



## Personal Call Transfer Rules

---

This chapter contains the following sections:

- [Cisco Unity Personal Call Transfer Rules Settings Are Unavailable, page 15-1](#)
- [Troubleshooting Destinations, page 15-2](#)
- [Troubleshooting Call Screening or Call Holding Options, page 15-2](#)
- [Troubleshooting the Application of Rules, page 15-2](#)
- [Troubleshooting the “Transfer All” Rule, page 15-4](#)
- [Troubleshooting Phone Menu Behavior When Using Personal Call Transfer Rules, page 15-5](#)
- [Diagnostics for Personal Call Transfer Rules, page 15-7](#)
- [Performance Counters for Personal Call Transfer Rules, page 15-8](#)

### Cisco Unity Personal Call Transfer Rules Settings Are Unavailable

If a user does not hear the Personal Call Transfer Rules Settings menu in the phone interface or if a user cannot see the Cisco Unity Personal Call Transfer Rules web tool link in the Cisco Personal Communications Assistant, confirm that the user is assigned to a class of service that is enabled for access to the Personal Call Transfer Rules web tool.

In addition, if you are troubleshooting problems with a Connection 1.2 system, do the following procedure to confirm that the value of the Region Restricted Feature licensing option is set to 1. If the value is not 1, you cannot use personal call transfer rules, and you cannot use any languages other than English-United States. To resolve the problem, install a license in which the feature is enabled, and restart Connection. (An additional fee might be required to enable the feature. Contact your Cisco account team to obtain the updated license file.)

#### To Determine the Value of the Region Restricted Feature Licensing Option

---

- Step 1** In Cisco Unity Connection Administration, expand **System Settings**, then click **Licenses**.
- Step 2** In the Related Links list, click **View License Usage**.
- Step 3** Click **Go**.
- Step 4** On the License Count page, confirm that the value of Region Restricted Feature (the tag is called LicRegionIsUnrestricted) is set to **1**.

**Step 5** Close the License Count page.

---

## Troubleshooting Destinations

Personal call transfer rules can forward calls to a phone destination, a destination group, or to voice mail. The destination group must contain at least one phone destination, and can also contain SMS and SMTP devices. The destinations in a destination group are tried serially in the priority order in which they are listed until a destination phone is answered or the caller hangs up.

When a user has entered phone numbers for notification devices in the Cisco Unity Assistant web tool, the numbers are displayed on the View Destinations page and can be used as destinations for rules. The notification devices do not need to be enabled. These prepopulated destinations cannot be edited or deleted in the Personal Call Transfer Rules web tool. They can be edited only on the Notification Devices page in the Cisco Unity Assistant.

Note that pager destinations are not supported destinations for rules, and thus are not displayed on the View Destinations page.

## Troubleshooting Call Screening or Call Holding Options

If call screening and call holding options are not available in the Personal Call Transfer Rules web tool, confirm that the user belongs to a class of service that allows access to the call screening and/or call holding options.



### Note

Call holding applies only to calls to primary extensions.

---

When editing a rule in the Personal Call Transfer Rules web tool, the Screen the Call check box may be grayed out even when the user belongs to a class of service that allows users to access call screening options. If the option is grayed out, do the following procedure to correct the problem.

### To Enable the Screen the Call Option in the Personal Call Transfer Rules Web Tool

---

- Step 1** In the Personal Call Transfer Rules web tool, on the Preferences menu, select **Call Holding and Screening**.
- Step 2** On the Call Holding and Call Screening Options page, verify that at least one option under the Screen Calls section is enabled.
- 

## Troubleshooting the Application of Rules

See the following sections:

- [Rules Are Not Applied When a User with Active Rules Receives a Call, page 15-3](#)
- [Unexpected Behavior Results When Rules Lack a “From” Condition, page 15-3](#)

- [Rules Based on a Meeting Conditions Are Not Applied Correctly, page 15-4](#)
- [Rules Based on a Caller or Caller Group Are Not Applied Correctly, page 15-4](#)
- [Rules Based on a Time Condition Are Not Applied Correctly, page 15-4](#)

## Rules Are Not Applied When a User with Active Rules Receives a Call

There are several reasons that a rule set can fail:

- If the rule set is specified for a day of the week but another rule set is enabled for a date range that includes the current date, the date range rule set takes precedence.
- Transfers to a destination without a complete dialable phone number may fail. If there is no other destination to try, the caller is transferred to voice mail.

