Cisco Unity Express

Cisco® Unified Communications Solutions enable collaboration so that organizations can quickly adapt to market changes while increasing productivity, improving competitive advantage through speed and innovation, and delivering a rich-media experience across any workspace, securely and with optimal quality.

Cisco Unity® Express offers industry-leading integrated messaging, voicemail, fax, Automated Attendant, interactive voice response (IVR), time-card management, and a rich set of other messaging features on the Cisco Integrated Services Router (ISR) platform. It provides these integrated services specifically designed for the small and medium-sized office environment or enterprise branch office. With Cisco Unity Express, you can easily and conveniently manage your voice messages and greetings right through your web browser using Web Inbox, traditional intuitive telephone prompts, an easy-to-use visual voicemail interface (the Cisco Unity Express VoiceView Express application), email access to messages, and a straightforward GUI that allows simple administration and management.

Cisco Unity Express is an essential component of either a Cisco Unified Communications Manager or Cisco Unified Communications Manager Express Solution. In a Cisco Unified Communications Manager environment, Cisco Unity Express provides local storage and processing of integrated messaging, voicemail, fax, Automated Attendant, and IVR for branch offices with limited WAN connectivity, thereby alleviating concerns about WAN bandwidth and quality of service (QoS). Additionally, Cisco Unified Communications Manager customers with Cisco Unity or Cisco Unity Connection unified messaging solutions at their larger locations can use Cisco Unity Express at their branch-office locations and network the solutions so that employees can easily send messages between locations. In a Cisco Unified Communications Manager Express environment, customers deploy a single Cisco Integrated Services Router platform with Cisco Unity Express installed to meet their office telephony and messaging needs, as well as their other business communications needs.

Productivity and Competitive Edge

Cisco Unity Express elevates the level of professionalism, productivity, and customer service available to the branch or small and medium-sized office customer. The optional IVR provides local integration to a broad set of databases, an intuitive scripting environment, and extensive reporting capabilities, for a comprehensive self-service solution. The professional Automated Attendant allows all calls to be handled efficiently and reliably - 24 hours a day without the need of a dedicated operator. Calls can be directed by the extension or by dial-by-name when the specific extension is not known. Voicemail can extend the productivity of your organization by allowing employees to access messages at any time from any telephone. Employees are immediately alerted to calls by the message-waiting indicator (MWI) on their Cisco Unified IP Phones or analog phones connected to a Cisco Voice Gateway. Additionally, applications such as VoiceView Express let you use the display on your Cisco Unified IP Phone to visually navigate through your voice messages and manipulate your mailbox options much more intuitively.

Cisco Unity Express Release 7.0 and later offers the TimeCardView application, which allows you to enter and manage time-card data from three different user profiles. The Employee View allows you to enter, review, and send time-card hours through a Cisco Unified IP Phone. With Supervisor View, you can monitor, review, and approve time cards through a Cisco Unified IP Phone or a web-based interface. The Specialist View allows administrators to use a web-based interface to import and export data, customize reports, and perform other administrative tasks. An optional QuickBooks integration allows them to move data efficiently between applications. TimeCardView creates business application integration with your Cisco Unified Communications Solution, allowing your organization to be more flexible and your employees to be more productive.

Cisco Unity Express integrates with the Cisco Unified Messaging Gateway, which allows for efficient networking of Cisco Unity Express systems across your organization's locations. With the integration of Cisco Unity Express with the Cisco Unified Messaging Gateway, you can create messages with spoken-name confirmation and send messages across the network using Voice Profile for Internet Mail (VPIM). The system also supports the concept of a system-wide distribution list, in which you can send a voicemail to particular users in various locations by addressing the message to a single number or list name.

