



Cisco Unified CallManager Express 4.0 SIP Trunk Integration Guide for Cisco Unity Connection 1.2

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This document provides instructions for integrating the Cisco Unified CallManager Express phone system with Cisco Unity Connection.

Cisco Unity Connection supports a SIP trunk integration with the Cisco Unified CallManager Express phone system when the Cisco Unified CallManager Express phone system has only SIP phones.



Note

The G.729a codec is not supported.

Integration Tasks

Before doing the following tasks to integrate Cisco Unity Connection with the Cisco Unified CallManager Express phone system, confirm that the Cisco Unity Connection server is ready for the integration by completing the applicable tasks in the *Cisco Unity Connection Installation Guide*.

The following task lists describe the process for creating an integration and changing the number of voice messaging ports.

Task List to Create the Integration

Use the following task list to set up a new integration with the Cisco Unified CallManager Express phone system. If you are installing a new Cisco Unity Connection server by using the *Cisco Unity Connection Installation Guide*, you may have already completed some of the following tasks.

1. Review the system and equipment requirements to confirm that all phone system and Cisco Unity Connection server requirements have been met. See the [“Requirements” section on page 2](#).
2. Plan how the voice messaging ports will be used by Cisco Unity Connection. See the [“Planning How the Voice Messaging Ports Will Be Used by Cisco Unity Connection” section on page 4](#).
3. Program Cisco Unified CallManager Express. See the [“Programming the Cisco Unified CallManager Express Phone System” section on page 6](#).



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4. Create the integration. See the “[Creating a New Integration with the Cisco Unified CallManager Express Phone System](#)” section on page 6.



Note An additional Cisco Unified CallManager cluster can be added by creating a new phone system integration through the Phone System Integration Wizard. Each Cisco Unified CallManager cluster is a separate phone system integration.

5. Test the integration. See the “[Testing the Integration](#)” section on page 9.
6. If this integration is a second or subsequent integration, add the applicable new user templates for the new phone system. See the [\(Multiple Integrations Only\) Adding New User Templates](#), page 12.

Task List to Change the Number of Voice Messaging Ports

Use the following task list to change the number of voice messaging ports for an integration after it has been created.

1. Change the number of voice messaging ports in Cisco Unified CallManager Express and in Cisco Unity Connection Administration. See the “[Changing the Number of Voice Messaging Ports](#)” section on page 13.

Requirements

The Cisco Unified CallManager Express integration supports configurations of the following components:

Phone System

- Cisco Unified CallManager Express 4.0.
- A compatible Cisco IOS software version. Refer to the *Cisco Unified CallManager Express and Cisco IOS Software Version Compatibility Matrix* at http://www.cisco.com/en/US/products/sw/voicesw/ps4625/prod_installation_guide09186a00805acf50.html.
- Cisco Unified CallManager Express feature license.
- Cisco IP phone feature licenses, and Cisco licenses for other H.323-compliant devices or software (such as Cisco VirtualPhone and Microsoft NetMeeting clients) that will be connected to the network, as well as one license for each Cisco Unity Connection port.
- For the Cisco Unified CallManager Express extensions, SIP phones that support DTMF relay as described in RFC-2833. For a list of supported Cisco IP phone models, refer to the *Cisco Unified CallManager Express 4.0 Supported Firmware, Platforms, Memory, and Voice Products* at http://www.cisco.com/en/US/products/sw/voicesw/ps4625/prod_installation_guide09186a00805f5908.html.
- A LAN connection in each location where you will plug an IP phone into the network.

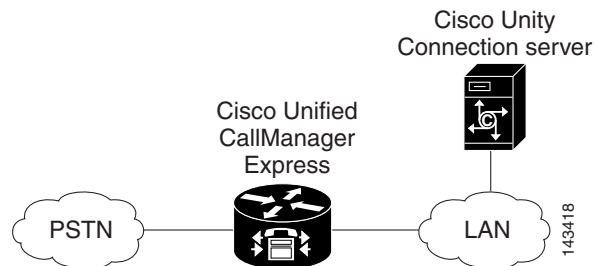
Cisco Unity Connection Server

- The applicable version of Cisco Unity Connection. For details on compatible versions of Cisco Unity Connection and Cisco Unified CallManager, refer to the *SIP Trunk Compatibility Matrix: Cisco Unity Connection and Cisco Unified CallManager* at http://www.cisco.com/en/US/products/ps6509/products_device_support_table09186a0080624b9f.html.
- Cisco Unity Connection installed and ready for the integration, as described in the *Cisco Unity Connection Installation Guide* at http://www.cisco.com/en/US/products/ps6509/prod_installation_guides_list.html.
- A license that enables the appropriate number of voice messaging ports.

Integration Description

The Cisco Unified CallManager Express integration uses the LAN to connect Cisco Unity Connection and the phone system. The Cisco Unified CallManager Express also provides connections to the PSTN. [Figure 1](#) shows the connections for a system with a single Cisco Unified CallManager Express router.

