



## Q&A

# CISCO UNITY EXPRESS

## GENERAL

**Q.** What is Cisco Unity® Express?

**A.** Cisco Unity Express offers local voicemail and automated attendant capabilities for IP phone users connected to Cisco® CallManager or Cisco CallManager Express in small or midsize offices or branch locations. Cisco Unity Express is fully integrated into the branch office router either on a network module (NM-CUE and NM-CUE-EC [Enhanced Capacity]) or an advanced integration module (AIM-CUE) providing up to 120 mailboxes. Cisco Unity Express is supported on the newly introduced Cisco 2800 Series and 3800 Series integrated services routers, as well as the widely deployed Cisco 2600XM Series and 2691 multiservice platforms and Cisco 3700 Series multiservice access routers.

**Q.** What is Cisco CallManager Express?

**A.** Cisco CallManager Express is an integrated call-processing solution based on Cisco midrange access routers using Cisco IOS® Software that delivers telephony services for 10 to 240 users in small or midsize offices. Cisco CallManager Express is part of Cisco AVVID (Architecture for Voice, Video and Integrated Data) and works in conjunction with the extended Cisco Systems product portfolio, including routers, data switches, public switched telephone network (PSTN) gateways, gatekeepers, Cisco Unity voicemail or unified messaging, Cisco Unity Express, and analog terminal adapters.

Cisco CallManager Express delivers a robust set of telephony features similar to those commonly used by business users. Cisco CallManager Express is an optional feature of Cisco IOS Software and is available on a wide range of Cisco access routers supporting as many as 240 phones. Because the solution is based on Cisco access routers and Cisco IOS Software, it is simple to deploy and manage, especially for customers who already use Cisco IOS Software products.

**Q.** What are the major benefits of Cisco Unity Express?

**A.** Cisco Unity Express uses the data infrastructure to deliver productivity-enhancing IP telephony-based messaging services, specifically voicemail and automated attendant, at the branch or the small or midsize office. Because Cisco Unity Express is integrated into a broad range of Cisco integrated services and multiservice routers, it minimizes the number of devices that must be deployed and maintained at a remote location. Cisco Unity Express has been designed specifically for the small and midsize branch office, and is easy to deploy and use. The software is preloaded and an initialization wizard facilitates easy set-up. And because you can choose between centralized or local call control with either Cisco CallManager or Cisco CallManager Express, the product provides design flexibility and investment protection.

Other benefits:

- Can be managed through either an accessible command-line interface (CLI) with scripting capabilities, or a graphical user interface (GUI)
- Provides a fully customizable automated attendant with unlimited nesting and menu options
- Comes with an easy to use end-user tutorial for establishing mailboxes
- Offers capacity options, from either the NM-CUE, NM-CUE-EC, or AIM-CUE with up to 100 hours of storage and four to 16 ports, to meet the specific needs of the site
- Provides voicemail message exchange with other Cisco Unity Express sites and Cisco Unity systems through the Voice Profile for Internet Mail feature
- Shares with Cisco Unity the same prompt flows, key-pad sequences, and voice, reducing user training and frustration

Cisco Unity Express offers investment protection. You can begin with Cisco CallManager Express and migrate to Cisco CallManager when site needs dictate; the investment in licensing for phones, Cisco Unity Express voicemail, and gateway routers are transferable.

**Q.** On which Cisco access routers is Cisco Unity Express supported? Are these the same as Cisco CallManager Express platforms?

**A.** There are minor differences in platform support between Cisco CallManager Express and Cisco Unity Express and between the Cisco Unity Express Network Module and the AIM. The supported platforms are shown in Table 1.

**Table 1.** Platform Support for Cisco CallManager Express and Cisco Unity Express

Platform	Cisco CallManager Express	NM-CUE	AIM-CUE
Cisco 2801 Integrated Services Routers	Yes	No	Yes
Cisco 2800 Series Integrated Services Routers	Yes	Yes	Yes
Cisco 3800 Series Integrated Services Routers	Yes	Yes	Yes
Cisco 1700 Series Modular Access Routers	Yes	No	No
Cisco IAD2430 Integrated Access Devices	Yes	No	No
Cisco 2600XM Series Multiservice Platforms	Yes	Yes	Yes
Cisco 2691 Multiservice Platforms	Yes	Yes	Yes
Cisco 3700 Series Multiservice Access Routers	Yes	Yes	Yes

**Q.** How is Cisco Unity Express different from the Cisco Unity application?

**A.** The Cisco Unity application is a sophisticated unified messaging or voicemail application that supports thousands of users and is typically deployed in a central location on one or more dedicated Cisco media convergence servers (MCSs). Cisco Unity Express is integrated into Cisco multiservice routers and serves sites that require up to 120 mailboxes and that need capabilities intended for the small or midsize business or branch office. Table 2 compares the two products.

