



Configuring System Components

Command-line interface (CLI) commands are available to configure Cisco Unity Express system components. Some commands are entered in EXEC mode and others in configuration mode.

This chapter describes how to configure the following basic Cisco Unity Express components:

- SIP parameters that Cisco Unity Express needs to communicate with Cisco CallManager Express.
- Voice-mail, auto-attendant, and Administration via Telephone applications that ship with Cisco Unity Express.

Additional procedures for configuring optional or advanced system components, such as servers and custom auto-attendant scripts, are described in [“Advanced Configuration” on page 151](#).

All the procedures in this chapter can be implemented using either CLI commands or the graphical user interface (GUI) options. Use the CLI procedures for bulk provisioning, scripting, upgrading, and troubleshooting systems.

This chapter contains the following procedures for configuring Cisco Unity Express system components:

- [Configuring the SIP Proxy Server Location for Cisco Unity Express, page 62](#)
- [Configuring the Voice-Mail Application, page 64](#)
- [Configuring the Administration via Telephone Application, page 67](#)
- [Configuring and Managing the Auto-Attendant Application, page 67](#)
- [Configuring Auto-Attendant Scripts, page 75](#)
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Configuring the SIP Proxy Server Location for Cisco Unity Express

The Session Initiation Protocol (SIP) proxy server resides on the router where Cisco CallManager Express is installed. Beginning in Cisco Unity Express 2.1, Cisco CallManager Express can be installed on a different router from where the Cisco Unity Express hardware and software is installed. The SIP proxy server location information must be configured properly to enable all communications between Cisco Unity Express and Cisco CallManager Express. The SIP proxy server also enables the message waiting indicators (MWIs) to work with the Cisco Unity Express voice-mail application.



Note

The SIP proxy server used to support Cisco Unity Express does not provide the full equivalent functionality as the Cisco SIP Proxy Server product.

Prerequisites

The following information is required to configure the SIP proxy server:

- Hostname or IP address of the router where the SIP proxy server resides
- UDP or TCP port of the router where the SIP proxy server resides

SUMMARY STEPS

1. `config t`
2. `ccn subsystem sip`
3. `gateway address ip-address`
4. `gateway port port-number`
5. `end`
6. `exit`
7. `show ccn subsystem sip`
8. `copy running-config startup-config`

DETAILED STEPS

	Command or Action	Purpose
Step 1	<code>config t</code> Example: <code>se-10-0-0-0# config t</code>	Enters configuration mode.
Step 2	<code>ccn subsystem sip</code> Example: <code>se-10-0-0-0# ccn subsystem sip</code>	Enters SIP configuration mode.

	Command or Action	Purpose
Step 3	gateway address <i>ip-address</i> Example: se-10-0-0-0(config-sip)# gateway address 10.100.6.9	Specifies the hostname or IP address of the router where the SIP proxy server resides.
Step 4	gateway port <i>port-number</i> Example: se-10-0-0-0(config-sip)# gateway port 5060	Specifies the UDP/TCP port number on the router where the SIP proxy server resides.
Step 5	end Example: se-10-0-0-0(config-sip)# end	Exits SIP configuration mode.
Step 6	exit Example: se-10-0-0-0(config)# exit	Exits configuration mode.
Step 7	show ccn subsystem sip Example: se-10-0-0-0# show ccn subsystem sip	Displays the SIP subsystem parameters.
Step 8	copy running-config startup-config Example: se-10-0-0-0# copy running-config startup-config	Copies the configuration changes to the startup configuration.

Examples

The following example illustrates the **show ccn subsystem sip** output:

```
se-10-0-0-0# show ccn subsystem sip

SIP Gateway:                10.100.6.9
SIP Port Number:           5060
se-10-0-0-0#
```

What to Do Next

Configure the voice-mail application. See [“Configuring the Voice-Mail Application”](#) on page 64.

Configuring the Voice-Mail Application

After the Cisco Unity Express software is installed on the system, the voice-mail application that ships with Cisco Unity Express must be configured using the procedures described in this section. The application is enabled by default.

To configure the voice-mail access and operator telephone numbers, see [“Configuring SIP Triggers for the Applications” on page 76](#).

The commands are used in both EXEC and configuration modes.

Sharing Ports Among Applications and Triggers

One of the parameters that you may configure for the voice-mail and auto-attendant applications is the maximum number of callers who can concurrently access the application at any given time. This parameter, **maxsessions**, is limited by the number of ports on the Cisco Unity Express module. (See [“Software Licenses and Factory-Set Limits” on page 15](#) for the number of ports on your module.)

Consider your expected call traffic when assigning the number of ports to an application. One application may need more available ports than another, but each application should have at least one port available for incoming calls.

Suppose, for example, that your module has four ports and you assign four to the voice-mail application **maxsessions** and four to the auto-attendant **maxsessions**. If four callers access voice-mail simultaneously, no ports will be available for auto-attendant callers. Only when zero, one, two, or three callers access voice-mail simultaneously will at least one port be available for auto-attendant.

Suppose, instead, that you assign three to the voice-mail **maxsessions** and three to the auto-attendant **maxsessions**. At no time will one application use up all the ports. If voice-mail has three active calls, one caller can access auto-attendant. A second call to auto-attendant will not go through at that moment.

Similarly, you must assign the **maxsessions** parameter to each application trigger, which is the telephone number that activates the application’s script. The value of the trigger’s **maxsessions** must not exceed the application’s **maxsessions** value.

Prerequisites

The following information is required to configure the default voice-mail application:

- Application name
- Maximum number of users who can access voice-mail simultaneously

SUMMARY STEPS

1. **config t**
2. **ccn application** *full-name*
3. **description** "*text*"
4. **maxsessions** *number*
5. **end**
6. **exit**
7. **show ccn scripts**
8. **show ccn application**
9. **copy running-config startup-config**

DETAILED STEPS

	Command or Action	Purpose
Step 1	config t Example: se-10-0-0-0# config t	Enters configuration mode.
Step 2	ccn application <i>full-name</i> Example: se-10-0-0-0(config)# ccn application voicemail	Specifies the application to configure and enters application configuration mode. Use the full name of the application for the <i>full-name</i> argument.
Step 3	description " <i>text</i> " Example: se-10-0-0-0(config-application)# description "Voice Mail"	(Optional) Enters a description of the application. Use double quotes around the text.
Step 4	maxsessions <i>number</i> Example: se-10-0-0-0(config-application)# maxsessions 6	Specifies the <i>number</i> of users who can access this application simultaneously. See “Sharing Ports Among Applications and Triggers” on page 64 for guidelines on assigning this value.
Step 5	end Example: se-10-0-0-0(config-application)# end	Exits application configuration mode.
Step 6	exit Example: se-10-0-0-0(config)# exit	Exits configuration mode.
Step 7	show ccn scripts Example: se-10-0-0-0# show ccn scripts	Displays the configured script names and their descriptions.

	Command or Action	Purpose
Step 8	show ccn application Example: se-10-0-0-0# show ccn application	Displays details about each configured application.
Step 9	copy running-config startup-config Example: se-10-0-0-0# copy running-config startup-config	Copies the configuration changes to the startup configuration.

Example

The following example illustrates the **show ccn scripts** output:

```
se-10-0-0-0# show ccn scripts

Name:                               setmwi.aef
Create Date:                         Tue Apr 20 20:22:27 PDT 1993
Last Modified Date:                  Tue Apr 20 20:22:27 PDT 1993
Length in Bytes:                     21990

Name:                               voicebrowser.aef
Create Date:                         Tue Apr 20 20:22:39 PDT 1993
Last Modified Date:                  Tue Apr 20 20:22:39 PDT 1993
Length in Bytes:                     13409

Name:                               aa.aef
Create Date:                         Tue Apr 20 20:22:47 PDT 1993
Last Modified Date:                  Tue Apr 20 20:22:47 PDT 1993
Length in Bytes:                     56227
```

The following example illustrates the **show ccn application** output:

```
se-10-0-0-0# show ccn application

Name:                               voicemail
Description:                         Voice Mail
Script:                              voicebrowser.aef
ID number:                           1
Enabled:                              yes
Maximum number of sessions:          6
logoutUri:                           http://localhost/voicemail/vxmlscripts/m
bxLogout.jsp
uri:                                  http://localhost/voicemail/vxmlscripts/1
ogin.vxml

se-10-0-0-0#
```

Configuring the Administration via Telephone Application

The Administration via Telephone (AvT) application is a telephony-based interface that allows Cisco Unity Express administrators to record new audio prompts or delete existing custom audio prompts without using a PC or sound-editing software. These prompts can then be used in various Cisco Unity Express Automated Attendant (AA) scripts, such as the Welcome prompt in the default auto-attendant. The Emergency Alternate Greeting (EAG) is an option within the AvT that allows users to record, modify, and enable or disable a special greeting to be played prior to the regular greeting, notifying callers of some temporary event or message.

