



# Restriction Tables

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## Overview: Restriction Tables

Restriction tables allow you to control which phone numbers subscribers and administrators can use for transferring calls, for sending message notification, and for delivering faxes. For example, you can specify that subscribers have calls transferred only to internal extensions or that faxes are delivered only to local phone numbers. Restriction tables are applied regardless of how a subscriber or administrator accesses Cisco Unity.

Each class of service specifies for its members a restriction table for call transfers, one for message notification, and one for fax deliveries. The restriction table can be the same for all three, or different for each.

Cisco Unity comes with the following predefined restriction tables, which you can modify but not delete. By default, each of these restriction tables prevents access to long distance phone numbers.

- {Default Outdial}**      Restricts numbers for message notifications. Also restricts numbers entered in the Media Master control bar when subscribers use it to record a greeting or name, or when subscribers listen to a message by using ViewMail.
  
- {Default Transfer}**      Restricts numbers for call transfers.
  
- {Default Fax}**              Restricts numbers for fax delivery.
  
- {Default AMIS}**            Restricts numbers for AMIS delivery.

Refer to the following sections in this chapter for more information:

- [How Restriction Tables Work, page 22-2](#)—This section explains how call routing tables work.
- [Creating and Modifying Restriction Tables, page 22-3](#)—This section details how you can add new restriction tables and customize existing ones.
- [Restriction Table Settings, page 22-5](#)—This section provides information about the settings on the Restriction Tables page.

## How Restriction Tables Work

Each row of a restriction table is made up of a dial string. Each dial string consists of a call pattern and a setting that specifies whether numbers matching the call pattern are permitted for use.

When a subscriber or administrator enters a notification, transfer, or fax delivery number, Cisco Unity compares the number with the call pattern of the first dial string in the restriction table. If the number does not match the call pattern, Cisco Unity then compares the number with the call pattern in the second dial string, and so on, until it finds a match. When Cisco Unity finds a match, it either permits or restricts the use of this number as specified in the dial string.

Restriction tables are commonly used to permit or restrict the use of the following:

- Specific numbers, such as an extension.
- Numbers that are greater than or less than a specific length.
- Numbers that contain a specific digit or pattern of digits, such as an external access code followed by a long-distance access code.

For example, the restriction table in [Figure 22-1](#) restricts most long distance phone numbers, but permits extensions starting with “91.” In this case, if a subscriber enters “9123” as a transfer number, Cisco Unity first compares the number to the call pattern in Dial String 0 which restricts all numbers that begin with “91” and are followed by at least seven digits. Because the number entered does not match the call pattern, Cisco Unity then compares the number to Dial String 1 which restricts all numbers that begin with “9011” and are followed by at least seven digits. Finally, Cisco Unity compares the number to the last dial string, which contains the wildcard character that matches all numbers of any length. Because the Allow This String field is set to Yes for this dial string, Cisco Unity permits this number to be used.

**Figure 22-1 Example 1**

Dial String	Call Pattern	Allow This String
0	91??????*?	No
1	9011??????*?	No
2	*	Yes

The restriction table in [Figure 22-2](#) restricts long distance phone numbers and numbers less than four digits long. In this example, “9” is the external access code for the phone system, and “1” is the long-distance access code. Dial String 0 restricts any number beginning with “91,” while numbers less than four digits in length are restricted by Dial String 2. Thus, the only numbers permitted by this restriction table have at least four digits, and are not long distance phone numbers.

**Figure 22-2 Example 2**

Dial String	Call Pattern	Allow This String
0	91*	No
1	????*	Yes
2	*	No

## Creating and Modifying Restriction Tables

You can modify the predefined restriction tables, and you can create up to 100 new ones. You can also add up to 100 dial strings to a table. New dial strings are automatically inserted into the restriction table as Dial String 0. Note that the order of the dial strings is very important because Cisco Unity sequentially compares a phone number to the call patterns in the restriction table, starting with Dial String 0. If a number matches more than one call pattern, the number is handled according to the first call pattern it matches.

