



## **Cisco Unity Express 2.1/2.2 GUI Administrator Guide for Cisco CallManager**

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# Cisco Unity Express Feature Roadmap

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The *Cisco Unity Express 2.1/2.2 GUI Administrator Guide for Cisco CallManager* introduces you to the set of graphical interface screens and tasks for configuring, administering, and maintaining Cisco Unity Express voice mail and auto attendant applications.

Comparable command-line interface commands are described in the *Cisco Unity Express 2.1/2.2 CLI Administrator Guide for Cisco CallManager*.

The focus of this guide is the Cisco Unity Express application. It does not provide information on installation of Cisco routers, Cisco network modules, the Cisco CallManager server, or the Cisco CallManager Express router. For more information about those topics, see [“Additional References” on page 18](#).

This chapter contains the following sections:

- [Platforms and Cisco IOS Software Images, page 1](#)
- [Cisco Unity Express Feature List, page 2](#)

## Platforms and Cisco IOS Software Images

Cisco Unity Express applications use a set of commands that are similar in structure to Cisco IOS software commands. However, the Cisco Unity Express commands do not affect the Cisco IOS configuration.

The Cisco Unity Express hardware modules and platforms do use the Cisco IOS command-line interface (CLI) commands for their operation.

See the [Release Notes for Cisco Unity Express Release 2.1.1](#) for detailed information about the Cisco Unity Express hardware and software platforms.



### Note

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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.

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# Cisco Unity Express Feature List

Table 1 lists Cisco Unity Express features by release. Features that are introduced in a particular release are available in that and subsequent releases.

**Table 1** Cisco Unity Express Features by Release

Release	Features Introduced in That Release <sup>1</sup>	Feature Description	Feature Documentation
2.2	CISCO-UNITY-EXPRESS-MIB	Monitor the health, conduct performance monitoring, data collection, and trap management for Cisco Unity Express voice mail and auto attendant applications.	<a href="#">Cisco Unity Express Release 2.2 System Monitoring Guide</a>
2.1	Additional languages support.	Danish, U.K. English, Latin American Spanish, Italian, and Brazilian Portuguese were added as choices for the default language of the telephone user interface (TUI) system prompts and greetings.	From the CLI: <a href="#">Cisco Unity Express 2.1/2.2 CLI Administrator Guide for Cisco CallManager</a>
	Distribution lists.	Create public and private distribution lists of local and remote users for sending messages to more than one subscriber.	<ul style="list-style-type: none"> <li>From the GUI: Use the <b>Voice Mail &gt; Distribution Lists</b> option and the online help.</li> <li>From the CLI: See <a href="#">“Configuring Distribution Lists” on page 207</a>.</li> </ul>
	Broadcast messages.	Privileged subscribers can send messages to all users on the network.	<ul style="list-style-type: none"> <li>From the GUI: See <a href="#">“Voice Mail Menu” on page 54</a> and the online help.</li> <li>From the CLI: <a href="#">Cisco Unity Express 2.1/2.2 CLI Administrator Guide for Cisco CallManager</a></li> </ul>
	Schedules for holidays and business hours.	Create schedules of holidays and business hours to automatically play alternate auto attendant greetings to callers.	<ul style="list-style-type: none"> <li>From the GUI: See <a href="#">“Voice Mail Menu” on page 54</a> and the online help.</li> <li>From the CLI: <a href="#">Cisco Unity Express 2.1/2.2 CLI Administrator Guide for Cisco CallManager</a></li> </ul>
	Increased security for passwords and PINs.	Set minimum lengths and expiry times for passwords and personal identification numbers (PINs).	<ul style="list-style-type: none"> <li>From the GUI: See <a href="#">“Defaults Menu” on page 56</a> and the online help.</li> <li>From the CLI: <a href="#">Cisco Unity Express 2.1/2.2 CLI Administrator Guide for Cisco CallManager</a></li> </ul>

**Table 1** Cisco Unity Express Features by Release (continued)

Release	Features Introduced in That Release <sup>1</sup>	Feature Description	Feature Documentation
	Support for caller ID information in incoming messages.	Permit playing of caller identification information as part of the message envelope for new incoming voice mail messages.	<a href="#">Cisco Unity Express 2.1/2.2 CLI Administrator Guide for Cisco CallManager</a>
	Addition of remote users to the local directory.	Add frequently called remote users to the local directory, which permits local users to address voice mail messages to remote users using dial-by-name and to receive spoken name verification of the remote user address.	<ul style="list-style-type: none"> <li>From the GUI: See “Configure Menu” on page 53 and the online help.</li> <li>From the CLI: <a href="#">Cisco Unity Express 2.1/2.2 CLI Administrator Guide for Cisco CallManager</a></li> </ul>
	Support for vCard information from remote users.	Permit vCard information from remote users to update their directory entries.	<a href="#">Cisco Unity Express 2.1/2.2 CLI Administrator Guide for Cisco CallManager</a>
	Simple auto attendant script.	Simple aa_simple.aef script is available for handling alternate, holiday, and business hours greetings.	<a href="#">Cisco Unity Express 2.1/2.2 CLI Administrator Guide for Cisco CallManager</a>
	Undelete voice messages.	Permits users to restore a voice mail message that was deleted during the current voice message retrieval session.	<a href="#">Cisco Unity Express 2.1/2.2 CLI Administrator Guide for Cisco CallManager</a>
	Restore to factory defaults.	Permits the administrator to reset the entire system to the factory default values.	<a href="#">Cisco Unity Express 2.1/2.2 CLI Administrator Guide for Cisco CallManager</a>
	Increased port density.	Network modules with 512 MB of SDRAM now support 16 voice ports. Advanced integration modules (AIMs) running at 300 MHz now support 6 ports on new router platforms.	“Software Licenses and Factory-Set Limits” on page 12
	Repurposing of general delivery mailboxes (GDMs)	GDMs may be repurposed as personal mailboxes, which expands the personal mailbox capacity of each license level.	<ul style="list-style-type: none"> <li>From the GUI: See “Voice Mail Menu” on page 54 and the online help.</li> <li>From the CLI: <a href="#">Cisco Unity Express 2.1/2.2 CLI Administrator Guide for Cisco CallManager</a></li> </ul>
2.0	Support for multiple languages.	Cisco Unity Express supports several languages for the telephone user interface (TUI) and auto attendant prompts. See the <a href="#">Release Notes for Cisco Unity Express Release 2.2</a> for the list of available languages.	“Configuration Data Required for the Initialization Wizard” on page 24

Table 1 Cisco Unity Express Features by Release (continued)

Release	Features Introduced in That Release <sup>1</sup>	Feature Description	Feature Documentation
	Streamlined software upgrade process.	Modified upgrade process to reduce installation time.	<a href="#">Cisco Unity Express 2.1/2.2 CLI Administrator Guide for Cisco CallManager</a>
	Increased storage on the AIM.	AIM flash storage capacity is increased from 512MB to 1GB and now supports 14 hours of voice-mail message storage.	“Software Licenses and Factory-Set Limits” on page 12
	Housing Cisco Unity Express and Cisco CallManager Express software on different routers.	Cisco Unity Express software installed on a router communicates with Cisco CallManager Express installed on a different router.	<a href="#">Cisco Unity Express 2.1/2.2 CLI Administrator Guide for Cisco CallManager</a>
1.2	Networking across multiple sites.	Voice Profile for Internet Mail version 2 (VPIMv2) support for voice-mail messaging interoperability between Cisco Unity Express sites and between Cisco Unity Express and Cisco Unity with Non-Delivery Record (NDR) for networked messages and blind addressing.	<a href="#">Cisco Unity Express 2.1/2.2 CLI Administrator Guide for Cisco CallManager</a>
	Support for Cisco CallManager Release 3.3(3),3.3(4), and 4.0(1).	Capability of auto detecting the Cisco CallManager JTAPI version on a remote system for handling call control and user import functionality.	—
1.1.2	NTP server configuration support	New commands permit configuration of the NTP server.	<a href="#">Cisco Unity Express 2.1/2.2 CLI Administrator Guide for Cisco CallManager</a>
1.1	Advanced integration module (AIM) card	AIM card has an Intel Celeron 300 MHz processor, 256 MB RAM, and 512 MB of compact flash memory, 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.	<a href="#">Installing Advanced Integration Modules in Cisco 2600 Series, Cisco 3600 Series, and Cisco 3700 Series Routers</a>
	Custom auto attendant script creation using the Cisco Unity Express script editor	Script editor creates 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.	<a href="#">Cisco Unity Express Script Editor Installation and Configuration Guide, Release 2.0</a>



**Table 1** Cisco Unity Express Features by Release (continued)

Release	Features Introduced in That Release <sup>1</sup>	Feature Description	Feature Documentation
	Alternate auto attendant greetings and prompts	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.	<a href="#">“Recording an Auto-Attendant Greeting or Prompt File” on page 11</a>
	Access to a greeting management system from the telephone user interface (TUI)	Access from the TUI to a greeting management system (GMS) for recording alternate greetings and prompts. Users with administrative privileges have access to the GMS.	<a href="#">Cisco Unity Express Voice Mail System - Quick Start Guide, Release 1.2</a>
<b>1.0</b>	Linux-based software	Linux-based software installed on a module card that is installed in the Cisco CallManager router. (See the <a href="#">Release Notes for Cisco Unity Express R2.1.1.</a> ) The software includes the operating system, application software, and ordered license information.	—
	Network module card	Network module card with the Intel Low Power PIII 500 MHz processor, a 20 GB IDE hard drive, and access to Cisco IOS software using back-to-back Ethernet and console. No external interfaces or cabling is required.	<a href="#">Cisco Network Modules Hardware Installation Guide, Chapter 22</a>
	Orderable license packages	Four orderable license packages. A license must be ordered for each voice mail system. See <a href="#">Table 2 on page 13</a> and <a href="#">Table 4 on page 13</a> for the system capacities available with each license.	<a href="#">“Software Licenses and Factory-Set Limits” on page 12</a>
	Spare modules	Spare modules with factory installed software and license. Upgrades to larger capacity require purchase of a license and download of the license file.	<a href="#">“Software Licenses and Factory-Set Limits” on page 12</a>
	License upgrades and downgrades	Upgrades or downgrades from one license size to another.	<a href="#">“Software Licenses and Factory-Set Limits” on page 12</a>
	Two administrative interfaces	Two administrative interfaces. (See the <a href="#">“Administration Interfaces” on page 15.</a> )	<a href="#">“Administration Interfaces” on page 15</a>

**Table 1** Cisco Unity Express Features by Release (continued)

Release	Features Introduced in That Release <sup>1</sup>	Feature Description	Feature Documentation
	Integrated GUI with Cisco CallManager Express	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.	“Cisco Unity Express Windows and Menus” on page 52
	Bulk provisioning of multiple sites	Bulk provisioning of multiple sites using CLI scripts not provided by Cisco Unity Express. Systems are administered individually.	<i>Cisco Unity Express CLI Administrator Guide for Cisco CallManager, Release 2.0</i>
	System access anywhere in the IP network	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.	<i>Cisco Unity Express CLI Administrator Guide for Cisco CallManager, Release 2.0</i>
	Manual backup and restore	Manual backup and restore using an FTP server located anywhere in the customer network.	<ul style="list-style-type: none"> <li>From the GUI: See “Administration Menu” on page 55 and the online help.</li> <li>From the CLI: <i>Cisco Unity Express CLI Administrator Guide for Cisco CallManager, Release 2.0</i></li> </ul>
	System reports and log files for troubleshooting.	Reports are available from the Cisco Unity Express GUI screens. All troubleshooting reports and files are available using the Cisco Unity Express CLI commands.	<ul style="list-style-type: none"> <li>From the GUI: See “Reports Menu” on page 56 and the online help.</li> <li>From the CLI: <i>Cisco Unity Express CLI Administrator Guide for Cisco CallManager, Release 2.0</i></li> </ul>

1. Features that are introduced in a particular release are available in that and subsequent releases.



# Overview of 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 to provide small- and medium-sized companies with the capability to:

- Create and maintain voice mailboxes for onsite or remote telephone users. Releases 2.1 and 2.2 support up to 100 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.

