



# Auto-Attendant

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## Auto-Attendant Overview

Auto-Attendant allows callers to locate people in your organization without talking to a receptionist. You can customize the prompts that are played for the caller.

Auto-Attendant works with Unified Communications Manager to receive calls on specific telephone extensions. The software interacts with the caller and allows the caller to search for and select the extension of the party (in your organization) that the caller is trying to reach.

Auto-Attendant provides the following functions:

- Answers a call
- Plays a user-configurable welcome prompt
- Plays a main menu prompt that asks the caller to perform one of three actions:
  - Press 0 for the operator
  - Press 1 to enter an extension number
  - Press 2 to spell by name

If the caller chooses to spell by name (by pressing 2), the system compares the letters that are entered with the names that are configured to the available extensions. One of the following results can occur:

- If a match exists, the system announces a transfer to the matched user and waits for up to 2 seconds for the caller to press any Dual Tone Multifrequency (DTMF) key to stop the transfer. If the caller does not stop the transfer, the system performs an explicit confirmation: it prompts the user for confirmation of the name and transfers the call to the primary extension of that user.
- If more than one match occurs, the system prompts the caller to choose the correct extension.
- If too many matches occur, the system prompts the caller to enter more characters.

- If no match occurs, that is, if the user presses wrong options, the system prompts that the user pressed the wrong options and prompts the user to press the correct options.
- When the caller specifies the destination, the system transfers the call.
- If the line is busy or not in service, the system informs the caller accordingly and replays the main menu prompt.

Auto-Attendant solution can be deployed in three different ways as follows using different Cisco products that can provide interactive voice response functionality.

- Auto-Attendant using Cisco Unity Connection (CUC); the most widely used Auto-Attendant solution configuration by customers
- Auto-Attendant using Cisco Unified Contact Center Express (Unified CCX)
- Auto-Attendant using Cisco Unity Express (CUE)

## Cisco Unity Connection Configuration

The Cisco Unity Connection server provides Automated-Attendant functionality for both external and internal callers. An Auto-Attendant allows callers to be automatically transferred to an extension without the intervention of an operator or receptionist.

Auto-Attendants offer a menu system; it may also allow a caller to reach a live operator by dialing a number, usually “0”. Multiple Auto-Attendants may be implemented to support individual site locations. Within Cisco Unity Connection, an Auto-Attendant is a customized application tree structure that is built by creating and linking multiple Call Handlers together. The Auto-Attendant is defined by entry and exit points, and intermediate routing decisions based on the callers DTMF input choices.

For more information about Auto-Attendant default behavior and examples, see [System Administration Guide for Cisco Unity Connection](#).

## Cisco Unity Connection Configuration Task Flow

You can use this task flow to configure auto-attendant using Cisco Unity Connection:

### Procedure

	Command or Action	Purpose
Step 1	<a href="#">Configure CTI Route Point, on page 3</a>	Perform this task on the Cisco Unified CM Administration. Create a CTI Route Point which maps to the Direct-Inward Dial (DID) number of the company (board number).

	Command or Action	Purpose
Step 2	<a href="#">Configure Auto-Attendant System Call Handler, on page 4</a>	Call handlers answer calls, greet callers with recorded prompts, provide callers with information and options, route calls, and take messages.  <b>Note</b> You can customize the greeting for the AutoAttendant Call Handler by choosing <b>Edit &gt; Greetings</b> . For more information about customizing greetings, see <a href="#">System Administration Guide for Cisco Unity Connection</a> .
Step 3	<a href="#">Configure Caller Input Option, on page 4</a>	Caller input option enables you to designate a single digit to represent a user extension, alternate contact number, call handler, interview handler, or directory handler. The caller presses a single key during a call handler greeting instead of entering the full extension, and Cisco Unity Connection responds accordingly. Several different keys configured as caller input options offers the callers a menu of choices in the call handler greeting.
Step 4	<a href="#">Configure Extension for Operator Call Handler, on page 5</a>	Configure an extension for the operator to allow callers to speak to an operator during a call handler greeting.
Step 5	<a href="#">Modify Standard Call Transfer Rule for Operator, on page 5</a>	Modify the Standard Call Transfer Rule to enable the call to be transferred to the operator when the caller presses 0 to speak to an operator.
Step 6	<a href="#">Update Default System Transfer Restriction Table, on page 5</a>	Update the Default System Transfer restriction table. The Default System Transfer restriction table restricts numbers that can be used for Caller system transfers, which allow unidentified callers to transfer to a number that they specify.