Cisco Unity Express combined with the Cisco Unified Messaging Gateway and a centralized Cisco Unity Connection messaging solution allows you to enable Cisco Unified Survivable Remote Site Voicemail. This solution uses Cisco Unity Express at the branch office to manage voice messages if the WAN to the centralized Cisco Unity Connection solution is down. Then, Cisco Unified Survivable Remote Site Voicemail restores voice messages to the central server when WAN service returns. For more information about Cisco Unified Survivable Remote Site Voicemail, please refer to the data sheet at: http://www.cisco.com/go/srsv.

With services such as Web Inbox, integrated messaging, fax, TimeCardView, Automated Attendant, and IVR, your employees can quickly and easily benefit from productivity-enhancing tools, all incorporated into the Cisco Integrated Services Router and delivered by Cisco Unity Express.

Ease of Operation

Cisco Unity Express provides methods to provision and manage voice mailboxes from a centralized location. The capability to dramatically simplify network management - particularly in small and medium-sized offices, which may have less onsite technical support - is another important benefit of Cisco Unity Express.

Cisco Unity Express also offers the option of using the industry-standard Cisco IOS® Software command-line interface (CLI) or a web-based GUI for configuration and administration. In many instances, information about the phones, extensions, call reports, and system parameters necessary for Cisco Unity Express operation is derived directly from Cisco Unified Communications Manager or Cisco Unified Communications Manager Express, eliminating the need for replication of data entry, thereby maximizing efficiency and minimizing errors.
Cisco Unity Express supports the Simple Network Management Protocol (SNMP) and allows industry-standard SNMP-based network management applications to proactively monitor, manage, and gather performance data and receive traps at a central site. Whether managing through a GUI interface or CLI, the ability to deploy, administer, and maintain devices centrally eases remote maintenance and troubleshooting.

Table 1 summarizes the main hardware features of Cisco Unity Express.

Table 1. Hardware Features of Cisco Unity Express

Feature	Customer Benefit
The solution is delivered on a Cisco Unity Express Network Module (part number NME-CUE) or Cisco Unity Express Advanced Integration Module (AIM) (AIM-CUE or AIM2-CUE-K9), which directly integrates into the Cisco 2800 and 3800 Series Integrated Services Routers. Cisco Unity Express is also supported on the new Cisco Integrated Services-Ready Engine (ISM-SRE-300-K9) and Service Module Services-Ready Engine (SM-SRE-700-K9, SM-SRE-710-K9, SM-SRE-900-K9 & SM-SRE-910-K9), which integrate into Cisco 2900 and 3900 Series Integrated Services Routers Generation 2 (ISR G2) routers.	Network modules and AIMs are shared across a broad range of router platforms, so you can deploy Cisco Unity Express in a variety of office sizes, from the very small 12-user office up to those that need 500 mailboxes and 32 ports of concurrent voicemail and integrated messaging, Automated-Attendant sessions, or optional IVR and time-card services. The end-of-life announcement for AIM-CUE has been made. Use AIM2-CUE-K9 as the replacement option for AIM-CUE on ISR Generation 1 routers. For more details, see this web page - http://www.cisco.com/en/US/prod/collateral/voicesw/ps6789/ps5745/ps5520/end_of_life_C51-593700.html.
The network module (NME-CUE) includes a dedicated onboard microprocessor and integrated storage.	The Cisco Unity Express Network Module is fully self-contained, with dedicated onboard processing, memory, and storage, allowing efficient message management; a range of concurrent sessions, including optional IVR; simultaneous processing; and ample voicemail storage capacity for a wide range of typical office profiles. The module supports up to 24 sessions of voicemail and Automated Attendant or IVR and up to 275 voice mailboxes.
The Cisco Unity Express AIMs (AIM-CUE and AIM2-CUE-K9) have a dedicated onboard microprocessor.	Like the network module, the Cisco Unity Express AIM is fully self-contained, with dedicated onboard processing, memory, and storage. Because the module is internally installed on the router, external interface slots are available for other services such as analog and digital voice, VPN acceleration, or integrated switching. The module supports up to 65 voice mailboxes and up to 6 sessions of voicemail, Automated Attendant, or IVR.
The Cisco Integrated Services-Ready Engine (ISM-SRE-300-K9) has a dedicated onboard microprocessor and supports multiple applications.	The Cisco Integrated Services-Ready Engine on Cisco ISR G2s is fully self-contained, with dedicated onboard processing, memory, and storage. This module provides the flexibility of a hosting platform that can be used for voicemail or other services that are supported on the module. When configured to run Cisco Unity Express software, the module supports up to 100 voice mailboxes and comes with 2 ports, with the ability to expand to 10 ports with software licenses. These ports can be shared with Automated Attendant or IVR, similar to other modules that run Cisco Unity Express.
The Cisco Service Module Services-Ready Engine (SM-SRE-700-K9, SM-SRE-710-K9, SM-SRE-900-K9 & SM-SRE-910-K9) has a dedicated onboard microprocessor and supports multiple applications.	The Cisco Service Module Services-Ready engine modules are router blades for the Cisco ISR G2 that provides the capability to host Cisco, third party, and custom applications. The modules have their own processors, storage, network interfaces, and memory that operate independently of the host router resources. When configured to run Cisco Unity Express software, the modules support up to 500 voice mailboxes with 600 hours of voicemail storage space, and they come with 4 ports and the ability to expand to 32 ports with software licenses. These ports can be shared with Auto Attendant or IVR, similar to other modules that run Cisco Unity Express.

