



## **Cisco Unity Express GUI Administrator Guide for Cisco CallManager Express, Release 1.1.2**

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**GLOSSARY**

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## Preface

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This preface describes the purpose, audience, and conventions of the *Cisco Unity Express GUI Administrator Guide for CallManager Express*, and provides information on obtaining related documentation and technical assistance.

## Purpose

The *Cisco Unity Express GUI Administrator Guide for CallManager Express* introduces you to the set of graphical interface screens and tasks for configuring, administering, and maintaining Cisco Unity Express applications, such as voice mail.

Comparable command language interface commands are described in the *Cisco Unity Express CLI Administrator Guide for CallManager Express*.

The focus of this book is the Cisco Unity Express application. It does not provide information on installation of Cisco routers, Cisco network modules, or the Cisco CallManager Express (CME) server. For more information about those topics, see [“Additional References” on page 9](#).

## Audience

This guide is intended for installers, resellers, system administrators, and technical assistance personnel who are responsible for managing Cisco Unity Express applications using Cisco CallManager Express.

You will need a working knowledge of Microsoft Internet Explorer Version 5.5 or later. Experience with Cisco IOS software is not required.

# Document Conventions

This guide uses the following conventions:

**Table 1** Cisco Unity Express GUI Administrator Guide for CallManager Express Conventions

Convention	Description
<b>boldface text</b>	Boldface text is used for: <ul style="list-style-type: none"> <li>Keyboard buttons. (Example: Press <b>Esc</b>.)</li> <li>Information that you enter. (Example: Enter <b>administrator</b> in the User ID field.)</li> </ul>
<b>plain bold text</b>	<b>Plain bold text</b> is used for: <ul style="list-style-type: none"> <li>Text shown on a GUI screen. (Example: <b>User Name</b>)</li> <li>Keys and buttons on a GUI screen. (Example: Click <b>Add</b>.)</li> </ul>
<b><u>plain bold and underlined text</u></b>	<b><u>Plain bold and underlined text</u></b> is used to represent icons or buttons on a GUI screen (for example, Click <b><u>Apply</u></b> ).
screen	Examples of information displayed on the screen are set in Courier font.
- (hyphen)	Hyphens separate keys that must be pressed simultaneously. (Example: Press <b>Ctrl-Alt-Delete</b> .)
> (right angle bracket)	A right angle bracket is used to separate selections that you make on the administration screens. (Example: From the Home menu, click <b>Configure &gt; Users</b> .)

The *Cisco Unity Express GUI Administrator Guide for CallManager Express* also uses the following conventions:



## Note

Means *reader take note*. Notes contain helpful suggestions or references to material not covered in the document.



## Caution

Means *reader be careful*. In this situation, you might do something that could result in equipment damage or loss of data.



## Timesaver

Means *the described action saves time*. You can save time by performing the action described in the paragraph.



## Tip

Means *the following information will help you solve a problem*. The tips information might not be troubleshooting or even an action, but could be useful information, similar to a Timesaver.

# Obtaining Documentation

Cisco documentation and additional literature are available on Cisco.com. Cisco also provides several ways to obtain technical assistance and other technical resources. These sections explain how to obtain technical information from Cisco Systems.

## Cisco.com

You can access the most current Cisco documentation on the World Wide Web at this URL:

<http://www.cisco.com/univercd/home/home.htm>

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<http://www.cisco.com>

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## Cisco TAC Website

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<http://www.cisco.com/tac>

Accessing all the tools on the Cisco TAC website requires a Cisco.com user ID and password. If you have a valid service contract but do not have a login ID or password, register at this URL:

<http://tools.cisco.com/RPF/register/register.do>

## Opening a TAC Case

Using the online TAC Case Open Tool is the fastest way to open P3 and P4 cases. (P3 and P4 cases are those in which your network is minimally impaired or for which you require product information.) After you describe your situation, the TAC Case Open Tool automatically recommends resources for an immediate solution. If your issue is not resolved using the recommended resources, your case will be assigned to a Cisco TAC engineer. The online TAC Case Open Tool is located at this URL:

<http://www.cisco.com/tac/caseopen>

For P1 or P2 cases (P1 and P2 cases are those in which your production network is down or severely degraded) or if you do not have Internet access, contact Cisco TAC by telephone. Cisco TAC engineers are assigned immediately to P1 and P2 cases to help keep your business operations running smoothly.

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Asia-Pacific: +61 2 8446 7411 (Australia: 1 800 805 227)

EMEA: +32 2 704 55 55

USA: 1 800 553-2447

For a complete listing of Cisco TAC contacts, go to this URL:

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To ensure that all cases are reported in a standard format, Cisco has established case priority definitions.

Priority 1 (P1)—Your network is “down” or there is a critical impact to your business operations. You and Cisco will commit all necessary resources around the clock to resolve the situation.

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Priority 4 (P4)—You require information or assistance with Cisco product capabilities, installation, or configuration. There is little or no effect on your business operations.

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<http://www.cisco.com/packet>
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# Introduction to Cisco Unity Express Voice Mail and Auto Attendant

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The Cisco Unity Express voice mail and auto attendant applications work with Cisco CallManager Express (CME) to provide small- and medium-sized companies with the capability to:

- Create and maintain voice mailboxes for onsite telephone users. Release 1.1 supports up to 100 mailboxes; earlier releases support up to 50 mailboxes. The maximum number of mailboxes depends on the hardware module and license agreement purchased for Cisco Unity Express.
- Record and upload messages for callers to hear when they dial the company's telephone number, and prompts to guide the callers to specific extensions or employees.

This chapter describes the Cisco Unity Express application and contains the following sections:

- Feature Overview, page 1
- Administration Interfaces, page 4
- Differences Between Cisco Unity Express and Cisco Unity, page 5
- Interactions Between Cisco Unity Express and Cisco CME, page 5
- Differences Between Cisco Unity Express and Cisco CME, page 6
- Supported Platforms, page 6
- Restrictions, page 7
- Additional References, page 9

## Feature Overview

Cisco Unity Express Release 1.1.2 offers the following features in addition to those in Releases 1.1 and 1.0:

- Support for an advanced integration module (AIM) with 1GB flash memory.
- New CLI commands that display compact flash capacity and NTP server configuration information (source, servers, and associations).

Cisco Unity Express Release 1.1 features:

- AIM card with network connectivity through the PCI interface and access to Cisco IOS software and the console using back-to-back Ethernet through the parallel interface. No external interfaces or cabling is required.

- Script editor to create custom scripts for handling incoming calls to the automated attendant (AA). Activating a custom script deactivates the default auto attendant script that ships with Cisco Unity Express. The default script cannot be modified. The network module (NM) and the AIM supports up to four customized auto attendants.
- Recording of alternate AA greetings and prompts that can be uploaded or downloaded as needed. These alternate greetings and prompts are in addition to the default greetings and prompts that ship with Cisco Unity Express. The NM supports up to 50 alternate prompts. The AIM supports up to 25 alternate prompts.
- Access from the telephone user interface (TUI) to a greeting management system (GMS) for recording alternate greetings and prompts. Users with administrative privileges have access to the GMS.

**Note**

We highly recommend attaching an uninterruptible power supply (UPS) to the router housing the Cisco Unity Express module. Any reliable UPS unit provides continuous power to maintain the operation of the router and the Cisco Unity Express module. Consider the unit's capacity and run time because power consumption differs among Cisco platforms. Ideally, a UPS should include a signaling mechanism that directs the router to shut down Cisco Unity Express properly and then powers off the router.

Cisco Unity Express Release 1.0 features:

- Linux-based software installed on a module card that is installed in the Cisco CME router. (See the “Supported Platforms” on page 6.) The software includes the operating system, application software, and ordered license information.
- Network module card with access to Cisco IOS software using back-to-back Ethernet and console. No external interfaces or cabling is required.
- Four orderable license packages. A license must be ordered for each voice-mail system. See “Software Licenses and Factory-Set Limits” on page 3 for the system capacities available with each license.
- Spare modules with factory installed software and license. Upgrades to larger capacity require purchase of a license and download of the license file.
- Upgrades or downgrades from one license size to another.
- Two administrative interfaces. (See the “Administration Interfaces” on page 4.)
- An integrated administration GUI for both Cisco Unity Express and Cisco CME. The integrated interface permits configuration of some Cisco CME parameters, such as telephones and extensions.
- Bulk provisioning of multiple sites using CLI scripts not provided by Cisco Unity Express. Systems are administered individually.
- Systems accessible anywhere on the IP network. If the Cisco Unity Express installer uses TFTP; the site running the installer must be closely located to the TFTP server. All other functions use FTP, which allows the servers to be anywhere in the IP network.
- Manual backup and restore using an FTP server located anywhere in the customer network.
- System reports and log files for troubleshooting.

## Differences between the AIM and NM

Release 1.1.2 supports both the AIM and the NM. Cisco Unity Express features work the same way on both modules with the following exceptions:

- The AIM is a 4-port module that stores a maximum of 50 voice mailboxes. The 512 MB flash version of the AIM supports 8 hours of voice messages while the 1 GB flash version of the AIM supports 14 hours of voice messages. The NM is an 8-port module that stores a maximum of 100 voice mailboxes and 100 hours of voice messages.
- A **trace** or **log** command issued on the NM automatically saves the data to the disk. On the AIM, the trace and log data are not saved to flash memory. A new Cisco Unity Express CLI command is available to save the data to the AIM flash memory.
- Cisco Unity Express tracks the use and wear activity of the AIM flash memory. This tracking is not necessary for the NM. The CLI command **show interface ide 0** command and the GUI option **Reports > System** display the flash memory wear data.

## Software Licenses and Factory-Set Limits

Factory-set system limits are determined by the ordered license. Limits for the NM are shown in Table 2 and Table 4. Limits for the AIM are shown in Table 4 and Table 5.

**Table 2** System Capacities for Mailboxes, Storage Hours, Ports, Scripts, and Prompts on the NM

Cisco Unity Express License/Software SKU	Total Mailbox Storage (Hours)	Default Mailbox Size (Minutes)	Number of Ports	Number of Scripts	Number of Prompts
SCUE-12CME-1.1.2	100	353	4	8	50
SCUE-25CME-1.1.2	100	171	4	8	50
SCUE-50CME-1.1.2	100	92	8	8	50
SCUE-100CME-1.1.2	100	50	8	8	50

**Table 3** Maximum Number of Mailboxes, Groups, Owners, and Members on the NM

Cisco Unity Express License/Software SKU	Number of Personal Mailboxes	Number of General Delivery Mailboxes	Number of Groups	Number of Owners	Number of Members
SCUE-12CME-1.1.2	12	5	20	400	880
SCUE-25CME-1.1.2	25	10	20	400	1000
SCUE-50CME-1.1.2	50	15	30	400	1000
SCUE-100CME-1.1.2	100	20	40	400	1000

**Table 4** System Capacities for Mailboxes, Storage Hours, Ports, Scripts, and Prompts on the AIM

Cisco Unity Express License/Software SKU	Total Mailbox Storage (Hours) <sup>1</sup>	Default Mailbox Size (Minutes)	Number of Ports	Number of Scripts	Number of Prompts
SCUE-12CME-1.1.2	8 (512 MB) 14 (1 GB)	28	4	4	25
SCUE-25CME-1.1.2	8 (512 MB) 14 (1 GB)	13	4	4	25
SCUE-50CME-1.1.2	8 (512 MB) 14 (1 GB)	7	4	4	25

1. Two different versions of the AIM are supported: the 512 MB flash memory version and the 1 GB flash memory version. The amount of mailbox storage hours supported depends on which AIM version is being used.

**Table 5** Maximum Number of Mailboxes, Groups, Owners, and Members on the AIM

Cisco Unity Express License/Software SKU	Number of Personal Mailboxes	Number of General Delivery Mailboxes	Number of Groups	Number of Owners	Number of Members
SCUE-12CME-1.1.2	12	5	20	100	200
SCUE-25CME-1.1.2	25	10	20	100	200
SCUE-50CME-1.1.2	50	15	20	100	200

## Administration Interfaces

Cisco Unity Express offers two administration interfaces:

- Graphical user interface (GUI)—This user-friendly, web-based interface permits administration of all voice mail and auto attendant functions and some Cisco CME information, such as extensions, telephones, and some system-wide parameters.

