



Call Routing

Overview: Call Routing Tables

Call routing tables are used to route incoming calls to the operator or to specific subscribers, call handlers, directory handlers, or interview handlers. In addition, call routing tables are used to route subscribers to the subscriber logon conversation.

Cisco Unity has two call routing tables—one for direct calls and one for forwarded calls—that handle calls from subscribers and from unidentified callers. (Unidentified callers include both external callers and any callers calling Cisco Unity from an internal extension that is not associated with a subscriber account, such as a conference room.) Each table contains predefined routing rules, and you can create additional rules to route calls as needed. Set up your directory handlers, call handlers, and interview handlers first, and then modify or create call routing rules for each table as needed to route incoming calls appropriately.

Direct Calls call routing table

The Direct Calls call routing table handles calls from subscribers and unidentified callers that are dialed directly to Cisco Unity.

The predefined routing rules for the Direct Calls call routing table are:

- **Attempt Sign-In**—Calls from subscribers are routed to the subscriber logon conversation.
- **Live Record**—If live record is supported by your integration, the phone system passes the call to Cisco Unity when a subscriber initiates a live record request. Cisco Unity detects the request and begins recording the call. Note that none of the phone systems currently supported with Cisco Unity offer live record.
- **Default Call Handler**—Calls from unidentified callers are routed to the opening greeting.

Forwarded Calls call routing table

The Forwarded Calls call routing table handles calls that are forwarded to Cisco Unity from either a subscriber extension or an extension that is not associated with a subscriber account (such as a conference room). The predefined routing rules for the Forwarded Calls call routing table are:

- **Attempt Forward to Greeting**—All calls forwarded from a subscriber extension are routed to the subscriber greeting.
- **Default Call Handler**—Calls forwarded from an extension that is not associated with a subscriber account are routed to the opening greeting.

You can change the order of the Attempt Sign-In, Attempt Forward to Greeting, and Live Record rules in the respective routing tables, but the Default Call Handler rule is always the last entry for both tables. You cannot modify or delete the predefined rules.

See the following sections in this chapter for more information:

- [How Call Routing Rules Work, page 22-2](#)—This section explains how call routing rules work.
- [Creating and Modifying Call Routing Rules, page 22-3](#)—This section contains procedures for creating and modifying call routing rules.
- [Direct Calls and Forwarded Calls Routing Table Settings, page 22-4](#)—This section provides details about the settings on the Direct Calls and Forwarded Calls pages.

How Call Routing Rules Work

Call routing tables consist of a series of rules that let you route incoming calls based on the information that Cisco Unity may have about a call, such as the calling phone number (ANI or caller ID), the trunk or port on which the call comes in, the dialed phone number (DNIS), the forwarding station, and the schedule.

When Cisco Unity receives a call, it first determines if it is a direct or forwarded call based on the information contained in the serial or DTMF packet sent by the phone system, and then applies the appropriate call routing table. If the call information matches all of the settings for the first rule, the call is routed as specified in the rule. If any call information does not match the settings specified in the first rule, the call information is then compared to the settings of the second rule, and so on, until a rule is found that matches all the characteristics of the call.

The integration between the phone system and Cisco Unity determines the information that is provided about a call (for example, call type, port, trunk, calling number, and dialed number). The schedule is determined by the date and time the call is received.

To set up routing rules correctly, you need to know what information your integration provides. Refer to the Call Information section in the Cisco Unity integration guide for your phone system for this information. You can also use the Cisco Unity Call Viewer to see the types of call information that your integration provides to Cisco Unity for inbound calls. To access the Call Viewer, on the Cisco Unity server desktop, double-click the Cisco Unity Tools Depot icon. In the left pane of the Tools Depot window, in the Switch Integration Tools directory, double-click Call Viewer.

The following examples show how call routing tables are used in Cisco Unity to route calls.

Example 1

In [Figure 22-1](#), calls that meet the criteria specified in the Operator rule settings—any direct external call received while the Weekdays schedule is active—are transferred to the operator. Calls that do not meet this criteria are routed as specified by one of the other call routing rules in the table. In this case, any direct external calls received on the weekends will be routed to the opening greeting, according to the Default Call Handler rule.