Figure 1 **Connections Between the Cisco Unified CallManager Express Router and Cisco Unity Connection**



Call Information

The phone system sends the following information with forwarded calls:

- The extension of the called party
- The extension of the calling party (for internal calls) or the phone number of the calling party (if it is an external call and the system uses caller ID)
- The reason for the forward (the extension is busy, does not answer, or is set to forward all calls)

Cisco Unity Connection uses this information to answer the call appropriately. For example, a call forwarded to Cisco Unity Connection is answered with the personal greeting of the user. If the phone system routes the call to Cisco Unity Connection without this information, Cisco Unity Connection answers with the opening greeting.

Integration Functionality

The Cisco Unified CallManager Express integration with Cisco Unity Connection provides the following features:

- Call forward to personal greeting
- Call forward to busy greeting
- Caller ID
- Easy message access (a subscriber can retrieve messages without entering an ID because Cisco Unity Connection identifies the subscriber based on the extension from which the call originated; a password may be required)
- Identified subscriber messaging (Cisco Unity Connection identifies the subscriber who leaves a message during a forwarded internal call, based on the extension from which the call originated)
- Message waiting indication (MWI)

Integrations with Multiple Phone Systems

Cisco Unity Connection can be integrated with multiple phone systems at one time. For information on and instructions for integrating Cisco Unity Connection with multiple phone systems, refer to the *Multiple Phone System Integration Guide* at http://www.cisco.com/en/US/products/ps6509/products_installation_and_configuration_guides_list.html.


Planning How the Voice Messaging Ports Will Be Used by Cisco Unity Connection

Before programming the phone system, you need to plan how the voice messaging ports will be used by Cisco Unity Connection. The following considerations will affect the programming for the phone system (for example, setting up the hunt group or call forwarding for the voice messaging ports):

- The number of voice messaging ports installed.
- The number of voice messaging ports that will answer calls.
- The number of voice messaging ports that will only dial out, for example, to send message notification, to set message waiting indicators (MWIs), and to make telephone record and playback (TRAP) connections.

The following table describes the voice messaging port settings in Cisco Unity Connection that can be set on Telephony Integrations > Port of Cisco Unity Connection Administration.

Table 1 **Settings for the Voice Messaging Ports**

Field	Considerations
Enabled	Check this check box.
Answer Calls	Check this check box.  Caution All voice messaging ports connecting to the Cisco Unified CallManager Express server must have the Answer Calls box checked. Otherwise, calls to Cisco Unity Connection may not be answered.
Perform Message Notification	Check this check box to designate the port for notifying users of messages.
Send MWI Requests	Check this check box to designate the port for turning MWIs on and off.
Allow TRAP Connections	Check this check box so that users can use the port for recording and playback through the phone in Cisco Unity Connection web applications.

The Number of Voice Messaging Ports to Install

The number of voice messaging ports to install depends on numerous factors, including:

- The number of calls Cisco Unity Connection will answer when call traffic is at its peak.
- The expected length of each message that callers will record and that users will listen to.
- The number of users.
- The number of ports that will be set to dial out only.
- The number of calls made for message notification.
- The number of MWIs that will be activated when call traffic is at its peak.
- The number of TRAP connections needed when call traffic is at its peak. (TRAP connections are used by Cisco Unity Connection web applications to play back and record over the phone.)
- The number of calls that will use the automated attendant and call handlers when call traffic is at its peak.

It is best to install only the number of voice messaging ports that are needed so that system resources are not allocated to unused ports.

The Number of Voice Messaging Ports That Will Answer Calls

The calls that the voice messaging ports answer can be incoming calls from unidentified callers or from users. Typically, the voice messaging ports that answer calls are the busiest.

You can set voice messaging ports to both answer calls and to dial out (for example, to send message notifications). However, when the voice messaging ports perform more than one function and are very active (for example, answering many calls), the other functions may be delayed until the voice messaging port is free (for example, message notifications cannot be sent until there are fewer calls to answer). For best performance, dedicate certain voice messaging ports for only answering incoming calls, and dedicate other ports for only dialing out. Separating these port functions eliminates the possibility of a collision, in which an incoming call arrives on a port at the same time that Cisco Unity Connection takes the port off-hook to dial out.

The Number of Voice Messaging Ports That Will Only Dial Out, and Not Answer Calls

Ports that will only dial out and will not answer calls can do one or more of the following:

- Notify users by phone, pager, or e-mail of messages that have arrived.
- Turn MWIs on and off for user extensions.
- Make a TRAP connection so that users can use the phone as a recording and playback device in Cisco Unity Connection web applications.

Typically, these voice messaging ports are the least busy ports.

**Caution**

In programming the phone system, do not send calls to voice messaging ports in Cisco Unity Connection that cannot answer calls (voice messaging ports that are not set to Answer Calls). For example, if a voice messaging port is set only to Perform Message Notification, do not send calls to it.