The GUI is targeted for administrators familiar with web-based applications and who have little or no experience with Cisco IOS command structure.

- Command-line interface (CLI)—This text-based interface has the same administration and configuration capabilities as the GUI. Installation, upgrade, and troubleshooting functions are available only through the CLI commands. The administrator accesses this interface through a Telnet session to the router.

The CLI is targeted for installers, resellers, support personnel, and others familiar with Cisco IOS command structure and routers. For them, accessing the system using the CLI may be easier than using the GUI, especially for troubleshooting, scripting, and bulk provisioning of many sites. See the *Cisco Unity Express CLI Administrator Guide for Cisco CallManager Express* for more information about CLI configuration.

The GUI and CLI are accessible from a PC or server anywhere in the IP network. To access the GUI, use Microsoft Internet Explorer Version 6.0 or a later release. Cisco Unity Express does not support the Netscape browser. To access the CLI, Telnet to the router, then use a **session** command.

## Differences Between Cisco Unity Express and Cisco Unity

Cisco Unity Express is not the same application as Cisco Unity, although both of them are in the Cisco family of voice messaging products, and the differences are:

- Cisco Unity is a Microsoft Windows-based application and uses the Microsoft Windows operating system's messaging infrastructure. Cisco Unity Express is a Linux-based application.
- Cisco Unity is usually deployed in a central location that can be networked with multiple sites. Cisco Unity Express Release 1.1.2 can be deployed in standalone locations that serve the local users.

However, a Cisco Unity Express system can be administered from any location that has IP connectivity with the router housing the Cisco Unity Express application. If several sites in a network use Cisco Unity Express, they can be administered individually from a single PC or server. The administrator opens a browser on a PC or server to the GUI at each site or opens a Telnet session to the CLI at each site.

- Cisco Unity supports 100 or more mailboxes and Cisco Unity Express supports 100 or fewer mailboxes.
- Cisco Unity has a larger set of features than does Cisco Unity Express Release 1.1.2.

Cisco Unity Express uses Cisco Unity Release 3.1 voice-mail prompt recordings and prompt flow, which provides the end user with the same voice-mail look-and-feel.

## Interactions Between Cisco Unity Express and Cisco CME

Cisco CME is the software that controls the telephony functions. Cisco CME resides on a router, which accepts incoming and outgoing calls to your network. Cisco CME contains a call agent, which decides where an incoming or outgoing call should be sent. Cisco CME has a database of information that contains such elements as the telephone hardware identifications, extension numbers associated with the telephones, users on the system, logins, routing destinations, call handling features, and other system-wide parameters.

Cisco Unity Express is an application that enhances Cisco CME by providing the voice messaging and automated attendant capabilities. The Cisco Unity Express module contains the voice mail and auto attendant software. During the system installation process, the installer inserts this module into the Cisco CME router. A Cisco Unity Express database contains information about the voice mailboxes, auto attendant prompts, and voice messages. The Cisco Unity Express and Cisco CME databases are synchronized to ensure that calls are handled correctly and voice messages are received and stored properly.

The integrated Cisco Unity Express and Cisco CME administration software allows you to configure the voice mail and auto attendant parameters and some of the Cisco CME parameters, such as extensions and telephones. As you go through the initialization and configuration procedures, be sure to save your data so that both databases have current information.

# Differences Between Cisco Unity Express and Cisco CME

Cisco Unity Express is not the same application as Cisco CME, although both of them are in the Cisco family of voice messaging products, and the differences are:

- Cisco CME requires a web administrator to configure the router and other system components. Cisco CME users and administrators are stored in the Cisco CME database. Cisco CME does not treat the web administrator as a telephone user.

Cisco Unity Express permits configured Cisco CME users to be copied into the Cisco Unity Express database. The Cisco CME administrator ID cannot be copied to the Cisco Unity Express database and, therefore, cannot be assigned as the administrator ID for Cisco Unity Express.



## Caution

Before starting the configuration using the GUI, the Cisco CME administrator must configure at least one telephone user on Cisco CME who will be copied to Cisco Unity Express during the initialization phase and designated as the Cisco Unity Express administrator. You need the Cisco Unity Express administrator's user ID and password to log back in to Cisco Unity Express GUI after the initialization process is completed.

- Cisco Unity Express allows only letters, numbers, and the characters underscore (\_), dot (.), and dash (-) in user IDs. Any Cisco CME user IDs containing other characters cannot be copied into the Cisco Unity Express database. User IDs must start with a letter.
- Spaces are not allowed in passwords. Acceptable password characters are lowercase letters a through z, uppercase letters A through Z, digits 0 through 9, and the following symbols: - , . + = \_ ! @ # \$ ^ \* ( ) ? / ~ < > & %
- In Release 1.0, user IDs and passwords are case sensitive.

## Supported Platforms

### Hardware Platforms

- Cisco 2600XM series routers
- Cisco 2691 router
- Cisco 2800 series routers
- Cisco 3700 series routers
- Cisco 3800 series routers
- Cisco Unity Express network module
- Cisco Unity Express advanced integration module

### Software Platforms

- Cisco IOS Release 12.3(4)T or a later release for the network module
- Cisco IOS Release 12.3(7)T or a later release for the AIM
- (GUI only) Microsoft Internet Explorer Version 6.0 or a later release
- (GUI only) Microsoft JScript 5.6.x or a later release
- Cisco CallManager Express 3.0 or a later release

# Restrictions

The following restrictions apply to Cisco Unity Express Release 1.1.2.

## System Functionality

- For the NM, only one administrator and four users may log in to the GUI simultaneously. For the AIM, only one administrator and two users may log in to the GUI simultaneously.
- Date and time cannot be set in the Cisco Unity Express software. Cisco Unity Express can be configured as a Network Time Protocol (NTP) client. Refer to your NTP server CLI for more information.
- Cisco Unity Express does not support language customization. Only one language is available, U.S. English. This language controls the telephone user interface (TUI) system prompts and greetings. The administrative interfaces (GUI and CLI) are available only in U.S. English. Cisco CallManager Express 3.0 controls the telephone displays, which may be available in multiple languages, and are independent of the Cisco Unity Express supported languages.

## Voice Mail Application

- Cisco Unity Express does not support voice-mail networking between different sites. Voice mail is local; users can leave a message with, forward a message to, and reply to a message from other local users.
- Cisco Unity Express does not support broadcast messaging.
- Cisco Unity Express does not support distribution lists.
- Cisco Unity Express supports two greetings per user, one standard greeting and one alternate greeting. The greetings' time is included in the user's allotted mailbox storage space.

## Hardware Limitations

- Only one Cisco Unity Express module per router chassis is permitted, regardless of the number of module slots in the chassis.
- The AIM cannot be installed in slot 0 of the Cisco 3745 router chassis.
- The NM's front panel Fast Ethernet 0 port is not used by the Cisco Unity Express applications and is disabled. The Fast Ethernet 1 port connects the Cisco Unity Express network module to the router and is the only active Fast Ethernet port on the network module.
- The hard disk on the NM cannot be replaced. If the network module's hard disk crashes, the network module must be replaced.
- Online insertion and removal (OIR) of the Cisco Unity Express NM is available only on the Cisco 3745 router. The replacement module must be the same type as the original module. OIR is not available for the AIM.



### Caution

---

If the network module or AIM flash memory card must be replaced, manually shut down the Cisco Unity Express application before removing the module from the chassis to prevent file corruption and data loss.

---

## Backup and Restore

- Scheduled backup and restore operations. The backup and restore procedures begin when you enter the appropriate command.

- Centralized message storage arrangement. The Cisco Unity Express backup files cannot be used or integrated with other message stores.
- Selective backup and restore. Only full backup and restore functions are available. Individual voice-mail messages or other specific data cannot be stored or retrieved.

**Other Restrictions**

- Cisco Unity Express is an embedded system and provides no access to the Linux system. Users cannot add other Linux-based applications to the Cisco Unity Express module.
- Releases 1.1 and 1.0 do not support managing and configuring using Simple Network Management Protocol (SNMP) except for hardware inventory.
- Releases 1.1 and 1.0 do not support Cisco Networking Services (CNS) or Subnetwork Access Protocol (SNAP) autoprovisioning.
- Releases 1.1 and 1.0 do not support CiscoWorks configmaker.

# Additional References

The following documents have information that may help you in administering the Cisco Unity Express applications.

Related Topic	Document Title
Cisco Unity Express documents	<ul style="list-style-type: none"> <li>• <a href="#">Cisco Unity Express GUI Administrator Guide for Cisco CallManager Express, Release 1.1.2</a> (this document)</li> <li>• <a href="#">Cisco Unity Express CLI Administrator Guide for Cisco CallManager Express, Release 1.1.2</a></li> <li>• <a href="#">Cisco Unity Express Script Editor Installation and Configuration Guide, Release 1.1.2</a></li> <li>• <a href="#">Cisco Unity Express GUI Administrator Guide for Cisco CallManager, Release 1.1.2</a></li> <li>• <a href="#">Cisco Unity Express CLI Administrator Guide for Cisco CallManager, Release 1.1.2</a></li> <li>• <a href="#">Cisco Unity Express Voice Mail System - Quick Start Guide, Release 1.1.2</a></li> <li>• <a href="#">Cisco Unity Express Product Description, Release 1.1.2</a></li> </ul>
Cisco module hardware installation	<ul style="list-style-type: none"> <li>• <a href="#">Cisco Network Modules Hardware Installation Guide, Chapter 22</a></li> <li>• <a href="#">Installing Advanced Integration Modules in Cisco 2600 Series, Cisco 3600 Series, and Cisco 3700 Series Routers</a></li> <li>• <a href="#">Advanced Integration Module Quick Start Guide</a></li> <li>• <a href="#">Replacing Compact Flash Memory on Cisco AIM-CUE Advanced Integration Modules</a></li> <li>• <a href="#">AIM-CUE Slot Restriction on Cisco 3745 Routers</a></li> </ul>
Cisco Unity Express software copyrights and licenses	<ul style="list-style-type: none"> <li>• “Software Copyrights and Licenses” on page xiv</li> </ul>
Technical Assistance Center support documentation for Cisco Unity Express	<a href="#">Technical Notes for Cisco Unity Express</a>
Cisco CallManager Express 3.0	<ul style="list-style-type: none"> <li>• <a href="#">Cisco CallManager Express System Administrator Guide 3.0</a></li> <li>• <a href="#">Cisco CallManager Express Command Reference 3.0</a></li> <li>• <a href="#">Cisco SRST System Administrator’s Guide Version 3.0</a></li> <li>• <a href="#">Integrating CiscoCallManager Express Versions 3.0 and 3.1 with Cisco Unity Express</a></li> </ul>
Cisco hardware platforms	<ul style="list-style-type: none"> <li>• <a href="#">Cisco 2600 Series Hardware Installation Guide</a></li> <li>• <a href="#">Cisco 2600 series hardware configuration notes</a></li> <li>• <a href="#">Voice features on Cisco 2600 series routers</a></li> <li>• <a href="#">Cisco 3700 Series Hardware Installation Guide</a></li> <li>• <a href="#">Cisco 3700 series hardware configuration notes</a></li> <li>• <a href="#">Software Configuration Guide</a></li> </ul>

## Related Cisco IOS Documents

Related Topic	Document Title
Cisco IOS configuration	<ul style="list-style-type: none"> <li>• <a href="#">Cisco IOS Debug Command Reference, Release 12.3T</a></li> <li>• <a href="#">Cisco IOS Voice Command Reference, Release 12.3T</a></li> </ul> <p><b>Note</b> For general voice configuration topics, refer to the <a href="#">Cisco IOS Voice Configuration Library, Release 12.3</a>.</p>
Cisco IOS configuration examples	<p>Cisco Systems Technologies website at <a href="http://cisco.com/en/US/tech/index.html">http://cisco.com/en/US/tech/index.html</a></p> <p><b>Note</b> From the website, choose a technology category and subsequent hierarchy of subcategories, then click <b>Technical Documentation &gt; Configuration Examples</b>.</p>
Cisco IOS Troubleshooting information	<a href="#">Cisco IOS Voice Troubleshooting and Monitoring Guide</a>

## RFCs

RFCs	Title
1305	<a href="#">Network Time Protocol (Version 3)</a>



## Configuring the System for the First Time

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This chapter describes the initial configuration process and ongoing configuration tasks, and contains the following sections:

- [Before You Start: Configuration Prerequisites, page 11](#)
- [Starting the Initialization Wizard, page 15](#)
- [Logging In and Out of Cisco Unity Express, page 32](#)
- [Navigating Through the Cisco Unity Express GUI Screens, page 35](#)
- [Sequence of Ongoing Configuration Tasks, page 47](#)



### Note

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You must use Microsoft Internet Explorer Version 6.0 or a later release as the web browser. The Netscape browser is not supported on Cisco Unity Express.