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- [Prerequisites for Implementing Cisco Unity Express on Cisco CallManager, page 8](#)
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- [Recording an Auto-Attendant Greeting or Prompt File, page 11](#)
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- [Differences Between Cisco Unity Express and Cisco CallManager, page 16](#)
- [Additional References, page 18](#)

# Prerequisites for Implementing Cisco Unity Express on Cisco CallManager

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

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



## Caution

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 Unity Express module 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 CallManager software functionality.
  - a. You should be able to access the Cisco CallManager configuration web page.
  - b. 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.

- c. On the Cisco CallManager, configure 16 CTI ports for a Cisco Unity Express system with a 512 MB NM. Configure 8 ports for a 256 MB NM.

For the AIM running at 300 MHz, configure 6 CTI ports on Cisco CallManager. For the 150 MHz AIM, configure 4 CTI ports. Use the Cisco CallManager option **Device > Phones > Add new Phone**.

These ports will be assigned to the Cisco Unity Express applications (voice mail, auto attendant, and Administration via Telephone [AVT]) to terminate calls.



**Note** Do not configure extra CTI ports on Cisco CallManager. Doing so will impact the scalability of your Cisco CallManager and will limit the number of other devices Cisco CallManager can support.

- d. Configure at least two route points on Cisco CallManager using the **Device > CTI Route Point** option. The Cisco Unity Express voice-mail application uses one route point and the auto-attendant application uses the other route point. If you plan to use the Cisco Unity Express AVT, configure a third route point on Cisco CallManager.



**Note** Do not configure extra route points on Cisco CallManager. Doing so will impact the scalability of your Cisco CallManager and will limit the number of other devices Cisco CallManager can support.

- e. Create a Cisco CallManager JTAPI user using the **User > Add new user** option. Use the **Device Association** option to associate the CTI ports and route points with this JTAPI user. (The JTAPI user is not assigned a Cisco Unity Express voice mailbox. It is a placeholder for Cisco Unity Express to establish connection with Cisco CallManager.) Verify that the Enable CTI Application use box is checked for this JTAPI user.
- f. During the Cisco Unity Express software installation, create the Cisco Unity Express administrator user ID and password and specify the IP addresses for the DNS server and NTP server. This user ID and password is needed to log in to the initialization wizard.
- g. For efficient call processing, configure access lists on the Cisco Unity Express router to prioritize JTAPI traffic. For example:

```
class-map match-all jtapi
  match access-group 110
class-map match-all voice
  match access-group 100

policy-map jtapi
  class jtapi
    set dscp cs3
    bandwidth 20
  class voice
    set dscp af31
    priority 320
  class class-default
    fair-queue

interface Serial10/1
  ip address 192.168.10.0 255.255.255.0
  service-policy output jtapi
  clockrate 256000
  no cdp enable

access-list 100 permit udp host 10.3.6.128 any range 16383 32727
access-list 110 permit tcp host 10.3.6.128 any eq 2748
```

where 10.3.6.128 is the IP address of the module containing Cisco Unity Express.

The output from a command should indicate that the marked packets number is increasing. For example:

```
Match: access-group 110
QoS Set
  dscp cs3
  Packets marked 334 <-----This number should increase.
```

3. 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.
4. (Optional) If no users were created in the Cisco CallManager interface, create a list of all users, groups, and their extensions. Having this list eases the task of configuring many users and extensions.
5. (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 11](#) for more information.
6. (Optional) Customize the auto-attendant prompt sequence to meet your business requirements. See [“Configuring Auto-Attendant Scripts” on page 12](#) for more information.
7. (Required) Record the IP address of the Cisco Unity Express module. Accessing the GUI to configure the system requires this IP address.

## Restrictions for Implementing Cisco Unity Express

The following restrictions apply to Cisco Unity Express Releases 2.1 and 2.2.

### Networking

- Cisco Unity Express supports voice-mail networking only with other Cisco Unity Express and Cisco Unity voice-mail systems. Networking support for other voice-mail systems is not available in Releases 2.1 and 2.2.

### System Functionality

- For the NM, only one person with administrator privileges and four people with user privileges 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 are determined by the NTP server and cannot be set in the Cisco Unity Express software. Cisco Unity Express can be configured as a network transfer protocol (NTP) client. See the NTP configuration section in [Cisco Unity Express 2.1/2.2 CLI Administrator Guide for Cisco CallManager](#) and your NTP server CLI for more information.
- Cisco Unity Express supports one language on the system at a time. See the [Release Notes for Cisco Unity Express Release 2.2](#) for a list of available languages. 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 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 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 and 3845 routers. The replacement module must be the same type as the original module. OIR is not available for the AIM.



#### Caution

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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

Cisco Unity Express does not support the following backup and restore capabilities:

- 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.
- Cisco Unity Express does not support managing and configuring using Simple Network Management Protocol (SNMP) except for hardware inventory.
- Cisco Unity Express does not support Cisco Networking Services (CNS) or Subnetwork Access Protocol (SNAP) autoprovisioning.
- Cisco Unity Express does not support CiscoWorks configmaker.

## 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 mu-law, 8 kHz, 8 bit, Mono. The file cannot be larger than 500 KB. After recording the greeting, use the GUI option **Voice Mail > Prompts > Upload** or Cisco Unity Express CLI **ccn copy** command to copy the file in to the Cisco Unity Express system. See the GUI online help (OLH) or the [Cisco Unity Express 2.1/2.2 CLI Administrator Guide for Cisco CallManager](#) for the upload procedure.
- Use the AVT on the TUI to record the greeting or prompt. Dial the AVT telephone number and select the option to record a greeting. When finished recording, save the file. AVT automatically saves the file in Cisco Unity Express.

The AVT prompt filename has the format UserPrompt\_DateTime.wav, for example: UserPrompt\_11152003144055.wav. You may want to use CLI commands or GUI options to download the file to a PC, rename the file with a meaningful name, then upload the file back to Cisco Unity Express.

## 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 leave a voice message in a specific mailbox 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 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 auto-attendant application.

## Differences Between the AIM and NM

Cisco Unity Express is supported on 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 and 8 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 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** and the GUI option **Reports > System** displays 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-CUE and NM-CUE-EC are shown in [Table 2](#) and [Table 3](#). Limits for the AIM-CUE are shown in [Table 4](#) and [Table 5](#).



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

Cisco Unity Express License/Software SKU	Total Mailbox Storage (Hours)	Default Mailbox Size (Minutes) <sup>1</sup>	Number of Concurrent VoiceMail and Auto Attendant Ports/Sessions	Number of Scripts	Number of Prompts
SCUE-LIC-12CCM SCUE-LIC-12CME	100	353	8 (NM-CUE) 16 (NM-CUE-EC)	8	50
SCUE-LIC-25CCM SCUE-LIC-25CME	100	171	8 (NM-CUE) 16 (NM-CUE-EC)	8	50
SCUE-LIC-50CCM SCUE-LIC-50CME	100	92	8 (NM-CUE) 16 (NM-CUE-EC)	8	50
SCUE-LIC-100CCM SCUE-LIC-100CME	100	50	8 (NM-CUE) 16 (NM-CUE-EC)	8	50

1. The default mailbox size calculation includes the allocation for the General Delivery Mailboxes (GDMs).

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

Cisco Unity Express License/Software SKU	Default Number of Personal Mailboxes	Default Number of General Delivery Mailboxes	Total Number of Mailboxes	Number of Groups <sup>1</sup>	Number of Owners <sup>1</sup>	Number of Members <sup>1</sup>
SCUE-LIC-12CCM SCUE-LIC-12CME	12	5	17	20	400	880
SCUE-LIC-25CCM SCUE-LIC-25CME	25	10	35	20	400	1000
SCUE-LIC-50CCM SCUE-LIC-50CME	50	15	65	30	400	1000
SCUE-LIC-100CCM SCUE-LIC-100CME	100	20	100	40	400	1000

1. Per Cisco Unity Express system.

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

Cisco Unity Express License/Software SKU	Total Mailbox Storage (Hours) <sup>1</sup>	Default Mailbox Size (Minutes) <sup>2</sup>	Number of Concurrent VoiceMail and Auto Attendant Ports/Sessions	Number of Scripts	Number of Prompts
SCUE-LIC-12CCM SCUE-LIC-12CME	14	45	4 (Cisco 2600XM, Cisco 2650XM, Cisco 2651XM, Cisco 2691) 6 (Cisco 2800 series, Cisco 3700 series, Cisco 3800 series)	4	25

**Table 4** System Capacities for Mailboxes, Storage Hours, Ports, Scripts, and Prompts on the AIM-CUE (continued)

Cisco Unity Express License/Software SKU	Total Mailbox Storage (Hours) <sup>1</sup>	Default Mailbox Size (Minutes) <sup>2</sup>	Number of Concurrent VoiceMail and Auto Attendant Ports/Sessions	Number of Scripts	Number of Prompts
SCUE-LIC-25CCM SCUE-LIC-25CME	14	22	4 (Cisco 2600XM, Cisco 2650XM, Cisco 2651XM, Cisco 2691) 6 (Cisco 2800 series, Cisco 3700 series, Cisco 3800 series)	4	25
SCUE-LIC-50CCM SCUE-LIC-50CME	14	12	4 (Cisco 2600XM, Cisco 2650XM, Cisco 2651XM, Cisco 2691) 6 (Cisco 2800 series, Cisco 3700 series, Cisco 3800 series)	4	25

- The storage value shown is for the AIM-CUE with the 1-GB compact flash. The earlier AIM-CUE version with the 512-MB compact flash supports 4.5 hours (270 minutes) of mailbox storage. To use Cisco Unity Express 2.1, Cisco recommends that older AIM-CUE modules with 512 MB compact be replaced with the 1-GB compact flash AIM-CUE module.
- The default mailbox size calculation includes the allocation for the General Delivery Mailboxes (GDMs).

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

Cisco Unity Express License/Software SKU	Default Number of Personal Mailboxes	Default Number of General Delivery Mailboxes	Total Number of Mailboxes	Number of Groups	Number of Owners	Number of Members
SCUE-LIC-12CCM SCUE-LIC-12CME	12	5	17	20	100	200
SCUE-LIC-25CCM SCUE-LIC-25CME	25	10	35	20	100	200
SCUE-LIC-50CCM SCUE-LIC-50CME	50	15	65	20	100	200

## Networking Cisco Unity Express with Other Voice-Mail Systems

Cisco Unity Express supports the capability to network Cisco Unity Express with a voice-mail system located at a different site. Users can send and receive messages from subscribers on remotely located, compatible voice-mail systems configured on Cisco CallManager or Cisco CallManager Express call control platforms. Supported configurations include:

- Cisco Unity Express to Cisco Unity Express
- Cisco Unity to Cisco Unity Express
- Cisco Unity Express to Cisco Unity

For more information about configuring the networking capability, see [Cisco Unity Express 2.1/2.2 CLI Administrator Guide for Cisco CallManager](#).

# 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.

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. Refer to the [Cisco Unity Express 2.1/2.2 CLI Administrator Guide for Cisco CallManager](#) 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. See “[Overview of the Initialization Wizard](#)” on page 23. Cisco Unity Express does not support the Netscape browser. To access the CLI, Telnet to the router, then use the **service-module** 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 Releases 2.1 and 2.2 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.