Preparing for Programming the Phone System

Record your decisions about the voice messaging ports to guide you in programming the phone system.

Programming the Cisco Unified CallManager Express Phone System

For details on programming the Cisco Unified CallManager Express router for the integration with Cisco Unity Connection, refer to the “Configuring Voice Mail Integration for Cisco Unified CME for SIP Phones” chapter of the *Cisco Unified CallManager Express 4.0 Configuration Guide for SIP Phones* at

http://www.cisco.com/en/US/products/sw/voicesw/ps4625/products_configuration_guide_chapter09186a00806ba5bd.html.

Creating a New Integration with the Cisco Unified CallManager Express Phone System


After ensuring that the Cisco Unified CallManager Express phone system and Cisco Unity Connection are ready for the integration, do the following procedures to set up the integration and to enter the port settings.

To Create an Integration

- Step 1** Log on to Cisco Unity Connection Administration.
- Step 2** In Cisco Unity Connection Administration, expand **Telephony Integrations**, then click **Phone System**.
- Step 3** On the Search Phone Systems page, on the Phone System menu, click **New Phone System**. The Phone System Integration Wizard appears.
- Step 4** On the Select Phone System Manufacturer page, in the Manufacturer field, click **Cisco Systems** and click **Next**.
- Step 5** On the Select Phone System Model page, in the Model field, click **CallManager** and click **Next**.

- Step 6** On the Set Up Phone System page, in the Phone System Name field, accept the default name or enter the descriptive name that you want, and click **Next**.
- Step 7** On the Select Port Group Template page, in the Port Group Template field, click **SIP - Session Initiation Protocol** and click **Next**.
- Step 8** On the Set Up Port Group page, enter the following settings and click **Next**.

Table 2 Settings for the Set Up Port Group Page

Field	Setting
Port Group Name	<a descriptive name for the port group; accept the default name or enter the name that you want>
Contact Line Name	<the voice messaging line name (or pilot number) that users will use to contact Cisco Unity Connection and that Cisco Unity Connection will use to register with the Cisco Unified CallManager Express router>
Authenticate with SIP Proxy Server	<your indication whether Cisco Unity Connection will authenticate with the Cisco Unified CallManager Express router>
Authentication User Name	<the name that Cisco Unity Connection will use to authenticate with the Cisco Unified CallManager Express router>
Authentication Password	<the password that Cisco Unity Connection will use to authenticate with the Cisco Unified CallManager Express router>
Number of Ports	<the number of voice messaging ports that you want to create in this port group>
IP Address or Host Name	<the IP address (or host name) of the primary Cisco Unified CallManager Express router that you are integrating with Cisco Unity Connection>
Test Address	Click this button to test the IP address that you entered. The results of the test appear in the field to the right of the button. 
	Note Even though the integration is successful, the test may fail on networks where the “ping” command is disabled or ignored, or when the Cisco Unified CallManager Express router is not running.
Port	<the IP port of the Cisco Unified CallManager Express router that you are integrating with Cisco Unity Connection; we recommend that you use the default setting>


- Step 9** On the Confirm Phone System Settings page, confirm the settings that you have entered and click **Finish**.
- Step 10** On the Phone System Creation Summary page, click **Close**.
- Step 11** In Cisco Unity Connection Administration, expand **Telephony Integrations**, then click **Port**.
- Step 12** On the Search Ports page, click the display name of the first voice messaging port that you created for this phone system integration.



Note By default, the display names for the voice messaging ports are composed of the port group display name followed by incrementing numbers.

- Step 13** On the Port Basics page, enter the following settings. The fields in the following table are the ones that you can change.

Table 3 Settings for the Voice Messaging Ports

Field	Considerations
Enabled	Check this check box.
Answer Calls	Check this check box.  Caution All voice messaging ports connecting to the Cisco Unified CallManager Express server must have the Answer Calls box checked. Otherwise, calls to Cisco Unity Connection may not be answered.
Perform Message Notification	Check this check box to designate the port for notifying users of messages.
Send MWI Requests	Check this check box to designate the port for turning MWIs on and off.
Allow TRAP Connections	Check this check box so that users can use the port for recording and playback through the phone in Cisco Unity Connection web applications.

Step 14 Click **Save**.

Step 15 Click **Next**.

Step 16 Repeat [Step 13](#) through [Step 15](#) for all remaining voice messaging ports for the phone system.

Step 17 If another phone system integration exists, in Cisco Unity Connection Administration, expand **Telephony Integrations**, then click **Trunk**. Otherwise, skip to [Step 21](#).

Step 18 On the Search Phone System Trunks page, on the Phone System Trunk menu, click **New Phone System Trunk**.

Step 19 On the New Phone System Trunk page, enter the following settings for the phone system trunk and click **Save**.