Key Features and Benefits

Table 2 lists features introduced with versions of Cisco Unity Express up through Version 8.0. Table 3 lists voicemail and integrated messaging features, Table 4 lists Automated-Attendant features, and Table 5 lists optional IVR features.

Table 2. Solution Features

Feature	Customer Benefit
Capability to operate in Cisco Unified Communications Manager or Cisco Unified Communications Manager Express IP telephony environment	You can use Cisco Unity Express within either a Cisco centralized (Cisco Unified Communications Manager) or distributed (Cisco Unified Communications Manager Express) call-control environment. This approach provides design flexibility and investment protection if you migrate from one Cisco call-control methodology to the other.
Ability to work with multiple Cisco Unified Communications Manager Express sites (Version 3.2 and later)	Cisco Unity Express (on NME-CUE only) can integrate with up to 10 Cisco Unified Communications Manager Express remote sites. This solution allows you to centralize voicemail and Automated-Attendant features for up to 10 sites when voicemail at each remote site is not essential and only a small number of users are at each site.
Accessible CLI	Cisco Unity Express provides familiar management features such as configuration, provisioning, and support through a CLI that is similar to the Cisco IOS Software CLI, reducing training time for network administrators and channel partners who are already familiar with Cisco IOS Software.

Feature	Customer Benefit
Capability to integrate with Cisco Unified Messaging Gateway	Cisco Unity Express 3.1 and later can integrate with the Cisco Unified Messaging Gateway to provide an easy-to-network solution across multiple locations. This integration provides the added benefit of automatic database synchronizations across the network so that all Cisco Unity Express systems in the Cisco Unified Messaging Gateway network can send messages with spoken-name confirmation.
CLI scripting capabilities	Cisco Unity Express provides an advanced method for efficient remote management, provisioning, and configuration of many units. This innovative feature allows for rapid deployment of many similarly configured sites.
Embedded operating system	Cisco Unity Express employs an industry-standard OS ideally suited for embedded applications. It enables a disk subsystem not provided by native Cisco IOS Software. This approach translates into efficient operation while providing a robust, secure, and protected operating environment behind Cisco IOS Software.
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 help ensure their integrity. Even then, if somehow untrusted code is installed on the system, a built-in chain-of-trust model will prevent the unauthorized code from operating. Security features include HTTPS or HTTP over Secure Sockets Layer (SSL) access to the GUI and configurable system behavior when end users erroneously log in to telephone-user-interface (TUI) handling. This approach gives your business the flexibility to apply your specific security policies.
Six to 32 simultaneous calls to voicemail or Automated Attendant (dependent upon license level and hardware)	Support for 6 to 32 concurrent sessions or ports for voicemail, integrated messaging, Automated Attendant, or optional IVR services provides the right level of service for business needs and budgetary constraints. The number of ports available depends on the Cisco Unity Express module type and other services such as concurrent IVR sessions.
Languages	Cisco Unity Express supports an extensive set of languages and dialects across all supported applications that use system prompts, including voicemail, Automated Attendant, and optional IVR. Table 10 later in this document provides a detailed list of supported languages. Concurrent language support allows the administrator to install up to two concurrent languages on the Cisco Unity Express AIM and AIM2, and up to five languages on Cisco Unity Express Network Modules and Cisco Integrated Services-Ready Engines (SREs).
Secure backup and restore	A secure FTP function has been added to authenticate an FTP server before backup. In addition, the payload of the IP transmission is encrypted between Cisco Unity Express and the FTP server to help ensure confidentiality.
Scheduled online backup (Version 7.1 and later)	You can schedule backups for Cisco Unity Express in advance. The schedule can be for one-time or recurring backups at a preset frequency (daily, weekly, monthly, yearly, or day-of-week). During backups, all voicemail and Automated-Attendant features are available for use and all operations except configuration changes work as usual, so end-user service is not disrupted.