Figure 22-1 Direct Calls Call Routing Table*

Routing Table: Direct Calls		Change rule order							
Rule	Status	Call Type	Port	Trunk	Dialed Number	Calling Number	Schedule	Send call to	Language
Operator	On	External calls	Any	Any	Any	Any	Weekdays	Attempt transfer for Operator	Inherited
Live Record	On	Both	Any	Any	Any	Any	Always	Start live record.	English
Attempt Sign-In	On	Both	Any	Any	Any	Any	Always	Attempt Sign-in	French
Default Call Handler	On	Both	Any	Any	Any	Any	Always	Attempt transfer for Opening Greeting	Inherited

*None of the phone systems currently supported with Cisco Unity version 3.x offer live record.

Example 2

In [Figure 22-2](#), calls forwarded from specific extensions—1234 and 5678—are routed according to the Product Info and Customer Service rules, respectively. Calls that do not match the extension (or forwarding station) in either of the first two rules are routed according to the two remaining rules.

Figure 22-2 Forwarded Calls Call Routing Table

Routing Table: Forwarded Calls		Change rule order							
Rule	Status	Call Type	Forwarding Station	Dialed Number	Calling Number	Schedule	Send call to	Language	
Customer Service	On	Both	5678	Any	Any	Always	Attempt transfer for Customer Service	Inherited	
Product Info	On	Both	1234	Any	Any	Always	Send to greeting for Product Info	English	
Attempt Forward to Greeting	On	Both	Any	Any	Any	Always	Attempt Forward	French	
Default Call Handler	On	Both	Any	Any	Any	Always	Attempt transfer for Opening Greeting	Inherited	

Creating and Modifying Call Routing Rules

Although you cannot modify the predefined routing rules in the Direct Calls and Forwarded Calls call routing tables, you can create additional call routing rules for each call routing table and modify them as needed.

To create a call routing rule

- Step 1** In the Cisco Unity Administrator, for direct calls, go to the **Call Management > Call Routing > Direct Calls** page. For forwarded calls, go to the **Call Management > Call Routing > Forwarded Calls** page.
- Step 2** Click the **Add** icon.
- Step 3** In the Add a Call Routing Rule dialog box, enter the name of the new rule in the Name field.
- Step 4** Click the **Add** button.

- Step 5** Specify the settings for your new call routing rule, as appropriate, and then click the **Save** icon. For more information about settings, see the “[Direct Calls and Forwarded Calls Routing Table Settings](#)” section on page 22-4.

When you create a new rule, you only need to specify the criteria that will be used to route the call, and can leave the other fields on the page blank. A blank field matches everything. For example, if you leave the Ports field blank, the rule applies to calls from all ports.

To modify a call routing rule

- Step 1** In the Cisco Unity Administrator, for direct calls, go to the **Call Management > Call Routing > Direct Calls** page. For forwarded calls, go to the **Call Management > Call Routing > Forwarded Calls** page.
- Step 2** In the routing table, click the rule that you want to modify.
- Step 3** Change settings as appropriate in the fields above the table, and then click the **Save** icon.
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Direct Calls and Forwarded Calls Routing Table Settings

Use the following table to learn more about settings for call routing rules.

Table 22-1 *Call Management > Call Routing > Direct Calls and Forwarded Calls Pages*

Field	Considerations
Rule Name	Enter a rule name. Rule names can be words or numbers. You might want the name to reflect the purpose of the rule (for example, “Sales menu”).
Status	Select one of the following settings: <ul style="list-style-type: none"> Enabled—The routing rule is active and Cisco Unity will acknowledge all settings. Disabled—The routing rule is inactive and Cisco Unity ignores all settings within the rule. Default: Enabled.
Call Type	Click the appropriate Call Type, either Internal Calls or External Calls. To have the rule apply to all call types, click Both. Internal calls are from subscribers, and external calls are from unidentified callers. <p>When a call matches all settings for the rule, the call is routed as specified in Send Call To. Your integration may not support this option.</p> Default: Both
Ports (<i>Direct Calls page only</i>)	Enter the port number to have the rule apply to the port on which a call arrives. To set a consecutive range of ports, enter a hyphen between the port numbers (for example, 1–4). To set a list of ports, enter a comma between the ports (for example, 1,2,4). To have the rule apply to calls on all ports, enter * or leave the box blank. <p>When a call matches all settings for the rule, the call is routed as specified in Send Call To.</p> Default: blank.