Try the following troubleshooting steps:

1. Use the Call Transfer Rule Tester to check the validity of the rule. The test will tell you which rule is currently being invoked. Based on the results, you may want to reprioritize the rules within the rule set.



**Note** To get results with the Call Transfer Rule Tester, the rule set that contains the rule you are testing must be enabled or active.

2. Confirm that the destinations for the rule set contain dialable phone numbers, including any outdial access codes required by the phone system. See the [“Dialable Phone Numbers” section on page 15-3](#).
3. On the Rules Settings page, confirm that the Disable All Processing of Personal Call Transfer Rules check box is not checked. When checked, the field disables all rule processing.

## Dialable Phone Numbers

When adding and editing a personal contact, users can enter a phone number and a dialable phone number for the contact.

Cisco Unity Connection uses the phone number fields—Work Phone, Home Phone, and Mobile Phone—when matching incoming phone calls for personal call transfer rules based on the work, home, or mobile phone number of a personal contact.

The dialable phone number fields—Dialable Work Phone, Dialable Home Phone, and Dialable Mobile Phone—are used by Connection when a user calls a personal contact by using voice commands. (For example, the user says “Call John Smith at work” to place the call.)

To set up dialable numbers, enter the phone number in the applicable dialable number field, beginning with any access code necessary to make an external call (for example, 9). Enter digits 0 through 9. Do not use spaces, dashes, or parentheses between digits. For long-distance numbers, also include 1, the country code, and the area code as applicable.

## Unexpected Behavior Results When Rules Lack a “From” Condition

Personal call transfer rules can be created without a “From” condition (“from” or “not from”). When set up this way, the rules are applied to all incoming calls.

## Rules Based on a Meeting Conditions Are Not Applied Correctly

When a personal call transfer rule has a condition that is based on a Microsoft Exchange calendar appointment, the rule might not be applied as expected. Calendar information is cached every 30 minutes, so a newly created appointment may not yet be cached.

Try the following troubleshooting steps:

1. Confirm that the WebDav external service is configured properly. In Cisco Unity Connection Administration, expand System Settings > External Services.
2. Confirm that the applicable WebDav service is configured as an External Service Account for the user. In Connection Administration, click Users and search for the user. On the Edit User Basics page, on the Edit menu, click External Service Accounts.

**Note**

See the “Configuring Access to Exchange Calendars and Contacts for Personal Call Transfer Rules” chapter of the *Cisco Unity Connection Installation Guide* for detailed information on setting up external service accounts. The guide is available at [http://www.cisco.com/en/US/products/ps6509/prod\\_installation\\_guides\\_list.html](http://www.cisco.com/en/US/products/ps6509/prod_installation_guides_list.html).

3. Confirm that the Exchange-server and Connection-server clocks are synchronized to the same time source.

To get around the 30-minute lag for caching appointments, you can force caching of appointments by stopping and restarting the Groupware Server role in the Cisco Unity Connection Server Status utility.

## Rules Based on a Caller or Caller Group Are Not Applied Correctly

Phone numbers for primary extension, home phone, work phone, and mobile devices for users; system contacts; and personal contacts must match the incoming caller ID or ANI. Confirm that the phone number of the caller that is specified in Cisco Unity Connection matches the incoming caller ID or ANI.

## Rules Based on a Time Condition Are Not Applied Correctly

Confirm that the correct time zone has been selected for the user. In Cisco Unity Connection Administration, click User and search for the user. On the Edit User Basics page, change the selected time zone, as necessary.

## Troubleshooting the “Transfer All” Rule

See the following sections:

- [Creating a Transfer All Rule, page 15-5](#)
- [Transfer All Rule Is Not Applied as Expected, page 15-5](#)

## Creating a Transfer All Rule

You cannot create a Transfer All rule in the Personal Call Transfer Rules web tool. The Transfer All rule can be created only by phone. After the rule has been added by phone, it can be edited in the Personal Call Transfer Rules web tools. Both the destination and duration can be changed in the web tool.