The Cisco Unity Express module installation automatically configures the AvT application. This application permits recording and administration of auto-attendant prompts using the telephone user interface (TUI).

Only users with administrative (superuser) privileges or prompt management (ManagePrompt) privileges have access to the AvT. (See [“Adding and Modifying a Group” on page 110](#) for information about assigning privileges.) When a caller dials the AvT number, the AvT authenticates the caller by requesting the caller’s extension and PIN. The AvT disconnects the caller if the caller does not have administrative authority.

To configure the AvT access telephone number, see [“Configuring SIP Triggers for the Applications” on page 76](#).

Configuring and Managing the Auto-Attendant Application

After the Cisco Unity Express software is installed on the system, the auto-attendant application that ships with Cisco Unity Express must be configured using the procedures described in this section.

Default Welcome Prompt

The only component of the default auto-attendant which resides in the user directory is an audio prompt file called **AAWelcome.wav**. This is the default welcome prompt. All other audio prompt files used by the auto-attendant reside in the system directory and cannot be downloaded, copied, or uploaded by users.

To customize the default welcome prompt, see [“Customizing the Default Auto-Attendant Welcome Prompt” on page 73](#).

Default Auto-Attendant Script aa.aef

The default auto-attendant script provided with Cisco Unity Express is named **aa.aef**. This file resides in the system directory, and cannot be downloaded, copied, or uploaded by users. This default auto-attendant application is also known as the “system script”, or “system AA”. This default script supports basic functions such as dial-by-extension, dial-by-spelling username, and call operator functions. If additional functionality is required, then you must create a customized auto-attendant script.

Starting with Release 2.1, the aa.aef script supports holiday lists and business-hours schedules. When a call reaches the auto attendant, the system checks if the current day is a holiday. If it is, the system plays a holiday prompt called **AAHolidayPrompt.wav**, which states “We are closed today. Please call back later.” The script then executes the next operation in the script.

If the current day is not a holiday, the system checks if the business is open or not. If the business is open, the system plays the **AABusinessOpen.wav** prompt, which is an empty file. If the business is closed, the system plays the **AABusinessClosed.wav** prompt, which states “We are currently closed. Please call back later.”

Following are the parameters that may be configured for the **aa.aef** script:

- welcomePrompt—default: AAWelcome.wav
- operExtn—default: none
- holidayPrompt—default: AAHolidayPrompt.wav
- businessOpenPrompt—default: AABusinessOpen.wav
- businessClosedPrompt—default: AABusinessClosed.wav
- businessSchedule—default: SystemSchedule

To modify any of these prompts, see [“Configuring Auto-Attendant Prompts” on page 73](#).

To create customized script files, see [“Configuring Auto-Attendant Scripts” on page 75](#).

To create a business-hours schedule, see [“Configuring Business Hours” on page 93](#).

To create a holiday list, see [“Configuring a Holiday List” on page 99](#).

Simple Auto-Attendant Script **aa_simple.aef**

Starting with Release 2.1, another simple script **aa_simple.aef** is available for the auto-attendant application. This script is another system script that can be associated with an auto-attendant application and cannot be deleted or downloaded.

This script makes the same checks for an alternate greeting, holiday hours, and business schedule as does the **aa.aef** script.

After determining the initial greeting to play to the customer, the **aa_simple.aef** script plays a prompt (**AASPlayExtensions.wav**) with the message “For operator, press 0.” This prompt is a configurable parameter. Use the GUI options or CLI commands to replace the prompt with your message file that has the names and extensions of the people who can be reached with the auto-attendant application. For example, the prompt may play “For Al, press 10. For Bob, press 20. For the operator, press 0.”

The caller can enter an extension without pressing the pound key (#). After the caller enters the extension, the script attempts to transfer to that extension. The script does not attempt to validate the extension before the transfer.

The script has another parameter (**extensionLength**) that specifies the length of the extension used by the Cisco Unity Express system. This parameter must be configured correctly for the script to be able to do a successful transfer.

Following are the parameters that may be configured for the **aa_simple.aef** script:

- welcomePrompt—default: AAWelcome.wav
- holidayPrompt—default: AAHolidayPrompt.wav
- businessOpenPrompt—default: AABusinessOpen.wav
- businessClosedPrompt—default: AABusinessClosed.wav
- playExtensionsPrompt—default: AASPlayExtensions.wav
- extensionLength—default: 1
- businessSchedule—default: SystemSchedule

To modify any of these prompts, see [“Configuring Auto-Attendant Prompts” on page 73](#).

To create customized script files, see [“Configuring Auto-Attendant Scripts” on page 75](#).

To create a business-hours schedule, see [“Configuring Business Hours” on page 93](#).

To create a holiday list, see [“Configuring a Holiday List” on page 99](#).

Other Auto-Attendant Parameters

To configure the auto-attendant access telephone number, see [“Configuring SIP Triggers for the Applications” on page 76](#).

The commands are used in both EXEC and configuration modes.

See [“Configuring Application Parameters” on page 154](#) for procedures to configure user-defined parameters.

Prerequisites

The following information is required to configure auto-attendant:

- To use your own welcome greeting, create a .wav file containing the prerecorded welcome greeting. This file must be uploaded to the Cisco Unity Express module so that it can be located and saved in the auto-attendant script. Alternatively, you can use the Administration via Telephone (AvT) application to record the welcome greeting. See [“Recording an Auto-Attendant Greeting or Prompt File” on page 73](#) for guidelines on recording a greeting. See [“Uploading the Auto-Attendant Greeting or Prompt File” on page 74](#) for the procedure to upload the prompt to Cisco Unity Express.
- Application name.
- Number of times the auto-attendant will replay instructions to a caller before the call is disconnected. This count begins when the caller moves past the main menu and starts to hear instructions for a submenu. The main menu will play five times and then, if the caller makes no choice or incorrect choices, will transfer to the operator.
- Extension number of the operator. Auto attendant dials this extension when the caller presses the zero (“0”) button.
- The customized WAV filename if you change the default Auto Attendant welcome prompt.
- Telephone number that the caller must dial to reach the auto-attendant. In many cases, this number is your company telephone number.
- Maximum number of callers that auto-attendant can handle simultaneously. See [“Sharing Ports Among Applications and Triggers” on page 64](#) for guidelines on assigning this value.

SUMMARY STEPS

1. **config t**
2. **ccn application** *full-name*
3. **description** *“text”*
4. **maxsessions** *number*
5. **parameter** *“name” “value”*
6. **enabled**

7. **end**
8. **exit**
9. **show ccn scripts**
10. **show ccn application**
11. **copy running-config startup-config**

DETAILED STEPS

	Command or Action	Purpose
Step 1	config t Example: se-10-0-0-0# config t	Enters configuration mode.
Step 2	ccn application <i>full-name</i> Example: se-10-0-0-0(config)# ccn application AutoAttendant	Specifies the application to configure and enters application configuration mode. Use the full name of the application for the <i>full-name</i> argument.
Step 3	description "text" Example: se-10-0-0-0(config-application)# description "Auto Attendant"	(Optional) Enters a description of the application. Use double quotes around the text.
Step 4	maxsessions <i>number</i> Example: se-10-0-0-0(config-application)# maxsessions 4	Specifies the number of users who can access this application simultaneously. See “Sharing Ports Among Applications and Triggers” on page 64 for guidelines on assigning this value.

	Command or Action	Purpose
Step 5	<p>parameter <i>"name" "value"</i></p> <p>Example: <pre>se-10-0-0-0(config-application)# parameter operExtn "1000" se-10-0-0-0(config-application)# parameter MaxRetry "3" se-10-0-0-0(config-application)# parameter WelcomePrompt "ciscowelcome.wav"</pre></p>	<p>Specifies parameters for the application. Each parameter must have a name and a value, which is written within double quotes. The parameters below are case-sensitive. For more information about configuring application parameters, see the “Configuring Application Parameters” section on page 154.</p> <p>For the auto-attendant application, the parameters are:</p> <ul style="list-style-type: none"> • “operExtn”—Extension that the system dials when a caller presses “0” to reach the auto-attendant operator. This is also the extension where the call will be transferred to if there is no user input (timeout). • “MaxRetry”—Maximum number of times a user can incorrectly choose a submenu option before the application disconnects the call. The default is 3. • “WelcomePrompt”—The WAV filename containing the customized AA welcome prompt that is uploaded to the Cisco Unity Express module. For more information, see the “Customizing the Default Auto-Attendant Welcome Prompt” section on page 73. <p>Note that entering this parameter does not upload the WAV file to the Cisco Unity Express module. See the “Uploading the Auto-Attendant Greeting or Prompt File” section on page 74.</p>
Step 6	<p>enabled</p> <p>Example: <pre>se-10-0-0-0(config-application)# enabled</pre></p>	<p>Allows the application to be accessible to the system.</p>
Step 7	<p>end</p> <p>Example: <pre>se-10-0-0-0(config-application)# end</pre></p>	<p>Exits application configuration mode.</p>
Step 8	<p>exit</p> <p>Example: <pre>se-10-0-0-0(config)# exit</pre></p>	<p>Exits configuration mode.</p>
Step 9	<p>show ccn scripts</p> <p>Example: <pre>se-10-0-0-0# show ccn scripts</pre></p>	<p>Displays the configured script names and their descriptions.</p>

	Command or Action	Purpose
Step 10	show ccn application Example: se-10-0-0-0# show ccn application	Displays details about each configured application.
Step 11	copy running-config startup-config Example: se-10-0-0-0# copy running-config startup-config	Copies the configuration changes to the startup configuration.