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 CallManager

Cisco CallManager is the software that controls the telephony functions. Cisco CallManager accepts incoming and outgoing calls to your network and decides where an incoming or outgoing call should be sent. Cisco Unity Express accepts calls sent from Cisco CallManager over JTAPI and can accept H.323 and Media Gateway Control Protocol (MGCP) calls if Cisco CallManager routes them over the JTAPI interface.

Cisco Unity Express is an application that enhances Cisco CallManager-by providing the voice messaging and automated attendant capabilities. The Cisco Unity Express module contains the voice-mail and auto-attendant software.

Cisco CallManager has a database that contains 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.

The Cisco Unity Express database contains information about the voice mailboxes, auto-attendant prompts, and voice messages. As you go through the initialization and configuration procedures, be sure to save your data so that both databases have current information.

The Cisco Unity Express GUI software allows you to configure the voice-mail and auto-attendant parameters and to specify some of the Cisco CallManager parameters, such as servers, JTAPI user, and computer telephony integration (CTI) ports. The GUI accepts up to three Cisco CallManager servers: a primary server and two backup servers in the event the primary server is not available.

If the WAN link goes down between Cisco CallManager and Cisco Unity Express, Cisco Unity Express will not be able to accept calls from Cisco CallManager. However, the Session Initiation Protocol (SIP) subsystem on the Cisco Unity Express module can accept calls from the Cisco Survivable Remote Site Telephony (SRST) engine in the router containing the Cisco Unity Express module. Voice-mail and auto-attendant applications will function properly. Message waiting indicator (MWI) lights will not be updated. Once the WAN link becomes active, Cisco Unity Express will detect it and register back with the Cisco CallManager server.

## Differences Between Cisco Unity Express and Cisco CallManager

Although Cisco Unity Express works closely with Cisco CallManager, Cisco Unity Express and Cisco CallManager define users and administrators differently:

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

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

- Cisco Unity Express allows only uppercase letters A to Z, lowercase letters a to z, digits 0 to 9, underscore (\_), dot (.), and dash (-) in user IDs. User IDs must start with a letter. Any Cisco CallManager user IDs that contain other characters cannot be copied into the Cisco Unity Express database.

- Spaces are not allowed in passwords. Acceptable password characters are lowercase letters a to z, uppercase letters A to Z, digits 0 to 9, and the following symbols: - , . + = \_ ! @ # \$ ^ \* ( ) ? / ~ < > & %
- User IDs and passwords are case sensitive.

## Additional References

The following sections provide references related to Cisco Unity Express.

### Documents Related to Cisco Unity Express

Related Topic	Document Title
Cisco Unity Express administration	<ul style="list-style-type: none"> <li>• <a href="#">Cisco Unity Express 2.1/2.2 CLI Administrator Guide for Cisco CallManager</a></li> <li>• <a href="#">Cisco Unity Express 2.1/2.2 GUI Administrator Guide for Cisco CallManager</a></li> <li>• <a href="#">Cisco Unity Express 2.1/2.2 CLI Administrator Guide for Cisco CallManager Express</a></li> <li>• <a href="#">Cisco Unity Express 2.1/2.2 GUI Administrator Guide for Cisco CallManager Express</a></li> <li>• <a href="#">Cisco Unity Express Command Reference</a></li> <li>• <a href="#">Cisco Unity Express AvT Administrator Guide</a></li> <li>• <a href="#">Release Notes for Cisco Unity Express 2.2</a></li> </ul>
Cisco Unity Express voice-mail scripts	<a href="#">Cisco Unity Express 2.2 Script Editor Guide</a>
Cisco Unity Express voice-mail end user information	<a href="#">Cisco Unity Express User Guides</a>
Cisco module hardware installation	<ul style="list-style-type: none"> <li>• <a href="#">Cisco Network Modules Hardware Installation Guide</a>, Chapter 22</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	<a href="#">“Appendix A: Software Copyrights and Licenses” on page 71</a>
Technical Assistance Center support documentation for Cisco Unity Express	<a href="#">Technical Notes for Cisco Unity Express</a>

Related Topic	Document Title
Cisco CallManager	<p>Release 4.1(3)</p> <ul style="list-style-type: none"> <li>• <a href="#">Cisco CallManager Administration Guide, Release 4.1(3)</a></li> <li>• <a href="#">Cisco CallManager System Guide, Release 4.1(3)</a></li> <li>• <a href="#">Cisco CallManager Features and Services Guide, Release 4.1(3)</a></li> </ul> <p>Release 4.1(2)</p> <ul style="list-style-type: none"> <li>• <a href="#">Cisco CallManager Administration Guide, Release 4.1(2)</a></li> <li>• <a href="#">Cisco CallManager System Guide, Release 4.1(2)</a></li> <li>• <a href="#">Cisco CallManager Features and Services Guide, Release 4.1(2)</a></li> </ul> <p>Release 4.0(1):</p> <ul style="list-style-type: none"> <li>• <a href="#">Cisco CallManager Administration Guide, Release 4.0(1)</a></li> <li>• <a href="#">Cisco CallManager System Guide, Release 4.0(1)</a></li> <li>• <a href="#">Cisco CallManager Features and Services Guide, Release 4.0(1)</a></li> </ul> <p>Release 3.3(4)</p> <ul style="list-style-type: none"> <li>• <a href="#">Cisco CallManager Administration Guide, Release 3.3(4)</a></li> <li>• <a href="#">Cisco CallManager System Guide, Release 3.3(4)</a></li> <li>• <a href="#">Cisco CallManager Features and Services Guide, Release 3.3(4)</a></li> </ul> <p>Release 3.3(3):</p> <ul style="list-style-type: none"> <li>• <a href="#">Cisco CallManager Administration Guide, Release 3.3(3)</a></li> <li>• <a href="#">Cisco CallManager System Guide, Release 3.3(3)</a></li> <li>• <a href="#">Cisco CallManager Features and Services Guide, Release 3.3(3)</a></li> </ul>

Related Topic	Document Title
Cisco CallManager Express	Release 3.4: <ul style="list-style-type: none"> <li>• <a href="#">Cisco CallManager Express 3.4 Configuration Guide</a></li> <li>• <a href="#">Cisco CallManager Express 3.4 Command Reference</a></li> </ul> Release 3.3: <ul style="list-style-type: none"> <li>• <a href="#">Cisco CallManager Express 3.3 System Administrator Guide</a></li> <li>• <a href="#">Cisco CallManager Express 3.3 Command Reference</a></li> </ul> Release 3.2: <ul style="list-style-type: none"> <li>• <a href="#">Cisco CallManager Express 3.2 System Administrator Guide</a></li> <li>• <a href="#">Cisco CallManager Express 3.2 Command Reference</a></li> <li>• <a href="#">TAPI Developer Guide for Cisco CME/SRST</a></li> <li>• <a href="#">XML Developer Guide for Cisco CME/SRST</a></li> <li>• <a href="#">Integrating Cisco CallManager Express and Cisco Unity Express</a></li> </ul> Release 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 Cisco CallManager Express Versions 3.0 and 3.1 with Cisco Unity Express</a></li> </ul>
Cisco Unity	<ul style="list-style-type: none"> <li>• <a href="#">Networking in Cisco Unity Guide</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 2800 Series Hardware Installation</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> <li>• <a href="#">Cisco 3800 Series Hardware Installation</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 12.4T</a></li> <li>• <a href="#">Cisco IOS Voice Command Reference</a></li> </ul> <p><b>Note</b> For general voice configuration topics, refer to the <a href="#">Cisco IOS Voice Configuration Library, Release 12.4</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, and then click <b>Technical Documentation &gt; Configuration Examples</b>.</p>
Cisco IOS voice troubleshooting information	<a href="#">Cisco IOS Voice Troubleshooting and Monitoring Guide</a>
Cisco IP Telephony	<a href="#">IP Telephony Solution Reference Network Design Guide</a>

## MIBs

MIBs	MIBs Link
<ul style="list-style-type: none"> <li>• CISCO-UNITY-EXPRESS-MIB</li> </ul>	To locate and download MIBs for selected platforms, Cisco IOS releases, and feature sets, use Cisco MIB Locator found at the following URL: <a href="http://www.cisco.com/go/mibs">http://www.cisco.com/go/mibs</a>

## RFCs

RFCs	Title
1869	<i>SMTP Service Extensions</i>
1893	<i>Enhanced Mail System Status Codes</i>
2045	<i>Multipurpose Internet Mail Extensions Part One: Format of Internet Message Bodies, RFC</i>
2421	<i>Voice Profile for Internet Mail - Version 2</i>
2821	<i>Simple Mail Transfer Protocol</i>

## Technical Assistance

Description	Link
Technical Assistance Center (TAC) home page, containing 30,000 pages of searchable technical content, including links to products, technologies, solutions, technical tips, and tools. Registered Cisco.com users can log in from this page to access even more content.	<a href="http://www.cisco.com/public/support/tac/home.shtml">http://www.cisco.com/public/support/tac/home.shtml</a>





## Configuring the System Using the Initialization Wizard

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

- [Overview of the Initialization Wizard, page 23](#)
- [Starting the Initialization Wizard for Cisco CallManager, page 27](#)



**Note**

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

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## Overview of 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:

- [Description of the Initialization Wizard, page 23](#)
- [Configuration Data Required for the Initialization Wizard, page 24](#)
- [Activity Timer, page 26](#)
- [Buttons on the Initialization Wizard Windows, page 26](#)

## Description of the Initialization Wizard

The initialization wizard is a software tool with a series of windows that help you configure Cisco Unity Express. The wizard starts automatically the first time you log in to the GUI.

Some of the information shown on the wizard windows comes from system parameters configured during the installation of the Cisco CallManager system, including:

- Telephone users and their extensions.
- IP address for the primary Cisco CallManager server and IP addresses for the secondary and tertiary servers if they will be used in case the primary server is unavailable.
- User ID and password for web access to Cisco CallManager.

- JTAPI user ID and password.

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

- Cisco Unity Express administrator user ID and password.
- 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 AVT.

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 windows, the system updates the Cisco Unity Express and Cisco CallManager 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 windows 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 Unity Express administrator user ID and password.

Cisco Unity Express requires an administrator to configure the router and other system components. During the software installation process, the system installer created a user ID and password that are used to log in to Cisco Unity Express software.

Cisco Unity Express does not treat this administrator as a telephone user.

- (Required) The IP address of the primary Cisco CallManager server. IP addresses for the secondary and tertiary servers are optional.
- (Required) The user IDs and passwords for the Cisco CallManager JTAPI user and web user.
- (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. Nonadministrative voice-mail users have limited access to system configuration tasks.

Users may have been configured on the Cisco CallManager. You may copy some or all of these users 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 new users 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 CallManager are required to change the password and the PIN when logging in to the system for the first time.

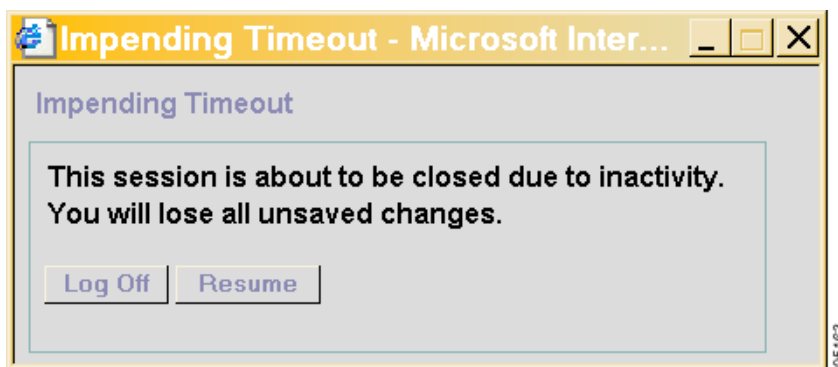
- (Optional) The default language that the user hears when accessing the voice-mail system.  
The default language was selected at the time of purchase of Cisco Unity Express. See the [Release Notes for Cisco Unity Express Release 2.2](#) for a list of available languages.
- (Optional) The default mailbox 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 for which 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  
Users dial the voice-mail system telephone number to retrieve their voice messages.
  - Voice-mail operator extension  
While in the voice-mail system, users dial the voice-mail operator extension number to reach the voice-mail operator.
  - Auto attendant  
Callers dial the auto-attendant telephone number to reach the auto-attendant system.
  - Auto-attendant operator extension  
The auto-attendant application dials the auto-attendant operator extension number when a caller presses "0" for the operator.
  - Administration via Telephone (AVT) number  
Administrators dial the AVT number to access the AVT to modify or create prompts and greetings.