## Transfer All Rule Is Not Applied as Expected

If the Transfer All rule is not being applied as expected, confirm that the destination number includes any outdial access codes required by the phone system.

# Troubleshooting Phone Menu Behavior When Using Personal Call Transfer Rules

See the following sections:

- [User Cannot Change Personal Call Transfer Rules by Using Voice Commands, page 15-5](#)
- [Phone Menu Options for Personal Call Transfer Rules Vary, page 15-5](#)
- [Rule Sets Are Unavailable for Enabling or Disabling by Phone, page 15-5](#)
- [Phone Menu Option to Set or Cancel Forwarding All Calls to Cisco Unity Connection Is Unavailable, page 15-6](#)
- [Inconsistent Behavior Between Calls Placed Through Cisco Unity Connection and Calls Placed Directly to a User Phone, page 15-6](#)
- [Call Looping During Rule Processing, page 15-7](#)

## User Cannot Change Personal Call Transfer Rules by Using Voice Commands

The voice-recognition feature does not yet support the Personal Call Transfer Rules phone menu options. If users want to use Personal Call Transfer Rules, they must temporarily switch to the touchtone-key input style. They can temporarily switch to the touchtone-key input style by saying “Touchtone conversation,” or by pressing 9 at the Main menu.

## Phone Menu Options for Personal Call Transfer Rules Vary

Users may notice variations in the phone menus for Personal Call Transfer Rules that they hear. Personal Call Transfer Rules phone menu options are built dynamically, and they depend on the existing rule sets and which sets are enabled and active.

## Rule Sets Are Unavailable for Enabling or Disabling by Phone

If a rule set does not have a recorded name and there are no Text to Speech sessions available, the rule set will not be available for enabling or disabling by phone. Recording names for rule sets ensures that they will always be available for enabling or disabling by phone.

## Phone Menu Option to Set or Cancel Forwarding All Calls to Cisco Unity Connection Is Unavailable

If the phone menu option to set or cancel forwarding all calls to Cisco Unity Connection is unavailable, try the following troubleshooting steps:

1. Confirm that the AXL server settings for the phone system are correct. In Cisco Unity Connection Administration, expand Telephony Integrations > Phone System. On the Phone System Basics page, on the Edit menu, click Cisco Unified CallManager AXL Servers.

**Note**

See the “Managing the Phone System Integrations” chapter of the *Cisco Unity Connection System Administration Guide* for detailed information about AXL server settings. The guide is available at [http://www.cisco.com/en/US/products/ps6509/prod\\_maintenance\\_guides\\_list.html](http://www.cisco.com/en/US/products/ps6509/prod_maintenance_guides_list.html).

2. Check to see if the publisher Cisco Unified CallManager is shut down or if there are network connectivity issues between the Connection and publisher Cisco Unified CallManager servers. Use the Test button on the Edit AXL Server page to test the connection. If the Cisco Unified CallManager publisher database is down, Connection cannot change the Call Forward All (CFA) setting for the phone.

The option to forward all calls to Connection is available only in integrations with Cisco Unified CallManager versions 4.0 and later. The option is not available with earlier versions of Cisco Unified CallManager or with Cisco Unified CallManager Express.

## Inconsistent Behavior Between Calls Placed Through Cisco Unity Connection and Calls Placed Directly to a User Phone

Callers may notice inconsistent behavior when calling a user through the Cisco Unity Connection automated attendant and when dialing the user phone directly. Rules are typically applied immediately to calls placed through the automated attendant, while direct calls must wait until the Call Forward No Answer timer for the phone expires before the call is forwarded to Connection. Rules will then be applied.

Use the following troubleshooting steps to provide a consistent caller experience regardless of how a call is placed:

1. To set a user phone to always ring first before rules are applied, turn off the Forward All Calls to Cisco Unity Connection feature by phone. In the Personal Call Transfer Rules web tool, on the Preferences menu, click Rules Settings. On the Rules Settings page, check the Always Ring Primary Extension Before Applying Call Transfer Rules check box.
2. To set user rules for immediate processing, turn on the Forward All Calls to Cisco Unity Connection feature by phone. In the Personal Call Transfer Rules web tool, on the Preferences menu, click Rules Settings. On the Rules Settings page, uncheck the Always Ring Primary Extension Before Applying Call Transfer Rules check box.