---

## Before You Start: Configuration Prerequisites

Before the Cisco Unity Express configuration can be started, the Cisco CallManager Express (CME) system must be installed. If you did not or are not performing the Cisco CME installation, contact the installer or other support personnel to ensure that the following procedures are completed:

1. Install all Cisco CME and Cisco Unity Express hardware and verify functionality.
  - Attach the telephones so that they register with the Cisco CME router.
  - Verify that the Cisco CME router is configured with Cisco IOS Release 12.3(4)T or a later release for the network module (NM) and Cisco IOS Release 12.3(7)T or a later release for the advanced integration module (AIM).
  - Install the Cisco Unity Express NM or AIM in the same router where Cisco CME is installed.
  - For the NM, verify that the Enable LED is lit.



### Caution

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If you are installing an AIM-CUE in your Cisco 3745 router, you must install it in the AIM slot labeled AIM1. Installing this AIM in the AIM slot labeled AIM0 of Cisco 3745 routers can damage the AIM.

---

**Note**

We highly recommend attaching an uninterruptible power supply (UPS) to the router housing the Cisco Unity Express module. Any reliable UPS unit provides continuous power to maintain the operation of the router and the Cisco Unity Express module. Consider the unit's capacity and run time because power consumption differs among Cisco platforms. Ideally, a UPS should include a signaling mechanism that directs the router to shut down Cisco Unity Express properly and then powers off the router.

Cisco IOS Release 12.3(4)T supports automatic switchover to the UPS device if the following configuration is added to the router:

```
line aux 0
privilege level 15
modem Dialin
autocommand service-module service-engine slot/0 shutdown no-confirm
```

where *slot* is the Cisco Unity Express module's slot number.

2. Install and verify Cisco CME software functionality.
  - a. You should be able to access the Cisco CME configuration web page.
  - b. Verify that the Cisco CME router flash memory has the following files, which control the functionality of the Cisco Unity Express GUI:
    - CiscoLogo.gif
    - Delete.gif
    - Plus.gif
    - Tab.gif
    - admin\_user.html
    - admin\_user.js
    - dom.js
    - downarrow.gif
    - ephone\_admin.html
    - logohome.gif
    - normal\_user.html
    - normal\_user.js
    - sxiconad.gif
    - telephony\_service.html
    - uparrow.gif
    - xml-test.html
    - xml.template
  - c. Configure the following path in Cisco CME configuration mode:
 

```
Router(config)# ip http path flash:
```

Verify the path with the **show run** command.

- d. To configure the **ip unnumbered** command on the service-engine interface, use the Cisco IOS software commands on the router to create a static route to the Cisco Unity Express module, for example:

```
ip route 0.0.0.0 0.0.0.0 91.91.19.1
ip route 10.3.6.128 255.255.255.255 Service-Engine1/0
```

In this example, 10.3.6.128 is the IP address of the Cisco Unity Express module and Service-Engine1/0 is the router slot hosting the Cisco Unity Express module.

- e. Verify that a SIP dial peer is configured to point to the Cisco Unity Express module, that it specifies G.711 U-law and SIP Notify for DTMF Relay, and VAD is turned off, for example:

```
dial-peer voice 6000 voip <----- SIP dial-peer pointing to Cisco Unity Express
destination-pattern 6...
session protocol sipv2
dtmf-relay sip-notify
session target ipv4:10.3.2.100 <---- Cisco Unity Express IP address
codec g711ulaw
no vad
```

Configure the appropriate number of SIP dial peers to support your dial plan.

- f. The FTP server that communicates with Cisco Unity Express must support passive FTP requests. To configure this functionality on the FTP server, refer to the FTP server documentation.
- g. Verify that a Cisco CME web administrator is configured with a user ID and password, for example:

```
telephony-service
.
.
.
web admin system name admin password user1
```

or

```
web admin system name admin secret 5 encrypted-password
```



**Note** If you plan to use the Cisco Unity Express graphical user interface (GUI) for configuration purposes, configure an administrator user ID with a password in the Cisco CME interface. You must log in to the GUI as this user. If no administrator user is created in Cisco CME, the administrator cannot proceed with the initialization wizard in the Cisco Unity Express GUI. In Release 1.1, an administrator is created during the installation procedure.

- h. Configure the telephones and users. You can create additional users and telephones later using the Cisco Unity Express CLI commands or GUI options. The CLI commands and GUI options create the telephone users in the Cisco CME database; use a synchronization CLI command or GUI option to copy the users and telephones into the Cisco Unity Express database.

Use the following sample ephone-dn and ephone configurations to configure the telephones and users manually:

```
ephone-dn 1 <---- ephone dn configuration for a user
number 8004
name User1
call-forward busy 6900
call-forward noan 6900 timeout 10
!
!
```

```
ephone-dn 20 <---- ephone dn configuration for a group
number 8801
name Salesgroup
call-forward busy 6900
call-forward noan 6900 timeout 10
!
!
```

- i. Configure the message waiting indicator (MWI) on and off extensions. Add the wildcard characters (.) to the DN's to represent the length of a telephone extension number. Cisco Unity Express requires these wildcards when importing the MWI DN's from Cisco CallManager Express during the initialization wizard. If the wildcard characters are not configured in Cisco CallManager Express, the DN's will not appear as available choices in the MWI extension field. For example:

```
ephone-dn 30 <---- ephone-dn configurations for MWI on
number 8000.... <---- valid MWI DN 4-digit extension
mwi on
!
!
ephone-dn 31 <---- ephone-dn configurations for MWI off
number 8001.... <---- valid MWI DN 4-digit extension
mwi off
!
!
!
ephone 1 <--- ephone configured for the ephone-dn configured above
username "admin1" password null
mac-address 0009.B7F7.556A
button 1:1 2:20 3:21 4:22 5:23
```

3. (Optional) If no users were created in the Cisco CME interface, create a list of all users, groups, and their extensions. Having this list eases the task of configuring many users and extensions.
4. (Optional) Create an alternate welcome message for the auto attendant application. A default welcome message comes with auto attendant. You can create a different message in a .wav file and install it as part of the auto attendant configuration. See [“Recording an Auto Attendant Greeting or Prompt File” on page 14](#) for more information.
5. (Optional) Customize the auto attendant prompt flow to meet your business requirements. See [“Configuring Auto Attendant Scripts” on page 15](#) for more information.
6. (Required) Record the IP address of the Cisco Unity Express module. Accessing the GUI to configure the system requires this IP address.

## 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 500 KB. After creating the file, use the GUI option **Voice Mail > Prompts** to copy the file into Cisco Unity Express. You will need the pathname to the prompt file.
- Use the GMS on the telephone user interface (TUI) to record the greeting or prompt. Dial the GMS telephone number and select the option to record a greeting. When finished recording, save the file. GMS automatically saves the file in Cisco Unity Express.

The GMS prompt filename has the format UserPrompt\_DateTime.wav, for example:

UserPrompt\_11152003144055.wav. You may want to use the 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.

## Configuring Auto Attendant Scripts

Cisco Unity Express provides a set of auto attendant prompts and a process, called a script, for handling callers' responses to the prompts. You can modify this script so that specific caller responses are handled in a different way. For example, callers can be directed to a remote operator if they call after business hours.

Use the Microsoft Windows software-based script editor software that comes with Cisco Unity Express to modify the script or create a new script. Refer to the *Cisco Unity Express Script Editor Installation and Configuration Guide* for guidelines and procedures.

The file cannot be larger than 1 MB.

After creating the script file, save the file on your PC. Use the CLI interface or the GUI option **Voice Mail > Scripts** to upload the script file to the Cisco Unity Express system.

## Starting the Initialization Wizard

After the hardware and software are installed, start the Cisco Unity Express GUI. The GUI allows you to configure users, voice mailboxes, and other features of voice mail and auto attendant.

This section describes the procedures and information required to use the initialization wizard, and contains the following sections:

- [Overview of the Initialization Wizard, page 15](#)
- [Configuration Data Required for the Initialization Wizard, page 16](#)
- [Running the Initialization Wizard, page 18](#)

## Overview of the Initialization Wizard

The initialization wizard is a software tool with a series of screens that help you configure Cisco Unity Express. The wizard screen appears the first time you log in to the GUI. You have the option to start the wizard or to wait until a later time.

Some of the information shown on the wizard screens comes from system parameters configured during the installation of the Cisco CME system. This includes:

- Telephone users and their extensions
- MWI on and off telephone numbers.

The remaining wizard information consists of default values calculated by Cisco Unity Express or values you must supply, which includes:

- Users who should be assigned mailboxes
- Primary extension for each user, especially for users who have more than one extension
- Users who will be assigned administrative privileges
- Size of a new mailbox
- Maximum length of a voice-mail message
- Length of time a message can be stored on the system
- Whether passwords and personal identification numbers (PINs) are required for new users

- Telephone numbers for accessing the voice-mail system, the auto attendant system, the operator, and the GMS

These values are described in more detail in the next section, “[Configuration Data Required for the Initialization Wizard](#)”.

When you have entered all the data required in the wizard screens, the system updates the Cisco Unity Express and Cisco CME databases with this new information. At that point, you can log in to the system and add or modify the information for any user, mailbox, or system component.

## Configuration Data Required for the Initialization Wizard

A series of screens appear that require the following information:

- (Required) To start the initialization wizard, you need the IP address of the module that contains the Cisco Unity Express application.
- (Required) Your Cisco CME web administrator user name and password

Cisco CME requires an administrator to configure the router and other system components. The system installer creates a user ID and password that is used to log in to the system and configure the Cisco CME hardware and software parameters.

Cisco CME does not treat this administrator as a telephone user.

The Cisco CME administrator cannot configure Cisco Unity Express. During the post-installation process, the system installer creates a user ID and password as an administrator who will log in to the Cisco Unity Express software to configure the Cisco Unity Express applications and other parameters.

- (Required) The name, user ID, and extension number for each telephone user, whether each user will require a voice mailbox, and which users will be identified as administrators. Administrators have full access to all the voice mail and auto attendant parameters. Non-administrative voice-mail users have access only to their profile information.

Some users may have been configured when the Cisco CME software was installed. You may copy some or all of these users in to the Cisco Unity Express database.

Some users or extensions may not require a voice mailbox. For example, a lobby extension, a conference room extension, or a visitor office extension should not be assigned a mailbox. Review the purpose of each extension carefully so that mailbox storage space is used efficiently.

- (Required) The policy for handling passwords and personal identification numbers (PINs)



**Note** You must determine the level of security for your voice-mail system. Requiring a new user to have a password to access the GUI and a PIN to access their voice mailbox helps discourage unauthorized personnel from gaining entry to the system or to another user’s mailbox. However, not assigning a password and PIN makes it easier for a user to enter the system or mailbox the first time.

Decide whether Cisco Unity Express should generate a random password and a random PIN for each new user or if the password and PIN should be blank.

In either case, each new user and each user copied from Cisco CME is required to change the password and the PIN when logging in to the system for the first time.

- (Optional) The default language that the user hears when accessing the voice-mail system  
Release 1.0 supports only U.S. English.