## Configure CTI Route Point

- Step 1** From Cisco Unified CM Administration, choose **Device > CTI Route Point**.
- Step 2** Click **Add New**.
- Step 3** In the **Device Name** field, enter a device name for the route point.
- Step 4** From the **Device Pool** drop-down list, choose **Default**.
- Step 5** Click **Save**.  
The `Add successful` message is displayed.
- Step 6** From the **Association** area, click **Line [1] - Add a new DN**.  
The **Directory Number Configuration** window is displayed.
- Step 7** In the **Directory Number** field, enter the directory number that matches with the DID of the company.
- Step 8** From the **Route Partition** drop-down list, choose the required route partition.
- Step 9** From the **Call Forward and Call Pickup Settings** area, for **Forward All**, choose the appropriate calling search space and check the **Voice Mail** check box.

**Step 10** Click **Save**.

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## Configure Auto-Attendant System Call Handler

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- Step 1** From Cisco Unity Connection Administration, from the Cisco Unity Connection tree on the left, navigate to **Call Management** and choose **System Call Handlers**.
- Step 2** Click **Add New**.  
The **New Call Handler** window is displayed.
- Step 3** In the **Display Name** field, enter **AutoAttendant**.
- Step 4** In the **Extension** field, enter the same extension that you provided for the CTI Route Point.
- Step 5** Click **Save**.  
The **Edit Call Handler Basics (AutoAttendant)** window is displayed.
- Step 6** Edit the required fields and click **Save**.
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## Configure Caller Input Option

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- Step 1** From Cisco Unity Connection Administration, from the Cisco Unity Connection tree on the left, navigate to **Call Management** and choose **System Call Handlers**.
- Step 2** Click **AutoAttendant**.  
The **Edit Call Handler Basics (AutoAttendant)** window is displayed.
- Step 3** Choose **Edit > Caller Inputs**.  
The **Caller Input** window is displayed.
- Step 4** In the **Key** column, click **0**.  
The **Edit Caller Input (0)** window is displayed.
- Step 5** Click the **Call Handler** radio button, choose **Operator** from the drop-down list, and click the **Attempt Transfer** radio button.
- Step 6** Click **Save**.  
The Updated Caller Input status message is displayed.
- Step 7** Choose **Edit > Caller Inputs**.  
The **Caller Input** window is displayed.
- Step 8** In the **Key** column, click **1**.  
The **Edit Caller Input (0)** window is displayed.
- Step 9** In the **Conversation** radio button, choose **Caller System Transfer** from the drop-down list.
- Step 10** Click **Save**.  
The Updated Caller Input status message is displayed.
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## Configure Extension for Operator Call Handler

- Step 1** From Cisco Unity Connection Administration, from the Cisco Unity Connection tree on the left, navigate to **Call Management** and choose **System Call Handlers**.
- Step 2** Click **Operator**.  
The **Edit Call Handler Basics (Operator)** window is displayed.
- Step 3** Enter the extension of the operator in the **Extension** field and click **Save**.  
The Updated Caller Input status message is displayed.
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## Modify Standard Call Transfer Rule for Operator

- Step 1** From Cisco Unity Connection Administration, from the Cisco Unity Connection tree on the left, navigate to **Call Management** and choose **System Call Handlers**.
- Step 2** Click **Operator**.  
The **Edit Call Handler Basics (Operator)** window is displayed.
- Step 3** From the **Edit** menu, choose **Transfer Rules**.  
The **Transfer Rules** window is displayed.
- Step 4** Click **Standard**.  
The **Edit Transfer Rule (Standard)** window is displayed.
- Step 5** In the **Transfer Calls to** option, click the **Extension** radio button and enter the configured operator extension number.
- Step 6** Click **Save**.
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## Update Default System Transfer Restriction Table

- Step 1** From Cisco Unity Connection Administration, from the Cisco Unity Connection tree on the left, navigate to **System Settings** and choose **Restriction Tables**.
- Step 2** Click **Default System Transfer**.  
The **Edit Restriction Table Basics (Default System Transfer)** window is displayed.
- Step 3** Uncheck the check box in the **Blocked** column for 6 in the **Order** column.
- Step 4** Click **Save**.
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## Cisco Unity Connection Auto-Attendant Troubleshooting

For information about troubleshooting Auto-Attendant using Cisco Unity Connection, see the following:

- <http://www.cisco.com/c/en/us/support/docs/voice-unified-communications/unified-communications-manager-callmanager/107517-calltrf.html>
- [http://www.cisco.com/c/en/us/td/docs/voice\\_ip\\_comm/connection/8x/troubleshooting/guide/8xcuctsgx/8xcuctsg110.html](http://www.cisco.com/c/en/us/td/docs/voice_ip_comm/connection/8x/troubleshooting/guide/8xcuctsgx/8xcuctsg110.html)

- [http://www.cisco.com/c/en/us/td/docs/voice\\_ip\\_comm/connection/8x/troubleshooting/guide/8xcuctsgx/8xcuctsg040.html](http://www.cisco.com/c/en/us/td/docs/voice_ip_comm/connection/8x/troubleshooting/guide/8xcuctsgx/8xcuctsg040.html)
- [http://www.cisco.com/c/en/us/td/docs/voice\\_ip\\_comm/connection/8x/troubleshooting/guide/8xcuctsgx/8xcuctsg180.html](http://www.cisco.com/c/en/us/td/docs/voice_ip_comm/connection/8x/troubleshooting/guide/8xcuctsgx/8xcuctsg180.html)

## Cisco Unified CCX Configuration

Auto-Attendant comes standard with the five-seat bundle of Cisco Unified Contact Center Express (Unified CCX).



