



# Troubleshooting Call Transfers and Call Forwarding

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## Troubleshooting Call Transfers and Call Forwarding

### Calls Not Transferred to the Correct Greeting

When calls are not transferred to the correct greeting, use the following task list to determine the cause and to resolve the problem.

Following are the tasks to troubleshoot call transfers to wrong greetings:

1. Confirm that the forward timer in the phone system is synchronized with the Rings to Wait For setting in Cisco Unity Connection. See the [Confirm that Forward Timer in the Phone System is in Synch with the Rings to Wait For Setting in Unity Connection](#).
2. Confirm that the phone system programming enables callers to hear the personal greeting of the user. See the [Confirm that Phone System Integration Enables Playing the User Personal Greeting for Callers](#).
3. Confirm that the busy greeting is supported and enabled. See the [Confirming that Busy Greeting is Supported and Enabled](#).
4. Confirm that the caller reaches the intended destination based on the search scope. See the [Confirming that Search Scope Configuration Sends Call to Intended Destination](#).
5. Make sure that \* or the pattern you want to allow is not mentioned in the Default System Transfer or Default transfer restriction tables. To verify this, navigate to System Settings > Restriction Tables and select the restriction table in which you want to verify the settings.



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**Note** For call transfer problems that occur on newly installed systems, see the applicable Integration Guide for Cisco Unity Connection , at [http://www.cisco.com/en/US/products/ps6509/products\\_installation\\_and\\_configuration\\_guides\\_list.html](http://www.cisco.com/en/US/products/ps6509/products_installation_and_configuration_guides_list.html).

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If you encounter a call transfer problem that is not described in this chapter, contact the Cisco Technical Assistance Center (TAC).

## Confirm that Forward Timer in the Phone System is in Synch with the Rings to Wait For Setting in Unity Connection

For supervised transfers, the number of rings that Cisco Unity Connection waits before routing a call to a user personal greeting (or to another extension) can be reconfigured. If the phone system is programmed to forward calls, confirm that the phone system waits longer to forward a call than Unity Connection waits before taking a message.

If the phone system is forwarding the call to another extension before Unity Connection can take a message, the following may occur:

- The caller does not hear the beginning of the user personal greeting. (For example, the user greeting is “Hi, this is Maria Ramirez. Please leave a message after the tone.” But the caller hears only “...message after the tone.”)
- The call is forwarded to another phone (for example, the operator) rather than to the personal greeting of the user.
- The call is forwarded to the opening greeting.
- The caller hears only ringing.

## Synchronizing the Forward Timer and the Rings to Wait For Setting

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- Step 1** In the phone system programming, find and note the setting of the forward timer.
- Step 2** In Cisco Unity Connection Administration, expand **Users** > **and** select **Users**. On the Search Users page, select the alias of the user whose calls are not being routed to the correct greeting.
- Step 3** On the Edit User Basics page, on the Edit menu, select **Transfer Rules**.
- Step 4** On the Transfer Rules page, select the name of the active transfer rule.
- Step 5** On the Edit Transfer Rule page, under Transfer Action, confirm that the **Extension or URI** option is selected for the Transfer Calls To field and that the extension number is correct.
- Step 6** In the Transfer Type list, confirm that **Supervise Transfer** is selected.
- Step 7** In the Rings to Wait For field, the setting should be two rings fewer than the setting of the forward timer of the phone system, which you noted in [Step 1](#). This setting is typically not greater than four. It specifies the number of rings that Unity Connection waits before routing the call to the personal greeting of the user.
- If the settings do not meet the parameters, either reprogram the phone system so that it waits longer before forwarding unanswered calls, or change the Rings to Wait For field setting so that Unity Connection routes the call before the phone system forwards it and select Save.
- Step 8** To change the default Rings to Wait For value for future users, expand **Templates** and select **User Templates**.
- Note** If you change settings in a user template, the settings are not changed for existing users whose accounts were created from that template. Changing the template settings affects only the users who are added after the template changes are made.
- Step 9** On the Search User Templates page, select the alias of the user template that you want to change.

**Note** If the user template does not appear in the search results table, set the applicable parameters in the search fields at the top of the page, and select **Find**.

**Step 10** On the Edit User Template Basics page, on the Edit menu, select **Transfer Rules**.

**Step 11** On the Transfer Rules page, select the name of the active transfer rule.

**Step 12** On the Edit Transfer Rule page, under Transfer Action, confirm that the **Extension** option is selected for the Transfer Calls To field.

**Step 13** In the Transfer Type list, confirm that **Supervise Transfer** is selected.

**Step 14** In the Rings to Wait For field, enter the same setting that you entered in [Step 7](#).

**Step 15** Select **Save**.

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## Confirm that Phone System Integration Enables Playing the User Personal Greeting for Callers

When callers hear the opening greeting rather than the user personal greeting, confirm that the phone system integration is correctly set up. If the settings are not correct, call forward to personal greeting and easy message access are not enabled.

