

Cisco Unity Express Voice Mail

Introduction

Enterprise businesses share an ongoing goal to increase employee productivity and reduce costs through technology. Organizations can cost-effectively support their Full Service Branch solutions with converged networks that integrate data, voice and video. Integrated branch-office platforms lower hardware costs, simplify remote management and offer flexible configuration options that reduce the total cost of operations and ownership. Companies that exploit the benefits of convergence can increase their return on technology investment and further improve employee productivity.

Cisco Unity Express supports the Full Service Business by providing voice mail and automated attendant services specifically designed for the small and medium branch office environment. With Cisco Unity Express, users can easily and conveniently manage their voice messages and greetings with intuitive telephone prompts and a straightforward Graphical User Interface that allows simple administration.

Cisco Unity Express is an essential component of either a Cisco CallManager or Cisco CallManager Express solution. In a Cisco CallManager environment, Cisco Unity Express provides local storage and processing of voice mail and automated attendant services for the branch office, thereby alleviating WAN bandwidth and Quality of Service concerns. The combination of Cisco CallManager Express and Unity Express provides a solution that enables small and medium businesses and branch offices to deliver voice, data, and

telephony management services integrated on a single, router-based platform. The solution offers a core set of phone features to meet everyday business needs, while providing the rich telephony feature sets that key system and hybrid PBX customers have grown to expect.

Enhancing the Cisco portfolio of messaging products such as Cisco Unity and Cisco Personal Assistant, Cisco Unity Express delivers the basic voice mail and auto attendant requirements of the branch or small office. With Cisco Unity at headquarters and Cisco Unity Express at the branch, employees can move from location to location with ease and familiarity, requiring little additional training to access voice mail.

Leverage the Infrastructure

Large enterprises that have already reaped the benefits of consolidated data networks are now in a position to leverage their data infrastructures to address the challenges of providing voice to the branch office. A typical challenge is keeping track of many disparate key systems across hundreds or thousands of sites, with no centralized template of how the various voice systems work or what features employees have at their disposal. Cisco Unity Express provides a template that can be replicated throughout the network. And because multiple, disparate devices are more costly to maintain and manage, Cisco Unity Express further reduces total cost of ownership by minimizing the number of devices in the branch office and converging voice applications onto a Cisco Full Service Business router.



Productivity and Competitive Edge

Cisco Unity Express boosts the level of professionalism, productivity and customer service available to the small and medium office customer through its built-in automated attendant and voice mail capabilities. The professional automated attendant allows all calls to be answered on the first ring. Calls may be directed based on the extension number of the group or person the caller is trying to reach. Alternatively, callers may use the spell-by-name feature when they don't know a specific extension. Having an automated attendant means that calls are answered 24 hours per day, 7 days a week, without the need of a dedicated operator. Voice mail extends the productivity of the organization by allowing employees to access messages at any time from any telephone. Both internal and external calls to a busy or unattended phone are forwarded to a personal greeting. Employees are immediately alerted to calls by the message waiting light on their IP telephone.

By integrating services like automated attendant and voice mail directly into the Access Routers, the branch employee can quickly and easily benefit from the same productivity enhancing tools available at headquarters. As new IP-based productivity enhancing applications emerge, these services can be delivered to remote office employees via a software upgrade performed from either a centralized location or locally at the branch.

Ease of Operation

Cisco Unity Express provides methods to provision and manage voice mailboxes from a centralized location. The ability to dramatically simplify network management, particularly in small and medium offices that typically have less on-site technical expertise, is another key benefit of Cisco Unity Express. And the flexibility to easily add new voice services as they become available makes the solution even more advantageous.

Cisco Unity Express also offers the option of using the industry-standard Cisco Command-Line Interface (CLI) or a Web-based graphical user interface (GUI) for configuration and administration. In many instances, information about the phones, extensions, call reports and system parameters necessary for Cisco Unity Express operation are derived directly from Cisco CallManager or Cisco CallManager Express. This eliminates the need for replication of data entry, which maximizes efficiency and minimizes errors. Whether managing through a GUI interface or Cisco IOS CLI, the ability to deploy, administer, and maintain devices centrally eases remote maintenance and troubleshooting.