**Table 2.** Comparison of Cisco Unity Software and Cisco Unity Express

Cisco Unity Express	Cisco Unity Software
Designed for small or midsize office and branch environments	Designed for the enterprise—regional, headquarters, or branch offices where advanced voicemail or unified messaging features are required
Supports IP telephony environments with Cisco CallManager or Cisco CallManager Express	Supports IP telephony with Cisco CallManager and Cisco CallManager Express and time-division multiplexing (TDM) private branch exchange (PBX), dual-mode support
Offers voicemail and automated attendant	Offers voicemail, unified messaging, and automated attendant
Integrated into Cisco integrated services routers and multiservice access routers for distributed voicemail applications	Provides centralized or distributed voicemail applications on a dedicated MCS server

Cisco Unity Express	Cisco Unity Software
Software is loaded at the factory and an initialization wizard is provided to ease startup activities	Offers specialized training and support for installation and maintenance
Provides an onboard, embedded message store	Message store resides either on a Cisco Unity server or on a separate server for voice messaging; for unified messaging deployments, it uses either Microsoft Exchange or Lotus Domino
Beginning with Release 2.0, voicemail message networking is available with other Cisco Unity Express sites or with Cisco Unity using Voice Profile for Internet Mail (VPIM) Version 2 (RFC 3801)	Offers a broad range of options for networking between sites, including Cisco Unity Digital Networking, VPIM, Audio Messaging Interchange Specification (AMIS), or Cisco Unity Bridge for Avaya Octel message networking
Provides management interfaces, including an HTML GUI (subscriber/system administrator), CLI (system administrator), and an extensive telephone user interface (TUI) for subscriber management	Provides management interfaces, including an HTML GUI (subscriber/system administrator) and a TUI for selected system administrator and extensive subscriber management
Does not affect WAN bandwidth requirements for the remote office because messages are stored locally	If the Cisco Unity solution is deployed in a centralized model, consideration is required for WAN bandwidth and quality of service (QoS) issues to the remote office voicemail
Beginning with Release 2.0, Cisco Unity Express supports North American English, European French, German, and European Spanish	Multiple languages supported

**Q.** When should Cisco Unity Express be used with Cisco CallManager, rather than with Cisco CallManager Express?

**A.** When deciding to use Cisco Unity Express with Cisco CallManager rather than with Cisco CallManager Express, several factors should be considered—the WAN environment, feature needs, the number of sites or phones to be deployed per site, and operating environment preferences. If the WAN has not been engineered for QoS, the locally delivered call control features of Cisco CallManager Express may be preferred. Cisco CallManager with centralized call processing should be considered if advanced applications are required, including Extension Mobility, Cisco IP Contact Center, or Cisco MeetingPlace® conferencing integration. Finally, if familiarity with Cisco IOS Software or Microsoft Windows provides an operational advantage, these factors may influence call control choice.

**Q.** Does Cisco Unity Express work with any other key system or PBX?

**A.** Cisco Unity Express works only with Cisco CallManager or Cisco CallManager Express; it does not work with any other key system or PBX.

## NEW FEATURES IN CISCO UNITY EXPRESS RELEASE 2.1

**Q.** What new features are added in Cisco Unity Express Release 2.1?

**A.** Cisco Unity Express Release 2.1 introduces several important enhancements, including the following features:

- **Spoken name confirmation**—Cisco Unity Express provides spoken name confirmation for all local recipients and, beginning with Release 2.1, many remote recipients. Spoken name confirmation helps ensure that the correct recipient has been selected when a user addresses a voicemail message. The confirmation includes the remote location information if applicable, and remote user name confirmation (if available). Cisco Unity Express updates the local directory populated by the administrator with vCard or Spoken Name information available through the VPIM message to provide spoken name confirmation for remote users.

- **Distribution lists**—The public and private distribution list function provided by Cisco Unity Express allows a voicemail message to be simply and quickly addressed to a list of predefined recipients, saving time and minimizing keying errors. Cisco Unity Express includes an “all users” public distribution list and the ability for a privileged user to define up to 15 other public lists. Individual users may define up to five private lists of their own. A member of a distribution list may be a user, a general delivery mailbox (GDM), a group, or other distribution lists. Remote users and blind addresses may also be members of distribution lists.
- **Broadcast messages**—Like distribution lists, broadcast messages allow a message to be delivered to multiple recipients; specifically, all of the users on the local Cisco Unity Express system or all of the users at a remote location (either remote Cisco Unity Express sites or Cisco Unity Release 4.0.5 sites). Additionally, broadcast messages mean that important communications are given top priority in the recipient’s voice message queue. These special messages are played before other messages, and will remain in the user’s mailbox until they are retrieved in full or expire; this helps ensure that critical communiqués are heard. Broadcast messages are managed through Administration Via Telephony (AVT)—a privileged user interface that, in addition to other system management capabilities, allows broadcast messages to be created and sent to local users and remote locations, and allows broadcast message expiries to be defined.
- **Undelete messages**—If a message is inadvertently deleted during a Cisco Unity Express voicemail message session, the user now has the option to undelete the message and return it to active state within the same session. This feature provides users with improved voice message management.
- **Cisco CallManager**—Operation with Cisco CallManager 4.1, in addition to Cisco CallManager 3.3 and 4.0 networks, with the ability to autodetect the Java Telephony Application Programming Interface (JTAPI) version.
- **Cisco Unity Express Network Module**—Enhanced Capacity (NM-CUE-EC)—Supporting 16 ports of concurrent voicemail or automated attendant sessions.
- **Ports**—Six ports of concurrent voicemail or automated attendant sessions are available on the AIM-CUE when deployed on all Cisco integrated services routers and Cisco 3700 Series multiservice routers.
- **Flexibility of GDMs and personal mailboxes**—Beginning with Cisco Unity Express Release 2.1, as a configuration option, any number of GDMs and personal mailboxes may be defined up to the total number of mailboxes supported by the license, expanding the capacity of each license level from 12, 25, 50, and 100 up to 17, 35, 65, and 120 personal mailboxes, respectively.
- **Improved auto attendant**—The Cisco Unity Express automated attendant has been enhanced with holiday schedules and business hours for use with the standard automated attendant. The administrator can set up to four business hour schedules and define up to 26 holidays per year on the system. The Cisco Unity Express Editor has also been added to allow the new Business Hours and Holiday steps to be used in customized automated attendant scripts.
- **Caller identification**—As a configuration option, Calling Line Identification (CLID) information is available for all voicemail messages, whether the call originates from another Cisco Unity Express user on the same system or from the PSTN.
- **Password and PIN length flexibility**—Prior to Cisco Unity Express Release 2.1, the minimum length for password and PIN was fixed at three. Beginning with Cisco Unity Express Release 2.1, the minimum password and PIN length is configurable through either the CLI or the GUI.
- **Restore to factory defaults**—Allows administrators to work with Cisco Unity Express as if it were just shipped from the Cisco factory. This feature is useful for reusing or rotating inventory from site to site or for administrator training purposes.
- **Transfer of automated attendant calls**—Cisco Unity Express Release 2.1 allows the flexibility to configure whether calls may be transferred to internal extensions only, or to extensions and PSTN destinations.