- (Optional) The default mailbox size  
The mailbox size represents the total number of seconds from all messages stored in a user's box. Cisco Unity Express calculates a default value based on the maximum number of mailboxes and the maximum storage space on the system. You can change the size value for individual users who require more or less storage space than the default.
- (Optional) The default message length  
The message size represents the maximum number of seconds for any message stored in a voice mailbox. Callers who try to leave a longer message will be cut off when the maximum time is reached. Cisco Unity Express calculates a default value based on the default storage space for a mailbox. You can change the length value for individual users who require longer messages than the default.
- (Optional) The default message storage time  
The message storage time is the number of days that the system will save old messages. As a message approaches this storage time, the system alerts the user to resave or delete the message. If the user takes no action when the maximum storage time is reached, the system deletes the message.
- (Required) Telephone numbers for:
  - Voice mail system  
The voice-mail system telephone number is the number the users dial to retrieve their voice messages.
  - Voice mail operator  
The voice-mail operator number is the number that voice-mail users dial to contact the voice-mail operator.
  - Auto attendant  
The auto attendant telephone number is the number callers dial to reach the auto attendant system.
  - Auto Attendant Operator extension  
The operator extension number is the extension the system dials when callers press "0" to reach the operator from the auto attendant system.
  - Greeting management number  
Administrators dial the greeting management number to access the GMS to modify or create prompts and greetings.

**Caution**

The voice-mail telephone number, auto attendant operator's telephone number, and GMS number should be unique values. If they are not, then a user trying to call the operator while in the voice-mail system will be directed back to the voice-mail system or the GMS. Also, an outside caller who presses the button for the operator might be connected to the voice-mail system or the GMS.

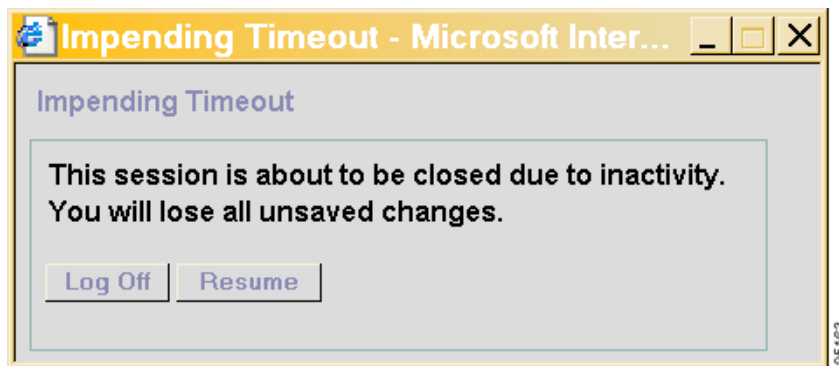
- (Optional) Message waiting indicator (MWI) on and off numbers  
The MWI on and off telephone numbers are dialed with an extension number to turn the extension's message waiting light on or off. These numbers appear on an Init Wizard screen if they were configured during the Cisco CME installation. You may change the numbers during the initialization procedure or at a later time.

## Running the Initialization Wizard

Be sure to have the information outlined in [“Configuration Data Required for the Initialization Wizard”](#) on page 16 before starting the wizard.

### Activity Timer

The system has a timer that checks if the GUI is being used. If the GUI has been started but no screens or fields are accessed for a while, the system displays the following screen shortly before the timer expires:



If you do not click **Resume**, the system will cancel your activity and log you off the GUI. Data that was not saved is lost. Be sure to have all the appropriate configuration information available while you run the Init Wizard.

### Buttons on the Initialization Wizard Screens

[Table 6](#) describes the buttons used only on the initialization wizard screens. None of the other GUI screens use them.

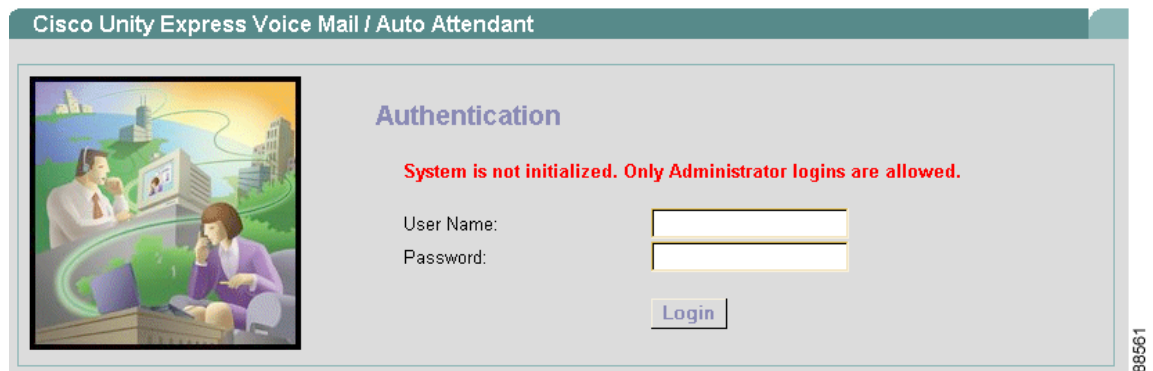
**Table 6** Initialization Wizard Screen Buttons

Button	Purpose
<b>Back</b>	Click to return to a previous screen.
<b>Next</b>	Click to move to the next screen.
<b>Finish</b>	Click to end the initialization procedure and save the data to the databases.
<b>Cancel</b>	Click to stop the initialization procedure. Your data entries will not be saved.
<b>Help</b>	Click to open a help window with information about the fields on the screen.

### Starting the Initialization Wizard

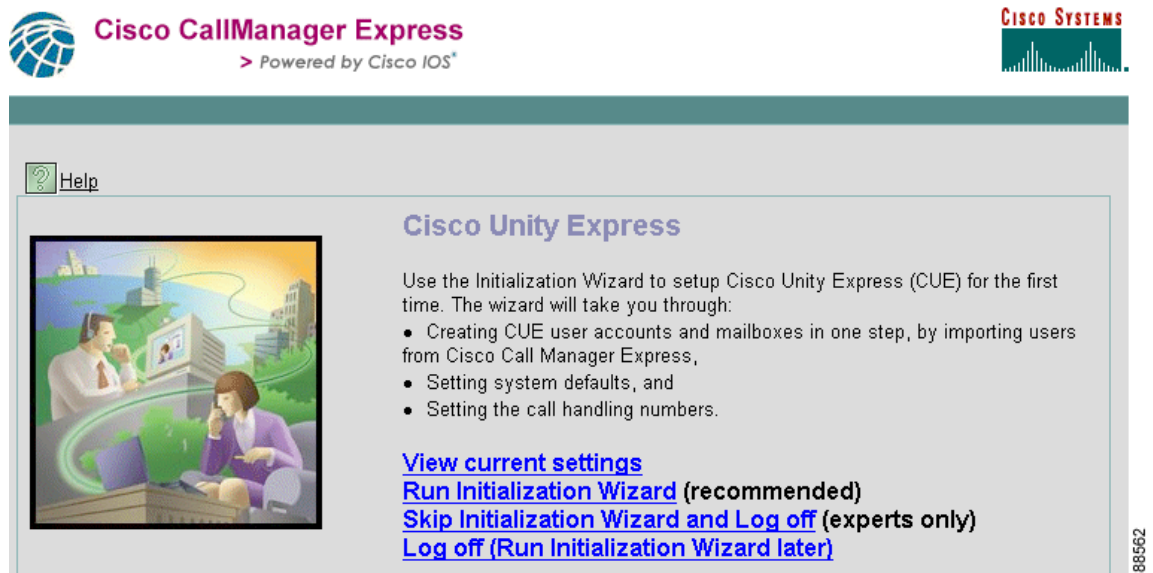
Follow these steps to begin the initialization wizard:

- Step 1** On your PC, open your web browser (Microsoft Internet Explorer Version 6.0 or later is preferred).
- Step 2** In the **Address** box, enter **http://a.b.c.d/Web**, where **a.b.c.d** is the IP address of the module. Be sure to enter **Web** with upper- and lowercase letters as shown here.
- The **Authentication** screen appears:



- Step 3** In the **User Name** field, enter the user ID for the Cisco CME web administrator.
- Step 4** Tab to or click the **Password** field and enter the password for the Cisco CME web administrator. The password is case-sensitive; be sure to type the password with correct upper- and lowercase letters. Asterisks (\*) will appear for each character in the password.
- Step 5** Click **Login**.

The **Cisco Unity Express** screen appears:



Three options are available from this screen:

- **View current settings**—Use this option to display several system parameters that were defined when the Cisco CME software was installed. See Step 6 below.

- **Run Initialization Wizard**—Use this option to initiate the installation wizard configuration procedure. See Step 8 below.
- **Skip Initialization Wizard and Log off**—Use this option only if you are using the Cisco Unity Express CLI command interface to configure the system parameters.
- **Log off (Run Initialization Wizard later)**—Use this option to log off the system without starting the initialization wizard. You may run the initialization wizard at a later time.

**Step 6** To display the current settings for system parameters, click **View current settings**.

The **Current Settings** screen appears:

Parameter	Value
Language:	English (United States)
Mailbox Size:	3000 seconds
Maximum Caller Message Size:	60 seconds
Message Expiry Time:	30 days
Voice Mail Number:	
Auto Attendant Access Number:	
Voice Mail Operator Extension:	0
Auto Attendant Operator Extension:	0
Greeting Management Call-in number:	
MWI on Number:	8000
MWI off Number:	8001

These values were configured during the Cisco CME application installation. They cannot be changed from this screen. Run the initialization wizard to change the values.

**Step 7** Click **Cancel** to close this screen. The **Cisco Unity Express** screen appears again.

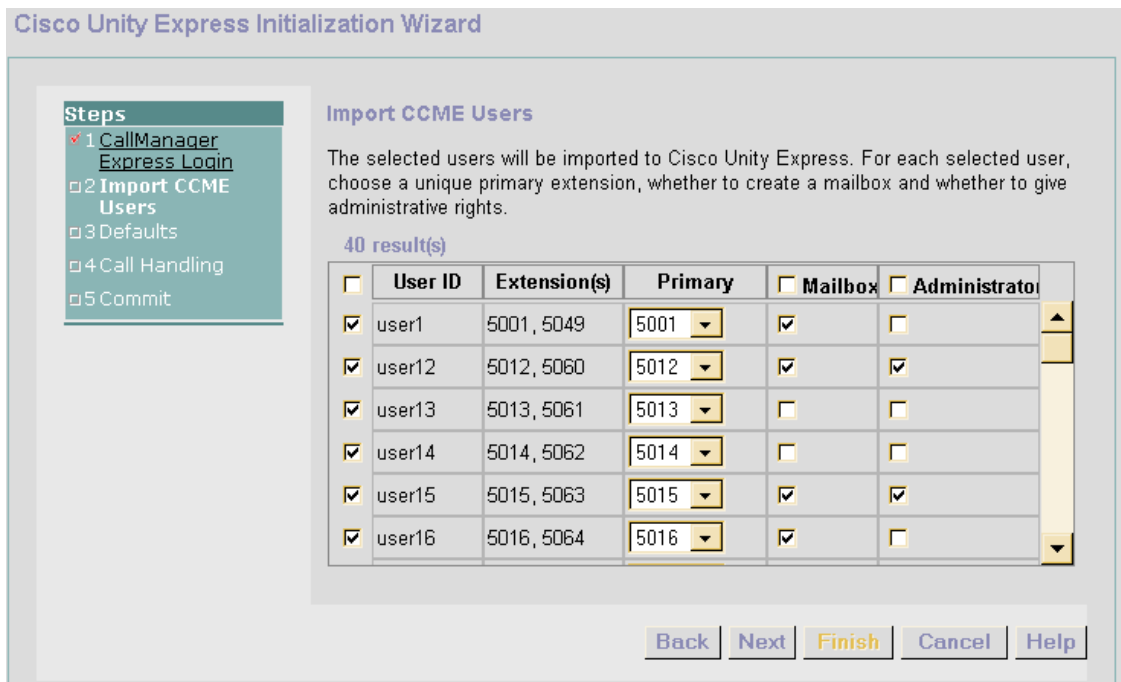
**Step 8** To start the initialization wizard, click **Run Initialization Wizard**.