Notification for scheduled backup (Version 8.0)	With Cisco Unity Express 8.0, you can configure the scheduled backups added in Version 7.1 to generate notifications to an administrator, with settings defined for each backup (not the user account). You can receive backup notifications through your phone or email, and choose to be notified for all results or for backup failure only.
Incremental upgrades and background downloads	Upgrading is simplified to enhance Cisco Unity Express operating efficiency. With incremental upgrades, in many cases just the relevant updates are added to the system, and a full image upgrade is not required, depending on the extent of changes introduced in the version. You can download software packages in a background process during normal system operation without interrupting users' services (on NME-CUE only).
Multirelease upgrades and reduced upgrade files	Cisco Unity Express 7.0 and 7.1 support upgrades from Versions 2.3 and later, making it easier for you to migrate from any of these prior versions. A full install and an upgrade use the same file sets to minimize the number of files that need to be managed as part of a large deployment.
SNMP	The SNMP interface allows you to monitor and maintain Cisco Unity Express remotely by Cisco network management tools or other third-party management applications. The SNMP agent on Cisco Unity Express provides for management and monitoring of the system through SNMP Group Encrypted Transport operations and can send SNMPv2c notifications for various events.
System administrator dashboard	A dashboard has been added for an administrator to view mailbox assignment, status, and use information for each user on the system, providing additional efficiency and management of the resources across the system.

Feature	Customer Benefit
Real-time and historical reporting	An extensive set of real-time and historical reports for Cisco Unity Express is available, giving you powerful information for network resource planning and assessment purposes. The reports cover Cisco Unity Express applications such as voicemail, Automated Attendant, fax, IVR, and TimeCardView, and overall system status such as active calls, incoming calls over time, and rejected calls, with thresholds that you define for each.
Authentication, authorization, and accounting (AAA) (Version 7.0 and later)	AAA allows for administrative access to the CLI and GUI that you can remotely authenticate and authorize, centralized authentication and authorization management, and multilevel administrator account usage privileges. Up to two RADIUS servers are supported as primary and backup. AAA on Cisco Unity Express is IP or Domain Name System (DNS) addressable; you can configure this feature to authenticate and authorize a user in one of the following modes: Local only; remote only; local first, then remote; and remote first, then local. CLI and GUI accounting is supported with RADIUS as well as syslog servers.
Login banner for Cisco Unity Express GUI access (Version 7.0 and later)	Administrators can create a banner that users see upon login to Cisco Unity Express through the GUI. For example, administrators can create a banner notifying users that the system is for authorized use only.
TimeCardView (optional software add-on) (Version 7.0 and later)	TimeCardView is a time and attendance application that allows employees, supervisors, and payroll specialists to enter and manage time-card data. Employees use their Cisco Unified IP Phone to record and review shift information. Supervisors and payroll specialists can use a Cisco Unified IP Phone to review employee status updates, send messages, and use a computer to review and approve employee timesheets and create custom reports. An optional QuickBooks integration allows administrators to move data efficiently between applications.
Customized factory default configuration (Version 7.0 and later)	For ease of deployment and replication and to save time for administrators, Cisco Unity Express supports a factory default source configuration file. You can populate this file with customized configuration for faster turn-up time.
XML interface application programming interface (API) for provisioning and management (Version 8.0)	Cisco Unity Express supports XML programmatic access for create, read, update, and delete procedures of any currently used configurations. You can perform pattern-based queries and updates for users, mailboxes, and groups, and perform bulk create, read, update, and delete procedures with a single request.