Examples

The following example illustrates the **show ccn scripts** output:

```
se-10-0-0-0# show ccn scripts

Name:                               setmwi.aef
Create Date:                         Tue Apr 20 20:22:27 PDT 1993
Last Modified Date:                  Tue Apr 20 20:22:27 PDT 1993
Length in Bytes:                     21990

Name:                               voicebrowser.aef
Create Date:                         Tue Apr 20 20:22:39 PDT 1993
Last Modified Date:                  Tue Apr 20 20:22:39 PDT 1993
Length in Bytes:                     13409

Name:                               aa.aef
Create Date:                         Tue Apr 20 20:22:47 PDT 1993
Last Modified Date:                  Tue Apr 20 20:22:47 PDT 1993
Length in Bytes:                     56227

Name:                               promptgmt.aef
Create Date:                         Tue Apr 20 20:22:59 PDT 1993
Last Modified Date:                  Tue Apr 20 20:22:59 PDT 1993
Length in Bytes:                     80781
se-10-0-0-0#
```

The following example illustrates the **show ccn application** output:

```
se-10-0-0-0# show ccn application

Name:                               autoattendant
Description:                         autoattendant
Script:                              aa.aef
ID number:                           2
Enabled:                              yes
Maximum number of sessions:           4
MaxRetry:                             3
operExtn:                             1000
welcomePrompt:                       AAWelcome.wav
se-10-0-0-0#
```

Configuring Auto-Attendant Prompts

Cisco Unity Express supports customized greeting and prompt files. The NM supports up to 50 prompts; the AIM supports up to 25 prompts.

Customizing prompts requires the following procedures:

- [Recording an Auto-Attendant Greeting or Prompt File, page 73](#)
- [Uploading the Auto-Attendant Greeting or Prompt File, page 74](#)
- (Optional) [Downloading an Auto-Attendant Greeting or Prompt File, page 74](#)
- (Optional) [Deleting an Auto-Attendant Greeting or Prompt File, page 74](#)

Recording an Auto-Attendant Greeting or Prompt File

Two methods are available to create auto-attendant greeting and prompt files:

- Create a .wav file with the following format: G.711 U-law, 8 kHz, 8 bit, Mono. The file cannot be larger than 1 MB, which corresponds to a greeting length of approximately 120 seconds. After recording the greeting, use the GUI or Cisco Unity Express CLI **ccn copy url** command to copy the file in to the Cisco Unity Express system. See the next section, “[Uploading the Auto-Attendant Greeting or Prompt File,](#)” for the upload procedure.
- Use the AvT on the TUI to record the greeting or prompt. Dial the AvT telephone number and select the option to record a greeting. When finished recording, save the file. AvT automatically saves the file in Cisco Unity Express.

The AvT prompt filename has the format UserPrompt_DateTime.wav, for example: UserPrompt_11152003144055.wav. You may want to use CLI commands or GUI options to download the file to a PC, rename the file with a meaningful name, then upload the file back to Cisco Unity Express.

Cisco recommends using the AvT on the TUI to record greetings and prompts because the AvT provides higher sound quality compared to .wav files recorded using other methods.

Customizing the Default Auto-Attendant Welcome Prompt

The default AA greeting included with the system lasts two seconds and plays the prompt “Welcome to the AutoAttendant” You can record a custom welcome prompt specifically for your system to welcome callers. The default WAV filename is **AAwelcome.wav**. While the default welcome prompt in the WAV file lasts two seconds long, you can record a new welcome prompt up to 120 seconds long. The welcome prompt WAV file can be up to 1 MB in G.711 U-law format.

If you create a customized welcome prompt, use a different WAV filename and upload the new WAV file to the Cisco Unity Express module. Do not overwrite the default **AAwelcome.wav** filename. For information about uploading the welcome prompt WAV file, see the “[Uploading the Auto-Attendant Greeting or Prompt File](#)” section on page 74.



Note

The WAV file for the welcome prompt is not interruptible, meaning that the longer the recorded welcome prompt is, the longer callers must wait before being able to enter digits to reach other extensions. Cisco recommends you record a short welcome prompt so that callers can access the voicemail system quickly.

Following this welcome prompt, the default script plays the menu announcement listing the menu options for callers. These are not customizable prompts within the default auto-attendant provided with the system. Note that if a caller uses the dial-by-extension option, the system will attempt to transfer to any extension, including extensions not defined using Cisco Unity Express. To prevent callers from transferring to extensions not defined using Cisco Unity Express, configure class of restrictions (COR) on the dial-peer, or develop a custom script to prevent the option.

Uploading the Auto-Attendant Greeting or Prompt File

After recording the .wav greeting or prompt file, upload the file using the **ccn copy url** command in Cisco Unity Express EXEC mode:

```
ccn copy url source-ip-address prompt prompt-filename
```

Example:

```
se-10-0-0-0# ccn copy url ftp://10.100.10.123/AAprompt1.wav prompt AAPrompt1.wav
se-10-0-0-0# ccn copy url http://www.server.com/AAgreeting.wav prompt AAgreeting.wav
```

This command is equivalent to using the GUI option **Voice Mail > Prompts** and selecting **Upload**.

An error message appears if you try to upload more than the maximum number of prompts allowed on your Cisco Unity Express module.

Downloading an Auto-Attendant Greeting or Prompt File

Greetings and prompts can be copied from the auto-attendant and stored to another server or PC.

To copy a greeting or prompt file, use the **ccn copy prompt** command in Cisco Unity Express EXEC mode:

```
ccn copy prompt prompt-file-name url destination-ip-address
```

Example:

```
se-10-0-0-0# ccn copy prompt AAPrompt2.wav url ftp://10.100.10.123/AAprompt2.wav
```

Deleting an Auto-Attendant Greeting or Prompt File

To delete an auto-attendant greeting or prompt file from Cisco Unity Express, use the **ccn delete** command in Cisco Unity Express EXEC mode:

```
ccn delete prompt prompt-filename
```

Example:

```
se-10-0-0-0# ccn delete prompt AAgreeting.wav
```

Configuring Auto-Attendant Scripts

Cisco Unity Express supports customized script files. The NM supports up to eight scripts; the AIM supports up to four scripts.

Customizing scripts involves the following procedures:

- [Creating an Auto-Attendant Script File, page 75](#)
- [Uploading the Auto-Attendant Script File, page 75](#)
- (Optional) [Downloading an Auto-Attendant Script File, page 75](#)
- (Optional) [Deleting an Auto-Attendant Script File, page 76](#)

Creating an Auto-Attendant Script File

The auto-attendant script file is created using the script editor program. Refer to the *Cisco Unity Express Script Editor Guide* for guidelines and procedures for creating a script file.

The file cannot be larger than 256 KB.

After creating the script, use the GUI or Cisco Unity Express **ccn copy** command to copy the file to the Cisco Unity Express system. See the next section, “[Uploading the Auto-Attendant Script File](#),” for the upload procedure.

Uploading the Auto-Attendant Script File

After recording the .wav greeting or prompt file, upload the file using the **ccn copy url** command in Cisco Unity Express EXEC mode:

```
ccn copy url source-ip-address script script-filename
```

Example:

```
se-10-0-0-0# ccn copy url ftp://10.100.10.123/AVTscript.aef script AVTscript.aef  
se-10-0-0-0# ccn copy url http://www.server.com/AVTscript.aef script AVTscript.aef
```

This command is equivalent to using the GUI option **Voice Mail > Scripts** and selecting **Upload**.

An error message appears if you try to upload more than the maximum number of scripts allowed on your Cisco Unity Express module.

Downloading an Auto-Attendant Script File

Scripts can be copied from the auto-attendant and stored on another server or PC.