**Caution**

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

## Activity Timer

The system has a timer that checks if the GUI is being used. If the GUI has been started but no windows or fields are accessed for a while, the system displays the following window 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 initialization wizard.

## Buttons on the Initialization Wizard Windows

Table 6 describes the buttons used only on the initialization wizard windows. None of the other GUI windows use them.

**Table 6** Initialization Wizard Window Buttons

Button	Purpose
<b>Back</b>	Click to return to a previous window.
<b>Next</b>	Click to move to the next window.
<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 save.
<b>Help</b>	Click to open a help window with information about the fields on the window.

# Starting the Initialization Wizard for Cisco CallManager

Follow these steps to begin the initialization wizard for Cisco CallManager systems.

- 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** window appears:

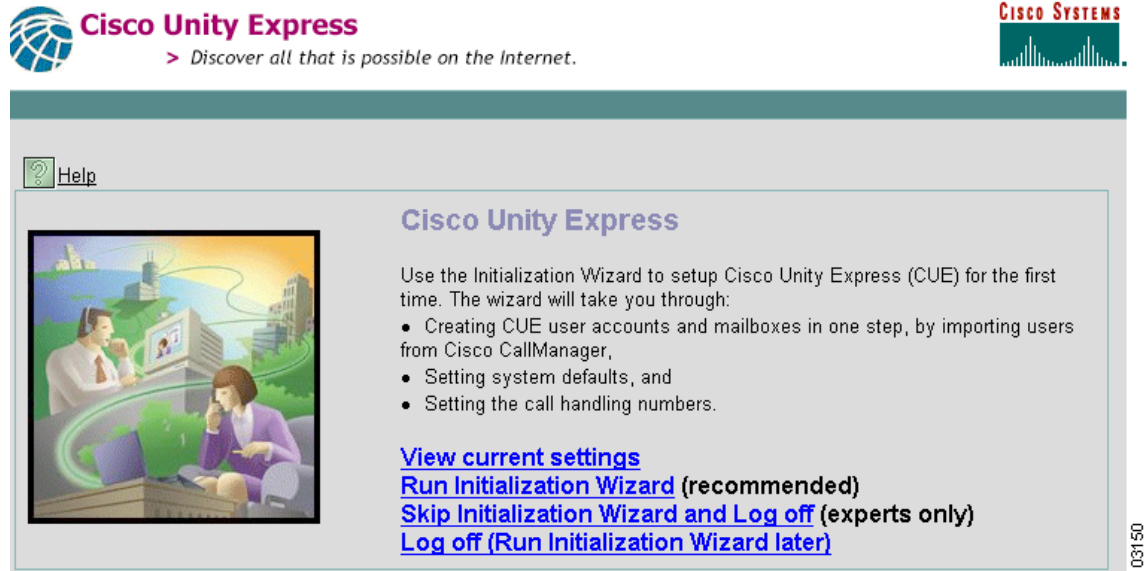
- Step 3** In the **User Name** field, enter the user ID for the Cisco Unity Express administrator. The user ID is case-sensitive; be sure to type the user ID with correct upper- and lowercase letters.



**Note** This administrator ID and the password were created by the installer during the software installation process. This ID is used only for logging in to Cisco Unity Express and is not considered a telephone user.

- Step 4** Tab to or click on the **Password** field and enter the password for the Cisco Unity Express 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 window appears:



The following options are available from this window:

- **View current settings**—Use this option to display several system parameters that were defined when the Cisco CallManager software was installed. See [Step 6](#) below.
- **Run Initialization Wizard**—Use this option to start the initialization 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** window appears:

Setting	Value
Language:	German (Germany)
Mailbox Size:	3000 seconds
Maximum Caller Message Size:	60 seconds
Message Expiry Time:	30 days
Voice Mail Number (CCM):	
Voice Mail Number (SRST):	
Auto Attendant Access Number (CCM):	
Auto Attendant Access Number (SRST):	
Voice Mail Operator Extension:	0
Auto Attendant Operator Extension:	0
Administration via Telephone Call-in number (CCM):	
Administration via Telephone Call-in number (SRST):	

These values were configured on the Cisco CallManager application. They cannot be changed from this window. Run the initialization wizard to change the values.

- Step 7** Click **Cancel** to close this window. The **Cisco Unity Express** window appears again.
- Step 8** To start the initialization wizard, click **Run Initialization Wizard**.

The **CallManager Login** window appears:

**Cisco Unity Express Initialization Wizard**

**Steps**

- ▣ 1 CallManager Login
- ▣ 2 Import CCM Users
- ▣ 3 Defaults
- ▣ 4 Call Handling
- ▣ 5 Commit

**CallManager Login**

Primary CallManager \*: 10.100.10.120

Secondary CallManager: 10.100.10.130

Tertiary CallManager: 10.100.10.140

Web User Name \*: administrator

Web Password \*: [masked]

JTAPI User Name \*: gayle

JTAPI Password \*: [masked]

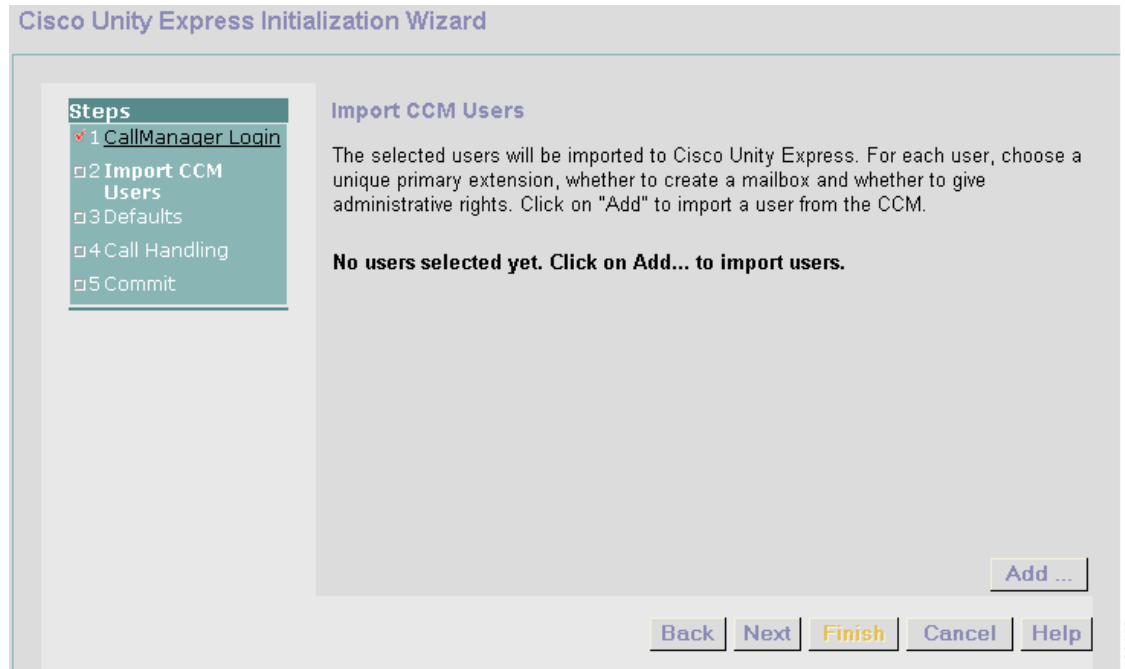
\* indicates a mandatory field

Back Next Finish Cancel Help

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- Step 9** The IP address of the CallManager server appears in the **Primary CallManager** field. If this value is not correct, enter the correct IP address.
- Step 10** (Optional) The **Secondary CallManager** field is optional. To use a secondary Cisco CallManager server, enter the IP address of the server.
- Step 11** (Optional) The **Tertiary CallManager** field is optional. To use a tertiary Cisco CallManager server, enter the IP address of the server.
- Step 12** In the **Web User Name** field, enter the user ID for the Cisco CallManager web administrator.
- Step 13** In the **Web Password** field, enter the password for the Cisco CallManager web administrator.
- Step 14** In the **JTAPI User Name** field, enter the user ID for the Cisco CallManager JTAPI user.
- Step 15** In the **JTAPI Password** field, enter the password for the Cisco CallManager JTAPI user.
- Step 16** Click **Next**.

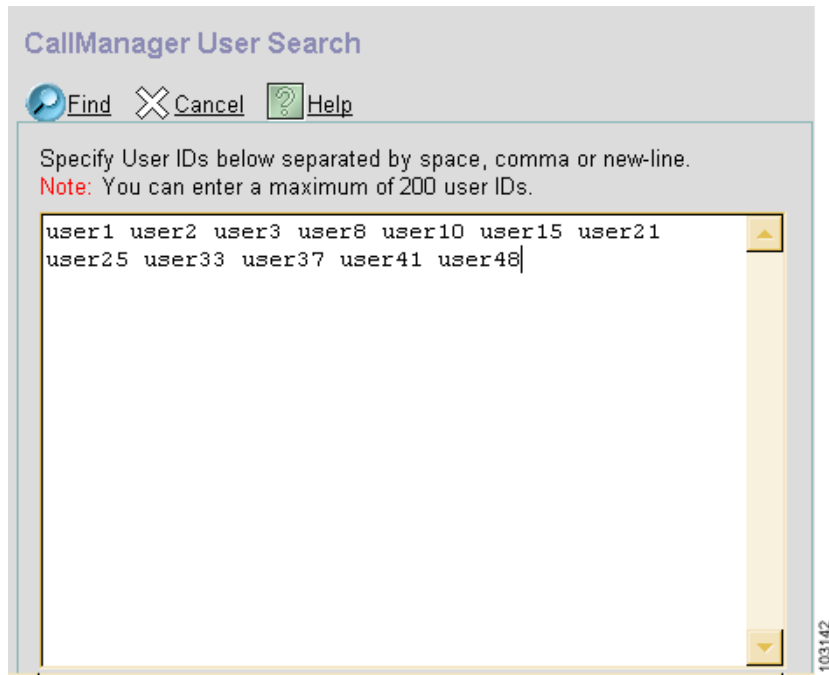
The **Import CCM Users** window appears:



Use this window to copy user data configured on Cisco CallManager to the Cisco Unity Express database. When this window first appears, no users are displayed.

- Step 17** Do one of the following:
- To add users later, go to [Step 27](#).
  - To add users now, click **Add**.