Table 4 Settings for the Phone System Trunk

Field	Setting
From Phone System	<the display name of the phone system that you are creating a trunk for>
To Phone System	<the display name of the previously existing phone system that the trunk will connect to>
Trunk Access Code	<the extra digits that Cisco Unity Connection must dial to transfer calls through the gateway to extensions on the previously existing phone system>

Step 20 Repeat [Step 18](#) and [Step 19](#) for all remaining phone system trunks that you want to create.

Step 21 If prompted to restart Cisco Unity Connection, in the Windows task bar, right-click the **Cisco Unity Connection** icon and click **Restart > Voice Processing Server Role**.

Step 22 When prompted to confirm stopping the Voice Processing server role, click **Yes**.

Step 23 In Cisco Unity Connection Administration, in the Related Links drop-down list, click **Check Telephony Configuration** and click **Go** to confirm the phone system integration settings.

If the test is not successful, the Task Execution Results displays one or more messages with troubleshooting steps. After correcting the problems, test the connection again.

Step 24 In the Task Execution Results window, click **Close**.

Step 25 Log off Cisco Unity Connection Administration.

Testing the Integration

To test whether Cisco Unity Connection and the phone system are integrated correctly, do the following procedures in the order listed.

If any of the steps indicate a failure, refer to the following documentation as applicable:

- The installation guide for the phone system.
- The setup information earlier in this guide.

To Set Up the Test Configuration

Step 1 Set up two test extensions (Phone 1 and Phone 2) on the same phone system that Cisco Unity Connection is connected to.

Step 2 Set Phone 1 to forward calls to the Cisco Unity Connection pilot number when calls are not answered.



Caution The phone system must forward calls to the Cisco Unity Connection pilot number in no fewer than four rings. Otherwise, the test may fail.

Step 3 To create a test user for testing, in Cisco Unity Connection Administration, expand **Users**, then click **Users**.

Step 4 On the Search Users page, on the User menu, click **New User**.

Step 5 On the New User page, enter the following settings.

Table 5 *Settings for the New User Page*

Field	Setting
User Type	User with Voice Mailbox
Based on Template	<the applicable user template>
Alias	testuser
First Name	Test
Last Name	User
Display Name	Test User
Extension	<the extension of Phone 1>

Step 6 Click **Save**.

Step 7 On the Edit User Basics page, in the Voice Name field, record a voice name for the test user.

Step 8 In the Phone System field, confirm that the phone system selected is the phone system that Phone 1 is connected to.

Step 9 Uncheck the **Set for Self-enrollment at Next Login** check box.

Step 10 Click **Save**.

- Step 11** On the Edit menu, click **Message Waiting Indicators**.
- Step 12** On the Message Waiting Indicators page, click the message waiting indicator. If no message waiting indication is in the table, click **Add New**.
- Step 13** On the Edit Message Waiting Indicator page, enter the following settings.

Table 6 **Settings for the Edit MWI Page**

Field	Setting
Enabled	Check this check box to enable MWIs for the test user.
Display Name	Accept the default or enter a different name.
Inherit User's Extension	Check this check box to enable MWIs on Phone 1.

- Step 14** Click **Save**.
- Step 15** On the Edit menu, click **Transfer Options**.
- Step 16** On the Transfer Options page, click the active option.
- Step 17** On the Edit Transfer Option page, under Transfer Action, click the **Extension** option and enter the extension of Phone 1.
- Step 18** In the Transfer Type field, click **Release to Switch**.
- Step 19** Click **Save**.
- Step 20** Minimize the Cisco Unity Connection Administration window.
Do not close the Cisco Unity Connection Administration window because you will use it again in a later procedure.
- Step 21** On the Cisco Unity Connection desktop, double-click the **Tools Depot** icon.
- Step 22** In the left pane of the Tools Depot window, expand **Switch Integration Tools**, then double-click **Port Status Monitor**. The Port Status Monitor window appears.
- Step 23** On the Ports menu, click **Start All**, and arrange the port monitors so that you can notice which port will handle the calls that you will make.

To Test an External Call with Release Transfer

- Step 1** From Phone 2, enter the access code necessary to get an outside line, then enter the number outside callers use to dial directly to Cisco Unity Connection.
- Step 2** In the Port Status Monitor, note which port handles this call.
- Step 3** When you hear the opening greeting, enter the extension for Phone 1. Hearing the opening greeting means that the port is configured correctly.
- Step 4** Confirm that Phone 1 rings and that you hear a ringback tone on Phone 2. Hearing a ringback tone means that Cisco Unity Connection correctly released the call and transferred it to Phone 1.
- Step 5** Leaving Phone 1 unanswered, confirm that the state of the port handling the call changes to "Idle." This state means that release transfer is successful.