### Verifying the Phone System Integration Settings

**Step 1** In Cisco Unity Connection Administration, expand **Telephony Integrations**.

**Step 2** Confirm that the settings for the phone system, port group, and ports match those indicated in the applicable Integration Guide for Cisco Unity Connection , at [http://www.cisco.com/en/US/products/ps6509/products\\_installation\\_and\\_configuration\\_guides\\_list.html](http://www.cisco.com/en/US/products/ps6509/products_installation_and_configuration_guides_list.html).

**Step 3** Correct any incorrect settings for the phone system integration.

**Step 4** Confirm that the extension that the caller reached is the same as the primary or alternate extension of the user.

**Step 5** If callers still hear the opening greeting after dialing the user extension, contact Cisco TAC.

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## Confirming that Busy Greeting is Supported and Enabled

When a call arrives at a busy extension and is forwarded to Unity Connection, phone systems typically send the reason for forwarding (the extension is busy) along with the call.

If Unity Connection does not play the user busy greeting for the caller, the cause may be one of the following:

- The phone system does not provide the necessary call information to support the busy greeting. See the “Integration Functionality” section in the applicable Integration Guide for Cisco Unity Connection , at [http://www.cisco.com/en/US/products/ps6509/products\\_installation\\_and\\_configuration\\_guides\\_list.html](http://www.cisco.com/en/US/products/ps6509/products_installation_and_configuration_guides_list.html).
- The user has not enabled the busy greeting. See the User Guide for the Cisco Unity Connection Phone Interface, *Release 15*, at [https://www.cisco.com/c/en/us/td/docs/voice\\_ip\\_comm/connection/15/user/guide/phone/b\\_15cucugphone.html](https://www.cisco.com/c/en/us/td/docs/voice_ip_comm/connection/15/user/guide/phone/b_15cucugphone.html) or the

User Guide for the Cisco Unity Connection Messaging Assistant Web Tool, *Release 15*, at [https://www.cisco.com/c/en/us/td/docs/voice\\_ip\\_comm/connection/15/user/guide/assistant/b\\_15cucugasst.html](https://www.cisco.com/c/en/us/td/docs/voice_ip_comm/connection/15/user/guide/assistant/b_15cucugasst.html).

- The alternate greeting for the user is enabled and overrides the busy greeting. See the User Guide for the Cisco Unity Connection Phone Interface (*Release 15*) at [https://www.cisco.com/c/en/us/td/docs/voice\\_](https://www.cisco.com/c/en/us/td/docs/voice_)

[ip\\_comm/connection/15/user/guide/phone/b\\_15cucugphone.html](https://www.cisco.com/c/en/us/td/docs/voice_ip_comm/connection/15/user/guide/phone/b_15cucugphone.html) or the User Guide for the Cisco Unity Connection Messaging Assistant Web Tool (*Release 15*) at [https://www.cisco.com/c/en/us/td/docs/voice\\_ip\\_comm/connection/15/user/guide/assistant/b\\_15cucugasst.html](https://www.cisco.com/c/en/us/td/docs/voice_ip_comm/connection/15/user/guide/assistant/b_15cucugasst.html).

## Confirming that Search Scope Configuration Sends Call to Intended Destination

If a caller enters digits to transfer to an extension from the automated attendant or from a user greeting and reaches an unintended destination, check the search scope of the call at the point where the caller enters the digits. Unity Connection uses the search scope to match the extension that the caller dials to an object with this extension, such as a user, contact, or remote contact at a VPIM location. In particular, if your dial plan includes overlapping extensions, it is possible for the caller to enter an extension that matches multiple users or other Unity Connection objects and be transferred to a different object than the caller expects to reach.

To make a match by extension, Unity Connection checks the search space that is currently defined as the search scope for the call. Unity Connection searches the partitions in this search space in the order that they appear in the Assigned Partitions list in Cisco Unity Connection Administration, and returns the first result found.

The search scope of the call when the caller reaches a system call handler is defined by the Search Scope setting on the Call Handler Basics page for the handler, and may either be explicitly set to a particular search space, or may be set to inherit the search space from the call, in which case it may have been set by a previous handler or by the last call routing rule that processed the call. When a user greeting is played, the search scope of the call is defined by the Search Scope setting on the User Basics page for the user in Cisco Unity Connection Administration.

You can trace the search scope of a call by enabling the CDE micro trace (level 4 Search Space). For detailed instructions on enabling the traces and viewing the trace logs, see the [Using Diagnostic Traces for Troubleshooting](#).