**Q.** What else is new with Cisco Unity Express Release 2.1?

**A.** Cisco Unity Express Release 2.1 introduces AVT, previously known as the Greeting Management System (GMS). Release 2.1 adds the ability for an administrator or other privileged user to create and address broadcast messages to this TUI-based management tool. The ability to add recorded names and locations to the Cisco Unity Express local directory for easier addressing of messages to remote users is also new. Administrators can also use AVT to record and manage Cisco Unity Express automated attendant prompts and alternate greetings for the automated attendant.

**Q.** When will Cisco Unity Express Release 2.1 be available?

**A.** Cisco Unity Express Release 2.1 is expected to be available in February 2005.

**Q.** What is the NM-CUE-EC?

**A.** The NM-CUE-EC extends the available Cisco Unity Express form factors that can be installed into Cisco multiservice and integrated services routers. In Cisco Unity Express Release 2.1, the NM-CUE-EC supports 16 ports of concurrent voicemail or automated attendant sessions for all license levels, and will ultimately provide more mailbox density for Cisco Unity Express in a future product release.

**Q.** When will the NM-CUE-EC be available? Which Cisco IOS Software release does it require?

**A.** The NM-CUE-EC requires Cisco IOS Software Release 12.3(14) T, which is estimated to be available in late February 2005.

**Q.** Have there been any other capacity enhancements to Cisco Unity Express in Release 2.1?

**A.** Capacity enhancements have been made in several areas. Cisco Unity Express Release 2.1 improves the port capacity of the AIM-CUE, on all integrated services routers (Cisco 2800 and 3800 series) and Cisco 3700 Series routers, from the previous limitation of four ports. On the noted platforms, six ports of concurrent voicemail or automated attendant are supported for all license levels. When running on a Cisco 2600XM or 2691 multiservice access router, the AIM-CUE will continue to support four ports. The AIM-CUE will detect which platform it is running on, and will adjust the port capacity automatically.

**Q.** How will “spoken name confirmation” for remote users work in Cisco Unity Express Release 2.1?

**A.** Cisco Unity Express provides two mechanisms for providing spoken name confirmation for remote users. Beginning with Release 2.1, through the Cisco Unity Express AVT, the administrator has the option to permanently add remote users to the local directory. This also allows a sender to address a remote recipient using dial-by-name. Administrators will be able to add up to 50 entries on the NM-CUE and NM-CUE-EC, and 20 entries on the AIM-CUE. In addition, Cisco Unity Express will use vCard and spoken name information provided by VPIM messages to update the local directory and a cache of first name, last names, and spoken names, which is refreshed on a Least Recently Used (LRU) basis. The cache provides 50 entries on the NM-CUE and NM-CUE-EC and 20 entries on the AIM-CUE.

**Q.** Does Cisco Unity Express provide time-based delivery options for broadcast messages?

**A.** Yes. Administrators may set time-based options for broadcast messages, including future broadcast message delivery, message begin dates, and message end dates. An example of how this configurable feature may be used is a broadcast message that alerts users to a benefits enrollment period. The administrator will provide a broadcast message life that begins sometime before the enrollment begins and ends on the date the enrollment period ends. Subscribers who have been away from voicemail for an extended period get the message when it is relevant, and not after the enrollment period has passed. Administrators may opt to maintain the system default of 30 days of active life for a broadcast message or as a configuration option, set an indefinite broadcast message lifetime (which never expires). An example of this is a welcome message that all new employees receive when they access their Cisco Unity Express voicemail boxes for the first time.

**Q.** Will the Message Waiting Indicator (MWI) be illuminated when a Cisco Unity Express broadcast message is received?

**A.** This is a system-level configuration option on Cisco Unity Express. By default, the MWI will not be illuminated upon receipt of a broadcast message.

**Q.** Can Cisco Unity Express broadcast messages be sent to remote users?

**A.** Yes. Cisco Unity Express broadcast messages may be sent to remote subscribers on other Cisco Unity systems (beginning with Cisco Unity Release 4.0.5) or Cisco Unity Express systems. A network broadcast message can be addressed to any or all of the remote sites that are configured in the Cisco Unity Express system. A remote site can be addressed either by its location number or by its location name.

**Q.** Can broadcast messages be sent to a distribution list?

**A.** No. In Cisco Unity Express Release 2.1, broadcast messages are sent to all subscribers on the Cisco Unity Express system and not to distribution lists. This includes broadcast messages sent to a remote location.

