow this procedure to create one now.

Procedure

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- Step 1** Select **Route Plan > Partition** in Cisco CallManager.
The Find and List Partitions page displays.

- Step 2** Click **Add a New Partition**.
- The Partition Configuration page displays.
- Step 3** Enter a descriptive name, such as **Employee**, in the **Partition Name and Description** field. You can optionally include a description.
- Step 4** Click **Insert** to add the new partition.
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Related Topics

- [Understanding Partitions and Calling Search Spaces, page 1-6](#)
- [Using Partitions and Calling Search Spaces Without Personal Assistant, page 1-31](#)
- [Creating a Phone Calling Search Space, page 3-3](#)

Creating a Phone Calling Search Space

If you do not already have a calling search space defined for the Cisco IP Phones, follow this procedure to create one.

Procedure

- Step 1** Select **Route Plan > Calling Search Space** in Cisco CallManager.
- The Find and List Calling Search Spaces page displays.
- Step 2** Click **Add a New Calling Search Space**.
- The Calling Search Space Configuration page displays.
- Step 3** Enter a descriptive name, such as **EmployeeCSS**, in the **Calling Search Space Name** field.
- Step 4** Select the **Employee** partition in the Available Partitions list box, and add it to the Selected Partitions list box by clicking the arrow buttons between the two list boxes.
- Step 5** Click **Insert** to add the new calling search space.
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Related Topics

- [Understanding Partitions and Calling Search Spaces, page 1-6](#)
- [Using Partitions and Calling Search Spaces Without Personal Assistant, page 1-31](#)
- [Creating a Phone Partition, page 3-2](#)

Assigning the Partition and Calling Search Space to Phones

After you have created the Employee partition ([Creating a Phone Partition, page 3-2](#)) and calling search space ([Creating a Phone Calling Search Space, page 3-3](#)), you must configure the IP phones to use them.

Before You Begin

You can use the Bulk Administration Tool (BAT) to change the partition and calling search space on telephones in much less time than it takes to make the changes to each phone individually. This procedure describes the phone-by-phone procedure.

Procedure

- Step 1** Select **Device > Phones**.
Cisco CallManager displays the Find and List Phones page.
- Step 2** Select “Device name is not empty” in the search fields and click **Find**.
Cisco CallManager lists all of the phones in the bottom frame.
- Step 3** Click the phone whose configuration you want to change.
Cisco CallManager displays the Phone Configuration page.
- Step 4** Click the line number you want to configure in the left-hand column.
Cisco CallManager displays the Directory Number Configuration page.
- Step 5** Change the partition to **Employee**, and the calling search space to **EmployeeCSS**.
- Step 6** Click **Insert** to save your changes.
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Related Topics

- [Understanding Partitions and Calling Search Spaces, page 1-6](#)
- [Using Partitions and Calling Search Spaces Without Personal Assistant, page 1-31](#)
- [Creating a Phone Partition, page 3-2](#)
- [Creating a Phone Calling Search Space, page 3-3](#)

Setting Up Personal Assistant to Intercept Calls

Personal Assistant can intercept incoming calls and route them according to user-defined rules. To enable Personal Assistant to intercept calls between two extensions, such as 1006 and 1007, you must configure two Personal Assistant partitions and a calling search space, create route points and translation patterns for use as Personal Assistant intercept ports, and update the calling search space and change the partition on the end-user phones.

These topics describe the steps involved in configuring Cisco CallManager to enable Personal Assistant to intercept calls:

- [Creating the Personal Assistant Partitions, page 3-5](#)
- [Creating the Personal Assistant Calling Search Space, page 3-6](#)
- [Creating Personal Assistant Interceptor Ports, page 3-7](#)
- [Updating the Calling Search Space for End-User Phones, page 3-9](#)
- [Updating the Partition for Managed Phones, page 3-10](#)

Creating the Personal Assistant Partitions

Follow this procedure to create the two Personal Assistant partitions:

- **PA**—The partition that will contain the route points used as Personal Assistant interceptor ports. Used to intercept calls to phones Personal Assistant manages.
- **PAManagedEmployee**—The partition for phones whose calls Personal Assistant will intercept.