You can indicate call patterns by entering specific numbers or by using the following special characters as wildcards:

- \* Matches zero or more digits.
- ? Matches exactly one digit. Use ? as a placeholder for a single digit.
- # Corresponds to the # key on the phone.

By default, all restriction tables have \* as the call pattern in the last dial string of the table; you cannot modify this call pattern setting. It prevents a case in which the entered number does not match any call pattern in the table. However, you can change the Allow This String field setting for this dial string to either permit or restrict a number.

#### To create a new restriction table

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- Step 1** Go to any **Call Management > Restriction Tables** page.
  - Step 2** Click the **Add** icon.
  - Step 3** In the Add a Restriction Table dialog box, enter information as appropriate in the Name field.
  - Step 4** Select **New Restriction Table** or **Based on Existing Restriction Table**. If you select Based on Existing Restriction Table, select the appropriate restriction table in the Based On field.
  - Step 5** Click the **Add** button.
  - Step 6** Enter settings for your new restriction table, and then click the **Save** icon.
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#### To modify a restriction table

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- Step 1** Go to any **Call Management > Restriction Tables** page.
- Step 2** Click the **Find** icon.
- Step 3** Double-click the restriction table that you want to modify.
- Step 4** Perform one of the following actions:
  - To add a dial string, click **Add Dial String** and enter settings for the new dial string as appropriate.

- To delete a dial string, click the dial string number in the table at the bottom portion of the Restriction Tables page, and then click **Remove Dial String**.
- To modify a dial string, click the dial string number in the table at the bottom portion of the Restriction Tables page, and change settings as appropriate.

**Step 5** Click the **Save** icon.

## Restriction Table Settings

Use the following table to learn more about settings for restriction tables.

**Table 22-1** *Call Management > Restriction Tables Page*

Field	Considerations
Restriction Table Name	Enter a descriptive name for the types of phone numbers that are restricted or for the types of subscribers to which the restrictions apply.
Minimum Digits Allowed	<p>Enter the minimum number of digits—including access codes—in a call transfer, message notification, or fax delivery number, in order for Cisco Unity to apply the restriction table to the number. Numbers containing fewer digits are automatically permitted.</p> <p>For example, to permit subscribers to use four-digit numbers, enter 5 in the Minimum Digits Allowed field. Enter 1 (the default value) to apply the restriction table to as many digits as the subscriber enters.</p>
Maximum Digits Allowed	<p>Enter the maximum number of digits—including access codes—in a call transfer, message notification, or fax delivery number permitted by the restriction table. Numbers containing more than the maximum digits are automatically restricted.</p> <p>For example, if local calls in your area are seven digits long, and you want to prevent subscribers from using long distance phone numbers, enter 8 as the maximum digits permitted (“8” is the length of local numbers, plus the external access code for the phone system).</p>

Table 22-1 Call Management &gt; Restriction Tables Page

Field	Considerations
Selected Dial String	<p><i>Display only.</i> This setting identifies the dial string in the restriction table that is selected for modifying.</p> <p>If you click the Add Dial String button, the new dial string is always added to the first row of the restriction table as Dial String 0. Up to 100 dial strings can be specified in a table.</p> <p>Note that the order of the dial strings is very important. Cisco Unity sequentially compares a phone number to the call patterns in the restriction table, starting with Dial String 0. If a number matches more than one call pattern, the number is permitted or restricted according to the first call pattern it matches.</p>
Allow This String	<p>Select the action that Cisco Unity takes when a number matches a call pattern:</p> <ul style="list-style-type: none"> <li>• Yes—Permit use of phone numbers matching the pattern.</li> <li>• No—Do not permit use of phone numbers matching the pattern.</li> </ul>
Call Pattern	<p>Enter specific numbers or patterns of numbers that can be permitted or restricted. Include external and long-distance access codes. Use digits 0 through 9 and the following special characters:</p> <ul style="list-style-type: none"> <li>• * to match zero or more digits.</li> <li>• ? to match exactly one digit. Each ? serves as a placeholder for one digit.</li> <li>• # to correspond to the # key on the phone.</li> </ul>