- Q.** How does a voicemail message sender know if a message to a remote location has not been sent or has been delayed?
- A.** If a Cisco Unity Express voicemail message has not been sent for six hours due to any reason, the sender will receive a Non-Delivery Record (NDR), which is a message in the sender's mailbox indicating the message was not sent. In addition, as a configurable option, if the message has not been delivered for 60 minutes, then a Delayed Delivery Record (DDR) voicemail message will be sent to the sender indicating a delay in delivery has occurred.
- Q.** Which users are eligible to be part of a distribution list created on Cisco Unity Express?
- A.** Members of a distribution list can be users, GDMs, groups, and other distribution lists. Remote users that have been added to the local system directory can also be added as members of a distribution list. This is true for both public and private distribution lists. However, these remote users cannot own a distribution list on the local Cisco Unity Express system.
- Q.** How many public and private distribution lists are available with Cisco Unity Express?
- A.** Each Cisco Unity Express system provides up to 15 public distribution lists. Each user on the system may have up to five private distribution lists, with a maximum of 50 entries total in all lists. These distribution list quantities are the same, independent of Cisco Unity Express license level and form factor (NM-CUE, NM-CUE-EC, or AIM-CUE).
- Q.** Is there a way to easily create a public distribution list that includes all users?
- A.** Cisco Unity Express provides one default "everyone" public distribution list on the system. This special public distribution list will automatically contain all of the local users all of the time, but not any group, GDM, or other list.
- Q.** What is the difference between including a group and including a GDM in a distribution list?
- A.** When a voice message is sent to a distribution list that includes a group, the message will be delivered to the personal mailbox of each member of the group, but not to the GDM that may be associated with that group. To have the message delivered to the GDM, the GDM must be explicitly included in the distribution list as a member.
- Q.** How does the "undelete" voicemail message feature work on Cisco Unity Express?
- A.** The undelete feature on Cisco Unity Express works like the undelete feature on the Cisco Unity application. This feature allows a user to recover a message that has been deleted within the same voicemail session. When a user chooses the option to save a deleted message, that message will be returned to its previous state and will be made available to the user to listen, reply, forward, save, or delete it. If the user does not undelete any messages during the session, all messages marked for deletion will be deleted when the user logs out of the session.
- Q.** How many holidays are available for use with the Cisco Unity Express automated attendant?
- A.** Up to 26 separate holidays per year may be defined and configured as an option on Cisco Unity Express. The holiday schedule is a scriptable parameter for the system automated attendant, and is available as a step in a customized automated attendant script created by the Cisco Unity Express Editor. To simplify administration, holiday lists from one year may be copied into the subsequent year.
- Q.** How will the newly introduced Business Hours feature work with Cisco Unity Express?
- A.** Administrators will be able to use the GUI or the CLI to configure a business hours schedule that covers seven days in a week. Each 24 hour period is divided into half-hour timeslots that may be designated as either business "open" or "closed". The Cisco Unity Express system default is open, 24 hours a day, 7 days per week. Up to four "business hour" schedules are provided per system. Like the holiday schedule, the business hour schedule is a scriptable parameter for system automated attendants, or may be used as a step in a customized automated attendant script created by the Cisco Unity Express Editor.
- Q.** What other enhancements have been made to Cisco Unity Express automated attendant capabilities in Release 2.1?
- A.** Several enhancements to the standard automated attendant have been made in Cisco Unity Express Release 2.1. The existing system automated attendant (aa.aef) script has been enhanced to support holiday and business hour schedules. Cisco Unity Express will first determine if the current day is a holiday and if the business status is open or closed, and then will play the appropriate prompts. These options may be configured through the

Cisco Unity Express GUI or CLI. Cisco Unity Express Release 2.1 also introduces a second standard system automated attendant script (aasimple.aef), which provides single-digit dialing versus dial-by-name or dial-by-extension. In the default simple automated attendant script, the prompt (AASPlayExtensions.wav) “For the operator, press 0” is provided. This prompt may be replaced with group or individual names and extensions by recording these through the AVT. For example, the custom prompt may be “For Tom, press 10; for Cindy, press 20; for Ralph, press 30; for the operator, press 0”. Once the caller enters the desired extension, the call will be transferred to the extension.

**Q.** What happens when Cisco Unity Express is restored to factory defaults? When would this be done?

**A.** When the administrator runs the restore to factory defaults process on Cisco Unity Express through the CLI, all databases and directories will be emptied, and the current configuration will be replaced with the initial startup configuration from the Cisco factory. All post-installation configurations made by the customer will also be erased; this includes all customized prompts. Once the system has been completely restored, the Cisco Unity Express CLI will inform the administrator that the process is complete and Cisco Unity Express will be reloaded automatically. The system will come up at the post-installation prompts and the administrator can start configuring the system. This process is typically used for training purposes or if Cisco Unity Express hardware is being reprovisioned after initial use or setup.

**Q.** Will Cisco Unity Express Release 2.1 be available in languages other than North American English?

**A.** Yes. Cisco Unity Express Release 2.1 will also be available in European Spanish, European French, and German. These language packages will be available about four weeks after the availability of Cisco Unity Express Release 2.1.

**Q.** Will a maintenance release follow Cisco Unity Express Release 2.1?

**A.** There are plans to introduce a maintenance release for both Cisco Unity Express Release 2.0 and Release 2.1 within 8 to 12 weeks after these releases are first made available. This is tentatively set for March and May 2005, respectively.