The **CallManager Express Login** screen appears:

The screenshot shows the 'Cisco Unity Express Initialization Wizard' window. On the left, a 'Steps' sidebar lists five steps: 1 CallManager Express Login (highlighted), 2 Import CCME Users, 3 Defaults, 4 Call Handling, and 5 Commit. The main area is titled 'CallManager Express Login' and contains the following text: 'Enter the details of the Cisco CallManager Express that Cisco Unity Express will connect to. The user name and password will be used to authenticate while retrieving information from the Cisco CallManager Express.' Below this text are three input fields: 'Hostname:' with the value '10.100.6.9', 'User Name \*:', and 'Password \*:'. A red asterisk legend at the bottom indicates that '\*' indicates a mandatory field. At the bottom right, there are five buttons: 'Back', 'Next', 'Finish', 'Cancel', and 'Help'. The number '103079' is printed vertically on the right edge of the window.

- Step 9** The IP address of the CallManager Express router appears in the **Hostname** field. This value was configured during the CallManager Express installation and cannot be changed here.
- Step 10** In the **User Name** field, enter the Cisco CME web administrator user ID.
- Step 11** In the **Password** field, enter the Cisco CME web administrator password.
- Step 12** Click **Next**.

The **Import CCME Users** screen appears:



This screen displays any users who were configured when the Cisco CME software was installed. You can copy any or all of those users in to the Cisco Unity Express database. A checkmark automatically appears next to each user name.

Table 7 describes the columns on this screen:

**Table 7** Import Users Screen Columns

Column	Description
<b>User ID</b>	ID of the telephone user.
<b>Extension(s)</b>	Extension or extensions assigned to the user.
<b>Primary</b>	User's extension that should be assigned to the voice-mailbox.
<b>Mailbox</b>	Option to create a mailbox for the user.
<b>Administrator</b>	Option to assign one or more users the permission to configure the parameters for the Cisco Unity Express system.

**Step 13** Do one of the following:

- If no users are displayed, go to [Step 18](#). Configure users after the initialization process is completed.
- If any users are listed, go to [Step 14](#).

**Step 14** All the users in the list will be copied to the Cisco Unity Express database unless you remove the checkmarks next to the user IDs. In the column to the left of the users' names, do one of the following:

- To copy all the users in the list to the Cisco Unity Express database, leave the checkmarks as they are and go to [Step 15](#).

- To remove a checkmark, click the box next to each user ID that should not be copied to the Cisco Unity Express database. Users who are not in the Cisco Unity Express database will not have a voice mailbox.

**Step 15** In the **Primary** column, use the drop-down menu to select a primary extension for that user.

The primary extension is the mailbox for saving and retrieving voice-mail messages. If no primary extension is designated for a user, that user cannot receive or retrieve voice-mail messages.

In this field, **None** means that none of the displayed extensions for the user are the primary extension. You can designate a mailbox for this user now but the user cannot access it until you configure the user's primary extension at a later time.

**Step 16** In the **Mailbox** column, do one of the following:

- To create a mailbox for all users, click the box next to **Mailbox**. This places a check mark in each user's box in the column. Cisco Unity Express creates the mailbox when the initialization process is complete.



---

**Note** Clicking this box creates a mailbox for all users displayed in the list. If you selected specific users in [Step 14](#), do not click this box.

---

- To create a mailbox for specific users, click the box in the **Mailbox** column for each user who should have a mailbox.

**Step 17** In the **Administrator** column, do one of the following:



---

**Note** Administrators have access to all system configuration and maintenance capabilities.

---

- To allow all users to configure the Cisco Unity Express system, click the box next to **Administrator**. If you selected specific users in [Step 14](#), do not click this box.
- To allow specific users to configure the system, click the box in the **Administrator** column next to each user who should have this permission.

**Step 18** Click **Next**.

The **Defaults** screen appears:

The values shown on this screen are Cisco Unity Express default values. These affect all users and mailboxes in the voice-mail system.

**Step 19** The **Language** field indicates the language used for all voice-mail system messages and prompts heard by the telephone user. In Release 1.1 and earlier, only U.S. English is available.

**Step 20** In the **Password & PIN options** fields, do the following:



**Caution**

You must determine the level of security for your voice-mail system. Requiring a new user to have a password to access the GUI and a PIN to access the voice mailbox helps discourage unauthorized personnel from gaining entry to the system or to another user's mailbox. However, not assigning a password and PIN makes it easier for a user to enter the system or mailbox the first time. Decide whether Cisco Unity Express should generate a random password and a random PIN for each new user or if the password and PIN should be blank. In either case, the user is required to change the password and the PIN when logging in to the system for the first time.

- The default is to generate a random password for each user. To leave the password blank for all new users, click the button next to **Blank password**.
- The default is to generate a random PIN for each user. To leave the PIN blank for all new users, click the button next to **Blank PIN**.

The values in the next three fields are automatically assigned to all new mailboxes.

**Step 21** In the **Mailbox Size** field, enter the maximum number of seconds of stored messages allowed for each mailbox.

**Step 22** In the **Maximum Caller Message Size** field, enter the number of seconds for the maximum length of any message stored in the voice-mail system.

**Step 23** In the **Message Expiry Time** field, enter the number of days that old messages are stored. When a message has been stored for this length of time, the user can resave it or delete it.

**Step 24** Click **Next**.

The **Call Handling** screen appears:

**Cisco Unity Express Initialization Wizard**

**Steps**

- 1 CallManager Express Login
- 2 Import CCME Users
- 3 Defaults
- 4 **Call Handling**
- 5 Commit

**Call Handling**

Enter the Call in Numbers for Voice Mail, Auto Attendant and the Greeting Management System.

Voice Mail Number \*:

Voice Mail Operator Extension \*:

Auto Attendant Access Number:

Auto Attendant Operator Extension:

Greeting Management Number:

MWI on Number :

MWI off Number :

\* indicates a mandatory field

[Back](#) [Next](#) [Finish](#) [Cancel](#) [Help](#)

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**Caution**

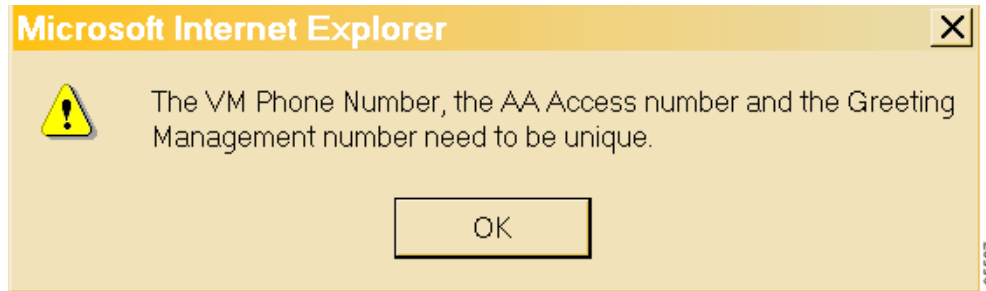
The **Voice Mail Number** field, **Auto Attendant Access Number** field, and **Greeting Management Number** field should contain different values. If they do not, then a user trying to call the operator while in the voice-mail system will be directed back to the voice-mail system or the GMS. Also, an outside caller trying to get to the operator will be connected to the voice-mail system or the GMS.

- Step 25** In the **Voice Mail Number** field, enter the telephone number that users dial to retrieve their voice messages. The telephone number should not have spaces, dashes, or periods.
- Step 26** In the **Voice Mail Operator Extension** field, enter the extension that voice-mail users dial to reach the voice-mail operator.
- Step 27** (Optional) In the **Auto Attendant Access Number** field, enter the telephone number that callers dial to access the default auto attendant.
- Step 28** (Optional) In the **Auto Attendant Operator Extension** field, enter the telephone extension for the operator. The auto attendant application transfers the caller to this extension when the caller presses “0” for the operator.
- Step 29** (Optional) In the **Greeting Management Number** field, enter the telephone number or extension that administrators dial to access the GMS.
- Step 30** (Optional) The **MWI on Number** field is optional. To change this value, enter a different extension. The system uses this extension together with the user’s extension to turn on the user’s MWI light.

**Step 31** (Optional) The **MWI off Number** field is optional. To change this value, enter a different extension. The system uses this extension together with the user's extension to turn off the user's MWI light.

**Step 32** Click **Next**.

If any two of the **Voice Mail Number**, **Auto Attendant Access Number**, and **Greeting Management Number** fields have the same number, an error message appears:



**Step 33** Click **OK** and repeat [Step 25](#) to [Step 32](#).

The first of two **Commit** screens appears:



This screen displays the current values of the initialization parameters. Use the scrollbar to view the other parameters:

Cisco Unity Express Initialization Wizard

**Steps**

- ✓ 1 CallManager Express Login
- ✓ 2 Import CCME Users
- ✓ 3 Defaults
- ✓ 4 Call Handling
- 5 Commit

**Commit**

You have chosen to set/add:

Mailbox Size	3000	▲
Maximum Caller Message Size	60	
Message Expiry Time	30	
Voice Mail Number	5000	
Auto Attendant Access Number	122255501500	
Voice Mail Operator Extension	1000	
Auto Attendant Operator Extension	8000	
Greeting Management Number	1111	
MWI on Number	2222....	
MWI off Number	2221....	▼

Click on Finish to commit the initialization. **Note:** This operation is not reversible.

Finally, save to startup configuration (will take a few minutes more).

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At this point, none of these values has been saved to the Cisco Unity Express database.

- Step 34** If any value is not correct, click **Back** to return to the appropriate screen and change the value.
- Step 35** If all the values are correct, click the box next to **Finally** to save the values.

MWI off Number  ▼

Click on Finish to commit the initialization. **Note:** This operation is not reversible.

Finally, save to startup configuration (will take a few minutes more).

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- Step 36** Click **Finish** to complete the initialization.

The default values are stored in the Cisco Unity Express database.



**Note** You can change any of these parameters by using other menu options described in [“Navigating Through the Cisco Unity Express GUI Screens” on page 35](#).

The **Initialization Wizard Status** screen appears:



Auto-generated authentication information:			
User ID	Password	PIN	
user1	ihh920653	2771	▲
user12	sgr295351	2155	
user13	bep236849	1066	
user14	qxo211142	3804	
user15	afi262899	7348	
user16	cla490404	2741	
user18	idw377564	3982	
user19	xtl891674	8745	▼

<b>Defaults:</b>	Updated
<b>User Creation:</b>	40 Success
<b>Mailbox Creation:</b>	14 Success
<b>Voicemail application creation:</b>	Success
<b>Auto Attendant application creation:</b>	Success
<b>Greeting Management application creation:</b>	Success
<b>MWI application creation:</b>	Success
<b>IOS CLI update:</b>	Success
<b>Save to startup configuration:</b>	Success

[Logout](#)

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Table 8 describes the fields on this screen.

**Table 8** Initialization Wizard Status Screen Fields

Field	Description
<b>User ID</b>	Login ID of each user copied from the Cisco CallManager Express database.
<b>Password</b>	Password generated for each user ID. If you selected <b>Blank Password</b> in the <b>Defaults</b> screen, this column is blank.
<b>PIN</b>	PIN generated for each user ID. If you selected <b>Blank PIN</b> in the <b>Defaults</b> screen, this column is blank.
<b>Defaults</b>	Status of mailbox size, message length, message expiration time, password and PIN generation, and MWI on and off numbers.
<b>User Creation</b>	Status of creating the selected Cisco CME users in the Cisco Unity Express database.
<b>Mailbox Creation</b>	Status of creating voice mailboxes for the selected users.