To copy a script file, use the **ccn copy script** command in Cisco Unity Express EXEC mode:

```
ccn copy script prompt-file-name url destination-ip-address
```

Example:

```
se-10-0-0-0# ccn copy script AVTscript.aef url ftp://10.100.10.123/AVTscript.aef
```

Deleting an Auto-Attendant Script File

To delete an auto-attendant script file from Cisco Unity Express, use the **ccn delete** command in Cisco Unity Express EXEC mode:

```
ccn delete script script-filename
```

Example:

```
se-10-0-0-0# ccn delete script AVTscript.aef  
Are you sure you want to delete this script? (y/n)
```

Configuring SIP Triggers for the Applications

After the voice-mail, auto-attendant and AvT applications are configured, the system must be configured to start the voice-mail, auto-attendant, and AvT applications when a specific signal, or trigger, is invoked. The trigger is a telephone number. When a caller dials a specified telephone number, the SIP subsystem starts the voice-mail, auto-attendant, or AvT application.

Cisco Unity Express supports a maximum of 8 SIP triggers for all applications combined. This applies to both the NM and the AIM. See [“Advanced Configuration” on page 151](#) for procedures to configure multiple triggers for an application.

Prerequisites

The following information is required to configure the SIP triggers for auto-attendant:

- Telephone number that invokes the application. The number must be different for voice-mail, auto-attendant, and the AvT. The *number* value should match one of the patterns configured in the *destination-pattern* field of the SIP dial peer pointing to Cisco Unity Express.
- Maximum number of callers, or sessions, that can access the trigger simultaneously. See the section [“Sharing Ports Among Applications and Triggers” on page 64](#) for guidelines on assigning this value.

SUMMARY STEPS

Starting from EXEC mode:

1. **config t**
2. **ccn trigger sip phonenumber *number***
3. **application *string***
4. **enabled**
5. **maxsessions *number***
6. **end**
7. **exit**
8. **show ccn trigger**
9. **copy running-config startup-config**

DETAILED STEPS

	Command or Action	Purpose
Step 1	config t Example: se-10-0-0-0(config)# config t	Enters configuration mode.
Step 2	ccn trigger sip phonenumber number Example: se-10-0-0-0(config)# ccn trigger sip phonenumber 50150 se-10-0-0-0(config)# ccn trigger sip phonenumber 50160	Specifies the telephone number that acts as the trigger to start the application on the Cisco Unity Express module and enters trigger configuration mode. The <i>number</i> value should match one of the patterns configured in the <i>destination-pattern</i> field of the SIP dial peer pointing to Cisco Unity Express.
Step 3	application string Example: se-10-0-0-0(config-trigger)# application voicemail se-10-0-0-0(config-trigger)# application autoattendant se-10-0-0-0(config-trigger)# application promptmanagement	Specifies the name of the application to start when the trigger is entered.
Step 4	enabled Example: se-10-0-0-0(config-trigger)# enabled	Enables the trigger.
Step 5	maxsessions number Example: se-10-0-0-0(config-trigger)# maxsessions 3 se-10-0-0-0(config-trigger)# maxsessions 6	Specifies the maximum number of callers that the application can handle simultaneously. See “Sharing Ports Among Applications and Triggers” on page 64 for guidelines on assigning this value.
Step 6	end Example: se-10-0-0-0(config-trigger)# end	Exits trigger configuration mode.
Step 7	exit Example: se-10-0-0-0(config)# exit	Exits configuration mode.
Step 8	show ccn trigger Example: se-10-0-0-0# show ccn trigger	Displays the parameter values for all configured triggers.
Step 9	copy running-config startup-config Example: se-10-0-0-0# copy running-config startup-config	Copies the configuration changes to the startup configuration.

Examples

The following sample configuration sets two triggers for the voice-mail application:

```
se-10-0-0-0# config t
se-10-0-0-0(config)# ccn trigger sip phonenumber 50150
se-10-0-0-0(config-trigger)# application voicemail
se-10-0-0-0(config-trigger)# maxsessions 4
se-10-0-0-0(config-trigger)# enabled
se-10-0-0-0(config-trigger)# end
se-10-0-0-0(config)#
se-10-0-0-0(config)# ccn trigger sip phonenumber 50160
se-10-0-0-0(config-trigger)# application autoattendant
se-10-0-0-0(config-trigger)# maxsessions 3
se-10-0-0-0(config-trigger)# enabled
se-10-0-0-0(config-trigger)# end
se-10-0-0-0#
```

The output for **show ccn trigger** will look similar to the following:

```
se-10-0-0-0# show ccn trigger

Name:                    50150
Type:                    SIP
Application:              voicemail
Locale:                   systemDefault
Idle Timeout:             5000
Enabled:                  yes
Maximum number of sessions: 4

Name:                    50160
Type:                    SIP
Application:              autoattendant
Locale:                   systemDefault
Idle Timeout:             5000
Enabled:                  yes
Maximum number of sessions: 3
se-10-0-0-0#
```

Deleting a SIP Application Trigger

Use this procedure to delete a SIP application trigger. Deleting the trigger does not delete the application, although the application needs at least one trigger in order to be invoked by the system.

Prerequisites

The trigger number is required to delete a trigger.

SUMMARY STEPS

1. `show ccn trigger`
2. `config t`
3. `no ccn trigger sip phonenumber number`
4. `exit`
5. `show ccn trigger`
6. `copy running-config startup-config`

DETAILED STEPS

	Command or Action	Purpose
Step 1	<code>show ccn trigger</code> Example: se-10-0-0-0# show ccn trigger	Displays the currently configured triggers. Look for the telephone number that you want to delete. Verify that this telephone number is associated with the correct application.
Step 2	<code>config t</code> Example: se-10-0-0-0# config t	Enters configuration mode.
Step 3	<code>no ccn trigger sip phonenumber number</code> Example: se-10-0-0-0(config)# no ccn trigger sip phonenumber 50100	Deletes the trigger number.
Step 4	<code>exit</code> Example: se-10-0-0-0(config)# exit	Exits configuration mode.

	Command or Action	Purpose
Step 5	show ccn trigger Example: se-10-0-0-0# show ccn trigger	Displays the configured triggers.
Step 6	copy running-config startup-config Example: se-10-0-0-0# copy running-config startup-config	Copies the configuration changes to the startup configuration.

Example

The output for **show ccn trigger** will look similar to the following:

```
se-10-0-0-0# show ccn trigger

Name:                6500
Type:                 SIP
Application:          voicemail
Locale:               systemDefault
Idle Timeout:         5000
Enabled:              yes
Maximum number of sessions: 4

Name:                6700
Type:                 SIP
Application:          autoattendant
Locale:               systemDefault
Idle Timeout:         5000
Enabled:              yes
Maximum number of sessions: 8
se-10-0-0-0#
```

The following configuration removes a trigger from the voice-mail application:

```
se-10-0-0-0# config t
se-10-0-0-0(config)# no ccn trigger sip phonenumber 6500
se-10-0-0-0(config)# exit
```

Now the output for **show ccn trigger** will look similar to the following:

```
se-10-0-0-0# show ccn trigger

Name:                6700
Type:                 SIP
Application:          autoattendant
Locale:               systemDefault
Idle Timeout:         5000
Enabled:              yes
Maximum number of sessions: 8
se-10-0-0-0#
```

Deleting an Application

If you configure an application that you do not want to keep, use this procedure to delete the application and any triggers associated with that application. If you do not delete the triggers, the application will be invoked when one of the triggers is called.

After you delete the application and triggers, the script associated with the application remains installed on your server but is not used by Cisco Unity Express.

To make this application usable, reconfigure it.

The default voice-mail, auto-attendant, and Administration via Telephone applications that shipped with Cisco Unity Express cannot be deleted.

Prerequisites

The following information is required to delete an application:

- Application name
- All trigger numbers associated with the application

SUMMARY STEPS

1. **show ccn application**
2. **show ccn trigger**
3. **config t**
4. **no ccn trigger sip phonenumber *number***
5. **no ccn application *name***
6. **exit**
7. **show ccn application**
8. **show ccn trigger**
9. **copy running-config startup-config**

DETAILED STEPS

	Command or Action	Purpose
Step 1	show ccn application Example: se-10-0-0-0# show ccn application	Displays the currently configured applications. Look for the name of the application you want to delete.
Step 2	show ccn trigger Example: se-10-0-0-0# show ccn trigger	Displays the currently configured triggers. Look for the telephone numbers associated with the application you want to delete.

■ Deleting an Application

	Command or Action	Purpose
Step 3	config t Example: se-10-0-0-0# config t	Enters configuration mode.
Step 4	no ccn trigger sip phonenumber number Example: se-10-0-0-0(config)# no ccn trigger sip phonenumber 50170	Deletes a trigger associated with this application. Repeat this command for each trigger associated with the application.
Step 5	no ccn application name Example: se-10-0-0-0(config)# no ccn application autoattendant	Deletes the application called name.
Step 6	exit Example: se-10-0-0-0(config)# exit	Exits configuration mode.
Step 7	show ccn application Example: se-10-0-0-0# show ccn application	Displays the currently configured applications. Confirm that the deleted application is not displayed.
Step 8	show ccn trigger Example: se-10-0-0-0# show ccn trigger	Displays the triggers for each configured application.
Step 9	copy running-config startup-config Example: se-10-0-0-0# copy running-config startup-config	Copies the configuration changes to the startup configuration.