Procedure

- Step 1** Select **Route Plan > Partition** in Cisco CallManager.
The Find and List Partitions page displays.
- Step 2** Click **Add a New Partition**.
The Partition Configuration page displays.
- Step 3** Enter a descriptive name, such as **PA**, in the **Partition Name** field.
- Step 4** Click **Insert** to add the new partition.
- Step 5** Repeat this procedure to create the **PAManagedEmployee** partition.
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Related Topics

- [Intercepting Calls with Personal Assistant, page 1-30](#)
- [Understanding Partitions and Calling Search Spaces, page 1-6](#)

Creating the Personal Assistant Calling Search Space

Follow this procedure to create the Personal Assistant calling search space.

Procedure

- Step 1** Select **Route Plan > Calling Search Space** from Cisco CallManager.
The Find and List Calling Search Spaces page displays.
- Step 2** Click **Add a New Calling Search Space**.
The Calling Search Space Configuration page displays.
- Step 3** Enter a descriptive name, such as **PACSS**, in the **Calling Search Space Name** field.

- Step 4** Select the **PAManagedEmployee** and **Employee** partitions in the Available Partitions list box, and add them to the Selected Partitions list box by clicking the arrow buttons between the two list boxes. Arrange the partitions so that PAManagedEmployee is at the top of the list.
- If you are using any other partitions, add them to this list.
- Step 5** Click **Insert** to add the new calling search space.
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Related Topics

- [Intercepting Calls with Personal Assistant, page 1-30](#)
- [Understanding Partitions and Calling Search Spaces, page 1-6](#)

Creating Personal Assistant Interceptor Ports

Follow this procedure to define the route points and translation patterns that will be used as Personal Assistant interceptor ports.

When you configure the Personal Assistant servers, you assign the route points you create here to the individual servers. Thus, you should define route points based on how you will divide the managed phones between servers.

These route points coincide to the phone extensions, but you can use variables to define a single route point that covers many extensions. For example, the single route point 1XXX covers extensions 1000 to 1999. This is the most efficient way to configure Personal Assistant. (However, you can configure route points to match extensions one-to-one if you prefer.)

Procedure

- Step 1** Create the route points:
- Select **Device > CTI Route Point** in Cisco CallManager.
The Find and List CTI Route Points page displays.
 - Click **Add a new CTI Route Point**.
The CTI Route Point Configuration page displays.

- c. Enter a unique meaningful name in the **Device Name** field to identify this as a Personal Assistant route point interceptor number. For example, if you are creating the 1XXX route point, **PA1XXX** or **PARP1XXX** might be useful names.
- d. Select the appropriate device pool from the **Device Pool** menu.
- e. Click **Insert** to add the new CTI route point.
- f. Select **line 1** in the left-hand column.
Cisco CallManager displays the Directory Number Configuration window.
- g. Enter the telephone number to be used for a Personal Assistant interceptor port, such as **1XXX**, in the **Directory Number** field.
- h. Select the phone partition you configured for Personal Assistant, such as **PA**, from the **Partition** menu.
- i. Select the Personal Assistant calling search space you configured, such as **PACSS**, from the **Calling Search Space** menu.
- j. Click **Insert**.
- k. Repeat this set to create the other route points you need to define.

Step 2 Create the translation patterns that correspond to the route points you just created:

- a. Select **Route Plan > Translation Pattern**.
Cisco CallManager opens the Find and List Translation Patterns window.
 - b. Click **Add a New Translation Pattern**.
Cisco CallManager opens the Translation Pattern Configuration window.
 - c. Enter one of the directory numbers of the route points you configured, such as **1XXX**, in the **Translation Pattern** field.
 - d. Select **Employee** in the **Partition** field.
 - e. Select **PACSS** in the **Calling Search Space** field.
 - f. Deselect **Provide Outside Dial Tone**.
 - g. Click **Insert** to save your changes.
 - h. Repeat this step for every route point you configured in [Step 1](#).
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Related Topics

- [Intercepting Calls with Personal Assistant, page 1-30](#)
- [Understanding Partitions and Calling Search Spaces, page 1-6](#)
- [Configuring Personal Assistant Servers, page 4-20](#)

Updating the Calling Search Space for End-User Phones

After adding Personal Assistant to your network, you need to update the calling search space assigned to the end-user phones.