Hardware Architecture

Table 1

Product Feature	Customer Benefit
Delivered on a network module (NM-CUE) or advanced integration module (AIM-CUE) which directly integrate into the Cisco 2600XM Series, 2691, 3700 Series access routers	Network modules and advanced integration modules are shared across a broad range of router platforms, so Cisco Unity Express can be deployed at various branch office sizes, from the very small up to those that need 100 mailboxes.
Network module (NM-CUE) includes a robust onboard microprocessor and 20 GB Integrated Drive Electronics (IDE) hard drive	The Cisco Unity Express network module is fully self-contained with dedicated onboard processing, memory and storage, allowing for the efficient processing of messages, a range of concurrent sessions, simultaneous processing, and ample voice mail storage capacity for a wide range of typical branch office profiles.
Advanced integration module (AIM-CUE) has a robust onboard microprocessor and 512 MB of industrial grade compact flash storage	Like the network module, the Cisco Unity Express advanced integration module is fully self-contained with dedicated onboard processing, memory and storage. And, because the advanced integration module is internally installed on the router, it frees external interface slots for other services like analog and digital voice, VPN acceleration or switching.

Cisco Unity Express Key Features and Benefits

System Features

Table 2

Product Feature	Customer Benefit
Operates within either a Cisco CallManager or Cisco CallManager Express IP Telephony environment	Cisco Unity Express may be used within either a Cisco centralized (CallManager) or distributed (CallManager Express) call control environment. This provides flexibility and investment protection if you migrate from one Cisco call control methodology to the other.
Accessible Command Line Interface (CLI)	Provides familiar management features such as configuration, provisioning and support with a Cisco IOS-like Command Line Interface (CLI), providing a jump-start to those Cisco IOS CLI knowledgeable network administrators.
Command Line Interface (CLI) scripting capabilities	Provides an advanced method for remote management, provisioning and configuration of many units, efficiently and expediently. This unique feature, typically not provided with entry-level voice mail systems, allows the customer to deploy many similarly configured sites quickly.
Embedded operating system	Cisco Unity Express employs an industry- standard operating system ideally suited for embedded applications. It enables a disk subsystem, not provided by native Cisco IOS. This translates into efficient and rapid operation while providing a robust, secure and protected operating environment behind Cisco IOS.
Inherent Security	Cisco Unity Express is an embedded system, accessible only through the provided GUI and CLI. User passwords are inaccessible and are encrypted on the system using the 128-bit Secure Hash Algorithm (SHA). All packages within the Cisco Unity Express architecture are signed by Cisco to ensure their integrity. Even then, if somehow un-trusted code is installed on the system, a built-in chain of trust model will prevent the unauthorized code from operating.



Table 2 (Continued)

Product Feature	Customer Benefit
4-8 simultaneous calls to voice mail or auto attendant (dependent upon license level and hardware)	A range of concurrent sessions or ports provides the organization with the right level of service for business needs and budgetary constraints.