Examples

The following is sample output from the **show ccn application** and **show ccn trigger** commands:

```
se-10-0-0-0# show ccn application
```

```
Name: voicemail
Description: voicemail
Script: voicebrowser.aef
ID number: 1
Enabled: yes
Maximum number of sessions: 8
logoutUri: http://localhost/voicemail/vxmlscripts/m
bxLogout.jsp
uri: http://localhost/voicemail/vxmlscripts/1
ogin.vxml
```

```
Name: autoattendant
Description: autoattendant
```

```

Script: aa.aef
ID number: 2
Enabled: yes
Maximum number of sessions: 8
MaxRetry: 3
operExtn: 0
welcomePrompt: AAWelcome.wav
se-10-0-0-0#

Name: myapplication
Description: My AA application
Script: myscript.aef
ID number: 3
Enabled: yes
Maximum number of sessions: 8
MaxRetry: 3
operExtn: 0
welcomePrompt: NewAAWelcome.wav
se-10-0-0-0#

```

```
se-10-0-0-0# show ccn trigger
```

```

Name: 6500
Type: SIP
Application: voicemail
Locale: systemDefault
Idle Timeout: 5000
Enabled: yes
Maximum number of sessions: 3

Name: 6700
Type: SIP
Application: autoattendant
Locale: systemDefault
Idle Timeout: 5000
Enabled: yes
Maximum number of sessions: 8
se-10-0-0-0#

Name: 7200
Type: SIP
Application: myapplication
Locale: systemDefault
Idle Timeout: 5000
Enabled: yes
Maximum number of sessions: 8
se-10-0-0-0#

```

The following configuration deletes the auto-attendant application and its trigger:

```

se-10-0-0-0# config t
se-10-0-0-0(config)# no ccn trigger sip phonenumber 50170
se-10-0-0-0(config)# no ccn application myapplication
se-10-0-0-0(config)# exit

```

Now the output for the **show** commands looks similar to the following:

```

se-10-0-0-0# show ccn application

Name: voicemail
Description: voicemail
Script: voicebrowser.aef
ID number: 1
Enabled: yes
Maximum number of sessions: 8

```

```
logoutUri: http://localhost/voicemail/vxmlscripts/m
bxLogout.jsp
uri: http://localhost/voicemail/vxmlscripts/1
ogin.vxml
se-10-0-0-0#
```

```
Name: autoattendant
Description: autoattendant
Script: aa.aef
ID number: 2
Enabled: yes
Maximum number of sessions: 8
MaxRetry: 3
operExtn: 0
welcomePrompt: AAWelcome.wav
se-10-0-0-0#
```

```
se-10-0-0-0# show ccn trigger
```

```
Name: 6500
Type: SIP
Application: voicemail
Locale: systemDefault
Idle Timeout: 5000
Enabled: yes
Maximum number of sessions: 3
```

```
Name: 6700
Type: SIP
Application: autoattendant
Locale: systemDefault
Idle Timeout: 5000
Enabled: yes
Maximum number of sessions: 8
se-10-0-0-0#
```

Configuring System-Wide Mailbox Default Values

The following system-wide parameters are configurable for all new voice-mailboxes. These values are assigned automatically to a new voice mailbox. Several of these values have factory default values. See [“Software Licenses and Factory-Set Limits” on page 15](#) for the maximum values for your system.

- Capacity—The total amount of storage time in hours allowed for all mailboxes in the system. The factory default is the maximum allowed storage for your system.
- Expiration date—The number of days a message is saved in the mailbox. When the user logs in to the voice mailbox, the user hears a message listing all the expired messages. The user can save, skip, or delete each message. The factory default value is 30 days.
- Language—The language used for voice-mail prompts. In Release 2.1, U.S. English, European French, German, and European Spanish are the available languages. The default value is determined by the language package installed, and cannot be changed using the CLI commands.
- Mailbox size—The maximum number of seconds of storage for voice messages in a mailbox. The factory default value is determined by dividing the maximum storage capacity by the maximum number of mailboxes (personal plus general delivery).
- Message length—The maximum number of seconds for any one stored message in a mailbox. The factory default is 60 seconds.
- Recording time—The maximum amount of time for a user’s recorded mailbox greeting.

- Operator extension—The extension of the voice-mail operator.



Caution

The voice-mail telephone number and the voice-mail operator’s telephone number should not be the same. If they are, a user who tries to call the operator while in the voice-mail system will be directed back to the voice-mail system. Also, an outside caller who presses the button for the operator will be connected to the voice-mail system.

See “[Creating and Modifying a Voice Mailbox](#)” on page 115 for the procedure to configure different values for mailbox size, message length, and expiration date for a specific mailbox.

SUMMARY STEPS

1. **config t**
2. **voicemail capacity time** *minutes*
3. **voicemail default** {**expiration** *days* | **language** *xx_YY* | **mailboxsize** *mailboxsize-seconds* | **messagesize** *messagesize-seconds*}
4. **voicemail operator telephone** *tel-number*
5. **voicemail recording time** *minutes*
6. **exit**
7. **copy running-config startup-config**

DETAILED STEPS

	Command or Action	Purpose
Step 1	config t Example: se-10-0-0-0# config t	Enters configuration mode.
Step 2	voicemail capacity time <i>minutes</i> Example: se-10-0-0-0(config)# voicemail capacity time 3000	Sets the <i>time</i> value as the system-wide maximum storage space in minutes allowed for all configured mailboxes.

Command or Action	Purpose
<p>Step 3</p> <pre>voicemail default {expiration days language xx_YY mailboxsize mailboxsize-seconds messagesize messagesize-seconds}</pre> <p>Example:</p> <pre>se-10-0-0-0(config)# voicemail default expiration 30 se-10-0-0-0(config)# voicemail default language en_EN se-10-0-0-0(config)# voicemail default mailboxsize 300 se-10-0-0-0(config)# voicemail default messagesize 120</pre>	<p>Assigns default values for new individual or general delivery mailboxes. Later these values can be configured to other values for specific mailboxes.</p> <ul style="list-style-type: none"> • expiration days—Sets the number of days a message can be stored in a mailbox before the voice-mail system deletes it. • language—Specifies the default language used for voice-mail prompts on the local Cisco Unity Express system. Release 2.1 supports one language installed on the system at a time. The value for this command is determined by the installed language package and cannot be changed. Valid values for this command are en_EN (U.S. English), de_DE (German), fr_FR (European French), and es_ES (European Spanish). • mailboxsize mailboxsize-seconds—Sets the maximum number of seconds for storing messages in a mailbox. • messagesize messagesize-seconds—Sets the maximum number of seconds for a caller's message stored in a mailbox.
<p>Step 4</p> <pre>voicemail operator telephone tel-number</pre> <p>Example:</p> <pre>se-10-0-0-0(config)# voicemail operator telephone 9000</pre>	<p>Assigns the <i>tel_number</i> value as the voice-mail operator's extension. A mailbox owner dials this extension while in the voice-mail system to reach the voice-mail operator. Do not assign this extension to a group. This extension need not be the same as the auto-attendant operator extension.</p>
<p>Step 5</p> <pre>voicemail recording time minutes</pre> <p>Example:</p> <pre>se-10-0-0-0(config)# voicemail recording time 10</pre>	<p>Assigns the <i>time</i> value in minutes as the maximum recording time for any greeting or message in the voice-mail system.</p>
<p>Step 6</p> <pre>exit</pre> <p>Example:</p> <pre>se-10-0-0-0(config)# exit</pre>	<p>Exits configuration mode.</p>
<p>Step 7</p> <pre>copy running-config startup-config</pre> <p>Example:</p> <pre>se-10-0-0-0# copy running-config startup-config</pre>	<p>Copies the configuration changes to the startup configuration.</p>

Configuring the MWI On and Off Extensions

Cisco Unity Express uses the MWI on and off extensions with the affected telephone extension to generate a SIP call to Cisco CME, which changes the status of the telephone's MWI light.

Cisco Unity Express refreshes the MWI lights automatically when new messages are received, saved, or deleted or when the software is initialized. Use the GUI option or CLI commands to refresh the MWI lights for a specific telephone or for all configured telephones. See the section, "[Refreshing Message Waiting Indicators](#)" on page 122 for the procedure to refresh MWI lights.

Prerequisites

Verify that the MWI on and off extensions are configured on Cisco CME; otherwise, the MWI light will not work.