Procedure

- Step 1** Select **Route Plan > Calling Search Space** from Cisco CallManager.
The Find and List Calling Search Spaces page displays.
- Step 2** Enter EmployeeCSS in the search field and click Find, or click Find with no search argument to list all calling search spaces.
- Step 3** Select **EmployeeCSS** from the calling search space list.
The Calling Search Space Configuration page displays.
- Step 4** Select the **PA** partition in the Available Partitions list box, and add it to the Selected Partitions list box by clicking the arrow buttons between the two list boxes.
- Step 5** Rearrange the order of the partitions to ensure that the Personal Assistant partition is first.
- Step 6** Click **Update** to update the calling search space.
- Step 7** If you are using other calling search spaces for phones, repeat these steps to update them.

**Note**

However, do not include the PA partition in the calling search space that you use for voice-mail ports. The calling search space of the voice-mail ports should include the PAManagedEmployees partition, but not the PA partition, or the message waiting indicator will not work. When setting the mwisearchspace for the Messaging interface in Cisco CallManager, make sure it contains PAManagedEmployees but not PA.

Related Topics

- [Understanding Partitions and Calling Search Spaces, page 1-6](#)
- [Intercepting Calls with Personal Assistant, page 1-30](#)

Updating the Partition for Managed Phones

To convert a phone to Personal Assistant management, assign the phone to the PAManagedEmployees partition. You can do a phased deployment of Personal Assistant by changing the partition of only a subset of your phones at a time.

Before You Begin

You can use the Bulk Administration Tool (BAT) to change the partition on telephones in much less time than it takes to make the changes to each phone individually. This procedure describes the phone-by-phone procedure.

Procedure

Step 1 Select **Device > Phones**.

Cisco CallManager displays the Find and List Phones page.

Step 2 Select “Device name is not empty” to view all phones, or enter a limited search string to view the phone subset you want to configure, and click **Find**.

Cisco CallManager lists the phones in the bottom frame.

- Step 3** Click the phone whose configuration you want to change.
Cisco CallManager displays the Phone Configuration page.
- Step 4** Click the line number you want to configure in the left-hand column.
Cisco CallManager displays the Directory Number Configuration page.
- Step 5** Change the partition to **PAManagedEmployee**.
- Step 6** Click **Insert** to save your changes.
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Related Topics

- [Understanding Partitions and Calling Search Spaces, page 1-6](#)
- [Using Partitions and Calling Search Spaces Without Personal Assistant, page 1-31](#)
- [Creating a Phone Partition, page 3-2](#)
- [Creating a Phone Calling Search Space, page 3-3](#)

Setting Up the Personal Assistant Number

You must configure a CTI route point in Cisco CallManager to identify the telephone number used to access Personal Assistant. If you are also setting up an automated attendant, use this procedure to configure the automated attendant's number.

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** Enter a unique name, such as **PA Number**, in the **Device Name** field to identify this as the Personal Assistant access number.
- Step 4** Select the appropriate device pool from the **Device Pool** menu.

- Step 5** Click **Insert** to add the new CTI route point.
- Step 6** Select an unassigned line (Line 1, Line 2, and so on) to add a line.
The Directory Number configuration options display in a separate window.
- Step 7** Enter the telephone number to be used for calling Personal Assistant, such as **4000**, in the **Directory Number** field.
- Step 8** Select the phone partition you configured, such as **Employees**, from the **Partition** menu.
- Step 9** Select the Personal Assistant calling search space you configured, such as **PACSS**, from the **Calling Search Space** menu.
- Step 10** Assign the Call Forward No Answer and Call Forward Busy to the **PACSS** calling search space.
- Step 11** If you want to use load balancing and have configured multiple CTI route points, enter the extension to forward to in the Call Forward No Answer and Call Forward Busy **Destination** field.
- Step 12** Click **Insert and Close**.
- For additional assistance, refer to the documentation and online help included with Cisco CallManager.
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Related Topics

- [Understanding CTI Route Points and Media Ports, page 1-5](#)
- [Adding Media Ports for Personal Assistant, page 3-13](#)

Adding a Personal Assistant User

You need to add Personal Assistant as a JTAPI user. The settings you enter here are used when configuring a JTAPI telephony provider in Personal Assistant.