Voice Mail Features

Table 3

Product Feature	Customer Benefit
Up to 100 hours of voice mail storage configurable on per mailbox basis	Flexibility and choice; because Cisco Unity Express is available in two form factors, you can chose the capacity, performance and price point that meets the specific site requirements. Plus, the storage capacity of both the Cisco Unity Express network module and advanced integration module (100 and 8 hours, respectively) may be customized on a per user basis, as defined by the system administrator or alternatively, left to the factory default settings.
Easy to utilize, end-user tutorial for self-service mailbox creation	A complete, yet concise Telephony User Interface (TUI) tutorial takes the user step-by-step through the mailbox set-up process, minimizing the need for administrator intervention or assistance, saving both time and money.
Intuitive Web-based Graphical User Interface	A Web-based GUI assists with configuring telephony information in conjunction with Cisco CallManager or CallManager Express, providing ubiquitous remote access to manage, configure and provision Cisco Unity Express. The GUI allows the simple import of information shared with Cisco CallManager Express, and eases management of end-users or of group affiliations.
General Delivery Mailboxes (GDM)	This feature allows voice mail storage that any designated team member can retrieve in order to respond quickly to callers' messages, resulting in greater customer satisfaction.
Supports a full range of commonly used voice mail features	Commonly used voice mail features such as replying, forwarding, saving messages; message tagging for privacy or urgency, alternate greetings, pause, fast forward, and rewind and envelope information are provided for optimal management of messages. This set of typical features allows users to get started with Cisco Unity Express quickly and with little training.
Shares the Cisco Unity Telephony User Interface (TUI), menus and commands	Since Unity Express shares the same TUI menus and commands as Cisco Unity it reduces end user training costs, provides familiarity for users as they may migrate between different organizational environments (branch vs. headquarters) and provides the foundation for the possible migration to Cisco Unity.
Standard and alternate greetings	Users may choose between a standard or alternate greeting in order to communicate special messages like an extended absence or vacation.
Designate an alternative number	Caller and user satisfaction is increased through the use of this feature. The individual user or the system administrator may designate an alternative telephone number or local extension by which a caller may reach the called party by simply pressing zero during the voice mail greeting.



Auto Attendant Features

Table 4

Product Feature	Customer Benefit
Built-in Automated Attendant	Automated attendant services provided by Cisco Unity Express simplifies self service for the caller by allowing them to quickly reach the right person without the assistance of an operator 24 hours per day, 7 days per week. The built in automated attendant gives the caller the choice to either dial-by-name or dial-by-extension and the option to return to an operator at any time greater assistance is needed. The Cisco Unity Express automated attendant also provides time-of-day, day-of-week call treatment so that the right message is always communicated and available to the caller.
Cisco Unity Express Editor	The Cisco Unity Express Editor is a Windows GUI-based visual scripting tool that gives administrators a simple way to create up to 5 separate customized automated attendant flows. Steps within the drag and drop menu are represented graphically in the Cisco Unity Express Editor making the operation straightforward and intuitive.
Multi-level Automated Attendant	Through the use of the Cisco Unity Express Editor system administrators may create up to five multi-level automated attendant flows that provide a hierarchical DTMF-based menu structure. The multi-level automated attendant allows callers to reach individuals, departments or pre-recorded information like directions or business hours.
Greeting Management System	Custom automated attendant prompts may be easily added through the Cisco Unity Express Greeting Management System either via the Telephone User Interface or an offline .wav file recording tool.
Alternate Greeting	The system administrator can record an alternate automated attendant greeting which may be used in case of an emergency or other short-term event, such as a snow day. The alternate greeting works much like the alternate voice mail greeting by prompting the system administrator to either invoke or deactivate the greeting based on its current status.



Cisco Unity Express Product Summary

Supported Routers

Table 5

Platform	Cisco CallManager Express Supported	Cisco Unity Express Supported
1700	Yes	No
IAD 2400	Yes	No
2600XM	Yes	Yes
2691	Yes	Yes
3600	Yes—most models	No
3700	Yes	Yes

Software Support

The Cisco Unity Express network module (NM-CUE) is supported on Cisco IOS release 12.3(4)T and 12.3(7)T. The Cisco Unity Express advanced integration module (AIM-CUE) is supported on Cisco IOS release 12.3(7)T. These Cisco IOS releases correspond to Cisco CallManager Express Release 3.0 and Release 3.1, respectively.

Cisco Unity Express is currently shipping release 1.1.1. Release 1.1.1 introduces the AIM with support for up to 12, 25 or 50 mailboxes. Cisco Unity Express release 1.1.1 supports both CallManager and CallManager Express call control environments, adds the advanced integration module (AIM-CUE) as a supported form factor, the Greeting Management System and the Cisco Unity Express Editor in addition to many other new features.

Microsoft Internet Explorer version 6.0 or later is required for Cisco Unity Express GUI support.

License Support

There are four Cisco Unity Express license levels available on the network module (NM-CUE). There are three Cisco Unity Express license levels available with the advanced integration module (AIM-CUE).