- Step 6** Confirm that, after the number of rings that the phone system is set to wait, the call is forwarded to Cisco Unity Connection and that you hear the greeting for the test user. Hearing the greeting means that the phone system forwarded the unanswered call and the call-forward information to Cisco Unity Connection, which correctly interpreted the information.
- Step 7** On the Port Status Monitor, note which port handles this call.
- Step 8** Leave a message for the test user and hang up Phone 2.
- Step 9** In the Port Status Monitor, confirm that the state of the port handling the call changes to “Idle.” This state means that the port was successfully released when the call ended.
- Step 10** Confirm that the MWI on Phone 1 is activated. The activated MWI means that the phone system and Cisco Unity Connection are successfully integrated for turning on MWIs.
-

To Test Listening to Messages

- Step 1** From Phone 1, enter the internal pilot number for Cisco Unity Connection.
- Step 2** When asked for your password, enter the password for the test user. Hearing the request for your password means that the phone system sent the necessary call information to Cisco Unity Connection, which correctly interpreted the information.
- Step 3** Confirm that you hear the recorded voice name for the test user (if you did not record a voice name for the test user, you will hear the extension number for Phone 1). Hearing the voice name means that Cisco Unity Connection correctly identified the user by the extension.
- Step 4** Listen to the message.
- Step 5** After listening to the message, delete the message.
- Step 6** Confirm that the MWI on Phone 1 is deactivated. The deactivated MWI means that the phone system and Cisco Unity Connection are successfully integrated for turning off MWIs.
- Step 7** Hang up Phone 1.
- Step 8** On the Port Status Monitor, confirm that the state of the port handling the call changes to “Idle.” This state means that the port was successfully released when the call ended.
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To Set Up Supervised Transfer on Cisco Unity Connection

- Step 1** In Cisco Unity Connection Administration, on the Edit Transfer Option page for the test user, in the Transfer Type field, click **Supervise Transfer**.
- Step 2** In the Rings to Wait For field, enter **3**.
- Step 3** Click **Save**.
- Step 4** Minimize the Cisco Unity Connection Administration window.
- Do not close the Cisco Unity Connection Administration window because you will use it again in a later procedure.
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To Test Supervised Transfer

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- Step 1** From Phone 2, enter the access code necessary to get an outside line, then enter the number outside callers use to dial directly to Cisco Unity Connection.
 - Step 2** On the Port Status Monitor, note which port handles this call.
 - Step 3** When you hear the opening greeting, enter the extension for Phone 1. Hearing the opening greeting means that the port is configured correctly.
 - Step 4** Confirm that Phone 1 rings and that you do not hear a ringback tone on Phone 2. Instead, you should hear the indication your phone system uses to mean that the call is on hold (for example, music).
 - Step 5** Leaving Phone 1 unanswered, confirm that the state of the port handling the call remains “Busy.” This state and hearing an indication that you are on hold mean that Cisco Unity Connection is supervising the transfer.
 - Step 6** Confirm that, after three rings, you hear the greeting for the test user. Hearing the greeting means that Cisco Unity Connection successfully recalled the supervised-transfer call.
 - Step 7** During the greeting, hang up Phone 2.
 - Step 8** On the Port Status Monitor, confirm that the state of the port handling the call changes to “Idle.” This state means that the port was successfully released when the call ended.
 - Step 9** Exit the Port Status Monitor.
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To Delete the Test User

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- Step 1** In Cisco Unity Connection Administration, expand **Users**, then click **Users**.
 - Step 2** On the Search Users page, check the check box to the left of the test user.
 - Step 3** Click **Delete Selected**.
-

(Multiple Integrations Only) Adding New User Templates

When you create the first phone system integration, this phone system is automatically selected in the default user template. The users that you add after creating this phone system integration will be assigned to this phone system by default.

However, for each additional phone system integration that you create, you must add the applicable new user templates that will assign users to the new phone system. You must add the new templates before you add new users who will be assigned to the new phone system.

For details on adding new user templates, refer to the “Adding, Changing, or Deleting an Account Template” chapter in the *Cisco Unity Connection User Moves, Adds, and Changes Guide* at http://www.cisco.com/en/US/products/ps6509/prod_maintenance_guides_list.html.

For details on selecting a user template when adding a new user, refer to the applicable chapter for adding user accounts in the *Cisco Unity Connection User Moves, Adds, and Changes Guide* at http://www.cisco.com/en/US/products/ps6509/prod_maintenance_guides_list.html.

Changing the Number of Voice Messaging Ports

If you are adding voice messaging ports, do the “[To Add Voice Messaging Ports in Cisco Unity Connection Administration](#)” procedure on page 13.

If you are deleting voice messaging ports, do the “[To Delete Voice Messaging Ports in Cisco Unity Connection Administration](#)” procedure on page 13.