Procedure

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

- Step 2** Complete the following required fields:
- **First Name**—use a descriptive name such as “Personal”
 - **Last Name**—use a descriptive name such as “Assistant”
 - **UserID**—use a descriptive name such as “PA”
 - **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 the **Enable CTI Application Use** check-box.
- Step 4** Click **Insert** to create the user.
- Step 5** Click **Device Association** in the left-hand column.
- Step 6** In the User Devices Assignment window, fill in the search field and click **Select Devices** to list the route points. Check the boxes associated with the Device Name fields for the route points used as the Personal Assistant number, the automated attendant number, and the interceptor ports.
- Step 7** Click **Update** to save your changes.
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Tips

- If you do not select all of the CTI route points defined for Personal Assistant’s use, callers will hear a busy tone when calling Personal Assistant or the automated attendant, or calls to certain extensions will not be intercepted.

Related Topics

- [Configuring Telephony Providers, page 4-8](#)
- [Telephony Configuration, page A-8](#)


Adding Media Ports for Personal Assistant

Media ports terminate the media between Personal Assistant and the end-users’ Cisco IP Phones. Add a media port for each simultaneous Personal Assistant session you require. For example, if you need 24 simultaneous sessions, add 24 ports.

After configuring these ports in Cisco CallManager, you must also enter the number of ports in the Personal Assistant administration interface (see the [“Configuring Personal Assistant Servers”](#) section on page 4-20.)

You create media ports as Cisco7960 devices, even if you are using other types of telephones in your network.

Procedure

- Step 1** In Cisco CallManager, select **Device > Add a New Device**.
- Step 2** Select **Phone** from the Device Type drop-down list box and click **Next**.
- Step 3** Select Cisco7960.
The Phone Configuration options display.
- Step 4** Enter the MAC address following these guidelines:
Enter the extension number, preceded by an adequate number of nines (as a place holder for all unoccupied digits to the left of the extension) so that the end result is a 12-digit number. For example, if the extension is 5001, the MAC address should be 999999995001.
- Step 5** Select the appropriate device pool from the **Device Pool** menu.
- Step 6** Click Insert to add the **Device**.
You are asked if you want to configure line 1. Click **OK**.
The Directory Number Configuration page displays.
- Step 7** Enter the extension, such as 4001, assigned to this port in the **Directory Number** field.
- Step 8** Select the phone partition you configured, such as **Employees**, from the **Partition** menu.
-  **Note** Leave the **Voice Message Box** field empty.
- Step 9** Select the Personal Assistant calling search space you configured, such as **PACSS**, from the **Calling Search Space** menu.
- Step 10** Select **Off** from the Call Waiting menu.
- Step 11** Do not enter anything in the Call Forward settings.

Step 12 Click **Insert** to save your changes.

Step 13 Repeat Steps 1-12 for each port you need to add.

For example, if you need 24 simultaneous sessions, create 24 media ports. Assign the ports consecutive numbers, such as 4001-4024.

Tips

- You can use the Cisco Bulk Administrator Tool (BAT) to configure several ports at once.

Related Topics

- [Understanding CTI Route Points and Media Ports, page 1-5](#)
- [Configuring Personal Assistant Servers, page 4-20](#)

Configuring Cisco Unity in Cisco CallManager for Integration with Personal Assistant

When adding Cisco Unity to Cisco CallManager, be sure that the calling search space does not include the partition created for Personal Assistant (such as the PA partition). To do this, you could use the calling search space configured for Personal Assistant (such as PACSS).

Refer to the documentation included with it and Cisco CallManager for detailed instructions on integrating Cisco Unity with Cisco CallManager.

Related Topics

- [Understanding Partitions and Calling Search Spaces, page 1-6](#)
- [Setting Up Personal Assistant to Intercept Calls, page 3-5](#)