## **FEATURES INTRODUCED IN CISCO UNITY EXPRESS RELEASE 2.0**

**Q.** What new features are available in Cisco Unity Express Release 2.0?

**A.** Cisco Unity Express Release 2.0 introduces numerous important enhancements, including the following features:

- VPIM Version 2 (VPIMv2—RFC 3801) support for voicemail message networking interoperability between distributed Cisco Unity Express sites and between Cisco Unity Express and Cisco Unity sites with NDR for networked messages and blind addressing (beginning with Cisco Unity Express Release 2.1 spoken name confirmation mechanisms).
- Operation in Cisco CallManager 4.0, in addition to Cisco CallManager 3.3 networks, with the ability to auto detect the JTAPI version. Beginning with Cisco Unity Express Release 2.1, Cisco CallManager 4.1 support is added.
- Language localization, adding European French, German, and European Spanish.
- Increased storage capacity on the AIM-CUE from 512 MB to 1 GB, allowing up to 14 hours of voicemail message storage.
- Housing Cisco Unity Express separately from the Cisco CallManager Express or Survivable Remote Site Telephony (SRST) router.
- Enhanced installation and upgrades

**Q.** What else is new with Cisco Unity Express Release 2.0?

**A.** Cisco Unity Express Release 2.0 introduces a new ordering scheme that simplifies the process and adds languages as a license option. See the licensing section for more details.

**Q.** When will Cisco Unity Express Release 2.0 be available?

**A.** Cisco Unity Express Release 2.0 is expected to be available in November 2004.

**Q.** Will Cisco Unity Express Release 2.0 interoperate with other VPIM-compliant voicemail messaging systems?

**A.** VPIM interoperability testing for Cisco Unity Express Release 2.0 has been performed between multiple Cisco Unity Express systems and between Cisco Unity Express and Cisco Unity systems. Interoperability with other systems is not supported at this time.

**Q.** How will NDRs work for voicemail messages sent from Cisco Unity Express to remote Cisco Unity Express and Cisco Unity locations?

**A.** Currently, when a message cannot be delivered to a local subscriber, the sender immediately receives a notification of the reason. When sending to a remote user, an immediate notification may not be possible because it may take several minutes or attempts to contact the remote system to validate the intended recipient location. If the message has not been delivered for specified amount of time, a notification is sent to the sender and placed in the voicemailbox. This notification appears as a new message and informs the user of nondelivery. Similarly, if the message cannot be delivered because a recipient's mailbox is full, does not exist, or is disabled, a NDR is placed in the sender's mailbox along with a copy of the original message. When users play an NDR, they have the option to readdress and send the message or delete the message.

**Q.** Why is a new release needed to support Cisco CallManager 4.0?

**A.** Interfaces on Cisco CallManager changed with the introduction of Release 4.0. To accommodate the interface changes, Cisco Unity Express Release 2.0 will bundle both Cisco CallManager 3.3 and 4.0 files. Cisco Unity Express will detect the remote Cisco CallManager version and will adjust to that version, facilitating network changes and upgrades.

**Q.** How many languages may be concurrently active on Cisco Unity Express?

**A.** One language may be concurrently active for Cisco Unity Express. The default language is North American English.

**Q.** Why didn't the number of hours of voicemail storage on the AIM-CUE double when the storage capacity doubled; for instance, 512 MB of Compact Flash to 1 GB of Compact Flash?

**A.** Although the storage capacity of the AIM-CUE has doubled, a portion of that additional capacity has been set aside for future product capabilities that require storage. Note: the Compact Flash and hard drive of AIM-CUE and NM-CUE, respectively, house the application, related databases and voicemail, and automated attendant prompts.

**Q.** What is the benefit of adding the ability to separate Cisco Unity Express from the host Cisco CallManager Express or SRST router?

**A.** Cisco Unity Express may be colocated either in the same router that is running Cisco CallManager Express or SRST, or it may be installed in a separate Cisco router. This provides flexibility in platform decisions and network design. For example, AIM-CUE can be installed into a Cisco 2600XM Series multiservice platforms, and Cisco CallManager Express can be running on a Cisco 1760 modular access router.

**Q.** How will Cisco Unity Express Release 2.0 improve the product installation and upgrades?

**A.** Cisco Unity Express Release 2.0 introduces four functional enhancements that improve the efficiency of installing and upgrading Cisco Unity Express application software. These enhancements are a smaller installer image, an onboard installer, support of background downloads of the application software, and incremental upgrades.

The installer image size has been reduced by approximately 75 percent, resulting in faster download time across WAN links in the event that a new installer image is required. The onboard installer, however, eliminates the need to download the installer each time a new release is available, beginning with Cisco Unity Express Release 2.0. Also in Release 2.0, Cisco Unity Express software application download may occur in the background during normal Cisco Unity Express operation, eliminating user disruption. Added support for incremental upgrades means that when upgrading to some future releases of Cisco Unity Express, only the code required to support new functions and infrastructure changes will be added. In many cases, a full system upgrade will not be required, saving administrator time and increasing the efficiency of sites with low-speed WAN links, in particular.

## SYSTEM INFORMATION

**Q.** How many NM-CUE, NM-CUE-CUE, or AIM-CUE modules can be installed into a router?

**A.** Only a single NM-CUE, NM-CUE-EC, or AIM-CUE per physical router chassis is supported, independent of how many network module or advanced integration module slots the platform has.

**Q.** When should a NM-CUE or NM-CUE-EC be used instead of an AIM-CUE for Cisco Unity Express services?

**A.** Several factors should be considered when deciding between using a NM-CUE and an AIM-CUE for Cisco Unity Express services. The major factors are price, performance, and scale. The network module supports more voicemailboxes, more automated attendant scripts, and more system ports than the AIM, but at a higher price. The Cisco router platform specifications should also be considered. Because the AIM resides directly on the router motherboard, it frees network module slots for additional services on the router, such as VPN acceleration, intrusion detection, content caching, switching, analog and digital voice interfaces, and other business services.

