CHAPTER 11

Managing System-Wide Settings

See the following sections in this chapter:

Authentication Settings

Authentication settings dictate the logon and lockout policy that applies when subscribers access Cisco Unity by using the Cisco Personal Communications Assistant (PCA). If the Cisco Unity Administrator and the Status Monitor use the Anonymous authentication method, the policy that you specify on the System > Authentication page also applies when subscribers use the Cisco Unity Administrator or the Status Monitor to access Cisco Unity.

Changes to authentication settings affect all Cisco Unity subscribers. You cannot change authentication settings for individual subscriber accounts, though you can lock out individual subscriber accounts to prevent subscribers from using the Cisco PCA, the Cisco Unity Administrator, or the Status Monitor to access Cisco Unity.

Related Documentation

- To understand how authentication works with Cisco Unity web applications, see the "Authentication for Cisco Unity Applications" chapter of the *Security Guide for Cisco Unity*.
- Consider that when subscribers log on to the Cisco PCA, their credentials are sent across the network to Cisco Unity in clear text. The same is true if the Cisco Unity Administrator and the Status Monitor use the Anonymous authentication method. For increased security, we recommend that you set up Cisco Unity to use the Secure Sockets Layer (SSL) protocol. See the "Using SSL to Secure Client/Server Connections" chapter of the *Security Guide for Cisco Unity*.

The *Security Guide for Cisco Unity* is available at http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod_maintenance_guides_list.html.

Note that authentication settings represent a different logon and lockout policy from the one that applies when subscribers access Cisco Unity by phone. For information on setting up the account policy that applies when subscribers access Cisco Unity by phone, see the "Managing Account Policy Settings" chapter.

Voice Messaging Port Settings

Each voice messaging port on the Cisco Unity server can be set to perform one or more of these functions:

- Answer incoming calls from unidentified callers and from subscribers dialing in to Cisco Unity.
- Dial out to notify subscribers of voice, fax, and e-mail messages.
- Dial out to allow system administrators and subscribers to use the phone as a recording and playback device in Cisco Unity applications. (The phone is offered as a recording and playback device in the Media Master, which appears on pages of the Cisco Unity Administrator, Cisco Unity Assistant, and Cisco Unity Inbox, and in ViewMail.)

  You can adjust the maximum number of rings that Cisco Unity waits for when making these dial-out calls. See the Advanced Settings tool Help (in the Unity Settings list, click Administration—Set Maximum Number of Rings to Wait for TRAP Calls). The Advanced Settings tool is available in Tools Depot.
- Dial out to turn message waiting indicators (MWIs) on and off.
- Dial out to deliver outbound AMIS messages (some systems may not have this feature).
- *(Only integrations of Cisco Unified Communications Manager 4.1 and later with Cisco Unity 4.0(5) and later)* Enable authentication of the Cisco Unity voice messaging ports.
- *(Only integrations of Cisco Unified Communications Manager 4.1 and later with Cisco Unity 4.0(5) and later)* Enable encryption of the media stream.

The number of voice messaging ports set for answering and dialing out depends on many factors, such as:

- The total number of voice messaging ports available.
- The number of subscribers who will use message notification and how often they will receive notifications.
- For circuit-switched phone systems that integrate via voice cards, whether your integration is serial or analog (analog integrations use voice messaging ports to turn MWIs on and off, while serial integrations use an RS-232 serial cable). Circuit-switched phone systems that integrate via PBX-IP Media Gateway units (PIMG units) use voice messaging ports to turn MWIs on and off.
- Whether your organization communicates primarily through e-mail or voice mail.

Each voice messaging port can be set to perform more than one function (for example, to answer calls and to dial out message notifications). 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, MWIs cannot be turned on until there are fewer calls to answer). For best performance, use the first voice messaging ports only for incoming calls and the last ports only for dialing out. This eliminates the possibility of a collision, in which an incoming call arrives on a port at the same time that Cisco Unity takes the port off-hook to dial out.