## Problems with Call Transfers (Cisco Unified Communications Manager Express SCCP Integrations Only)

In Cisco Unified Communications Manager Express SCCP integrations only, call transfers may not work correctly (for example, the call may be dropped or the caller may be left on hold indefinitely). A possible cause for this problem is that the phone system integration is not correctly configured for Cisco Unified Communications Manager Express.

## Configuring the SCCP Integration for Cisco Unified Communications Manager Express

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- Step 1** In Cisco Unity Connection Administration, expand **Telephony Integrations**, then select **Port Group**.
  - Step 2** On the Search Port Groups page, select the port group name that is used by the Cisco Unified CM Express SCCP integration.
  - Step 3** On the Port Group Basics page, on the Edit menu, select **Servers**.
  - Step 4** Under Cisco Unified Communications Manager Servers, in the Server Type column, select **Cisco Unified Communications Manager Express** and select **Save**.
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## User Hears a Reorder Tone When Answering a Notification Call

Unity Connection requires a minimum Rings to Wait For setting of three rings to properly transfer a call or to make a message notification call. If the number of rings to wait is set to fewer than three for notification devices or call handlers, a user may hear the reorder tone instead of the Unity Connection conversation when called by Unity Connection.

### Correcting the Rings to Wait For Setting

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- Step 1** In Cisco Unity Connection Administration, expand **Users**, then select **Users**. On the Search Users page, select the alias of the user who is hearing a reorder tone when answering a call from Unity Connection.
  - Step 2** On the Edit User Basics page, on the Edit menu, select **Notification Devices**.
  - Step 3** On the Notification Devices page, select the display name of a notification device.
  - Step 4** On the Edit Notification Device page, under Phone Settings, set the Rings to Wait field to three or more rings and select **Save**.
  - Step 5** On the User menu, select **Notification Devices**.
  - Step 6** Repeat [Step 3](#) through [Step 5](#) for each remaining notification device.
  - Step 7** To change the default Rings To Wait value for future users, expand **Templates** and select **User Templates**.

**Note** If you change settings in a user template, the settings are not changed for existing users whose accounts were created from that template. Changing the template settings affects only the users who are added after the template changes are made.

- Step 8** On the Search User Templates page, select the alias of the user template that you want to change.
- Step 9** On the Edit User Template Basics page, on the Edit menu, select **Notification Devices**.
- Step 10** On the Notification Devices page, select the display name of a notification device.
- Step 11** On the Edit Notification Device page, under Phone Settings, set the Rings to Wait field to three or more rings and select **Save**.
- Step 12** On the User menu, select **Notification Devices**.
- Step 13** Repeat [Step 10](#) through [Step 12](#) for each remaining notification device.
- Step 14** Expand **Call Management**, then select **System Call Handlers**.
- Step 15** On the Search Call Handlers page, select the display name of a call handler.
- Step 16** On the Edit Call Handler Basics page, on the Edit menu, select **Transfer Rules**.
- Step 17** View the Standard, Alternate, and Closed rules. In the Transfer Type field, if Supervise Transfer is selected for any of the rules, confirm that the Rings to Wait For field is set to three or more rings.

If Rings to Wait For is set correctly, and the user still hears a reorder tone when answering a call from Unity Connection, contact Cisco TAC.

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## Troubleshooting Directory Handler Searches

Use the troubleshooting information in this section if callers report that they are unable to locate one or more users in a directory handler. See the following possible causes:

- The users are not configured to be listed in the directory. Verify the List in Directory setting on the Edit User Basics page for each user in Cisco Unity Connection Administration is selected, or use Bulk Edit to configure the setting for multiple users at the same time.
- The search scope of the directory handler does not include the users. See the [Users Not Found in the Search Scope of Directory Handler](#).
- For voice-enabled directory handlers, the voice-recognition engine does not recognize the names. See the [Voice Commands Recognized But Names Not Recognized](#).

## Users Not Found in the Search Scope of Directory Handler

If callers are unable to find specific users in a directory handler, check the search scope of the directory handler on the Edit Directory Handler Basics page in Cisco Unity Connection Administration. The search scope of a phone directory handler can be set to the entire server; to a specific class of service, system distribution list or search space; or to the search space of the call at the point that the caller reaches the directory handler. The search scope of a voice-enabled directory handler can be set to the entire server, to a specific search space, or to the search space of the call at the point that the caller reaches the directory handler.

If the search scope is set to the entire server, the user or users must be homed on the server on which the directory handler resides in order to be reachable from the directory handler.

If the search scope is set to a specific class of service, system distribution list, or search space, you can use Connection Administration to determine whether the target users belong to the class of service or distribution list or to a partition that is a member of the search space.