## Call Looping During Rule Processing

Call looping may occur when calls forwarded by Cisco Unity Connection are forwarded back to Connection and rules are applied again. Callers may experience inconsistent behavior, such as repeated instances of the opening greeting or continuous attempts to reach the same destination.

The following settings can be used to prevent such looping conditions:

- In Cisco Unity Connection Administration, expand Telephony Integrations > Phone System and select the applicable phone system. On the Phone System Basics page, check the Enable for Supervised Transfers check box. The setting causes Connection to detect and terminate call looping conditions so that calls proceed in the desired fashion.
- In the Cisco Unity Personal Call Transfer Rules, on the Destinations > View Destinations page, check the Loop Detection Enabled check box for any phone-type destinations to help eliminate call-looping problems where Connection forwards calls to the mobile phone of the user, and the mobile phone consequently forwards calls back to Connection. When this setting is enabled, Connection will either transfer the call to the next assigned device (if the user has created a destination group) or transfer the call to voice mail if there are no additional destinations defined.
- *(For integrations with Cisco Unified CallManager only)* Allow Connection to maintain control of calls by setting the value in the Rings to Wait field for rule destinations to be less than the value in the Cisco Unified CallManager Forward No Answer Timer field. The Cisco Unified CallManager Forward No Answer Timer value defaults to 12 seconds. One ring occurs about every 3 seconds. Thus, setting the Rings to Wait value for Connection destinations to 3 will allow Connection to maintain control of the call. The supervised transfer initiated by Connection will pull back the call before the loop begins and attempt to transfer the call to the next destination or to voice mail, as applicable.

## Diagnostics for Personal Call Transfer Rules

The following micro traces can be enabled in the Cisco Unity Diagnostic Tool (UDT) to debug the various rule components:

- Rules Engine—Used in rule processing during calls to a rules-enabled user to determine the applicable rule. Also used in determining the applicable rule when using the Rules Tester.
- Routing Rules Conversation—Used when a rules-enabled user receives a call and while transferring calls between destinations.
- Subscriber Conversations—Used when configuring personal call transfer rules settings by phone.
- Conversation Development Environment (CDE)—Used in rules-related conversations.
- PHTransfer Conversations (ConvPH Transfer)—Used in rule processing during calls to a rules-enabled user.

In addition, the following diagnostic micro traces for the supporting components can be enabled, if necessary:

- PHGreeting Conversation (ConvPH Greeting)—Used in rule processing during calls to a rules-enabled user when transferring to voice mail.
- Client Data Library (CDL)—Used in rules-related conversations.
- GAL: Cache, GAL: Data, GAL: Distributed Authoring and Versioning, GAL: SQL, GAL:Test, and Groupware Access Library (CuGAL)—WebDav logging used in rule processing with meeting condition and for importing personal contacts.

- Media: Call (MiuCall) and Media: General (MIU General)—Used in rule processing during calls to a rules-enabled user.
- Phrase Server (PhraseServer)—Used in rules-related conversations to play prompts.
- Notifier and Notification Devices (Notifier)—Used in rule processing when sending SMTP and SMS messages.
- Text to Speech—Used in rule-settings conversation.

## Performance Counters for Personal Call Transfer Rules

The following performance counters are provided for the Personal Call Transfer Rules feature under the Connection: Transfer Rules performance object:

- Subscriber Reached—Number of times a user was reached while applying personal call transfer rules.
- Transfer Failed—Number of times a transfer to a destination failed while applying personal call transfer rules.
- Voice Mail Reached—Number of times voice mail was reached while applying personal call transfer rules.
- Applicable Rule Found—Call resulted in rule processing, and an applicable rule was found.
- Destinations Tried—Number of destinations tried while applying personal call transfer rules.
- Rules Evaluated—Number of rules evaluated during rule processing in a call.
- PCTR Calls—Call is subject to personal call transfer rules processing; user is assigned to a class of service that has the Personal Call Transfer Rules feature enabled; user is associated with a Cisco Unified CallManager phone system; and user has not disabled personal call transfer rules.