**Table 8** Initialization Wizard Status Screen Fields (continued)

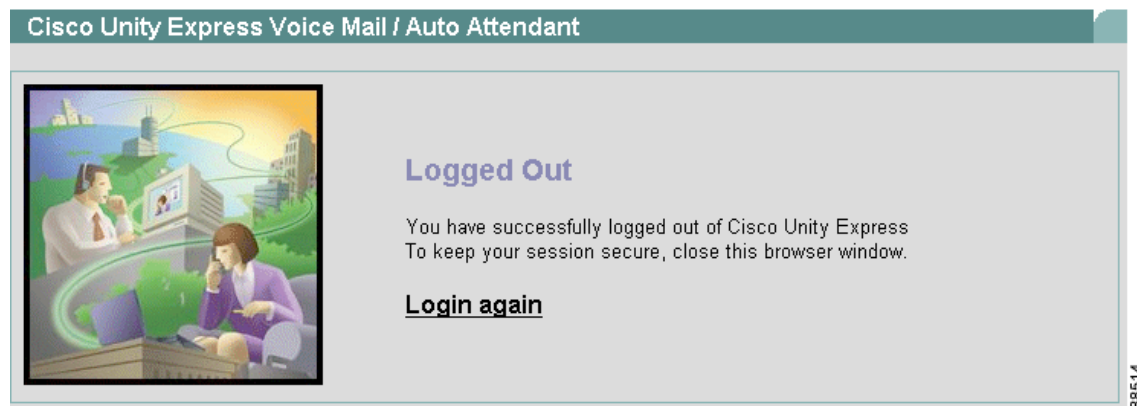
Field	Description
<b>Voicemail application creation</b>	Status of initializing the voice-mail system and storing the voice-mail system telephone number.
<b>Auto Attendant application creation</b>	Status of initializing the default auto attendant application and storing the auto attendant telephone number.
<b>Greeting Management application creation</b>	Status of initializing the GMS application and storing the GMS telephone number.
<b>MWI application creation</b>	Status of initializing the MWI application and storing the MWI extension numbers.
<b>IOS CLI update</b>	Status of updating the corresponding Cisco IOS CLI commands with the options and values entered in the initialization wizard fields.
<b>Save to startup configuration</b>	Status of saving the options and values entered in the initialization wizard fields to the startup configuration database.

**Note**

If **Failed** appears in any of the status fields, contact the person who installed your system for assistance.

- Step 37** Write down the user IDs and passwords for the users. Keep them in a secure place.
- Use the administrator's user ID and password to log back in to Cisco Unity Express.
  - Give these user IDs and passwords to the users so they can log in to their voice mailboxes.
- Step 38** Click **Logout** to exit the initialization wizard.

The **Logout** screen appears:



- Step 39** Do one of the following:
- Click **Login again** to log in to the administration screens. See “[Logging In for the First Time](#)” on [page 30](#) to change your password and to start Cisco Unity Express.
  - Close the browser window. Log in at a later time to change your password.

## Logging In for the First Time

Use this procedure the first time you log in to the voice-mail system. The system asks you to create a new password.

### Prerequisites

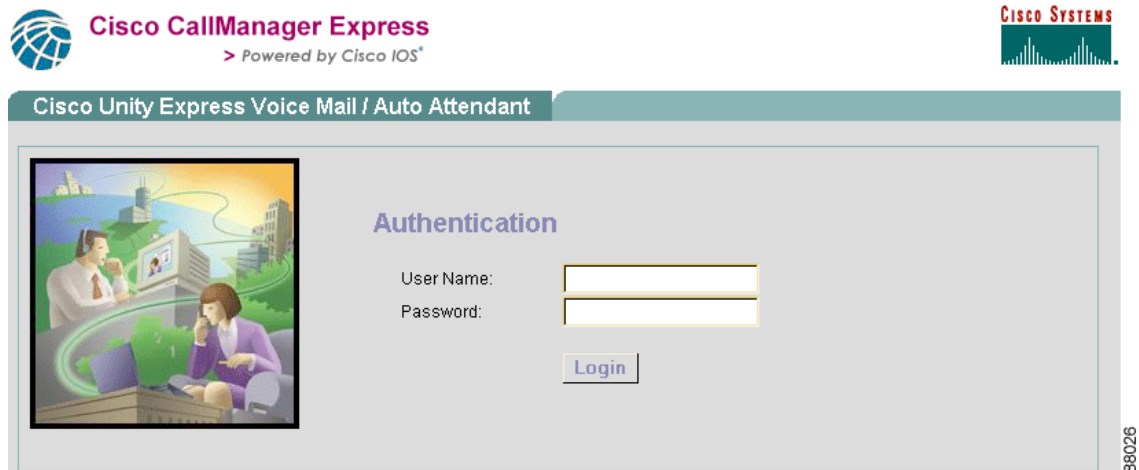
You will need the following information to log in to Cisco Unity Express for the first time:

- IP address of the Cisco Unity Express module
- If you or another administrator selected the random password generation option during the initialization procedure, you need the random password generated for you by the system. If the blank password option was selected, you do not need a password to access the system.
- A new password, 3 to 21 characters in length, comprised of letters, numbers, and the special characters underscore (\_), dot (.), and dash (-). Spaces are not allowed in the password.

### Logging In

Follow these steps to log in for the first time:

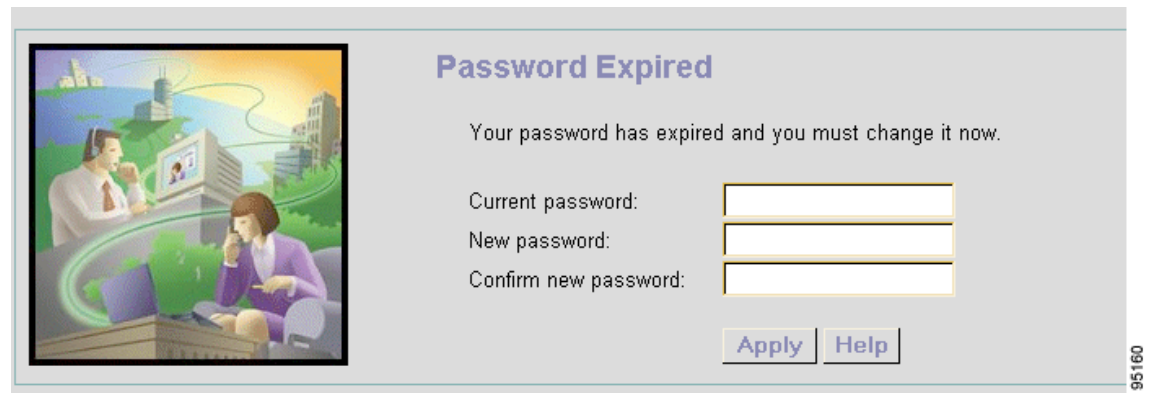
- Step 1** Open your browser and enter **http://a.b.c.d/Web**, where **a.b.c.d** is the IP address of the Cisco Unity Express module. Be sure to enter **Web** with upper- and lowercase letters as shown here. The **Authentication** screen appears:



This screen verifies that the user trying to log in is configured on the Cisco Unity Express system.

- Step 2** In the **User Name** field, enter the same user ID that you used for the initialization wizard.
- Step 3** Do one of the following:
- If random passwords are generated by the system, tab to or click the **Password** field and enter the password that was generated for you during the initialization procedure.
  - If random passwords were not generated during the initialization process, go to Step 4.
- Step 4** Click **LOGIN**.

If the user ID and password are correct, the **Password Expired** screen appears:



**Step 5** Do one of the following:

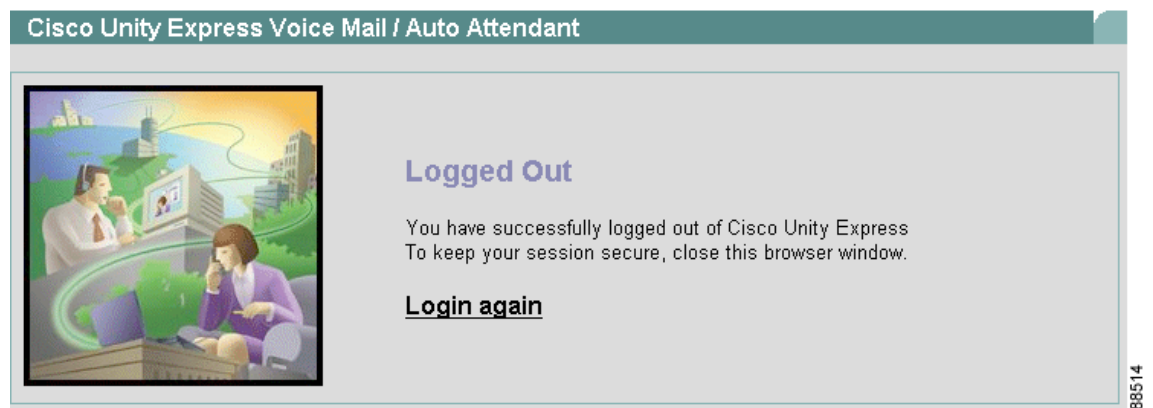
- If you have a randomly generated password, enter it in the **Current password** field.
- If random passwords were not generated during the initialization process, go to Step 6.

**Step 6** In the **New password** field, enter your new password. Be sure to type the upper- and lowercase letters carefully.

**Step 7** In the **Confirm new password** field, retype the password from Step 6.

**Step 8** Click **Apply**.

The **Logged Out** screen appears:



**Step 9** Click **Login again** to re-enter the system. Use your new password to access the GUI screens.

## What to Do Next

After logging in to the system, see [“Navigating Through the Cisco Unity Express GUI Screens”](#) section on page 35.

# Logging In and Out of Cisco Unity Express

Logging in and out of Cisco Unity Express is very straightforward.



**Note** If this is the first time you are logging in to the system, see [“Logging In for the First Time” on page 30.](#)

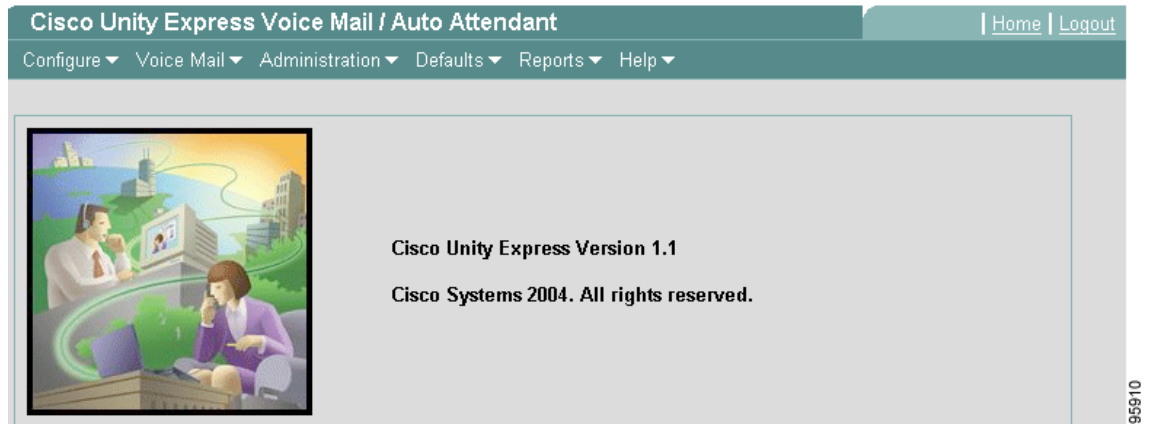
## Logging In to Cisco Unity Express

Follow these steps to log in to Cisco Unity Express:

- Step 1** Open your browser and enter **http://a.b.c.d/Web**, where **a.b.c.d** is the IP address of the Cisco Unity Express module. Be sure to enter **Web** with upper- and lowercase letters as shown here. The **Authentication** screen appears:

- Step 2** In the **User Name** field, enter your user ID.
- Step 3** In the **Password** field, enter your password. The password is case-sensitive; be sure to type the password with correct upper- and lowercase letters.
- Step 4** Click **LOGIN**.

If the user ID and password were entered correctly, the Home screen appears:



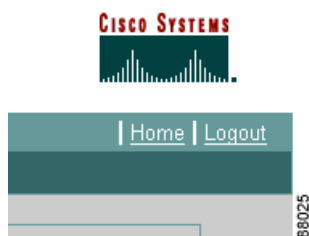
All voice-mail administration activity uses the menus on this screen. See [“Navigating Through the Cisco Unity Express GUI Screens”](#) on page 35 for a description of the different menus.