In a typical installation, the installer sets up voice messaging ports for Cisco Unity, but you can modify them on the Ports page. Before changing port settings, however, monitor the voice messaging port activity. See the Port Usage Analyzer, available in Tools Depot.

Note If you have a Cisco Unity failover system, voice messaging port settings are not replicated between the primary and secondary servers. You must change voice messaging port settings on both servers.

Remapping Extension Numbers

Remapping Feature Overview

The extension remapping feature lets you convert to the extensions of your choice the calling numbers and forwarding numbers of calls handled by Cisco Unity. This feature is useful, for example, when the phone system cannot map multiple extension numbers on a subscriber phone to a single Inbox.

Remapping can change one or both of the following extension numbers in a call:

- Calling number (the number from which a call originates). For example, Cisco Unity changes the calling number of calls so that the caller ID appears to be a different extension than the one that actually placed the call.
- Forwarding number (the number that a call is going to). For example, unanswered calls to all line extensions on a single phone can be forwarded to the Inbox of a single subscriber; or unanswered calls to phones not assigned to subscribers can be forwarded to the Inbox of a supervisor.

Setting Up Cisco Unity to Remap Extension Numbers

This section includes a procedure for enabling the remapping feature. You can create multiple files in either or both of two directories:

- In the Calling directory, one or more .exm files remap caller ID numbers.
- In the Forwarding directory, one or more .exm files remap numbers that Cisco Unity provides with calls it forwards.

When you create remapping instructions in a .exm file in a directory, Cisco Unity remaps only the type of extension number that the directory is named for. For example, if you want to remap only the extensions that Cisco Unity provides with calls it forwards, you enter the instructions in a .exm file in the Forwarding directory; in this circumstance, the Calling directory needs no .exm file.

In each directory, you can have several .exm files with different file names but with the same .exm extension. This helps you to organize the remapping information. For example, you could create two files in a directory: Ports_1-12.exm and Ports_13-24.exm. Cisco Unity reads all files that have the .exm extension in these directories.

To Remap Extension Numbers

Step 1 On the Cisco Unity server, browse to the **CommServer\IntLib\ExtensionMapping** directory. In this directory is the file Sample.txt and two more directories: Calling and Forwarding.

Step 2 To remap calling numbers, go to the **Calling** directory.

Step 3 In a text editor application, create a new .exm file, or open a currently existing .exm file.

For an example, open the file Sample.txt in the CommServer\IntLib\ExtensionMapping directory.

Caution When opening an .exm file in a text editor, do not associate the file with the text editor by checking the Always Use This Program to Open check box in the Open With dialog box. Otherwise, the .exm file will be saved as a .txt file and the remapping feature will ignore the file.

Step 4 Enter **[Range]** and press **Return** to create a section for indicating which voice messaging ports will be monitored for remapping calls.

A .exm file can have only one [Range] section.

Step 5 Enter **ports=** followed by the numbers of the voice messaging ports, separated by commas. Ranges are designated by a hyphen (-) without spaces. To monitor all voice messaging ports, enter ports=* on this line. Then press **Return**.

For example, you might enter:

ports=1,2,5-34

Step 6 To create a section for the remapping rules, press **Return**, enter **[Number Mappings]**, and then press **Return**.

A .exm file can have only one [Number Mappings] section.

Step 7 Enter one remapping rule on the line, and then press **Return**.

See the remapping rule examples in the following "Syntax and Examples" section. The rule format is:

<original number>, <new number>

The rules cannot include spaces between digits. However, the numbers must be separated by a comma and a single space. Wildcard characters cannot appear at the beginning of a number.

Step 8 For all remaining rules, repeat Step 7.

Step 9 Save and close the .exm file.

Step 10 To remap forwarding numbers, browse to the directory **CommServer\IntLib\ExtensionMapping\Forwarding**.

Step 11 Repeat Step 3 through Step 9 to remap forwarding numbers.

Step 12 For extension remapping to take effect, restart the Cisco Unity software.

Syntax and Examples

Table 11-1 shows the wildcard characters you can use in the .exm files.