The following information is required to configure the MWI on and off extensions:

- Extension number dedicated to the MWI on extension
- Extension number dedicated to the MWI off extension

SUMMARY STEPS

Starting from Cisco Unity Express EXEC mode:

1. **config t**
2. **ccn application ciscomwiapplication**
3. **parameter strMWI_ON_DN *on-extension***
4. **parameter strMWI_OFF_DN *off-extension***
5. **end**
6. **exit**
7. **copy running-config startup-config**

DETAILED STEPS

	Command of Action	Purpose
Step 1	config t Example: se-10-0-0-0# config t	Enters configuration mode.
Step 2	ccn application ciscomwiapplication Example: se-10-0-0-0(config)# ccn application ciscomwiapplication	Enters configuration mode for the MWI application.

	Command of Action	Purpose
Step 3	<pre>parameter strMWI_ON_DN on-extension</pre> <p>Example: se-10-0-0-0(config-application)# parameter strMWI_ON_DN 7000</p>	Assigns the <i>on-extension</i> value as the MWI on extension.
Step 4	<pre>parameter strMWI_OFF_DN off-extension</pre> <p>Example: se-10-0-0-0(config-application)# parameter strMWI_OFF_DN 7001</p>	Assigns the <i>off-extension</i> value as the MWI off extension.
Step 5	<pre>end</pre> <p>Example: se-10-0-0-0(config-application)# end</p>	Exits application configuration mode.
Step 6	<pre>exit</pre> <p>Example: se-10-0-0-0(config)# exit</p>	Exits configuration mode.
Step 7	<pre>copy running-config startup-config</pre> <p>Example: se-10-0-0-0# copy running-config startup-config</p>	Copies the configuration changes to the startup configuration.

Checking AIM Flash Memory Wear Activity

Cisco Unity Express tracks the use and wear of the AIM flash memory as log and trace data are saved to the module. To display this data, use the **show interface ide 0** command in Cisco Unity Express EXEC mode.

show interface ide 0

The following is sample output:

```
se-10-0-0-0# show interface ide 0

IDE hd0 is up, line protocol is up
 3496 reads, 46828544 bytes
 0 read errors
 9409 write, 137857024 bytes
 0 write errors
 0.09933333333333333333333333333333% worn
```

To check the log and trace files on the flash memory, use the **log trace** command in Cisco Unity Express EXEC mode.

log trace

Logging and tracing to flash memory is turned off by default. Executing the **log trace** command starts the log and trace functions immediately.

The command displays the `atrace.log` and `messages.log` files. Each file has a fixed length of 10 MB, and tracing or logging stops automatically when the file reaches this length. New files overwrite the old files.

Choosing the System Language

In this release, the TUI prompts and system messages are available in the following languages:

- U.S. English
- European French
- German
- European Spanish

CLI commands and GUI screens are available only in U.S. English.

During the ordering process, one of the languages was purchased as the system language. This choice is the default system language and cannot be changed. Future Cisco Unity Express releases will support multiple languages resident concurrently on the system.

Configuring Password and PIN Parameters

Cisco Unity Express supports the configuration of the password and personal identification number (PIN) parameters described in the following sections:

- [Configuring Password and PIN Length and Expiry Time, page 89](#)
- [Setting the Password and PIN to the System Default Values, page 91](#)
- [Displaying Password and PIN System Settings, page 92](#)

Configuring Password and PIN Length and Expiry Time

Cisco Unity Express supports configuring the following two attributes of password and PIN:

- Minimum password and PIN length

To support enhanced security procedures, Cisco Unity Express has made the password and PIN length configurable. The administrator can configure the length to a value greater than or equal to 3 alphanumeric characters. This is a system-wide value, so that all users must have passwords and PINs of at least that many characters. Use the GUI **Defaults > User** option or the procedure described below to configure this length.

The password length does not have to equal the PIN length.

The default length is 3 alphanumeric characters. The maximum password length is 32 alphanumeric characters. The maximum PIN length is 16 alphanumeric characters.

- Minimum password and PIN expiry time

Cisco Unity Express permits the administrator to configure the password and PIN expiry time on a system-wide basis. The expiry time is the time, in days, for which the password and PIN are valid. When this time is reached, the user must enter a new password or PIN.

If this option is not configured, passwords and PINs do not expire.

Use the GUI **Defaults > User** option or the procedure described below to configure this time.

The password expiry time does not have to equal the PIN expiry time.
The minimum time is 3 days. The maximum time is 365 days.

Prerequisites

The following information is required to configure the password and PIN lengths and expiry times:

- Password length and expiry time
- PIN length and expiry time

SUMMARY STEPS

- `config t`
- `security password length min password-length`
- `security pin length min pin-length`
- `security password expiry days password-days`
- `security pin expiry days pin-days`
- `exit`

DETAILED STEPS

	Command or Action	Purpose
Step 1	<code>config t</code> Example: se-10-0-0-0# config t se-10-0-0-0(config)#	Enters configuration mode.
Step 2	<code>security password length min password-length</code> Example: se-10-0-0-0(config)# security password length min 5	Specifies the length of all users' passwords. The default minimum value is 3; the maximum value is 32.
Step 3	<code>security pin length min pin-length</code> Example: se-10-0-0-0(config)# security pin length min 4	Specifies the minimum length of all users' PINs. The default value is 3; the maximum value is 16.
Step 4	<code>security password expiry days password-days</code> Example: se-10-0-0-0(config)# security password expiry days 60	Specifies the maximum number of days for which users' passwords are valid. Valid values range from 3 to 365. If this value is not configured, the passwords will not expire.

	Command or Action	Purpose
Step 5	security pin expiry days <i>pin-days</i> Example: se-10-0-0-0(config)# security pin expiry days 45	Specifies the maximum number of days for which user's PINs are valid. Valid values range from 3 to 365. If this value is not configured, the PINs will not expire.
Step 6	exit Example: se-10-0-0-0(config)# exit se-10-0-0-0#	Exits configuration mode.

Examples

The following example sets the password length to 6 characters, the PIN length to 5 characters, the password expiry time to 60 days, and the PIN expiry time to 45 days.

```
se-10-0-0-0# config t
se-10-0-0-0(config)# security password length min 6
se-10-0-0-0(config)# security pin length min 5
se-10-0-0-0(config)# security password expiry days 60
se-10-0-0-0(config)# security pin expiry days 45
se-10-0-0-0(config)# exit
```

Setting the Password and PIN to the System Default Values

Several commands are available to reset the password and PIN values to the system defaults.

Resetting the Password Length

The following Cisco Unity Express configuration mode command resets the password length for all users to the system default value, which is 3 characters:

```
no security password length min
```

The following example resets the password length:

```
se-10-0-0-0# config t
se-10-0-0-0(config)# no security password length min
se-10-0-0-0(config)# end
```

Resetting the PIN Length

The following Cisco Unity Express configuration mode command resets the PIN length for all users to the system default value, which is 3 characters:

```
no security pin length min
```

The following example resets the PIN length:

```
se-10-0-0-0# config t
```

```
se-10-0-0-0# no security pin length min
se-10-0-0-0(config)# end
```

Resetting the Password Expiry Time

The following Cisco Unity Express configuration mode command resets the password expiry time for all users to the system default value, in which case the passwords will not expire:

no security password expiry days

The following example resets the password expiry time:

```
se-10-0-0-0# config t
se-10-0-0-0(config)# no security password expiry days
se-10-0-0-0(config)# end
```

Resetting the PIN Expiry Time

The following Cisco Unity Express configuration mode command resets the PIN expiry time for all users to the system default value, in which case the PINs will not expire:

no security pin expiry days

The following example resets the PIN expiry time:

```
se-10-0-0-0# config t
se-10-0-0-0(config)# no security pin expiry days
se-10-0-0-0(config)# end
```

Displaying Password and PIN System Settings

Use the following Cisco Unity Express EXEC mode command to display the password and PIN settings:

show security detail

The command output may look similar to the following:

```
se-10-0-0-0# show security detail

Password Expires:      true
Password Age:         60 days
Password Length (min): 5
Password Length (max): 32
PIN Expires:          true
PIN Age:              45 days
PIN Length (min):     4
PIN Length (max):     16
```

The following example shows the values when password expiration and the PIN length are reset to the system default values:

```
se-10-0-0-0# show security detail

Password Expires:      false
Password Length (min): 3
Password Length (max): 32
PIN Expires:          false
PIN Age:              45 days
```


PIN Length (min):	3
PIN Length (max):	16

Configuring Business Hours

Cisco Unity Express permits configuration of business hours that cause the auto attendant (AA) to play a customizable greeting to callers during off-hours. The following sections describe the configuration process:

- [Configuring a Business-Hours Schedule, page 93](#)
- [Displaying Business-Hours Schedules, page 96](#)
- [Modifying Business Schedules, page 97](#)
- [Deleting a Business Schedule, page 98](#)

Configuring a Business-Hours Schedule

The system administrator can configure a business-hours schedule with the following properties:

- Cisco Unity Express Release 2.1 supports up to four business schedules.
- Each 24-hour day is divided into half-hour time slots. Specify the time slots when the company is open or closed.
- The system default is “open” for 24 hours each day.
- To configure a business-hours schedule, use the graphical user interface (GUI) **Voice Mail > Business Hours Settings** option or the command-line interface (CLI) commands described in this section.
- Use the GUI to copy one business schedule to another schedule, which can then be modified.