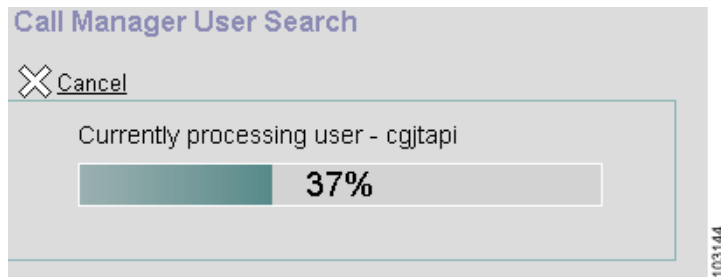
The **CallManager User Search** window appears:



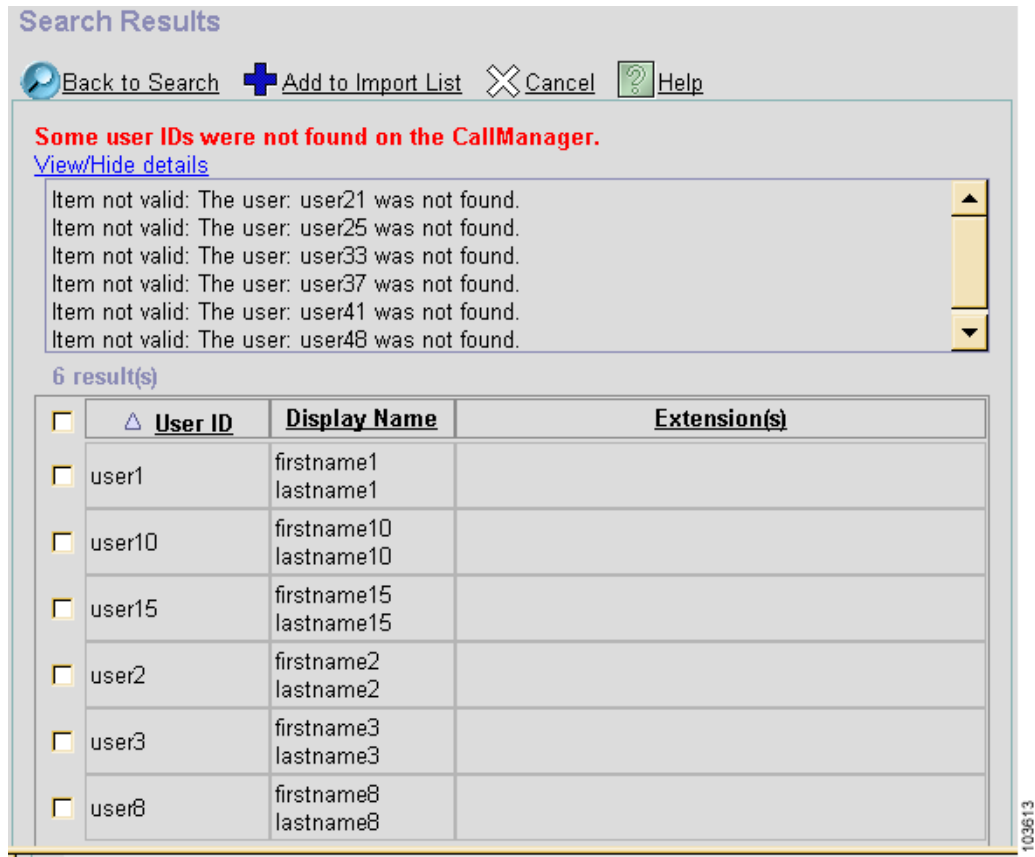
When this window first appears, no users are displayed.

- Step 18** Enter a maximum of 200 user IDs of Cisco CallManager users who should be imported. Separate the user IDs with a space, comma, tab, or carriage return.
- Step 19** Click **Find**.

A status window appears while Cisco Unity Express searches for the users' data:



When the search is complete, the **Search Results** window appears:



This window displays the results of the search. Users found in the Cisco CallManager database have check boxes next to their user IDs.

- Step 20** If you scroll through the list and do not see one or more users that you need, click **Back to Search** and repeat [Step 17](#) to [Step 19](#).
- Step 21** After you find one or more users that you want to copy to Cisco Unity Express, do one of the following:
  - To copy all the users in the display, check the box next to User ID. This places a check mark in the box next to each user ID.
  - To copy some of the users, check the box next to the specific user IDs.
- Step 22** Click **Add to Import List**.

The **Import CCM Users** window appears with the list of users:

**Cisco Unity Express Initialization Wizard**

**Steps**

- 1 CallManager Login
- 2 Import CCM Users
- 3 Defaults
- 4 Call Handling
- 5 Commit

**Import CCM Users**

The selected users will be imported to Cisco Unity Express. For each user, choose a unique primary extension, whether to create a mailbox and whether to give administrative rights. Click on "Add" to import a user from the CCM.

6 result(s)

<input type="checkbox"/>	User ID	Extension(s)	Primary	<input type="checkbox"/> Mailbox	<input type="checkbox"/> Administrator
<input checked="" type="checkbox"/>	user1		None	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	user10		None	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	user15		None	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	user2		None	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	user3		None	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	user8		None	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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Table 7 describes the columns on this window:

**Table 7** Import Users Window 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.

You can copy any or all of those users into the Cisco Unity Express database. A check mark automatically appears next to each username.



**Note** Copy at least one of the users, and designate one as the administrator. When the initialization process is complete, make a note of the user's ID and password. You will need this to log back in to Cisco Unity Express.

**Step 23** All the users in the list will be copied to the Cisco Unity Express database unless you remove the check marks 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 check marks as they are and go to [Step 24](#).
- To remove a check mark, check 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 24** 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 is 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 25** In the **Mailbox** column, do one of the following:

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



---

**Note** Checking this box creates a mailbox for all users displayed in the list. If you selected specific users in [Step 23](#), do not check this box.

---

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

**Step 26** 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, check the box next to **Administrator**. If you selected specific users in [Step 23](#), do not check this box.
- To allow specific users to configure the system, check the box in the **Administrator** column next to each user who should have this permission.

**Step 27** Click **Next**.

The **Defaults** window appears:

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

**Step 28** The **Language** field indicates the language used for all voice-mail system messages and prompts heard by the telephone user. In Release 2.0 and later, the language purchased with Cisco Unity Express appears.

**Step 29** 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 **Blank password** radio button.
- The default is to generate a random PIN for each user. To leave the PIN blank for all new users, click the **Blank PIN** radio button.

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

**Step 30** In the **Mailbox Size** field, enter the maximum number of seconds of stored messages allowed for each mailbox.



- Step 31** 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 32** In the **Message Expiry Time** field, enter the number of days for which old messages are stored. When a message has been stored for this length of time, the user can resave it or delete it.
- Step 33** Click **Next**.

The **Call Handling** window appears:

**Cisco Unity Express Initialization Wizard**

**Steps**

- 1 CallManager Login
- 2 Import CCM Users
- 3 Defaults
- 4 Call Handling
- 5 Commit

**Call Handling**

Enter the Call in Numbers for Voice Mail, Auto Attendant and the Administration via telephone (AVT) system.

Voice Mail Number \*: 4400

Voice Mail Operator Extension \*: 7000

Auto Attendant Access Number: 12225550150

Auto Attendant Operator Extension: 1000

Administration via Telephone Number: 8000

\* indicates a mandatory field

Back Next Finish Cancel Help

If these fields were not previously configured using the Cisco Unity Express CLI commands, they will be blank.



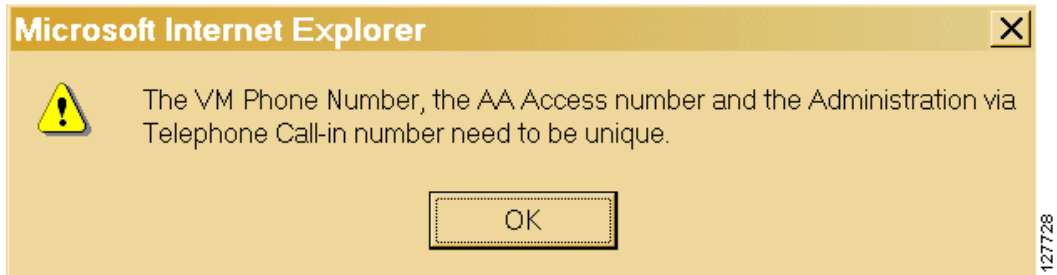
**Caution**

The **Voice Mail Number** field, **Auto Attendant Access Number** field, and **Administration via Telephone** field should contain different values. If they do not, a user who tries to call the operator while in the voice-mail system will be directed back to the voice-mail system or the AVT. Also, an outside caller who tries to get to the operator will be connected to the voice-mail system or the AVT.

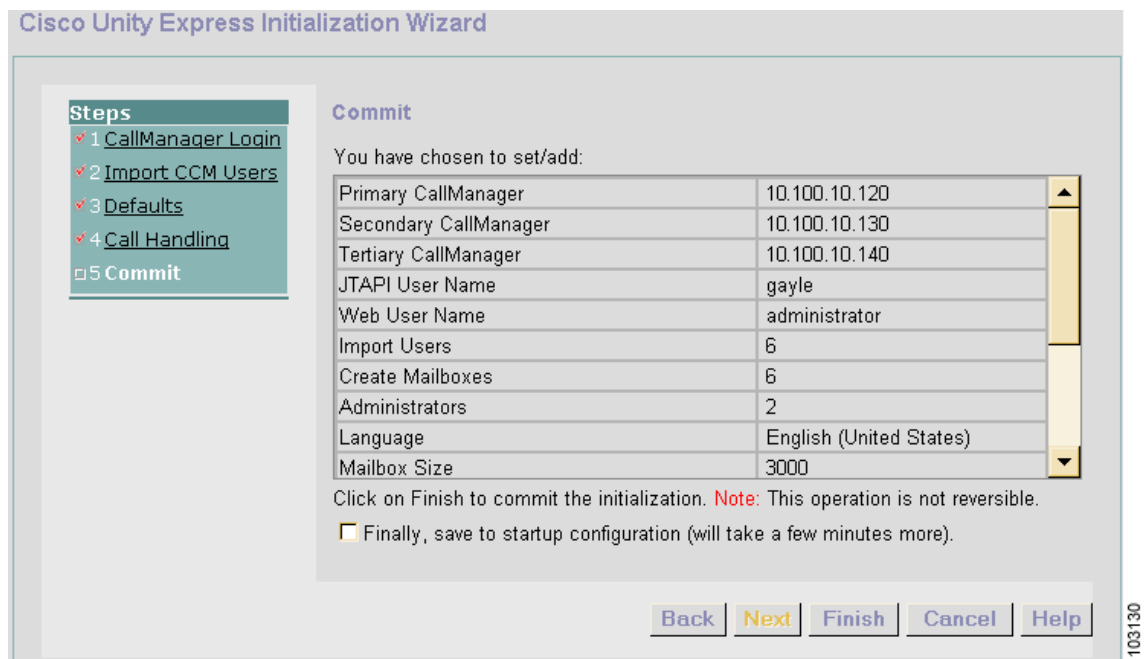
- Step 34** In the **Voice Mail Number** field, enter the telephone number that users dial to retrieve their voice messages. The telephone number should not have spaces, dashes, or periods.
- Step 35** In the **Voice Mail Operator Extension** field, enter the telephone extension for the voice-mail operator. A voice-mail user dials this extension to reach the operator.
- Step 36** In the **Auto Attendant Access Number** field, enter the telephone number that callers dial to access the auto attendant.
- Step 37** In the **Auto Attendant Operator Extension** field, enter the telephone extension for the auto-attendant operator. Auto attendant dials this extension when the caller presses "0" for the operator.
- Step 38** In the **Administration via Telephone Number** field, enter the telephone number or extension that administrators dial to access the AVT. (Administrators access the AVT to modify or create prompts and greetings.)