If the search scope is set to inherit the search space from the call, determine which search scope is in use when callers have difficulty reaching users in the directory handler. Note that depending on how the call comes in to the system and is routed, the search scope can differ from one call to another and can change during the course of the call. See the [Using Traces to Determine the Search Space Used During a Call](#) for instructions on using traces to determine the inherited search scope.

## Troubleshooting Message Addressing

Message addressing involves the ability to select a desired recipient or recipients when creating a new message. This section covers some problems that the users might experience with message addressing:



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**Note** For additional information about troubleshooting message addressing when it involves remote recipients at VPIM locations or at other digitally networked Unity Connection locations, see the [Troubleshooting Networking](#) chapter.

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## Users Unable to Address Desired Recipients

If a user is unable to find one or more desired recipients when attempting to address a message, start by verifying that the recipient user or contact account exists and that the name spelling or extension that the user is entering is correct.

If the user is attempting to blind address a message to a VPIM location by entering a number that is made up of the VPIM location DTMF Access ID and the mailbox number of the recipient, or by saying the digits of the mailbox number and the display name of the VPIM location (for example, “five five at Seattle office”),

confirm that blind addressing is enabled for the VPIM location by checking the Allow Blind Addressing check box on the VPIM Location page in Cisco Unity Connection Administration.

If you have verified that the recipient account exists and matches the user search criteria or that blind addressing is enabled, and the user still cannot address to the desired recipient, the most likely cause is that the user search space does not include the partition of the target user, VPIM contact, or VPIM location. If the VPIM contact partition does not match the partition of the VPIM location to which the contact belongs, the search results depend on the method used to address the message as well as the partition and search space configuration. When users address messages to a VPIM mailbox by entering a VPIM location DTMF Access ID plus a remote user mailbox number, or when voice-recognition users say a name and location (for example, “John Smith in Seattle”), the action is allowed or denied based on the partition of the VPIM location. However, when users address to a VPIM contact using spell-by-name or by entering the local extension of the contact, or when voice-recognition users say the name of a contact without the location (for example, “John Smith”), the action is allowed or denied based on the partition of the VPIM contact, regardless of whether the partition of the VPIM location is out of scope for the user.

## Users Unable to Address a System Distribution List

When a user cannot address messages to a system distribution list, consider the following possible causes:

- The user must be given the correct class of service rights on the Class of Service > Edit Class of Service page in Cisco Unity Connection Administration. The class of service that the user is assigned to must have the Allow Users to Send Messages to System Distribution Lists check box checked.
- The user must know how to address to the list. If the user is using the phone keypad conversation, the user can enter the display name or extension of the list. If the user is using the voice-recognition conversation, the user can say the display name or one of the alternate names defined for the list in Connection Administration.
- As with other types of addressing, in order for a user to address messages to a system distribution list, the list must belong to a partition that is a member of the search space that is defined as the user search scope. Note that the distribution list members receive the message regardless of whether they are individually addressable in the search scope of the sending user.

## Unexpected Results Returned When a User Addresses by Extension

If a user addresses a message by extension and hears an unexpected match, the most common cause can be the search space configuration. To make a match by extension, Unity Connection checks the search space of the user who is addressing the message. Unity Connection searches the partitions in this search space in the order that they appear in the Assigned Partitions list in Cisco Unity Connection Administration, and returns the first result found. If your dial plan includes overlapping extensions, it is possible for the user to enter an extension that matches multiple users or other Unity Connection objects and hear a match result that is different from what the user expects.

To resolve the issue, you may need to review the order of partitions in the search space that is assigned to the user, either in Connection Administration or using the Dial Plan Report and Dial Search Scope Report in Cisco Unity Connection Serviceability. If the search space is set up correctly according to your dial plan, you can recommend that the user address messages by spelling or saying the name of the recipient; in this case, if there are multiple matches on the name, Unity Connection returns each match.

## Caller is Not Getting Prompt in Expected Language

If a caller is not get prompt in expected language, check the following:

- If the locales are installed on both the servers in case of a cluster.
- If the caller is an outside caller for unity connection, then he will always listen prompts in system default language of that unity connection.
- If the call handler language settings of the caller is set to “Inherit Language from Caller”, then for an internal caller, the prompts are played in the caller set language.
- If the caller is an Unity Connection user and logs in to his/her mailbox, then the caller always listen prompts in caller set language.

## Using Traces to Determine the Search Space Used During a Call

The search scope of a call is initially set to a particular search space by the call routing rule that first processes the call, although the scope may change during the course of the call.

To determine which search space is being used at each point in a call, enable the CDE micro trace (level 4 Search Space). For detailed instructions on enabling the traces and viewing the trace logs, see the [Using Diagnostic Traces for Troubleshooting](#).