The Cisco Unity Express system ships with one default schedule called “SystemSchedule.” This schedule treats the business as open 24 hours per day, 7 days per week. Use the GUI **Voice Mail > Business Hours Settings** option or CLI commands to modify or delete this schedule. If you have created multiple schedules, use the GUI or CLI commands to associate the desired schedule with the AA. (You do not have to reboot the system to have the new schedule take effect.)

When a caller reaches the AA, the AA plays the welcome prompt and checks if the current day is a holiday. If it is a holiday, the AA plays the holiday greeting to the caller and does not check the business-hours schedule.

If the current day is not a holiday, the system checks if the business is open. If so, the business open prompt plays. In the canned AA, this prompt (AABusinessOpen.wav) is empty. If the business is closed, the system plays the business closed prompt. In the canned AA, this prompt (AABusinessClosed.wav) says “We are currently closed. Please call back later.”

You can customize these two prompts by recording more meaningful messages. The prompts must be .wav files with the format G.711 u-law, 8 kHz, 8 bit, Mono. Use the GUI **Voice Mail > Prompts** option or the CLI commands to upload the customer prompts. Alternatively, you can record these prompts using the Administration Via Telephone (AvT) system. After uploading or recording these custom prompts, use the GUI **Voice Mail > Auto Attendants** option or the CLI commands to associate the new prompts with the AA. The new prompts take effect as soon as they are configured; the system does not need to be restarted.

Prerequisites

The following information is required to configure a business-hours schedule:

- Schedule name

The maximum length of the name is 31 alphanumeric characters, including uppercase letters A through Z, lowercase letters a through z, digits 0 through 9, underscore (_), and dash (-). The first character of the name must be a letter.

If a schedule with this name does not exist, the system will create it. If the schedule already exists, any changes will modify the schedule. If the maximum number of schedules exists and you request another one, the system displays an error message.

- Day of the week
- Starting and ending clock times when the business is open and when the business is closed

Use the 24-hour clock format for the hours. Valid minute values are 00 to 30.

For a new schedule, specify the closed hours; the remaining hours are open because a newly created schedule has 24 hours open each day by default.

SUMMARY STEPS

1. **config t**
2. **calendar biz-schedule** *schedule-name*
3. **closed day** *day-of-week* **from** *hh:mm* **to** *hh:mm*
4. **open day** *day-of-week* **from** *hh:mm* **to** *hh:mm*
5. **end**
6. **exit**

DETAILED STEPS

	Command or Action	Purpose
Step 1	config t Example: se-10-0-0-0# config t se-10-0-0-0(config)#	Enters configuration mode.
Step 2	calendar biz-schedule <i>schedule-name</i> Example: se-10-0-0-0(config)# calendar biz-schedule normal_hours	Specifies the name for the business-hours schedule and enters business configuration mode. The name must be one word. If a schedule with this name does not exist, the system creates it. If the schedule already exists, any changes modify the schedule. If the maximum number of schedules exists, the system displays an error message.

	Command or Action	Purpose
Step 3	<p>closed day <i>day-of-week</i> from <i>hh:mm</i> to <i>hh:mm</i></p> <p>Example: se-10-0-0-0(config-business)# closed day 2 from 00:00 to 08:30 se-10-0-0-0(config-business)# closed day 2 from 17:30 to 24:00</p>	Enter the day of the week and the times when the business is closed for that day. Valid values for <i>day-of-week</i> are 1 to 7, where 1 represents Sunday, 2 is Monday, 3 is Tuesday, 4 is Wednesday, 5 is Thursday, 6 is Friday, and 7 is Saturday. Use the 24-hour clock format for <i>hh</i> . Valid <i>mm</i> values are 00 to 30.
Step 4	<p>open day <i>day-of-week</i> from <i>hh:mm</i> to <i>hh:mm</i></p> <p>Example: se-10-0-0-0(config-business)# open day 2 from 08:30 to 17:30</p>	Enter the day of the week and the times when the business is open for that day. Valid values for <i>day-of-week</i> are 1 to 7, where 1 represents Sunday. Use the 24-hour clock format for <i>hh</i> . Valid <i>mm</i> values are 00 to 30.
Step 5	Repeat Steps 3 and 4 for each day of the week that needs business hours scheduled.	—
Step 6	<p>end</p> <p>Example: se-10-0-0-0(config-business)# end se-10-0-0-0(config)#</p>	Exits business configuration mode.
Step 7	<p>exit</p> <p>Example: se-10-0-0-0(config)# exit se-10-0-0-0#</p>	Exits configuration mode.

Examples

The following example configures a new business schedule:

```

se-10-0-0-0# config t
se-10-0-0-0(config)# calendar biz-schedule normal
Adding new schedule
se-10-0-0-0(config-business)# closed day 1 from 00:00 to 24:00
se-10-0-0-0(config-business)# closed day 2 from 00:00 to 08:30
se-10-0-0-0(config-business)# closed day 2 from 17:30 to 24:00
se-10-0-0-0(config-business)# closed day 3 from 00:00 to 08:30
se-10-0-0-0(config-business)# closed day 3 from 17:30 to 24:00
se-10-0-0-0(config-business)# closed day 4 from 00:00 to 08:30
se-10-0-0-0(config-business)# closed day 4 from 17:30 to 24:00
se-10-0-0-0(config-business)# closed day 5 from 00:00 to 08:30
se-10-0-0-0(config-business)# closed day 5 from 20:00 to 24:00
se-10-0-0-0(config-business)# closed day 6 from 00:00 to 08:30
se-10-0-0-0(config-business)# closed day 6 from 18:00 to 24:00
se-10-0-0-0(config-business)# closed day 7 from 00:00 to 09:00
se-10-0-0-0(config-business)# closed day 7 from 13:00 to 24:00
se-10-0-0-0(config-business)# end
se-10-0-0-0(config)# exit

```

Displaying Business-Hours Schedules

Several CLI commands are available in the Cisco Unity Express EXEC mode for displaying the business-hours schedules.

Displaying a Specific Schedule

The following command displays a specific business schedule:

```
show calendar biz-schedule schedule-name
```

where *schedule-name* is the name of the schedule. This command displays each day of the week and the open hours. The output for this command may appear similar to the following.

```
se-10-0-0-0# show calendar biz-schedule normal

*****
Schedule: normal
Day          Open Hours
-----
Sunday       None
Monday       08:30 to 17:30
Tuesday      08:30 to 17:30
Wednesday    08:30 to 17:30
Thursday     08:30 to 20:00
Friday       08:30 to 18:00
Saturday     09:00 to 13:00
```

Displaying All Businesses Schedules

The following command displays all the configured business schedules in the system:

```
show calendar biz-schedule all
```

This command displays the open hours for each day of the week for each schedule. The output for this command may appear similar to the following:

```
sse-10-0-0-0# show calendar biz-schedule all

*****
Schedule: systemschedule
Day          Open Hours
-----
Sunday       Open all day
Monday       Open all day
Tuesday      Open all day
Wednesday    Open all day
Thursday     Open all day
Friday       Open all day
Saturday     Open all day

*****
Schedule: normal
Day          Open Hours
-----
Sunday       None
Monday       08:30 to 17:30
Tuesday      08:30 to 17:30
Wednesday    08:30 to 17:30
```

```
Thursday      08:30 to 20:00
Friday       08:30 to 18:00
Saturday     09:00 to 13:00
```

```
*****
Schedule: holiday-season
Day          Open Hours
-----
Sunday       09:00 to 15:00
Monday       08:30 to 17:30
Tuesday      08:30 to 17:30
Wednesday    08:30 to 17:30
Thursday     08:00 to 21:00
Friday       08:00 to 21:00
Saturday     08:00 to 21:30
```

Modifying Business Schedules

The following configuration mode command modifies an existing business schedule:

```
calendar biz-schedule schedule-name
```

where *schedule-name* is the name of the business schedule to modify. If a schedule with the specified business name does not exist, the system creates it.

The following example modifies the existing “normal” business schedule:

```
se-10-0-0-0(config)# calendar biz-schedule normal
Modifying existing schedule
se-10-0-0-0(config-business)# open day 1 from 09:00 to 12:00
se-10-0-0-0(config-business)# end
se-10-0-0-0(config)# exit
se-10-0-0-0#
```

Changing the Status of Open or Closed Hours

To modify an existing schedule, specify the open and closed hours for each day as needed.