**Step 39** Click **Next**.

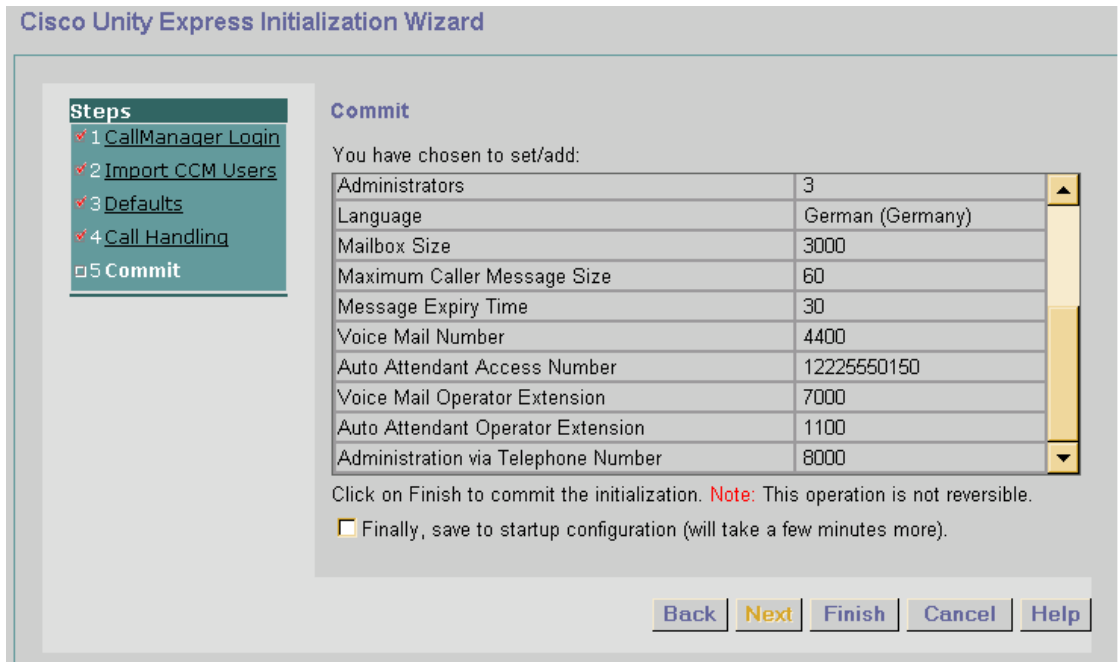
If any two of the **Voice Mail Number**, **Auto Attendant Access Number**, and **Administration via Telephone Number** fields have the same number, an error message appears:

**Step 40** Click **OK** and repeat [Step 34](#) to [Step 39](#).

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

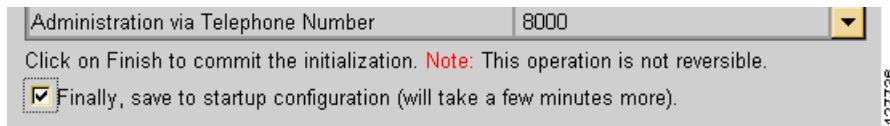


This window displays the current values of the initialization parameters. Use the scrollbar to view the other parameters:



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

- Step 41** If any value is not correct, click **Back** to return to the appropriate window and change the value.
- Step 42** When all the values are correct, check the box next to **Finally** to save the values.



- Step 43** Click **Finish** to complete the initialization.

The default values are stored in the Cisco Unity Express database. The Administrators group is created.



**Note** You can change any of these parameters by using other menu options described in [“Cisco Unity Express Windows and Menus” on page 52.](#)

The **Initialization Wizard Status** window appears:

Cisco Unity Express Initialization Wizard Status

Help

**Auto-generated authentication information:**

User ID	Password	PIN
user1	lfp576616	5644
user10	hpc252436	1195
user15	poi602558	4978
user2	dey215812	1555
user3	zgg429093	8580
user8	crz585796	3968

Defaults: Updated

User Creation: 6 Success

Voicemail application creation: Success

Administration via Telephone application creation: Success

Auto Attendant application creation: Success

JTAPI provider: Updated

CTI Ports: Success

Save to startup configuration: Success

**Note:** You must reload the system for importing users and CTI ports and for voice calls to work.

[Logout](#)  
[Reload Unity Express](#)

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Table 8 describes the fields on this window.

**Table 8** Initialization Wizard Status Window Fields

Field	Description
User ID	Login ID of each user copied from the Cisco CallManager database.
Password	Password generated for each user ID. If you selected <b>Blank Password</b> in the <b>Defaults</b> window, this column is blank.
PIN	PIN generated for each user ID. If you selected <b>Blank PIN</b> in the <b>Defaults</b> window, this column is blank.
Defaults	Status of mailbox size, message length, message expiration time, password and PIN generation, and MWI on and off numbers.
User Creation	Status of creating the selected Cisco CallManager users in the Cisco Unity Express database.
Voicemail application creation	Status of initializing the voice-mail system and storing the voice-mail system telephone number.

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

Field	Description
<b>Administration via Telephone application creation</b>	Status of initializing the AVT application and storing the AVT telephone number.
<b>Auto Attendant application creation</b>	Status of initializing the auto-attendant application and storing the auto-attendant telephone number.
<b>JTAPI provider</b>	Status of registering the JTAPI user ID and password with Cisco CallManager.
<b>CTI Ports</b>	Status of updating Cisco CallManager with the CTI ports and associated route points.
<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.

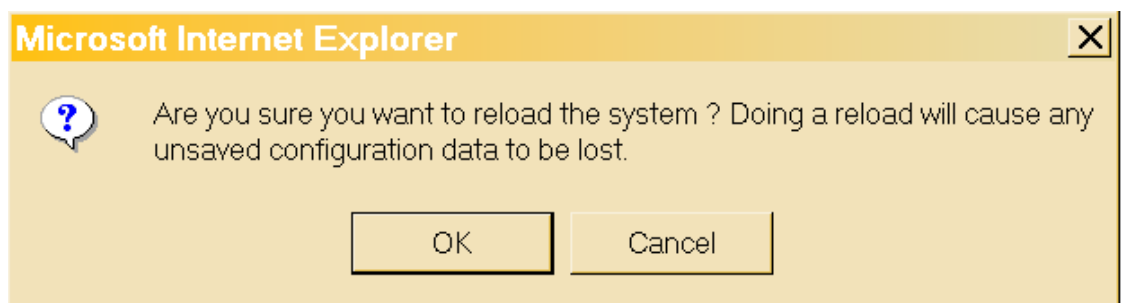
- Step 44** Write down the user IDs and passwords for the users. Keep them in a secure place.
- Use the administrator's user ID and password to log back in to Cisco Unity Express.
  - Give these user IDs and passwords to the users so that they can log in to their voice mailboxes.

**Step 45** Do one of the following:



**Note** You must reload Cisco Unity Express to update the databases with the users and values entered in the initialization wizard.

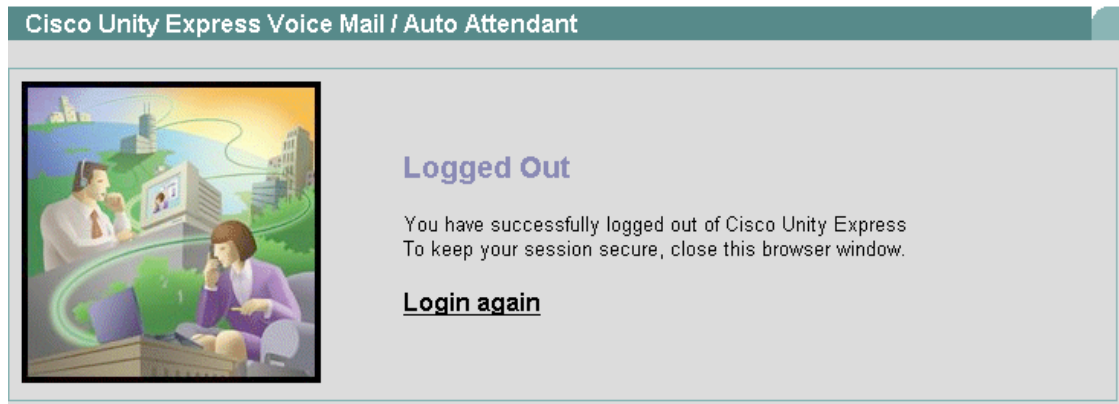
- Click **Logout** to exit the initialization wizard. Cisco Unity Express and Cisco CallManager do not update their databases with the values entered on these windows.
- Click **Reload Unity Express** to update the Cisco Unity Express and Cisco CallManager databases. A verification window appears:



Do one of the following:

- Click **OK** to start the reload. As the databases are updated, the window may pause or the **Logged Out** window may appear but may not respond for a short while.
- Click **Cancel** to continue without reloading.

The **Logged Out** window appears:



**Step 46** Click **Login again** to enter the GUI administration environment.

See "[Logging In to Voice-Mail Administration for the First Time](#)" on page 43 to change your password and to start Cisco Unity Express.



## Logging In and Out of Cisco Unity Express

---

This chapter describes processes for logging in and logging out and contains the following sections:

- [Logging In to Voice-Mail Administration for the First Time, page 43](#)
- [Logging In to Cisco Unity Express, page 46](#)
- [Logging Out of Cisco Unity Express, page 48](#)



### Note

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

---

## Logging In to Voice-Mail Administration 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.

### Procedure


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 module. Be sure to enter `Web` with upper- and lowercase letters as shown here.

The **Authentication** window appears:



Cisco Unity Express Voice Mail / Auto Attendant



### Authentication

User Name:

Password:

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

If you have just completed the initialization wizard, the **Authentication** window may appear to be unresponsive. The system may be updating the databases with the new users and system values; this process may take a few minutes.


**Step 2** In the **User Name** field, enter the user ID of a user identified as an Cisco Unity Express administrator. This user ID is not the same as the user ID that started the initialization wizard. The user ID is case-sensitive; be sure to type the user ID with correct upper- and lowercase letters.

**Step 3** Do one of the following:

- If the system generates random passwords, tab to or click in the Password field and enter the password that was generated for you during the initialization procedure.
- If the system does not generate random passwords, go to Step 4.

**Step 4** Click **Login**.

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



### Password Expired

Your password has expired and you must change it now.

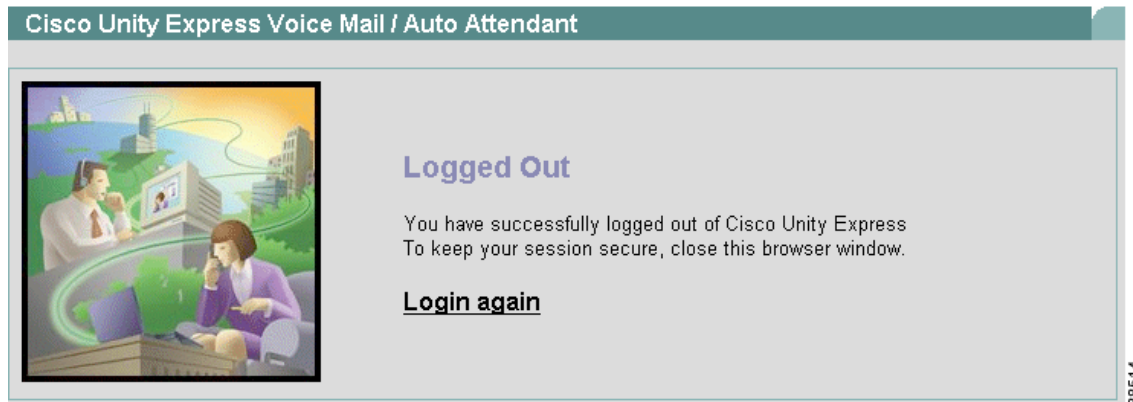
New password:

Confirm new password:

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- Step 5** Do one of the following:
- If you have a randomly generated password, enter it in the Current password field.
  - If the system does not generate random passwords, 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** window appears:



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

## What to Do Next

After logging in to the system, see [“Navigating Through the Cisco Unity Express GUI Windows”](#) section on page 49.