## Logging Out of Cisco Unity Express

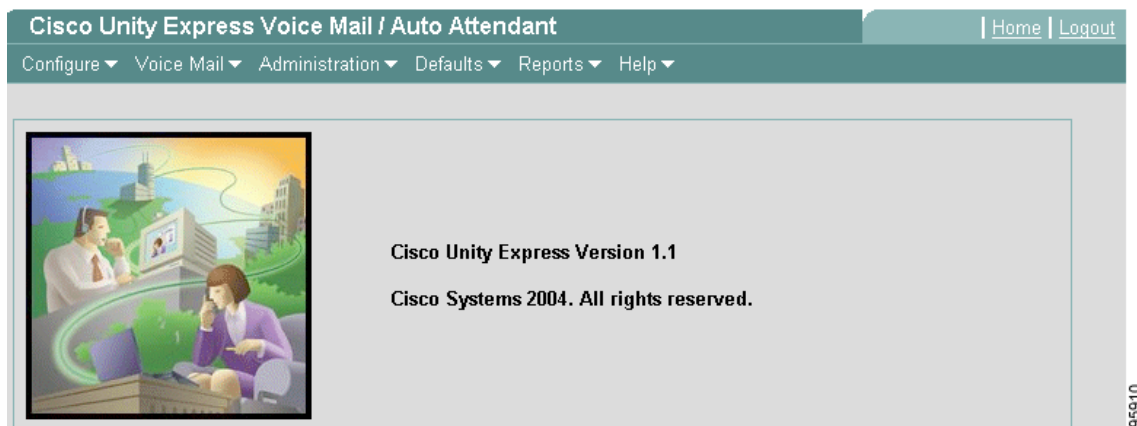
Log out of Cisco Unity Express when you finish your current set of tasks so that unauthorized personnel will not have access to the administration functions.

Follow these steps to log out of Cisco Unity Express:

- Step 1** Before logging out of the system, save changes to the screens on which you were working. Logging out does not automatically save new field entries.
- Step 2** When you are ready to log out of Cisco Unity Express, go to the upper right corner of the Home screen and click **Logout**.



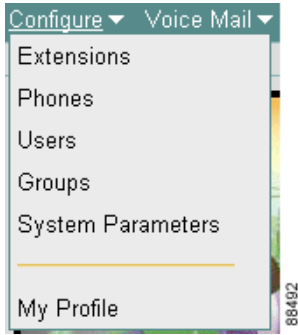
The **Logout** screen appears:



- Step 3** Do one of the following:
- Click **Login again** to re-enter the administration screens.
  - Close the browser window.

# Navigating Through the Cisco Unity Express GUI Screens

The voice-mail software groups the administrative tasks on a main toolbar that includes several options, each with drop-down menus. Each of the menus lead you to screens where data can be selected or entered. For example:






Clicking one of these options leads you to a screen where data can be selected. For example:



Clicking on **Add** brings up a screen where data can be entered. For example:

**Add a New User**

 Add  Cancel  Help

User ID \*:

First Name \*:


Last Name \*:

Nick Name \*:

Display Name\*:

Primary E.164 Number:

Associated Phone:  [Add/Edit](#) [Remove](#)

Primary Extension:  None  Other:  

Language:

Password options:

Password:

Confirm Password:

PIN options:

PIN:

Confirm PIN:

Move to a fill-in field with the mouse pointer and left-click in the field, or use the **Tab** key on your keyboard.

These screens have icons that help with the task activity, such as saving data, adding or deleting an item, or finding a name or number. See [“Cisco Unity Express Icons” on page 43](#) for a description of the icons.

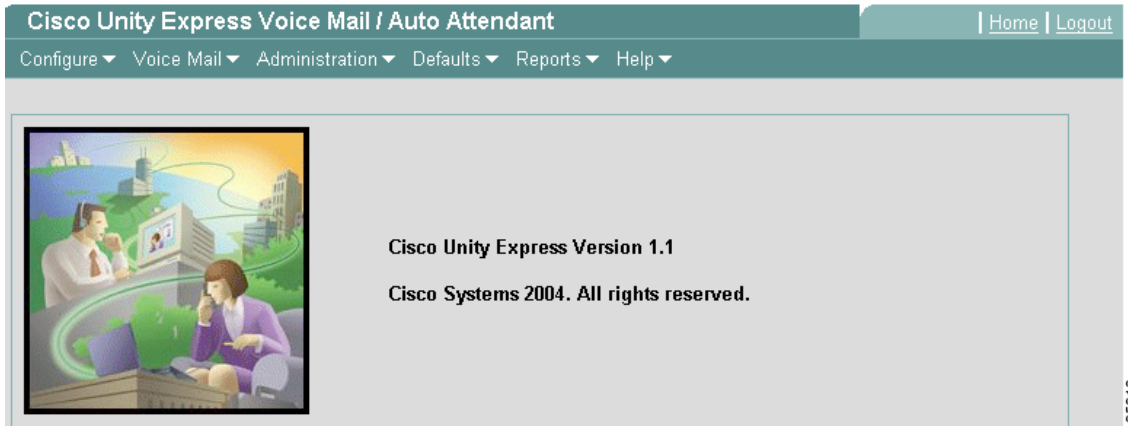
After reviewing the icons, continue with [“Sequence of Ongoing Configuration Tasks” on page 47](#).

# Cisco Unity Express Screens and Menus

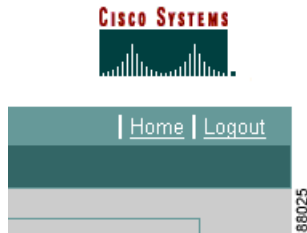
The menus and icons are described in this section.

## Home Screen

The Home screen appears when you first log in to Cisco Unity Express.



You can also access this screen by clicking **Home** in the upper right corner of any Cisco Unity Express screen.



## Configure Menu

The Configure Menu appears when you click **Configure** on the Home screen.

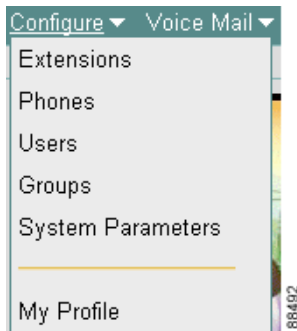


Table 9 describes the options on the Configure Menu:

**Table 9 Configuration Menu Options**

Menu Option	Description
Extensions	Add, modify, or delete an extension for a user.
Phones	Add, modify, or delete a telephone. Assign a telephone to an extension.
Users	Add, modify, or delete a user. Assign one or more extensions to a user.
Groups	Add, modify, or delete a group of users. Assign at least one user as the group owner.
System Parameters	Modify system-wide parameters. Many of these values were configured during Cisco CME installation.
My Profile	Modify your name as it appears on other telephone displays, your password, and your PIN.

## Voice Mail Menu

The Voice Mail Menu appears when you click **Voice Mail** on the Home screen.

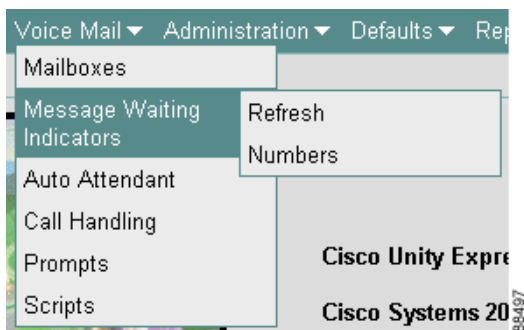


Table 10 describes the options on the Configure Menu:

**Table 10** Voice Mail Menu Options

Menu Option	Description
Mailboxes	Add, modify, or delete a voice mailbox. Assign the mailbox to a user or to a group. Not all users or groups need to have an assigned voice mailbox.
Message Waiting Indicators	Refresh the Message Waiting Indicators (MWIs) for one or more extensions or users. Modify the MWI On and MWI Off extensions, if necessary.
Auto Attendant	Configure the auto attendant application, including the prerecorded welcome, or greeting, prompt, and add custom auto attendants.
Call Handling	Modify the telephone number for dialing the voice-mail application, the voice-mail operator extension, and the maximum number of concurrent calls the voice-mail application can handle.
Prompts	Configure prerecorded customized auto attendant prompts.
Scripts	Configure customized auto attendant scripts that have been created using the Cisco Unity Express script editor.

## Administration Menu

The Administration Menu appears when you click **Administration** on the Home screen.

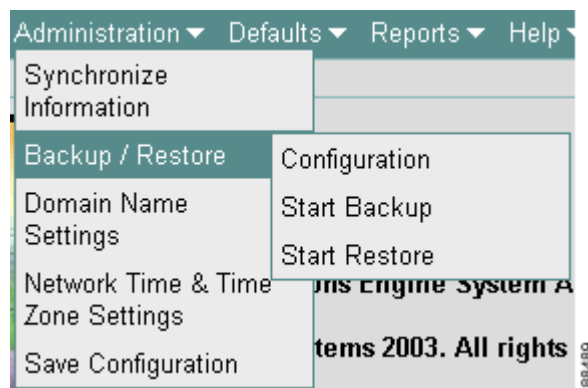


Table 11 describes the options on the Administration Menu:

**Table 11** Administration Menu Options

Menu Option	Description
Synchronize Information	Align the information in the Cisco Unity Express and Cisco $\Delta$ CME databases.
Backup/Restore	Save Cisco Unity Express data and configuration changes to other locations, such as the FTP server. Restore saved files as needed.

**Table 11 Administration Menu Options (continued)**

Menu Option	Description
Domain Name Settings	Modify the hostname, domain name, and DNS server.
Network Time & Time Zone Settings	Add or delete an NTP server, which is used for the date and time on Cisco Unity Express. Change the local time zone.
Save Configuration	Save the Cisco CME data and the Cisco Unity Express data to flash memory.

## Defaults Menu

The Defaults Menu appears when you click **Defaults** on the Home screen.

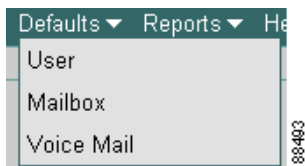


Table 12 describes the options on the Defaults Menu:

**Table 12 Defaults Menu Options**

Menu Option	Description
User	Select the system-wide user password and PIN creation policy (system-generated or blank). The user modifies these values when logging in to the GUI or the voice-mail system for the first time.
Mailbox	Assign a system-wide mailbox size, maximum caller message size, and message expiry time. These apply to all new mailboxes. You can modify these values for specific mailboxes.
Voice Mail	Assign a total number of minutes allowed for all voice messages across the system and the maximum number of seconds for a user's outgoing mailbox greeting.

## Reports Menu

The Reports Menu appears when you click **Reports** on the Home screen.

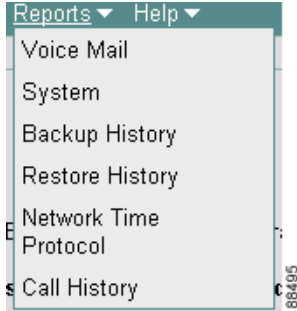


Table 13 describes the options on the Reports Menu:

**Table 13** Reports Menu Options

Menu Option	Description
Voice Mail	Displays statistics about the number of mailboxes configured, the number of messages and greeting, and the storage space on the system they use.
System	Displays information about the system hardware and CPU.
Backup History	Displays the backed up files, backup dates, and success status.
Restore History	Displays the restored files, restore dates, and success status.
Network Time Protocol	Displays the NTP servers and the time difference between the NTP server and the Cisco CME router clock.
Call History	Displays statistics about the calls made on the voice-mail system.

## Help Menu

The Help Menu appears when you click **Help** on the Home screen.

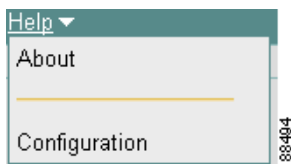


Table 14 describes the options on the Help Menu:

**Table 14** *Help Menu Options*

<b>Menu Option</b>	<b>Description</b>
About	Displays the version of Cisco CME software and the licensing information for your Cisco Unity Express system.
Configuration	Displays help screens for configuring Cisco Unity Express.

## Cisco Unity Express Icons

Table 15 describes the icons used on Cisco Unity Express screens:

**Table 15** Cisco Unity Express Icons




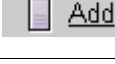
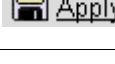






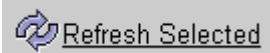
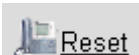




Icon	Purpose
	Click to add new users or to add users to groups.
	Click to add a new voice mailbox.
	Click to add a new extension.
	Click to add a new DNS or NTP server.
	Click to activate changed data. Data is saved using a <b>Save</b> icon or the <b>Save Configuration</b> option.
	Click to exit the active screen. Data is not activated or saved.
	Click to delete a preselected user, extension, phone, voice mailbox, or group. Pre-select the item by clicking on the box to the left of the item.
	Click to download a personalized script or prompt from the Cisco Unity Express system to another location.
	Click to find a user, voice mailbox, or group. A dialog box appears for entering the name to be found. See the procedure below for using this icon.
	Click to open a help window with information about the fields on the screen.