Table 22-1 Call Management > Call Routing > Direct Calls and Forwarded Calls Pages (continued)

Field	Considerations
Trunks (<i>Direct Calls page only</i>)	<p>Enter the trunk number to have the rule apply to the trunk on which a call arrives. To set a consecutive range of trunks, enter a hyphen between the trunk numbers (for example, 1–4). To set a list of trunks, enter a comma between the trunk numbers (for example, 1,2,4). To have the rule apply to calls on all trunks, enter * or leave the box blank.</p> <p>When a call matches all settings for the rule, the call is routed as specified in Send Call To. Your integration may not support this option.</p> <p>Default: blank.</p>
Forwarding Station (<i>Forwarded Calls page only</i>)	<p>Enter the extension (station) to have the rule apply to the extension from which a call was forwarded. To have the rule apply to all extensions, enter * or leave the field blank. The * is a wildcard and can be used alone or with other numbers (for example, enter 2* to route all calls from any extension that begins with 2).</p> <p>When a call matches all settings for the rule, the call is routed as specified in Send Call To. Your integration may not support this option.</p> <p>Default: blank.</p>
Dialed Number (DNIS)	<p>Enter the phone number to have the rule apply to a number that callers dial to reach your organization. To have the rule apply to all numbers dialed, enter * or leave the box blank. The * is a wildcard and can be used alone or with other numbers (for example, enter 800* to control routing of all calls to 800 numbers).</p> <p>When a call matches all settings for the rule, the call is routed as specified in Send Call To. Your integration may not support this option.</p> <p>Default: blank.</p>
Calling Number (ANI)	<p>Enter the phone number to have the rule apply to a phone number from which calls originate. To have the rule apply to all originating phone numbers, enter * or leave the box blank. The * is a wildcard and can be used alone or with other numbers (for example, enter 212* to control routing of all calls from that area code).</p> <p>When a call matches all settings for the rule, the call is routed as specified in Send Call To. Your integration may not support this option.</p> <p>Default: blank.</p>
Schedule	<p>Select a schedule to apply to this call routing rule. When a call arrives during the standard (open) hours of the selected schedule, and the call matches all other settings for the rule, the call is routed as specified in Send Call To.</p> <p>To have the rule apply 24 hours a day, seven days a week, click Always.</p> <p>To have different rules for standard and closed hours, create a rule with a selected schedule, followed by a rule set with Always.</p> <p>Default: Always.</p>

Table 22-1 Call Management > Call Routing > Direct Calls and Forwarded Calls Pages (continued)

Field	Considerations
Language	<p>Select the language to be associated with the call. If you choose Inherited, Cisco Unity determines the language to use on a per-call basis, depending on the handler or routing rule that processed the call. If the language is set to Inherited for every rule and handler that processes a call, then the system prompts are played in the default phone language.</p> <p>If your organization has purchased additional language licenses, routing rules can also be used to change the language in which Cisco Unity plays system prompts to callers. For example, you could route calls and set the language for the system prompts based on the dialed number, so that different callers can hear identical information but in different languages.</p> <p>The list of languages shown here is set on the System > Configuration > Phone Languages page.</p> <p>Default: Inherited.</p>
Send Call To	<p>Select one of the following destinations for a call that matches all settings for the rule:</p> <ul style="list-style-type: none"> • Attempt Forward—Forwards the call if the forwarding station belongs to a subscriber. The calling number is used as the ID, and if the extension is found, the call is forwarded to the subscriber greeting. If the extension is not found, the next rule in the routing table is applied to the call information. • Attempt Sign-In—Sends the call to the subscriber logon conversation, if the calling number belongs to a subscriber. The calling number is used as the ID. If the call is not from a subscriber, the next rule in the routing table is applied to the call information. • Call Handler—Sends the call to the call handler that you select. • Directory Handler—Sends the call to the directory handler that you select. • Greetings Administrator—Sends the call to a conversation for changing call handler greetings over the phone. • Interview Handler—Sends the call to the interview handler that you select. • Sign-In—Sends the call to the subscriber logon conversation, which prompts the caller to enter an ID. • Subscriber—Sends the call to the subscriber that you select. <p>Defaults: Attempt Forward for Forwarded Calls, Directory Handler for Direct Calls.</p>
Routing Table	<p><i>Display only.</i> This setting shows the call routing rules for direct calls or for forwarded calls.</p> <p>The order of the rules is important. Cisco Unity compares a call to each rule in the order specified in the table from the top down until it finds a match. The first rule that matches a call determines where the call is routed.</p>