Changing an Open Slot to a Closed Slot

Use either of the following configuration mode commands to change an open slot to a closed slot:

```
no open day day-of-week from hh:mm to hh:mm
```

```
closed day day-of-week from hh:mm to hh:mm
```

where *day-of-week* is the numeric day of the week (1 equals Sunday), *hh* are hours in the 24-hour clock format, and *mm* are minutes, either 00 or 30.

For example, if Monday is open from 09:00 to 17:00, then **no open day 2 from 09:00 to 10:00** or **closed day 2 from 09:00 to 10:00** closes Monday 9:00 a.m. to 10:00 a.m.

Changing a Closed Slot to an Open Slot

Use either of the following commands to change a closed slot to an open slot:

```
no closed day day-of-week from hh:mm to hh:mm
```

open day *day-of-week* **from** *hh:mm* **to** *hh:mm*

where *day-of-week* is the numeric day of the week (1 equals Sunday), *hh* are hours in the 24-hour clock format, and *mm* are minutes, either 00 or 30.

For example, if Monday is closed from 00:00 to 10:00, then **no closed day 2 from 09:00 to 10:00** or **open day 2 from 09:00 to 10:00** opens the Monday time slot 9:00 a.m. to 10:00 a.m.

Examples

The following output shows the “normal” business schedule:

```
se-10-0-0-0# show calendar biz-schedule normal
```

```
*****
Schedule: normal
Day                Open Hours
-----
Sunday             None
Monday             08:30 to 17:30
Tuesday            08:30 to 17:30
Wednesday          08:30 to 17:30
Thursday           08:30 to 20:00
Friday             08:30 to 18:00
Saturday           09:00 to 13:00
```

The following commands modify the “normal” business hours by closing Monday hours from 8:30 to 9:30 and opening Saturday hours from 1:00 p.m. to 2:00 p.m.:

```
se-10-0-0-0# config t
se-10-0-0-0(config)# calendar biz-schedule normal
se-10-0-0-0(config-business)# no open day 2 from 08:30 to 09:30
se-10-0-0-0(config-business)# no closed day 7 from 13:00 to 14:00
se-10-0-0-0(config-business)# end
se-10-0-0-0(config)# exit
```

The following output shows the changed schedule:

```
se-10-0-0-0# show calendar biz-schedule normal
```

```
*****
Schedule: normal
Day                Open Hours
-----
Sunday             None
Monday             09:30 to 17:30
Tuesday            08:30 to 17:30
Wednesday          08:30 to 17:30
Thursday           08:30 to 20:00
Friday             08:30 to 18:00
Saturday           09:00 to 14:00
```

Deleting a Business Schedule

The following configuration mode command deletes a specified business schedule:

no calendar biz-schedule *schedule-name*

where *schedule-name* is the name of the business schedule to delete.

The following example deletes the “normal” business schedule:

```
se-10-0-0-0# config t
se-10-0-0-0(config)# no calendar biz-schedule normal
se-10-0-0-0(config)# exit
se-10-0-0-0#
```

Configuring a Holiday List

Cisco Unity Express permits configuration of a holiday list that causes the auto attendant (AA) to play a customizable greeting to callers when the company is closed for a holiday. The following sections describe the configuration process:

- [Configuring a Holiday List, page 99](#)
- [Displaying the Holiday List, page 100](#)
- [Deleting Holidays from the List, page 101](#)

Configuring a Holiday List

The system administrator can configure a company’s holiday list with the following properties:

- Cisco Unity Express Release 2.1 supports up to three holiday lists: the previous year, the current year, and the next year. If a year has no configured entries, the system treats that year as having no holidays.

For example, if the current year is 2005 and you have not configured entries for 2004 (the previous year), the system treats 2004 as having zero (0) holidays. You may configure holidays for 2005 and 2006 (the next year) but not for 2007.
- The list can contain a maximum of 26 holidays per year.
- No default holiday list is available in the system.
- The administrator can delete entries from a previous year list but cannot add or modify that list in any other way.
- The system automatically deletes the previous year list at the beginning of the new calendar year. For example, the system will delete the 2004 holiday list on January 1, 2006.
- To configure the holiday list for the current year and next year, use the graphical user interface (GUI) **Voice Mail > Holiday Settings** option or the command-line interface (CLI) commands described in this section.
- To copy holidays from one year to the next, use the GUI option **Copy all to next year** under **Voice Mail > Holiday Settings**.

When a caller reaches the AA, the AA plays the welcome prompt and checks if the current day is a holiday. If it is a holiday, the AA plays the holiday prompt to the caller. In the canned AA script provided with the Cisco Unity Express package, this prompt (AAHolidayPrompt.wav) is “We are closed today. Please call back later.”

You can customize this prompt by recording a more meaningful message, such as “We are closed today for a holiday. If this is an emergency, please call 1-222-555-0150 for assistance. Otherwise, please call back later.”

The prompt must be a .wav file with the format G.711 u-law, 8 kHz, 8 bit, Mono. Use the GUI **Voice Mail > Prompts** option or CLI commands to upload the custom prompt. Alternatively, you can record the prompt using the Administration via Telephone (AvT) system. After uploading or recording the custom prompt, use the GUI **Voice Mail > Auto Attendant** option or the CLI commands to associate the new prompt with the AA. The new prompt takes effect as soon as it is configured; the system does not need to be restarted.

Procedure

Use the following command in Cisco Unity Express configuration mode to configure a holiday list:

```
calendar holiday date yyyy mm dd [description holiday-description]
```

where *yyyy* is the 4-digit year, *mm* is the 2-digit month, *dd* is the 2-digit day, and *holiday-description* is an optional description of the holiday. If the description is more than one word, enclose the text in double quotes (“ ”).

The valid values for *yyyy* are the current year or the next year. An error message appears if the year or date is out of range.

Example:

```
se-10-0-0-0# config t
se-10-0-0-0(config)# calendar holiday date 2005 05 30 description "Memorial Day"
se-10-0-0-0(config)# exit
se-10-0-0-0#
```

Displaying the Holiday List

Several CLI commands are available in the Cisco Unity Express EXEC mode for displaying the holiday list.

Displaying All Holiday Lists

The following command displays all the holiday lists configured on the system:

```
show calendar holiday
```

This command displays the date and description for all holidays for all years. The output for this command may appear similar to the following:

```
se-10-0-0-0# show calendar holiday

*****
                Year: 2004
*****
September 04    Labor Day
November  25    Thanksgiving

*****
                Year: 2005
*****
July         04    July 4th
September  05    Labor Day
November   24    Thanksgiving
December   25    Christmas
```


Displaying Holiday Lists for a Specific Year

The following command displays the holidays configured for a specific year:

```
show calendar holiday year yyyy
```

where yyyy is the 4-digit year. This command displays the date and description for all holidays configured for the specified year. If no holidays are configured for that year, the message “No holidays found for the specified year” appears. The output for this command may appear similar to the following:

```
se-10-0-0-0-0# show calendar holiday year 2005
```

```
*****
                Year: 2005
*****
July           04       July 4th
September     05       Labor Day
November      24       Thanksgiving
December      25       Christmas
```

Displaying Holiday Lists for a Specific Month

The following command displays the holidays configured for a specific month in a specified year:

```
show calendar holiday year yyyy month mm
```

where yyyy is the 4-digit year and mm is the 2-digit month. This command displays the date and description for all holidays configured for the specified month in the specified year. If no holidays are configured for that month, the message “No holidays found for the specified month” appears. The output for this command may appear similar to the following:

```
se-10-0-0-0-0# show calendar holiday year 2005 month 12
```

```
*****
                Year: 2005
*****
December      25       Christmas
```

Deleting Holidays from the List

Several CLI commands are available in the Cisco Unity Express EXEC mode for deleting holidays from the list.

Deleting a Specific Holiday from the Holiday List

The following command deletes a specific holiday:



Caution

Use this command with caution, as this operation is irreversible. Do not press the “Enter” key after the year; doing so deletes the holiday list for the entire year.

no calendar holiday date *yyyy mm dd*

where *yyyy* is the 4-digit year, *mm* is the 2-digit month, and *dd* is the 2-digit day.

Example:

```
se-10-0-0-0# no calendar holiday date 2004 11 25
```

Deleting Holidays from a Specific Month



Caution

Use this command with caution, as this operation is irreversible and may cause loss of holiday configuration for the entire month.

The following command deletes the holidays configured for a specific month in a specified year:

no calendar holiday year *yyyy month mm*

where *yyyy* is the 4-digit year and *mm* is the 2-digit month.

Example:

```
se-10-0-0-0# no calendar holiday year 2004 month 09
```

Deleting Holidays for a Specific Year



Caution

Use this command with caution, as this operation is irreversible and may cause loss of holiday configuration for the entire year.

The following command deletes all the holidays configured for a specific year:

no calendar holiday year *yyyy*

where *yyyy* is the 4-digit year.

Example:

```
se-10-0-0-0# no calendar holiday year 2004
```