**Q.** When should an NM-CUE-EC be used instead of an NM-CUE?

**A.** An NM-CUE-EC is advised when the site requires more than eight ports of concurrent voicemail or automated attendant sessions, or if the site requires more than 120 mailboxes in the future.

**Q.** What services should be purchased to help ensure complete service and support for Cisco Unity Express?

**A.** Hardware replacement of the NM-CUE and AIM-CUE is covered under the existing Cisco SMARTnet<sup>®</sup> contract for the router in which the Cisco Unity Express module is housed. Cisco Unity Express application support from the Cisco Technical Assistance Center (TAC) is covered under an additional Software Application Support plus Upgrades (SASU) contract (CON-SAU-NM-CUE or CON-SAU-AIM-CUE). SASU provides 24 hour technical assistance from the Cisco TAC by telephone and access to Cisco.com for online tools and information plus software updates—maintenance plus minor and major releases for the Cisco Unity Express software application—all for one annual fee.

**Q.** What type of Flash storage is used on the AIM-CUE?

**A.** The AIM-CUE uses industrial-grade Compact Flash. Compared to commercially available Compact Flash, which is generally optimized for less-demanding consumer applications, industrial-grade Compact Flash uses special correction and wear-leveling algorithms, giving it the endurance and reliability required by industrial market.

**Q.** What uninterruptible power supply (UPS) from American Power Conversion Corporation (APCC) provides the low battery, graceful shutdown routine?

**A.** UPS models from APCC with the “SUA” prefix supporting the cabling scheme for low battery notification are listed at <http://www.apcc.com/>. Select the appropriate model that fits the customer’s requirements, keeping in mind the desirable UPS capacity and duration. Also order the special serial cable. The APCC part number for the cable is AP9840, “Cisco Unity Express UPS Simple Signaling Cable.”

**Q.** What are the capacity limitations on ports, subscribers, and mailboxes?

**A.** This depends on whether Cisco Unity Express is running on a network module or AIM and is controlled by the license installed on the Cisco Unity Express application. Table 3 provides details.

**Table 3.** Cisco Unity Express Capacities

License Level Defaults			NM-CUE, NM-CUE-EC		AIM-CUE	
Personal Mailboxes	General Delivery Mailboxes	Total Available Mailboxes	Hours of Storage	Concurrent Voicemail and Automated Attendant Ports/Sessions	Hours of Storage	Concurrent Voicemail and Automated Attendant Ports/Sessions
12	5	17	100 hours	8 on NM-CUE 16 on NM-CUE-EC	14 hours beginning with Release 2.0	4 on 2600XM, 2691 6 all other platforms
25	10	35	100 hours	8 on NM-CUE 16 on NM-CUE-EC	14 hours beginning with Release 2.0	4 on 2600XM, 2691 6 all other platforms
50	15	65	100 hours	8 on NM-CUE 16 on NM-CUE-EC	14 hours beginning with Release 2.0	4 on 2600XM, 2691 6 all other platforms
100	20	120	100 hours	8 on NM-CUE 16 on NM-CUE-EC		

## TERMINOLOGY

**Q.** What is an automated attendant?

**A.** An automated attendant automatically answers calls with an interactive recording and lets callers route their calls by entering the appropriate extension using their phone keypads. Businesses may customize the greeting by adding information such as hours and directions.

**Q.** What is a broadcast message?

**A.** A broadcast message is a voicemail feature where a message is recorded by the sender (with appropriate privileges) and automatically distributed by the system to every mailbox defined in the configuration. When subscribers log into their mailboxes, they are notified that they have broadcast messages waiting before they are alerted to other new messages. Subscribers must listen to their broadcast messages in their entirety before being allowed to listen to personal messages. Beginning with Release 2.1, Cisco Unity Express supports broadcast messaging and can send broadcast messages to both local and remote recipients.

**Q.** What is a distribution list?

**A.** A distribution list is a list of mailbox recipients grouped together by a single tag that can be used as the destination address when sending a voicemail message. This eliminates the need for the sender to type each recipient's address individually and repeatedly, if messages are often sent to the same group of people. The voicemail application ensures that each mailbox defined in the distribution list receives a copy of the voicemail.

**Q.** What service does the "zero-out" to an alternate number provide?

**A.** Cisco Unity Express provides the option for callers to choose between leaving a voicemail message and reaching a live person. The zero-out feature in Cisco Unity Express allows the caller to push zero to reach either the operator or a user-specified alternative extension or phone number. This option can be defined across the Cisco Unity Express system or on a user-by-user basis through the GUI.

**Q.** What is a GDM?

**A.** A GDM provides a shared voicemailbox that any designated team member can access to retrieve and respond to voicemail. These team members often have similar skill sets. For example, a customer that calls into a bakery to place an order generally would not require the attention of a specific employee. Dedicated GDMs extend the availability of message storage without affecting the number of mailboxes available for individual storage. Cisco Unity Express supports GDMs; the number of GDMs per system depends on license level.

**Q.** What is VPIM?

**A.** VPIM (RFC 3801) defines an Internet multimedia messaging protocol for use between voice processing server platforms. The standard defines a minimum common set of features that allows interworking between conforming systems. Cisco Unity Express supports VPIM, beginning with Release 2.0.