Table 3. Voicemail Features

Feature	Customer Benefit
Up to 600 hours of voicemail storage configurable on per-mailbox basis	Because Cisco Unity Express is available in multiple form factors, you can choose the capacity, performance, and price point that meet specific site requirements. In addition, you can customize the voicemail storage capacity of each Cisco Unity Express module on a per-user basis as defined by the system administrator. Following is a storage-capacity summary for each module type: • Cisco Unity Express AIM (AIM-CUE and AIM2-CUE-K9): 14 hours • Cisco Unity Express on Cisco Integrated SRE (ISM-SRE-300-K9): 60 hours • Cisco Unity Express Network Module Enhanced (NME-CUE): 300 hours • Cisco Unity Express on Cisco Service Module SRE (SM-SRE-700-k9): 600 hours
General-delivery mailboxes (GDMs)	This feature provides storage for voicemail messages that any designated team member can retrieve to respond quickly to callers' requests, resulting in greater customer satisfaction. Starting with Cisco Unity Express Version 7.1, GDMs are no longer counted separately, and you can configure any mailbox for personal or general-delivery use.
Announcement-only mailboxes (Version 7.1 and later)	Announcement-only mailboxes can be personal or general-delivery mailboxes, used to ease the administration of announcements. Special mailboxes with no storage, these mailboxes are not meant for sending and receiving messages.
End-user tutorial for self-service mailbox creation	A complete yet concise TUI tutorial takes you step-by-step through the mailbox setup process, minimizing the need for administrator assistance and saving time and money.
Intuitive web-based GUI	A web-based GUI assists with configuring telephony information in conjunction with Cisco Unified Communications Manager or Cisco Unified Communications Manager Express, providing ubiquitous remote access for managing, configuring, and provisioning Cisco Unity Express. The GUI allows the import of information shared with Cisco Unified Communications Manager and Cisco Unified Communications Manager Express and eases management of end users and group affiliations.
Support for a full range of common voicemail features	Commonly used voicemail features such as replying, forwarding, and saving messages; message tagging for privacy or urgency or future delivery; alternative greetings; pause, fast forward, rewind; and envelope information are provided for optimal management of messages.