**Note** For information about the supported versions of Cisco Unified CCX with Unified Communications Manager, see [Cisco Collaboration Systems Release Summary Matrix for IP Telephony](#).

For information about getting started with scripts, see the [Cisco Unified Contact Center Express Getting Started with Scripts](#).

## Cisco Unified CCX Prerequisites

- Install and configure Cisco Unified CCX before you can use Auto-Attendant. Cisco Unified CCX controls the software and its connection to the telephony system.
- Configure users on Unified Communications Manager.

## Cisco Unified CCX Auto-Attendant Task Flow

Auto-Attendant configuration tasks are completed in Cisco Unified Contact Center Express (Unified CCX). To view detailed steps for the following tasks, see [Cisco Unified CCX Administration Guide](#) and the [Cisco Unified Contact Center Express Getting Started with Scripts](#) respectively.

### Before you begin

- Learn more about the Auto-Attendant feature by reviewing [Auto-Attendant Overview, on page 1](#).
- Learn more about Cisco UCCX with Auto-Attendant functionality by reviewing [Cisco Unified CCX Configuration, on page 6](#)
- Review [Cisco Unified CCX Prerequisites, on page 6](#).

### Procedure

	Command or Action	Purpose
<b>Step 1</b>	Configure Unified CM Telephony call control groups.	The Unified CCX system uses Unified CM Telephony call control groups to pool together a series of CTI ports, which the system uses to serve calls as they arrive or depart from the Unified CCX server.

	Command or Action	Purpose
Step 2	Add a Cisco Media Termination (CMT) dialog control group.	<p>The Cisco Media subsystem is a subsystem of the Unified CCX Engine. The Cisco Media subsystem manages the CMT media resource. CMT channels are required for Unified CCX to be able to play or record media.</p> <p>The Cisco Media subsystem uses dialog groups to organize and share resources among applications. A dialog group is a pool of dialog channels in which each channel is used to perform dialog interactions with a caller, during which the caller responds to automated prompts by pressing buttons on a touch-tone phone.</p> <p><b>Caution</b> All media termination strings begin with “auto” and contain the same ID as the call control group—not the CMT dialog group. Perform this procedure if the default media termination is configured and the ID differs.</p>
Step 3	Configure a Cisco script application.	The Unified CCX script applications are applications that are based on scripts created in the Unified CCX Editor. These applications come with every Unified CCX system and executes scripts that are created in the Unified CCX Editor.
Step 4	Provision a Unified CM Telephony trigger.	A Unified CM Telephony trigger responds to calls that arrive on a specific route point by selecting telephony and media resources to serve the call and invoking an application script to handle the call.
Step 5	Customize Auto-Attendant. <ul style="list-style-type: none"> <li>• Modify an existing Auto-Attendant instance</li> <li>• Configure the Auto-Attendant prompts</li> </ul>	<p>The Cisco Unified CCX Administration page allows you to modify any existing Auto-Attendant instance as necessary.</p> <p>Cisco Unified CCX allows you to customize the Auto-Attendant prompts from the Cisco Unified CCX Administration Media Configuration window. It allows you to record the welcome prompt, configure the welcome prompt, and upload a spoken name.</p>

## Cisco Unity Express Configuration

For information about Auto-Attendant Configuration using Cisco Unity Express, see the “Configuring Auto Attendants” chapter in [Cisco Unity Express VoiceMail and Auto Attendant CLI Administrator Guide for 3.0 and Later Versions](#).

For information about deploying a sample Auto-Attendant script, see “Deployment of sample script aa.aef” chapter in the [Getting Started with Cisco Unified IP IVR](#).

For information about an Auto-Attendant example, see “Auto Attendant Script Example” chapter in the [Cisco Unity Express Guide to Writing and Editing Scripts for 7.0 and Later Versions](#).

For information about Auto-Attendant design considerations, see “Auto Attendant Design Considerations” chapter in the [Cisco Unity Express Design Guide](#).

## Cisco Unity Express Auto-Attendant Troubleshooting

For information about Auto-Attendant troubleshooting using Cisco Unity Connection, see the “Troubleshooting Cisco Unity Express Automated Attendant” in [Excerpts from Cisco IP Communications Express: CallManager Express with Cisco Unity Express](#).