**Q.** What is “spoken name confirmation” and how does it contrast to “blind addressing”?

**A.** When a voicemail system subscriber sends a voicemail message to another subscriber on the same system, they can often address the message to the recipient by using either dial-by-name or by extension number. After subscribers enter the recipient information, they hear an address confirmation of the user’s spoken name; this is known as spoken name confirmation. In some cases, the confirmation will simply be the user’s extension number. Many times, when a subscriber sends a message to a subscriber on another or remote system, there will not be a spoken name or extension number confirmation; this is blind addressing. Beginning with Release 2.1, Cisco Unity Express provides a mechanism for spoken name confirmation for remote locations.

## PRODUCT POSITIONING

**Q.** When would Cisco Unity Express be used instead of Cisco Unity software?

**A.** Cisco Unity Express is an entry-level voicemail and automated attendant product that provides services for up to 120 mailboxes. It is used in conjunction with Cisco CallManager or Cisco CallManager Express. Cisco Unity software is more appropriate for enterprise headquarters, a regional hub, or as centralized voicemail for customers who require languages other than those supported by Cisco Unity Express, or more sophisticated message handling like unified communications.

**Q.** Will Cisco Unity Express have feature parity with Cisco Unity software?

**A.** Ultimately, most of the basic voicemail features between Cisco Unity Express and Cisco Unity will be equivalent, but full feature parity makes sense only for features required by small and midsize businesses or branch offices. Cisco Unity Express offers use the same prompts (conversation) and TUI flows as Cisco Unity software, so that the subscriber experience is the same.

## LICENSING AND ORDERING

**Q.** What are the license levels for Cisco Unity Express?

**A.** Cisco Unity Express is offered on four different license levels as depicted in Table 3.

**Q.** Can hardware for the NM-CUE, NM-CUE-EC, or AIM-CUE be ordered without the license or software?

**A.** No. When ordering the NM-CUE, NM-CUE-EC, or AIM-CUE, including the spare versions (NM-CUE=, NM-CUE-EC=, or AIM-CUE=), at least one license or software part number also must be ordered.

**Q.** How has the ordering and licensing scheme for Cisco Unity Express Release 2.0 changed?

**A.** Beginning with Cisco Unity Express Release 2.0, a small change has been made to the way in which the product is licensed and ordered. This change is also relevant for releases 1.1 and 2.1. Previously, after selecting the hardware product number (either NM-CUE or AIM-CUE), a license level was chosen to specify the number of mailboxes desired, the call control platform (either Cisco CallManager or Cisco CallManager Express) and the release number. Now, after selecting the hardware in Release 2.0, a separate product number indicating the specific release desired is added, after which a single license level part number with the desired quantity of mailboxes and call control platform is ordered as in the past. Essentially, the change is the addition of a separate product number that breaks out the release from the previously combined license. Additionally, language product numbers are introduced to specify a language and have it loaded on the hardware at the time of shipment.

New ordering scheme:

1. Choose the hardware module: NM-CUE(=), NM-CUE-EC(=), or AIM-CUE(=).

2. Specify the release by ordering Cisco Unity Express 1.1, 2.0, or 2.1 using the SKU SCUE-1.1, SCUE-2.0, or SCUE-2.1. Maintenance releases will automatically be included with the shipment.
3. Specify the license level and the call control platform desired (for instance, SCUE-25CCM or SCUE-12CME).
4. Specify the language: CUE-LANG-ENG, CUE-LANG-ESP, CUE-LANG-GER, or CUE-LANG-EFR for North American English, European Spanish, German, or European French, respectively.

**Q.** How are the software and hardware packaged?

**A.** The hardware associated with Cisco Unity Express (NM-CUE, NM-CUE-EC, and AIM-CUE) must be purchased with an accompanying license. Licenses are priced separately from the hardware, with the exception of the 12-mailbox license level, which is included in the price. Because of this, a minimum license level of 12 mailboxes must be ordered with each Cisco Unity Express purchase.

**Q.** How does the licensing for Cisco Unity Express work?

**A.** Cisco Unity Express license files, like Cisco IOS Software, can be downloaded from Cisco.com and installed without change to the file itself on any number of systems for which a license was purchased. When a license is purchased or software from Cisco is used, a contractual obligation is created. The subscriber must abide by the terms spelled out in the license agreement, including prohibitions regarding unauthorized replication of the software or modification to the licensed mailbox level.

**Q.** How will upgrades for Cisco Unity Express work?

**A.** One of the upgrade product numbers should be ordered when an upgrade in the number of mailboxes supported is desired. The product number will depend on how many mailboxes the system will be increased to and which call control product (Cisco CallManager or Cisco CallManager Express) is required. The license upgrade name reflects default personal mailboxes and not total available mailboxes.

Beginning with Cisco Unity Express Release 2.0, the product numbers for mailbox upgrade are SCUE-25CCM= or SCUE-25CME= (upgrade to 25 mailboxes), SCUE-50CCM= or SCUE-50CME= (upgrade to 50 mailboxes), and SCUE-100CCM= or SCUE-100CME= (upgrade to 100 mailboxes). In the product part number, CCM refers to Cisco CallManager and CME refers to Cisco CallManager Express. When upgrading the number of mailboxes on a system, it does not matter what the current mailbox level is as long as it is smaller than the destination number of mailboxes. For example:

- Upgrade from 12 to 25 mailboxes: Order SCUE-25CCM= or SCUE-25CME=
- Upgrade from 12 or 25 to 50 mailboxes: Order SCUE-50CCM= or SCUE-50CME=
- Upgrade from 12, 25, or 50 to 100 mailboxes: Order SCUE-100CCM= or SCUE-100CME=

Changes to licensing levels that are downgrades are not supported (50 to 25 mailboxes or 25 to 12 mailboxes, for example). If a system was previously installed with a 50-mailbox license and has to be repurposed as a 25-mailbox system, the software and license must be reinstalled and the system and application configuration and voice messages cannot be preserved.