Table 11-1 Wildcard Characters

Wildcard	Result
*	Matches zero or more digits.
?	Matches exactly one digit. Use ? as a placeholder for a single digit.

Table 11-2 gives examples for the syntax and results of rules in the .exm files.

Table 11-2 Syntax Examples

Rule	Original Number	New Number
2189, 1189	2189	1189
3189, 1189	3189	1189
4189, 1189	4189	1189

Table 11-2 Syntax Examples (continued)

Rule	Original Number	New Number
2???, 1???	2189	1189
	2291	1291
3???, 1???	3189	1189
	3291	1291
8???, 61???	8000	61000
	8765	61765
123*, 44*	12300	4400
	12385	4485

Cisco Unity executes rules in the order they appear in the .exm file. For example, the .exm file might contain the following rules:

1234, 1189
3189, 1189
4189, 1189
123?, 8891

The extension 1234 would be remapped to 1189 while extensions 1233 and 1235 would be remapped to 8891, because the rule mapping 1234 appears earlier.

An .exm file might contain the following:

[Range]
ports=1,2,5-34

[Number Mappings]
2189, 1189
3189, 1189
4189, 1189
8???, 9???

Working With Cisco Unity Music on Hold

When Music on Hold is enabled, what callers on hold hear depends on the phone system.

Cisco Unified Communications Manager	The first caller on hold in the call holding queue hears a series of holding tones approximately every five seconds. Subsequent callers in the queue for the same extension will hear music on hold that is generated by Cisco Unity system prompts.

Cisco SIP Proxy Server	All callers on hold in the call holding queue hear silence.
Circuit-switched phone systems	The first caller on hold in the call holding queue hears hold music generated by the phone system, if it is configured to provide music on hold. Otherwise, the first caller hears a series of holding tones approximately every five seconds. Even when the phone system is configured to provide music on hold, subsequent callers in the queue for the same extension will hear music on hold that is generated by Cisco Unity system prompts.

The default wait time in the holding queue for the second and subsequent callers is approximately 30 seconds, and is based on the playing time of the music on hold system prompt WAV files. Cisco Unity plays each of the music on hold files in sequence, beginning with the file PHHoldMusic009.wav. If the caller presses 1 to continue to hold, Cisco Unity loops back to the first file, PHHoldMusic000.wav, then plays the next sequentially-numbered file if the caller wants to continue to hold, and so on.

To increase the holding queue wait time for the second and subsequent callers in the call holding queue, re-record the following ten prompts: PHHoldMusic000.wav through PHHoldMusic009.wav, located in the \CommServer\Localize\Prompts\<Language>\<Codec>\AvPHGreet directory. You can use the same music source for each of the prompts, or choose different music for each prompt. If you do not have an automatic call distribution or other call center product installed, you can record custom messages at the beginning or at the end of the music for several of the prompts, for example, “Your call is important to us. We apologize for the delay. A representative will be with you shortly,” or a brief message advertising your products. The playing time for each of these WAV files should be approximately the same, and be from 45 to 120 seconds in length. Be sure to record and test all ten prompts. If any of the ten PHHoldMusic WAV files are missing, callers will hear the fail-safe conversation and be unable to continue holding.

Be aware that subsequent callers in the holding queue cannot advance while a particular WAV file is playing; Cisco Unity takes action on the call at the end of the playing of each WAV file. Therefore, we recommend that you keep the playing time for each of the prompts to the minimum amount of time that meets the needs of your site. (Note, however, that the first caller on hold will be transferred to the extension at whatever point it becomes available.)

Caution Customized system prompt WAV files are not preserved during a Cisco Unity upgrade, or on a system restoration when the backup was made by using the Cisco Unity Disaster Recovery Tools. Keep a copy of your customized music on hold prompt files, so that you can replace the standard music on hold prompts, if applicable, after an upgrade or system restoration.

To set up the recording and playback devices that subscribers will use, see the “Setting Up the Media Master” section on page 28-10. For a complete list of settings that subscribers can change by phone or by using the Cisco Unity Assistant—including call transfer, message notification, and private list settings, see the “Subscriber Orientation” section on page 29-1.