# Logging In to Cisco Unity Express

Logging in to Cisco Unity Express is very straightforward.

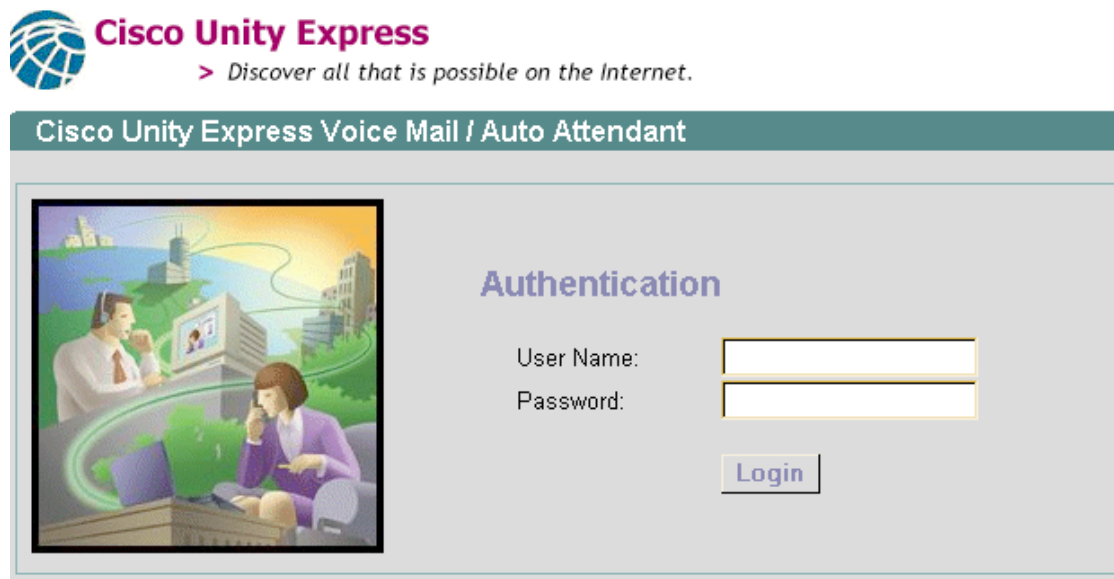


**Note** If this is the first time you are logging in to the system, see [“Logging In to Voice-Mail Administration for the First Time”](#) on page 43.

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 module. Be sure to enter **Web** with upper- and lowercase letters as shown here.

The **Authentication** window appears:



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

**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 window appears:



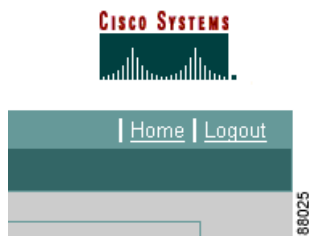
All voice-mail administration activity uses the menus on this window. See [“Navigating Through the Cisco Unity Express GUI Windows” on page 49](#) for a description of the different menus.

# Logging Out of Cisco Unity Express

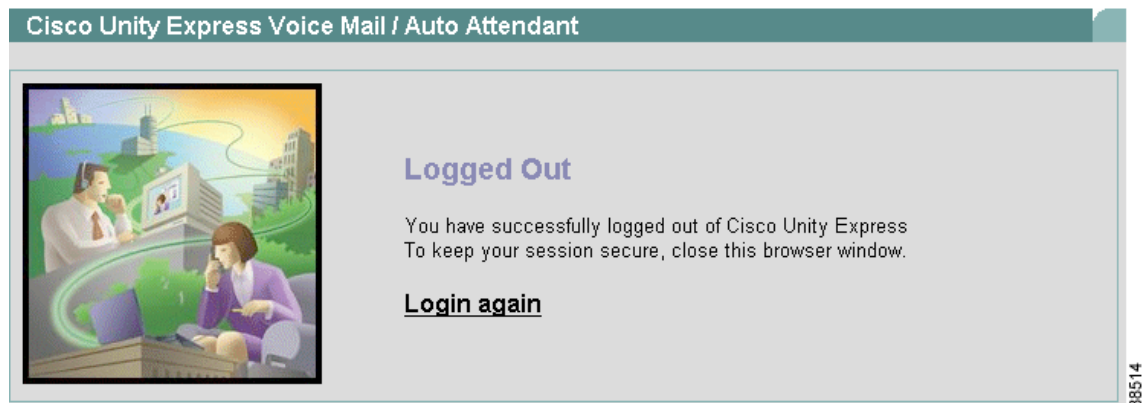
Log out of Cisco Unity Express when you finish your current set of tasks so that unauthorized personnel will not have access to the administration functions.

Follow these steps to log out of Cisco Unity Express.

- Step 1** Before logging out of the system, save changes to the windows on which you were working. (Use the **Administration > Control Panel** option to save your data.) 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 window and click **Logout**.



The **Logged Out** window appears:



- Step 3** Do one of the following:
- Click **Login again** to re-enter the administration windows.
  - Close the application.



## Cisco Unity Express Windows and Menus

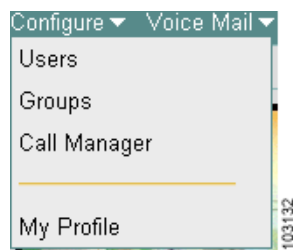
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This chapter describes the windows, menus, and icons available in the Cisco Unity Express voice-mail system and contains the following sections:

- [Navigating Through the Cisco Unity Express GUI Windows, page 49](#)
- [Cisco Unity Express Windows and Menus, page 52](#)
- [Cisco Unity Express Icons, page 58](#)
- [What to Do Next, page 62](#)


### Navigating Through the Cisco Unity Express GUI Windows

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 leads you to windows where data can be selected or entered. For example:



Clicking one of these options leads you to a window where data can be selected. 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

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

**Add a New User**

User ID \*:   
 First Name \*:   
 Last Name \*:   
 Nick Name \*:   
 Display Name\*:   
 Primary E.164 Number:   
 Primary Extension:   
 Language:    
 Password options:    
 Password:   
 Confirm Password:   
 PIN options:    
 PIN:   
 Confirm PIN:   
 Create Mailbox  
 \* indicates a mandatory field

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

These windows 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 58](#) for a description of the icons.

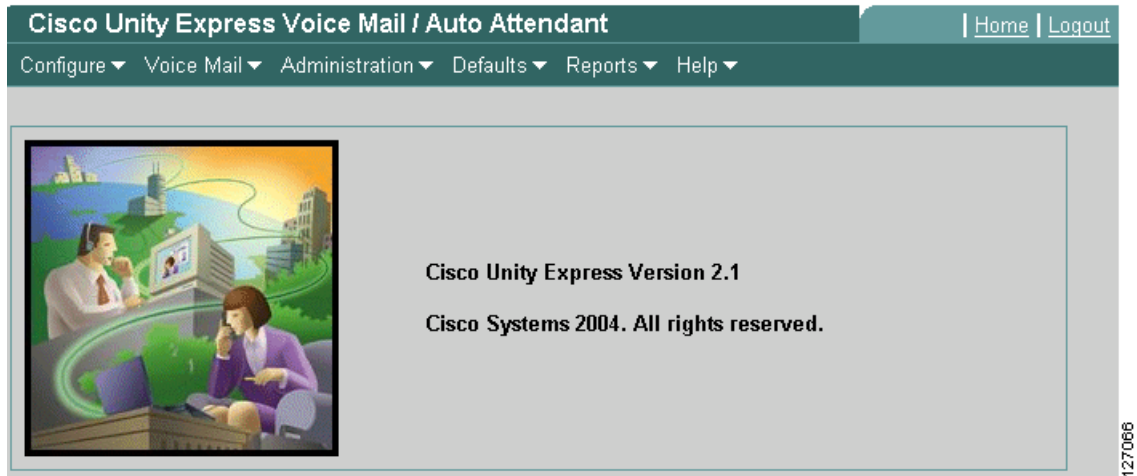
After reviewing the icons, continue with [“Sequence of Administrative Tasks” on page 63](#).

# Cisco Unity Express Windows and Menus

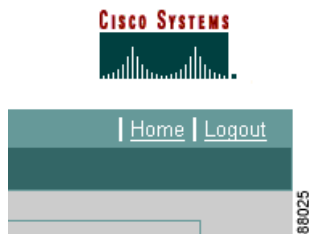
The windows and menus are described in this section.

## Home Window

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



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





## Configure Menu

The Configure menu appears when you click **Configure** on the Home window.



Table 9 describes the options on the Configure menu:

**Table 9** *Configure Menu Options*

Menu Option	Description
<b>Users</b>	Add, modify, or delete a user. Assign one or more extensions to a user.
<b>Groups</b>	Add, modify, or delete a group of users. Assign at least one user as the group owner.
<b>Remote Users</b>	Add, modify, or delete a user at a remote location. The remote location must be configured in the Cisco Unity Express database before using this option. See the <b>Administration &gt; Networking Locations</b> option.
<b>CallManager</b>	Modify Cisco CallManager parameters. Many of these values were configured during Cisco CallManager installation.
<b>My Profile</b>	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 window.

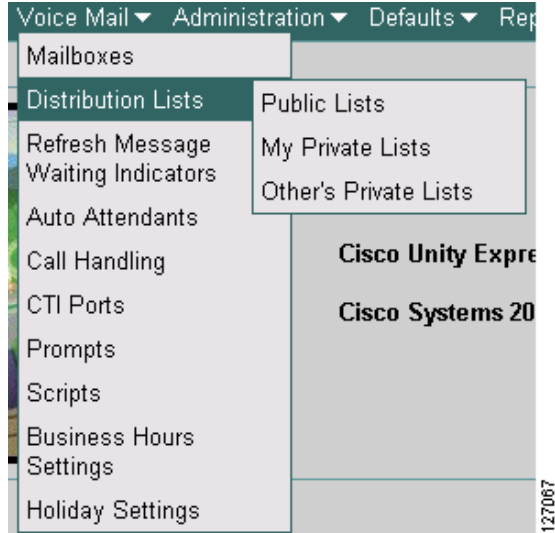


Table 10 describes the options on the Voice Mail menu:

**Table 10** Voice Mail Menu Options

Menu Option	Description
<b>Mailboxes</b>	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.
<b>Distribution Lists</b>	Add, modify, or delete public or private distribution lists. Only members of the Administrators group or any group with the ViewPrivateList privilege and view private lists belonging to a specific user.
<b>Refresh Message Waiting Indicators</b>	Refresh the message waiting indicators (MWIs) for one or more extensions or users. Modify the MWI On and MWI Off extensions, if necessary.
<b>Auto Attendants</b>	Configure one or more auto attendants.
<b>Call Handling</b>	Modify the telephone number for dialing the voice-mail application, the voice-mail operator extension, and the maximum number of concurrent calls that the voice-mail and auto-attendant applications can handle.
<b>CTI Ports</b>	Configure the CTI ports that Cisco CallManager uses to communicate with Cisco Unity Express.
<b>Prompts</b>	Configure prerecorded customized auto-attendant application prompts.
<b>Scripts</b>	Configure customized auto-attendant application scripts that have been created using the Cisco Unity Express script editor.

**Table 10** Voice Mail Menu Options (continued)

Menu Option	Description
<b>Business Hours Setting</b>	Add, modify, or delete schedules of the days and times of the week when the company is open for business s.
<b>Holiday Settings</b>	Add or delete schedules of days when the company is closed for holidays.

## Administration Menu

The Administration menu appears when you click **Administration** on the Home window.