To Add Voice Messaging Ports in Cisco Unity Connection Administration

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- Step 1** If the Cisco Unity Connection license does not enable the additional voice messaging ports you added, see your sales representative to request the applicable license.
 - Step 2** When you have the license, log on to Cisco Unity Connection Administration.
 - Step 3** In Cisco Unity Connection Administration, expand **System Settings**, then click **Licenses**.
 - Step 4** On the License page, on the License menu, click **Add New License**.
 - Step 5** On the Add New License page, click **Browse**.
 - Step 6** In the Choose File dialog box, browse to license file and click **Open**.
 - Step 7** On the Add New License page, click **Add**.
 - Step 8** On the Licenses page, check the check box for the license file that you added in [Step 7](#) and click **Install Selected**.
 - Step 9** In Cisco Unity Connection Administration, expand **Telephony Integrations**, then click **Port**.
 - Step 10** On the Search Ports page, under Port Search Results, click **Add New**.
 - Step 11** On the New Port page, enter the applicable settings and click **Save**.



Caution Make sure that there are an appropriate number of ports set to answer calls and an appropriate number of ports set to dial out. Otherwise, the integration will not function correctly. For details, see to the “[Planning How the Voice Messaging Ports Will be Used by Cisco Unity Connection](#)” section.

- Step 12** If prompted to restart Cisco Unity Connection, in the Windows task bar, right-click the **Cisco Unity Connection** icon and click **Restart > Voice Processing Server Role**.
 - Step 13** When prompted to confirm stopping the Voice Processing server role, click **Yes**.
 - Step 14** In Cisco Unity Connection Administration, in the Related Links drop-down list, click **Check Telephony Configuration** and click **Go** to confirm the phone system integration settings.

If the test is not successful, the Task Execution Results displays one or more messages with troubleshooting steps. After correcting the problems, test the connection again.
 - Step 15** In the Task Execution Results window, click **Close**.
 - Step 16** Log off Cisco Unity Connection Administration.
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To Delete Voice Messaging Ports in Cisco Unity Connection Administration

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- Step 1** Log on to the Cisco Unity Connection Administration.

- Step 2** Go to the **Telephony Integrations > Port** page.
- Step 3** Under Port Search Results, check the check boxes next to the voice messaging ports that you want to delete.
- Step 4** Click **Delete Selected**.
- Step 5** For the remaining voice messaging ports in the port group, change the settings as necessary so that there are an appropriate number of voice messaging ports set to answer calls and an appropriate number of voice messaging ports set to dial out.
- Step 6** In the Windows task bar, right-click the **Cisco Unity Connection** icon and click **Restart > Voice Processing Server Role**.
- Step 7** When prompted to confirm stopping the Voice Processing server role, click **Yes**.
- Step 8** In Cisco Unity Connection Administration, in the Related Links drop-down list, click **Check Telephony Configuration** and click **Go** to confirm the phone system integration settings.
- If the test is not successful, the Task Execution Results displays one or more messages with troubleshooting steps. After correcting the problems, test the connection again.
- Step 9** In the Task Execution Results window, click **Close**.
- Step 10** Log off the Cisco Unity Connection Administration.

Appendix: Documentation and Technical Assistance

Conventions

The *Cisco Unified CallManager Express 4.0 SIP Trunk Integration Guide for Cisco Unity Connection 1.2* uses the following conventions.

Table 7 *Cisco Unified CallManager Express 4.0 SIP Trunk Integration Guide for Cisco Unity Connection 1.2 Conventions*

Convention	Description
boldfaced text	Boldfaced text is used for: <ul style="list-style-type: none"> Key and button names. (Example: Click OK.) Information that you enter. (Example: Enter Administrator in the User Name box.)
< > (angle brackets)	Angle brackets are used around parameters for which you supply a value. (Example: In the Command Prompt window, enter ping <IP address> .)
- (hyphen)	Hyphens separate keys that must be pressed simultaneously. (Example: Press Ctrl-Alt-Delete .)

Table 7 *Cisco Unified CallManager Express 4.0 SIP Trunk Integration Guide for Cisco Unity Connection 1.2 Conventions (continued)*

Convention	Description
> (right angle bracket)	A right angle bracket is used to separate selections that you make: <ul style="list-style-type: none"> On menus. (Example: On the Windows Start menu, click Settings > Control Panel > Phone and Modem Options.) In the navigation bar of Cisco Unity Connection Administration. (Example: In Cisco Unity Connection Administration, expand System Settings > Advanced.)
[x] (square brackets)	Square brackets enclose an optional element (keyword or argument). (Example: [reg-e164])
[x y] (vertical line)	Square brackets enclosing keywords or arguments separated by a vertical line indicate an optional choice. (Example: [transport tcp transport udp])
{x y} (braces)	Braces enclosing keywords or arguments separated by a vertical line indicate a required choice. (Example: {tcp udp})

The *Cisco Unified CallManager Express 4.0 SIP Trunk Integration Guide for Cisco Unity Connection 1.2* also uses the following conventions:



Note

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



Caution

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

For descriptions and URLs of Cisco Unity Connection documentation on Cisco.com, see the *About Cisco Unity Documentation*. The document is shipped with Cisco Unity Connection and is available at

http://www.cisco.com/en/US/products/ps6509/products_documentation_roadmaps_list.html.