Table 6

License level —Number of Mailboxes	Cisco Unity Express Network Module (NM-CUE)			Advanced Integration Module (AIM-CUE)		
	General Delivery Mailboxes (GDM)	Hours of Storage	Concurrent Voice Mail & AA ports/ sessions	General Delivery Mailboxes (GDM)	Hours of Storage	Concurrent Voice Mail & AA ports/ sessions
12 mailboxes	5 GDM	100 hours	4	5 GDM	8 hours	4
25 mailboxes	10 GDM	100 hours	4	10 GDM	8 hours	4
50 mailboxes	15 GDM	100 hours	8	15 GDM	8 hours	4
100 mailboxes	20 GDM	100 hours	8			



Language Support

Cisco Unity Express currently supports U.S. English. Additional languages are planned for a near-term, subsequent release. Ultimately, Cisco Unity Express will support all languages supported by Cisco CallManager Express. Languages supported by Cisco CallManager Express include English, German, Spanish, Italian, French, Portuguese, Swedish, Danish, Dutch and Norwegian.

Ordering Information

Table 7

Product Number	Description
NM-CUE	Unity Express Network Module -price includes 12 mailbox license
AIM-CUE	Unity Express Advanced Integration Module – includes 12 mailbox license
SCUE-12CME-1.1.1	Cisco Unity Express—12 Voice Mailboxes Auto Attendant—CME
SCUE-25CME-1.1.1	Cisco Unity Express—25 Voice Mailboxes Auto Attendant-CME
SCUE-50CME-1.1.1	Cisco Unity Express—50 Voice Mailboxes Auto Attendant—CME
SCUE-100CME-1.1.1	Cisco Unity Express—100 Voice Mailboxes Auto Attendant—CME
SCUE-12CCM-1.1.1	Cisco Unity Express—12 Voice Mailboxes Auto Attendant—CCM
SCUE-25CCM-1.1.1	Cisco Unity Express—25 Voice Mailboxes Auto Attendant—CCM
SCUE-50CCM-1.1.1	Cisco Unity Express—50 Voice Mailboxes Auto Attendant—CCM
SCUE-100CCM-1.1.1	Cisco Unity Express—100 Voice Mailboxes Auto Attendant—CCM
AIM-CUE-512CF=	Cisco Unity Express—512MB Compact Flash Replacement
CUE-CDSET-1.1.1=	Cisco Unity Express—CD includes CUE Editor

Hardware Specifications

Table 8

Feature	NM-CUE	AIM-CUE
Network sizing	Small and medium offices or branch	Small office or branch
Hardware		
Processor	500MHz Intel Mobile Pentium III	300MHz Intel Celeron
Default memory (SDRAM)	256MB	256MB
Maximum SDRAM	512MB	256MB
Internal disk storage	20 GB IDE, 4200 rpm	512MB Compact Flash
Network interfaces	None	None
Physical specifications		

Table 8 (Continued)

Feature	NM-CUE	AIM-CUE
Dimensions (HxWxD)	1.55 x 7.10 x 7.2 inches	5.25 x 3.35 x 0.75 inches
Weight	1.5lb maximum 0.7kg maximum	0.20 lb 0.09 kg
Operating humidity	5 to 95% non-condensing	5 to 90 %
Operational temperature	32 to 104 F 0 to 40 C	23 to 122 F -5 to 50 C
Non-operating temperature	-40 to 185 F -40 to 85 C	-40 to 158 F -40 to 70 C
Operational altitude	0 to 10,000 feet 0 to 3,000 meters	0 to 13,000 feet 0 to 3963 meters
Safety	UL 1950; CSA-C22.2 No.950, EN 60950, IEC 60950	UL 60950, IEC 950, EN60950
EMC	FCC Part 15 Class A; EN55022 Class B; AS/NZS 3548 Class A; CISPR22 Class B; VCCI Class B; EN55024; EN61000-3-2; EN61000-3-3	FCC Part 15 Class A; EN55022 Class A; AS/NZS 3548 Class A; CISPR22 Class A; VCCI Class A; EN55024; EN61000-3-2; EN61000-3-3

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