**Q.** Is the Cisco Unity Express Editor priced separately from Cisco Unity Express?

**A.** No. The Cisco Unity Express Editor, a Microsoft Windows-based graphic environment for creating customized automated attendant scripts, is included in the price of Cisco Unity Express.

## **AUTOMATED ATTENDANT**

**Q.** Does Cisco Unity Express support an automated attendant?

**A.** Yes. Cisco Unity Express supports a built-in automated attendant, along with its voicemail capabilities.

**Q.** What are the current capabilities of the Cisco Unity Express automated attendant?

**A.** The standard Cisco Unity Express automated attendant allows the caller to be directed to an extension by using either the dial-by-name or dial-by-extension functions. The caller may be returned to the operator for additional assistance at any time while in the automated attendant menu. In addition to the standard automated attendant, Cisco Unity Express provides up to five more automated attendants. These automated attendants may be customized for time-of-day or day-of-week schedules, and provide unlimited menu options with menu nesting.

**Q.** Is it possible to customize the automated attendant?

**A.** Yes. The Cisco Unity Express Editor tool is a Microsoft Windows-based graphic environment for creating customized automated attendant scripts.

**Q.** How do I get help with a Cisco Unity Express automated attendant script I'm having trouble with?

**A.** Questions about scripts developed using the Cisco Unity Express Editor may be directed to [ask-cue-editor@cisco.com](mailto:ask-cue-editor@cisco.com).

## **VOICE MAIL**

**Q.** How many greetings does a subscriber have?

**A.** Subscribers have two greeting options: standard and alternate. These greetings may be recorded and interchanged as needed to alert callers to special instructions or events (such as vacations). If the subscriber has not recorded a standard or alternate greeting or a spoken name, then the system greeting is played "Sorry, <extension> is not available."

**Q.** Can voicemail messages be marked for special treatment?

**A.** Yes. Cisco Unity Express allows the caller to mark messages as urgent, and subscribers may mark messages urgent or private. Urgent messages will be played before non-urgent messages, and private messages cannot be forwarded.

**Q.** How much storage time does each mailbox have?

**A.** A total of either 100 hours or 14 hours of voicemail storage is provided with Cisco Unity Express NM-CUE, NM-CUE-EC and AIM-CUE, respectively, regardless of the number of mailboxes licensed. The default amount of voicemail storage per mailbox depends on the license level; however, all mailboxes may be configured uniquely for a specific storage capacity, regardless of license level.

**Q.** Can voicemail greetings be recorded remotely?

**A.** Yes. Greetings can be recorded using the TUI and can be activated (changed between standard and alternate) from any location from which you can dial into the mailbox.

**Q.** Can voicemail messages be retrieved remotely?

**A.** Yes. Subscribers have the option of retrieving voicemail messages while away from the office.

**Q.** Is there a "feature tree" that shows the voicemail feature capabilities?

**A.** Yes. The Quick Start Guide provides summarized flow diagrams of the subscriber voicemail menu options, at: [http://www.cisco.com/en/US/partner/products/sw/voicesw/ps5520/products\\_quick\\_start\\_list.html](http://www.cisco.com/en/US/partner/products/sw/voicesw/ps5520/products_quick_start_list.html)

**Q.** How does a subscriber pause, fast forward, and rewind message playback?

**A.** Cisco Unity Express provides controls that allow subscribers to manage the playback of voicemail. Subscribers may press "8" and the message playback is paused, press "9" and the playback moves forward three seconds, or press "7" and the playback goes back three seconds.

## **PLATFORM AND RELEASE SUPPORT**

**Q.** On which hardware form factors is Cisco Unity Express supported?

**A.** Cisco Unity Express is currently available on the NM-CUE, NM-CUE-EC, or AIM-CUE.

**Q.** Which router platforms support Cisco Unity Express? Are these the same platforms that support Cisco CallManager Express?

**A.** Table 1 lists the platform support for the two respective products.

**Q.** What is the minimum Cisco IOS Software release that supports the NM-CUE, NM-CUE-EC, or AIM-CUE?

**A.** The first release that supported the NM-CUE was Cisco IOS Software Release 12.2(15)ZJ1, which became Cisco IOS Software Release 12.3(4)T. The AIM-CUE was initially supported on Cisco IOS Software Release 12.3(7)T; the recommended release is Cisco IOS Software Release 12.3(8)T3. The NM-CUE-EC introduced in Cisco Unity Express Release 2.1 requires Cisco IOS Software Release 12.3(14)T.

**Q.** What release of Cisco Unity Express is required for the new integrated services router support?

**A.** Cisco Unity Express Release 1.1 or later is required for operation on Cisco 2800 Series and 3800 Series integrated services routers.

**Q.** Which Cisco IOS Software image feature sets support the Cisco Unity Express hardware form factors?

**A.** The minimum image set that supports Cisco Unity Express hardware (NM-CUE, NM-CUE-EC and AIM-CUE) is IP Voice.

**Q.** Where can I get more information about Cisco Unity Express?

**A.** To find out more about Cisco Unity Express, go to:

<http://www.cisco.com/go/ccmecue>



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