Obtaining Documentation

Cisco documentation and additional literature are available on Cisco.com. Cisco also provides several ways to obtain technical assistance and other technical resources. These sections explain how to obtain technical information from Cisco Systems.

Cisco.com

You can access the most current Cisco documentation at this URL:

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

You can access the Cisco website at this URL:

<http://www.cisco.com>

You can access international Cisco websites at this URL:

http://www.cisco.com/public/countries_languages.shtml

Product Documentation DVD

The Product Documentation DVD is a comprehensive library of technical product documentation on a portable medium. The DVD enables you to access multiple versions of installation, configuration, and command guides for Cisco hardware and software products. With the DVD, you have access to the same HTML documentation that is found on the Cisco website without being connected to the Internet. Certain products also have .PDF versions of the documentation available.

The Product Documentation DVD is available as a single unit or as a subscription. Registered Cisco.com users (Cisco direct customers) can order a Product Documentation DVD (product number DOC-DOCDVD= or DOC-DOCDVD=SUB) from Cisco Marketplace at this URL:

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Registered Cisco.com users may order Cisco documentation at the Product Documentation Store in the Cisco Marketplace at this URL:

<http://www.cisco.com/go/marketplace/>

Nonregistered Cisco.com users can order technical documentation from 8:00 a.m. to 5:00 p.m. (0800 to 1700) PDT by calling 1 866 463-3487 in the United States and Canada, or elsewhere by calling 011 408 519-5055. You can also order documentation by e-mail at tech-doc-store-mkpl@external.cisco.com or by fax at 1 408 519-5001 in the United States and Canada, or elsewhere at 011 408 519-5001.

Documentation Feedback

You can rate and provide feedback about Cisco technical documents by completing the online feedback form that appears with the technical documents on Cisco.com.

You can submit comments about Cisco documentation by using the response card (if present) behind the front cover of your document or by writing to the following address:

Cisco Systems
Attn: Customer Document Ordering
170 West Tasman Drive
San Jose, CA 95134-9883

We appreciate your comments.

Cisco Product Security Overview

Cisco provides a free online Security Vulnerability Policy portal at this URL:

http://www.cisco.com/en/US/products/products_security_vulnerability_policy.html

From this site, you will find information about how to:

- Report security vulnerabilities in Cisco products.
- Obtain assistance with security incidents that involve Cisco products.
- Register to receive security information from Cisco.

A current list of security advisories, security notices, and security responses for Cisco products is available at this URL:

<http://www.cisco.com/go/psirt>

To see security advisories, security notices, and security responses as they are updated in real time, you can subscribe to the Product Security Incident Response Team Really Simple Syndication (PSIRT RSS) feed. Information about how to subscribe to the PSIRT RSS feed is found at this URL:

http://www.cisco.com/en/US/products/products_psirt_rss_feed.html

Reporting Security Problems in Cisco Products

Cisco is committed to delivering secure products. We test our products internally before we release them, and we strive to correct all vulnerabilities quickly. If you think that you have identified a vulnerability in a Cisco product, contact PSIRT:

- For Emergencies only—security-alert@cisco.com

An emergency is either a condition in which a system is under active attack or a condition for which a severe and urgent security vulnerability should be reported. All other conditions are considered nonemergencies.

- For Nonemergencies—psirt@cisco.com

In an emergency, you can also reach PSIRT by telephone:

- 1 877 228-7302
- 1 408 525-6532



Tip

We encourage you to use Pretty Good Privacy (PGP) or a compatible product (for example, GnuPG) to encrypt any sensitive information that you send to Cisco. PSIRT can work with information that has been encrypted with PGP versions 2.x through 9.x.

Never use a revoked or an expired encryption key. The correct public key to use in your correspondence with PSIRT is the one linked in the Contact Summary section of the Security Vulnerability Policy page at this URL:

http://www.cisco.com/en/US/products/products_security_vulnerability_policy.html

The link on this page has the current PGP key ID in use.

If you do not have or use PGP, contact PSIRT at the aforementioned e-mail addresses or phone numbers before sending any sensitive material to find other means of encrypting the data.

Obtaining Technical Assistance

Cisco Technical Support provides 24-hour-a-day award-winning technical assistance. The Cisco Technical Support & Documentation website on Cisco.com features extensive online support resources. In addition, if you have a valid Cisco service contract, Cisco Technical Assistance Center (TAC) engineers provide telephone support. If you do not have a valid Cisco service contract, contact your reseller.