Table 15 Cisco Unity Express Icons (continued)

Icon	Purpose
 Refresh All	Click to refresh all message waiting indicators (MWIs).
 Refresh Selected	Click to refresh selected message waiting indicators (MWIs).
 Reset	Click to reset the values for an extension.
 Reset All	Click to reset all the values for all extensions.
 Save	Click to save the changes made on the active screen or session.
 Unlock	Click to unlock one or more mailboxes.
 Upload	Click to upload a personalized, prerecorded auto attendant greeting file or script.

## Searching for Data—the Find Icon

All the icons, except the **Find** icon, require one or two steps to complete their action. For the **Find** icon, a dialog box appears asking for a search pattern to locate the desired data. For example:

**Find**

All fields are optional.

User/Group ID:

Name/Description:

Extension:

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You may enter a pattern in any one of the three fields. For example, you may enter a user’s ID or the user’s name or the user’s extension. When you click the **Search** button, the system tries to find the user that matches the data you entered.

If you do not know the entire name, ID, or extension, you may use the asterisk (\*) in place of missing characters. For example, entering a user ID of *sm\** causes the system to return a list of all users whose ID begins with *sm*. Similarly, if you enter an extension as *\*3*, the system displays the names of all users whose extensions end with *3*.

After the list of users is displayed, you may choose an entry by clicking on the checkbox next to the name. The software uses this choice in the data entry screen where you invoked the **Find** icon.

## Alphabetizing Data—the Sort Icon

Screens that list a series of users, extensions, or phones can be sorted in ascending or descending order. A triangle next to a column title indicates which column was used most recently for sorting and the direction in which the data is sorted. Any column may be used for sorting. For example,

Configure > Users

Add Delete Find Help

1 - 10 of 41 result(s)





<input type="checkbox"/>	<u>User ID</u>	<u>Display Name</u>	<u>Primary Extension</u>
<input type="checkbox"/>	<a href="#">gayle</a>	gayle	
<input type="checkbox"/>	<a href="#">user1</a>	user	5001
<input type="checkbox"/>	<a href="#">user12</a>	user	5012
<input type="checkbox"/>	<a href="#">user13</a>	user	5013
<input type="checkbox"/>	<a href="#">user14</a>	user	5014
<input type="checkbox"/>	<a href="#">user15</a>	user	5015
<input type="checkbox"/>	<a href="#">user16</a>	user	5016
<input type="checkbox"/>	<a href="#">user18</a>	user	5018
<input type="checkbox"/>	<a href="#">user19</a>	user	5019
<input type="checkbox"/>	<a href="#">user20</a>	user	5020

1 | 2 | 3 | 4 | 5

Rows per page: 10

19698

Configure > Users

 Add  Delete  Find  Help

1 - 10 of 41 result(s)

<input type="checkbox"/>	<input type="checkbox"/> <u>User ID</u>	<u>Display Name</u>	<u>Primary Extension</u>
<input type="checkbox"/>	<a href="#">user8</a>	user	
<input type="checkbox"/>	<a href="#">user7</a>	user	5007
<input type="checkbox"/>	<a href="#">user6</a>	user	5006
<input type="checkbox"/>	<a href="#">user5</a>	user	5005
<input type="checkbox"/>	<a href="#">user48</a>	user	5048
<input type="checkbox"/>	<a href="#">user47</a>	user	5047
<input type="checkbox"/>	<a href="#">user46</a>	user	5046
<input type="checkbox"/>	<a href="#">user45</a>	user	5045
<input type="checkbox"/>	<a href="#">user44</a>	user	5044
<input type="checkbox"/>	<a href="#">user41</a>	user	5041

1 | 2 | 3 | 4 | 5

Rows per page: 10

117013

Clicking the column title sorts the list entries in reverse order.



#### Timesaver

This is handy if the list of names is too long to fit on the screen and you want to look at an entry at the end of the list.

## What to Do Next

See “Sequence of Ongoing Configuration Tasks” on page 47 for a list of administrative tasks.

# Sequence of Ongoing Configuration Tasks

After the prerequisite activities are completed, the administrative tasks can begin. You will do some tasks once, others regularly, and others as needed.

## Online Help

For all these configuration tasks, online help screens are available with information and guidance. Look for the **Help** icon on each screen to access these screens.

## Initial Tasks

Do these tasks to set up Cisco Unity Express:

	Task	Menu Option
<b>Step 1</b>	Upload customized prompts and greetings. Alternatively, use the GMS on the TUI to record custom prompts.	Click <b>Voice Mail &gt; Prompts</b> .
<b>Step 2</b>	Upload customized scripts. To create the scripts, use the script editor described in the <i>Cisco Unity Express Script Editor Installation and Configuration Guide</i> .	Click <b>Voice Mail &gt; Scripts</b> .
<b>Step 3</b>	Configure the auto attendant application.	Click <b>Voice Mail &gt; Auto Attendant</b> .
<b>Step 4</b>	If extensions have not been configured, configure them.	Click <b>Configure &gt; Extensions</b> .
<b>Step 5</b>	If users and groups have not been configured, configure them.	Click <b>Configure &gt; Users</b> and <b>Configure &gt; Groups</b> .
<b>Step 6</b>	Configure individual and general delivery voice mailboxes.	Click <b>Voice Mail &gt; Mailboxes</b> .

## Ongoing Tasks

Do these tasks on a regular basis:

Task	Menu Option
Back up and restore system data.	Click <b>Administration &gt; Backup/Restore</b> .
Monitor system status.	Click <b>Reports</b> . Review all the reports periodically.

## As-Needed Tasks

Do these tasks on an as-needed basis:

Task	Menu Option
Add, display, modify, and delete voice mailboxes.	Click <b>Voice Mail &gt; Mailboxes</b> .
Unlock a voice mailbox.	Click <b>Voice Mail &gt; Mailboxes</b> and the <b>Unlock</b> icon.
Add, display, modify, and delete users.	Click <b>Configure &gt; Users</b> .
Add, display, modify, and delete groups.	Click <b>Configure &gt; Groups</b> .
Change a user's voice-mail password.	Click <b>Configure &gt; Users</b> and the user ID that needs to be changed.
Change the voice mailbox size or storage time.	Click <b>Defaults &gt; Mailbox</b> to change the value system-wide. Click <b>Configure &gt; Users</b> and the user ID to change the value for a specific user.
Add, display, modify and delete extensions and telephones.	Click <b>Configure &gt; Extensions</b> and <b>Configure &gt; Phones</b> .
Assign an extension to another user.	Click <b>Configure &gt; Extensions</b> .
Modify the auto attendant application properties.	Click <b>Voice Mail &gt; Auto Attendant</b> .
Add, modify, and delete the auto attendant prompts.	Click <b>Voice Mail &gt; Prompts</b> and see <a href="#">“Recording an Auto Attendant Greeting or Prompt File”</a> on page 14.
Add, modify, and delete the auto attendant scripts.	Click <b>Voice Mail &gt; Scripts</b> and see <a href="#">“Configuring Auto Attendant Scripts”</a> on page 15.
Troubleshoot software problems.	See the chapter <a href="#">“Troubleshooting Cisco Unity Express.”</a>



# Troubleshooting Cisco Unity Express

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## Overview

This chapter contains the following troubleshooting procedures:

- [IP Addressing Problems, page 49](#)
- [Backup and Restore Not Working, page 50](#)
- [Installation Is Not Working Correctly, page 50](#)
- [Incorrect Date and Time, page 50](#)
- [Setting Daylight Savings Time, page 50](#)
- [MWI Lights Not Working Properly, page 51](#)
- [Configurations Disappear, page 51](#)
- [Wrong GUI Layout, page 51](#)
- [Auto Attendant Prompts, page 51](#)

## IP Addressing Problems

**Problem:** I cannot ping the Cisco Unity Express module.

**Explanation** The IP address of the host server is missing or wrong.

**Recommended Action** Click **Administration > Domain Name Settings** to configure the host server.

**Explanation** The wrong module or gateway is configured.

## Backup and Restore Not Working

**Problem:** The backup or restore file is not loading correctly.

**Recommended Action** Verify that the correct FTP server is configured. Click **Administration > Backup/Restore > Configuration**.

**Recommended Action** Verify that the correct DNS server is configured. Click **Administration > Domain Name Settings**.

## Installation Is Not Working Correctly

**Problem:** The installation is not loading correctly.

**Recommended Action** Verify that the correct FTP server is configured. Click **Administration > Backup/Restore > Configuration**.

**Recommended Action** Verify that the correct DNS server is configured. Click **Administration > Domain Name Settings**.

## Incorrect Date and Time

**Problem:** The date and time on the system is not correct.

**Recommended Action** Verify that the correct NTP server is configured. Click **Administration > Network Time & Time Zone Settings**.

**Recommended Action** Verify that the correct time zone is configured. Click **Administration > Network Time & Time Zone Settings**.

## Setting Daylight Savings Time

**Problem:** Need to set daylight savings time.

**Explanation** Cisco Unity Express sets daylight savings time automatically based on the time zone, which is selected during the installation procedure or with the **Administration > Network Time & Time Zone Settings** GUI screen.

## MWI Lights Not Working Properly

**Problem:** The MWI lights do not go on when messages are stored in a user's mailbox.

**Recommended Action** Refresh the MWI lights for the user. Click **Voice Mail > Message Waiting Indicators > Refresh**.

**Recommended Action** Check that the user's extension is designated as a primary extension. Click **Configure > Users** to designate a primary extension.

## Configurations Disappear

**Problem:** I configured voice mail or auto attendant parameters but I do not see them in the current Cisco Unity Express configuration.

**Explanation** You did not click the **Apply** icon in the GUI to save the changes.

**Explanation** You made changes using CLI commands to the Cisco CME router but Cisco Unity Express did not pick them up.

**Recommended Action** Click **Administration > Synchronize Information** to synchronize the Cisco CME and Cisco Unity Express databases.

**Explanation** You made changes to the running configuration that were not saved to the start-up configuration.

**Recommended Action** Click **Administration > Save Configuration** to load the start-up configuration.

## Wrong GUI Layout

**Problem:** When I log in to the GUI, I see a limited set of options, not the full administration screens.

**Explanation** Another administrator is logged in. Only one administrator can access the administration GUI at a time.

**Recommended Action** Find out who is logged in and log that person off or wait a few minutes for the inactivity timer to log that person out.

## Auto Attendant Prompts

**Problem:** The custom auto attendant prompt is not working.

**Recommended Action** Verify that the prompt format is CCITT G.711 U-law, 8kHz, 8-bit, Mono.





## GLOSSARY

### A

**AA** Automated Attendant—The Cisco Unity Express software application that provides messages and prompts that guide callers to appropriate extensions.

△

### C

**CCM** Cisco Call Manger

**CLI** Command line interface

**CME** Cisco CallManager Express

### D

**DNS** Domain Name Server

### F

**FTP** File Transfer Protocol

### G

**GMS** Greeting management system—The software for recording auto attendant prompts and greetings. The PMS is available from the telephone user interface to users who have administrator or prompt manager privileges.

**GUI** Graphical user interface

### I

**Init Wizard** Initialization wizard—A web-based GUI software tool that runs automatically when the Cisco Unity Express software is loaded. The Init Wizard assists with configuring the Cisco Unity Express software applications.

**IP** Internet Protocol

**ITS** Cisco IOS Telephony Services—The earlier version of Cisco CallManager Express (CME).

## **M**

**MWI** Message Waiting Indicator—The light on a telephone that turns on when a new voice message is stored in the telephone user's voice mailbox.

## **N**

**NM** Network module—The hardware component that stores the Cisco Unity Express application software.

**NTP** Network Time Protocol

## **T**

**TAC** Technical Assistance Center

**TUI** Telephone user interface—The set of prompts that guide the telephone user who has an assigned voice mailbox in sending, retrieving, and creating voice messages and greetings.

## **V**

**VM** Voice Mail—The Cisco Unity Express software application that creates and maintains voice message mailboxes.



**Note**

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Refer to [Internetworking Terms and Acronyms](#) for terms not included in this glossary.

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