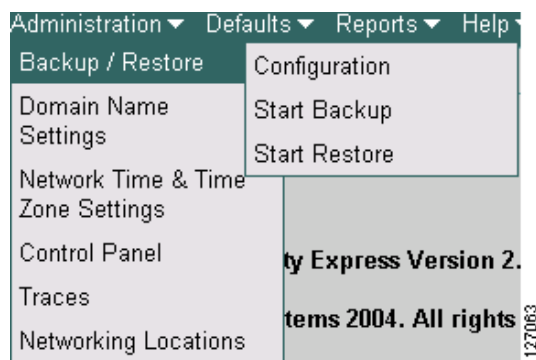


Table 11 describes the options on the Administration menu:

**Table 11** Administration Menu Options

Menu Option	Description
<b>Backup/Restore</b>	Configure backup and restore parameters, and save Cisco Unity Express data and configuration changes to other locations, such as the FTP server. Restore saved files as needed.
<b>Domain Name Settings</b>	Modify the hostname, domain name, and DNS server.
<b>Network Time &amp; Time Zone Settings</b>	Add or delete an NTP server, which is used for the date and time on Cisco Unity Express. Change the local time zone.
<b>Control Panel</b>	Save the Cisco CallManager data and the Cisco Unity Express data to flash memory or reload the Cisco Unity Express software.
<b>Traces</b>	Set categories for generating trace data. Use this option for troubleshooting Cisco Unity Express.
<b>Networking Locations</b>	Configure the local Cisco Unity Express ID and the parameters for any remote locations.

## Defaults Menu

The Defaults menu appears when you click **Defaults** on the Home window.

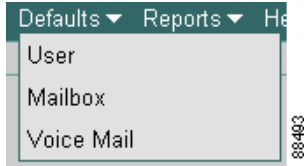


Table 12 describes the options on the Defaults menu:

**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 window.

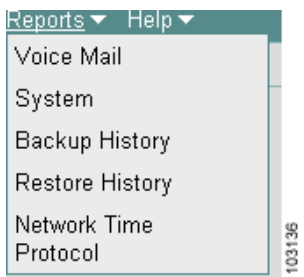


Table 13 describes the options on the Reports menu:

**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.

**Table 13** Reports Menu Options (continued)

Menu Option	Description
<b>Backup History</b>	Displays the backed-up files, backup dates, and success status.
<b>Restore History</b>	Displays the restored files, restore dates, and success status.
<b>Network Time Protocol</b>	Displays the NTP servers and the time difference between the NTP server and the Cisco CallManager router clock.

## Help Menu

The Help menu appears when you click **Help** on the Home window.



[Table 14](#) describes the options on the Help menu:

**Table 14** Help Menu Options

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

# Cisco Unity Express Icons

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

**Table 15** Cisco Unity Express Icons




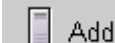





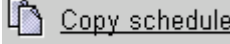
Icon	Purpose
	Click to add new users or to add users to groups.
	Click to add a new voice mailbox.
	Click to add a new extension.
	Click to add a new DNS server.
	Click to add a new network location.
	Click to add a holiday to the company's schedule.
	Click to add a new business-hours schedule.
	Click 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 window. Data is not activated or saved.
	Click to copy a schedule of business hours.

Table 15 Cisco Unity Express Icons (continued)


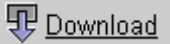

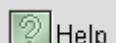


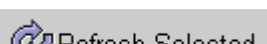


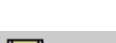

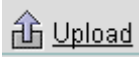

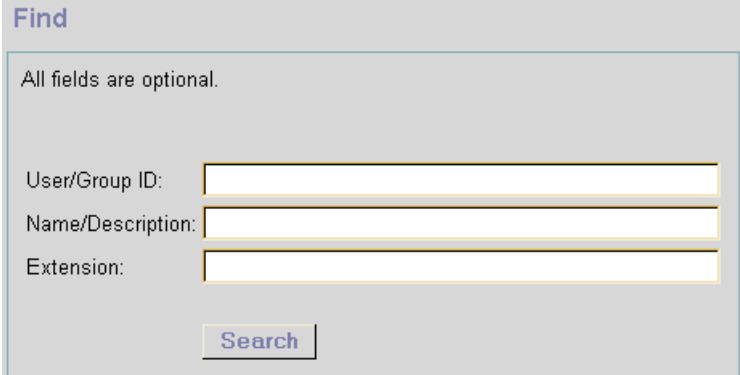
Icon	Purpose
 Delete	Click to delete a preselected user, extension, phone, voice mailbox, or group. Preselect the item by checking on the box to the left of the item.
 Download	Click to download a personalized script or prompt from the auto attendant to another location.
 Find	Click to find a user, voice mailbox, or group. A dialog box appears for entering the name to be found. See the procedure below for using this icon.
 Help	Click to open a help window with information about the fields on the window.
 Import	Click to import users from Cisco CallManager to Cisco Unity Express.
 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 the values for all extensions.
 Save	Click to save the changes made on the active window or session.
 Unlock	Click to unlock one or more mailboxes.

Table 15 Cisco Unity Express Icons (continued)

Icon	Purpose
	Click to upload a personalized, prerecorded auto-attendant greeting file or script.
	Click to verify the connection between Cisco Unity Express and Cisco CallManager.

## 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:



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 checking on the check box next to the name. The software uses this choice in the data entry window where you invoked the Find icon.

## Alphabetizing Data—the Sort Icon

Windows 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

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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="#">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

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



#### Timesaver

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

# What to Do Next

See the chapter [“Sequence of Administrative Tasks”](#) on page 63 for a list of administrative tasks.



## Sequence of Administrative 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 windows are available with information and guidance. Look for the **Help** icon on each window to access these help windows.

## Initial Tasks

Do the tasks listed in [Table 16](#) to set up Cisco Unity Express:

**Table 16** *Initial Configuration Tasks*

Task	Menu Option
1. Upload customized prompts and greetings. Alternatively, use the Administration via Telephone (AVT) on the TUI to record the prompts.	Choose <b>Voice Mail &gt; Prompts</b> .
2. Upload customized scripts. To create the scripts, use the script editor described in the <a href="#">Cisco Unity Express Script Editor Guide</a> .	Choose <b>Voice Mail &gt; Scripts</b> .
3. Configure the auto-attendant application.	Choose <b>Voice Mail &gt; Auto Attendant</b> .
4. If extensions have not been configured, configure them.	Choose <b>Configure &gt; Extensions</b> .
5. If users and groups have not been configured, configure them.	Choose <b>Configure &gt; Users and Configure &gt; Groups</b> .
6. Configure individual and general delivery voice mailboxes.	Choose <b>Voice Mail &gt; Mailboxes</b> .
7. If using a network, configure network locations.	Choose <b>Administration &gt; Networking Locations</b> .

**Table 16** *Initial Configuration Tasks (continued)*

Task	Menu Option
8. (Optional) Add remote users to the local directory.	Choose <b>Config &gt; Remote Users</b> .
9. (Optional) Create public distribution lists.	Choose <b>Voice Mail &gt; Distribution Lists</b> .
10. (Optional) Configure LRU cache.	Available through CLI commands.
11. (Optional) Configure vCard information receipt.	Available through CLI commands.
12. (Optional) Configure broadcast message senders.	Choose <b>Configure &gt; Users</b> .
13. (Optional) Configure holiday schedules.	Choose <b>Voice Mail &gt; Holiday Settings</b> .
14. (Optional) Configure business hours.	Choose <b>Voice Mail &gt; Business Hours Settings</b> .

## Ongoing Tasks

Do the tasks listed in [Table 17](#) on a regular basis.

**Table 17** *Ongoing Administrative Tasks*

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

## As-Needed Tasks

Do the tasks listed in [Table 18](#) on an as-needed basis.

**Table 18** *As-Needed Administrative Tasks*

Task	Menu Option
Add, display, modify, and delete voice mailboxes.	Choose <b>Voice Mail &gt; Mailboxes</b> .
Unlock a voice mailbox.	Choose <b>Voice Mail &gt; Mailboxes</b> and the <b>Unlock</b> icon.
Add, display, modify, and delete users.	Choose <b>Configure &gt; Users</b> .
Add, display, modify, and delete groups.	Choose <b>Configure &gt; Groups</b> .
Change a user's voice-mail password.	Choose <b>Configure &gt; Users</b> and the user ID that needs to be changed.

**Table 18 As-Needed Administrative Tasks**

<b>Task</b>	<b>Menu Option</b>
Change the voice mailbox size or storage time.	Choose <b>Defaults &gt; Mailbox</b> to change the value system-wide. Choose <b>Configure &gt; Users</b> and the user ID to change the value for a specific user.
Change password or PIN length.	Choose <b>Defaults &gt; User</b> .
Change password or PIN expiry time.	Choose <b>Defaults &gt; User</b> .
Add, display, modify and delete extensions and telephones.	Choose <b>Configure &gt; Extensions</b> and <b>Configure &gt; Phones</b> .
Assign an extension to another user.	Choose <b>Configure &gt; Extensions</b> .
Modify the auto-attendant application properties.	Choose <b>Voice Mail &gt; Auto Attendant</b> .
Add, modify, and delete the auto-attendant prompts.	Choose <b>Voice Mail &gt; Prompts</b> and see <a href="#">“Recording an Auto-Attendant Greeting or Prompt File”</a> on page 11.
Add, modify, and delete the auto-attendant scripts.	Choose <b>Voice Mail &gt; Scripts</b> and see <a href="#">“Configuring Auto-Attendant Scripts”</a> on page 12.
Troubleshoot software problems.	See the chapter <a href="#">“Troubleshooting Cisco Unity Express”</a> on page 67.
Add, display, modify, and delete Cisco CallManager servers, web users, and JTAPI users.	Choose <b>Configure &gt; CallManager</b> .
Add, display, modify, and delete CTI ports.	Choose <b>Voice Mail &gt; CTI Ports</b> .





# Troubleshooting Cisco Unity Express

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This chapter contains the following troubleshooting procedures:

- [IP Addressing Problems, page 67](#)
- [Backup or Restore Not Working, page 67](#)
- [Installation Not Working Correctly, page 68](#)
- [Incorrect Date and Time, page 68](#)
- [MWI Lights Not Working Properly, page 68](#)
- [Configurations Disappear, page 68](#)
- [Wrong GUI Layout, page 69](#)
- [Auto-Attendant Prompts, page 69](#)

## 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** Choose **Administration > Domain Name Settings** to configure the host server.

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

## Backup or Restore Not Working

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

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

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

## Installation Not Working Correctly

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

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

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

## Incorrect Date and Time

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

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

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

## 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. Choose **Voice Mail > Message Waiting Indicators > Refresh**.

**Recommended Action** Check that the user's extension is designated as a primary extension. Cisco Unity Express does not send a MWI to an E.164 number. Choose **Configure > Users** to designate a primary extension.

**Recommended Action** Check if the WAN link is down between Cisco Unity Express and Cisco CallManager. Choose **Configure > CallManager** and click **Verify**. If the link is down, a failure message appears. MWI lights do not work while the WAN is down. Once the link comes back up, the system does a refresh of all MWI lights. Any MWI updates sent to Cisco Unity Express while the link was down are lost.

## 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 CallManager server or Cisco CME router, but Cisco Unity Express did not pick them up.

**Explanation** You made changes to the running configuration that were not saved to the startup configuration.

**Recommended Action** Choose **Administration > Save Configuration** to load the startup configuration.

## Wrong GUI Layout

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

**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 out 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.





## Appendix A: Software Copyrights and Licenses

---

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bash  
devfsd  
e2fsprogs  
fileutils  
findutils  
gawk  
grep  
hrtimers  
kernel2.4.18  
mingetty  
modutils  
ncurses  
net-tools  
procps  
sh-utils  
sysklogd  
syslog-ng  
sysvinit  
tar  
textutils  
utils-linux

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Version 2, June 1991

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