Cisco Technical Support & Documentation Website

The Cisco Technical Support & Documentation website provides online documents and tools for troubleshooting and resolving technical issues with Cisco products and technologies. The website is available 24 hours a day, at this URL:

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

Access to all tools on the Cisco Technical Support & Documentation website requires a Cisco.com user ID and password. If you have a valid service contract but do not have a user ID or password, you can register at this URL:

<http://tools.cisco.com/RPF/register/register.do>

**Note**

Use the Cisco Product Identification (CPI) tool to locate your product serial number before submitting a web or phone request for service. You can access the CPI tool from the Cisco Technical Support & Documentation website by clicking the **Tools & Resources** link under Documentation & Tools. Choose **Cisco Product Identification Tool** from the Alphabetical Index drop-down list, or click the **Cisco Product Identification Tool** link under Alerts & RMAs. The CPI tool offers three search options: by product ID or model name; by tree view; or for certain products, by copying and pasting **show** command output. Search results show an illustration of your product with the serial number label location highlighted. Locate the serial number label on your product and record the information before placing a service call.

Submitting a Service Request

Using the online TAC Service Request Tool is the fastest way to open S3 and S4 service requests. (S3 and S4 service requests are those in which your network is minimally impaired or for which you require product information.) After you describe your situation, the TAC Service Request Tool provides recommended solutions. If your issue is not resolved using the recommended resources, your service request is assigned to a Cisco engineer. The TAC Service Request Tool is located at this URL:

<http://www.cisco.com/techsupport/servicerequest>

For S1 or S2 service requests, or if you do not have Internet access, contact the Cisco TAC by telephone. (S1 or S2 service requests are those in which your production network is down or severely degraded.) Cisco engineers are assigned immediately to S1 and S2 service requests to help keep your business operations running smoothly.

To open a service request by telephone, use one of the following numbers:

Asia-Pacific: +61 2 8446 7411 (Australia: 1 800 805 227)

EMEA: +32 2 704 55 55

USA: 1 800 553-2447

For a complete list of Cisco TAC contacts, go to this URL:

<http://www.cisco.com/techsupport/contacts>

Definitions of Service Request Severity

To ensure that all service requests are reported in a standard format, Cisco has established severity definitions.

Severity 1 (S1)—An existing network is down, or there is a critical impact to your business operations. You and Cisco will commit all necessary resources around the clock to resolve the situation.

Severity 2 (S2)—Operation of an existing network is severely degraded, or significant aspects of your business operations are negatively affected by inadequate performance of Cisco products. You and Cisco will commit full-time resources during normal business hours to resolve the situation.

Severity 3 (S3)—Operational performance of the network is impaired, while most business operations remain functional. You and Cisco will commit resources during normal business hours to restore service to satisfactory levels.

Severity 4 (S4)—You require information or assistance with Cisco product capabilities, installation, or configuration. There is little or no effect on your business operations.

Obtaining Additional Publications and Information

Information about Cisco products, technologies, and network solutions is available from various online and printed sources.

- The *Cisco Product Quick Reference Guide* is a handy, compact reference tool that includes brief product overviews, key features, sample part numbers, and abbreviated technical specifications for many Cisco products that are sold through channel partners. It is updated twice a year and includes the latest Cisco offerings. To order and find out more about the Cisco Product Quick Reference Guide, go to this URL:

<http://www.cisco.com/go/guide>

- Cisco Marketplace provides a variety of Cisco books, reference guides, documentation, and logo merchandise. Visit Cisco Marketplace, the company store, at this URL:

<http://www.cisco.com/go/marketplace/>

- *Cisco Press* publishes a wide range of general networking, training and certification titles. Both new and experienced users will benefit from these publications. For current Cisco Press titles and other information, go to Cisco Press at this URL:

<http://www.ciscopress.com>

- *Packet* magazine is the Cisco Systems technical user magazine for maximizing Internet and networking investments. Each quarter, Packet delivers coverage of the latest industry trends, technology breakthroughs, and Cisco products and solutions, as well as network deployment and troubleshooting tips, configuration examples, customer case studies, certification and training information, and links to scores of in-depth online resources. You can access Packet magazine at this URL:

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

- *iQ Magazine* is the quarterly publication from Cisco Systems designed to help growing companies learn how they can use technology to increase revenue, streamline their business, and expand services. The publication identifies the challenges facing these companies and the technologies to help solve them, using real-world case studies and business strategies to help readers make sound technology investment decisions. You can access *iQ Magazine* at this URL:

<http://www.cisco.com/go/iqmagazine>

or view the digital edition at this URL:

<http://ciscoiq.texterity.com/ciscoiq/sample/>

- *Internet Protocol Journal* is a quarterly journal published by Cisco Systems for engineering professionals involved in designing, developing, and operating public and private internets and intranets. You can access the *Internet Protocol Journal* at this URL:

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

- Networking products offered by Cisco Systems, as well as customer support services, can be obtained at this URL:

<http://www.cisco.com/en/US/products/index.html>

- Networking Professionals Connection is an interactive website for networking professionals to share questions, suggestions, and information about networking products and technologies with Cisco experts and other networking professionals. Join a discussion at this URL:

<http://www.cisco.com/discuss/networking>

- World-class networking training is available from Cisco. You can view current offerings at this URL:

<http://www.cisco.com/en/US/learning/index.html>

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