Feature	Customer Benefit
Voicemail PIN-less login (Version 3.2 and later)	You can configure Cisco Unity Express to allow for PIN-less login when you call in from any phone. This feature allows for access to voicemail in trusted environments, with the click of the Messages button on a Cisco IP Phone or a call into a mailbox, without the need for any more key presses. The built-in security features prevent misuse of this feature such that if an administrator sets PIN-less login and then disables it on a mailbox, a voicemail is automatically generated to let you know of this change.
Fax integration	Inbound fax capability is provided using a combination of the native T.37 fax processing in the Cisco Integrated Services Routers, combined with the message management of Cisco Unity Express. You can receive faxes using a single or a separate direct-inward-dialing (DID) number, and you can store messages in your mailbox or have them sent to your email client as a TIFF file attachment through the Internet Message Access Protocol (IMAP) capability or delivered in a GDM. You can select a fax machine to print the fax that is stored in a GDM or in your personal mailbox.
Live reply	Live reply allows you to select an option to automatically call back the sender of a voicemail message. When listening to a voicemail, you will be prompted to select one of two options: • Reply to the message (within the same Cisco Unity Express system or a networked location) • Return the person's call (internal or external) using the caller ID or extension captured in the message envelope
Live record	Live record allows you to select an option to record a call spontaneously. The recorded call is sent as a voicemail message in your mailbox or you can have it forwarded to your email client through the IMAP capability. You can generate tones to indicate that a conversation is being recorded.
Delivery to nonsubscriber	Delivery of voicemail to nonsubscribers provides the capability to compose a voice message for delivery to internal or external numbers. When you enter the number, Cisco Unity Express plays back or displays the target user's directory name by using the TUI or VoiceView Express.
Support for VPIM, the industry standard for voicemail message communication	Cisco Unity Express supports VPIM Version 2.0, the industry standard that permits messaging systems to communicate with each other. Nondelivery and delayed-delivery receipts give you complete information about the status of a message. This set of messaging features increases productivity across business locations, lowers long-distance costs, and ultimately protects investment in existing VPIM-compliant messaging systems.
Distribution lists	The public and private distribution-list function of Cisco Unity Express allows you to simply and quickly address a voicemail message to a list of predefined recipients, saving time and minimizing keying errors. The application includes an "all users" public distribution list and the capability for a privileged user to define up to 15 other public lists. Individual users can define up to five private lists of their own.
Nonsubscriber distribution lists (Version 3.2 and later)	Cisco Unity Express administrators and end users can program distribution lists to include nonsubscriber numbers along with those of subscribers. When you send a message to this distribution list, Cisco Unity Express delivers the message directly to the mailboxes of subscribers and calls the nonsubscriber numbers and plays the message.
Broadcast messages	Like distribution lists, broadcast messages allow you to deliver messages to multiple recipients. Additionally, broadcast messages allow you to give top priority to important communications in your voice-message queue. These special messages are played before any other messages and will remain in your mailbox until the messages are retrieved in full or expire, helping ensure that you hear essential communications.
Spoken name confirmation for remote users	Cisco Unity Express provides spoken-name confirmation for all local and many remote recipients. Spoken-name confirmation helps ensure that you select the correct recipient when you address a voicemail message. The confirmation includes the remote-location information if applicable, to help ensure that the message is sent to the correct user and location.
Undelete messages	If a message is inadvertently deleted during a Cisco Unity Express voicemail message session, you can undelete the message and return it to the active state within the same session.
Calling line identification (CLID) as part of envelope information	Cisco Unity Express includes, as a configuration option, CLID information for all voicemail messages, whether they originate internally or from the public switched telephone network (PSTN).
Shared Cisco Unity TUI, menus, and commands	Because Cisco Unity Express shares the same TUI menus and prompts as Cisco Unity software, it reduces your training costs, provides familiarity as you migrate between different organizational environments (branch office and headquarters), and provides the foundation for any potential migration to Cisco Unity software.

Feature	Customer Benefit
Multiple greetings (Version 7.1 and later)	You can choose between a standard or alternative greeting to communicate special messages such as an extended absence or vacation. Starting with Version 7.1, you can set up to eight greetings (Standard, Alternate, Busy, Closed, Internal, Meeting, Vacation, and Extended Absence). You can set greetings to expire at a specified time and date. All greeting preferences and settings are available from the GUI, TUI, and VoiceView Express menus.
Alternative number options	Individual users or the system administrator can designate an alternative telephone number or local extension by which a caller can reach the called party or an assistant by simply pressing zero during the voicemail greeting.
Caller-flow customization (Version 7.1 and later)	With Cisco Unity Express, users and administrators can assign actions to key-presses for voicemail. Such actions include transfer to another number, connect to operator, skip greeting, repeat greeting, ignore, say “good bye”, or sign in. This customization gives the administrator and each user the flexibility to determine their callers’ experience. For example, a greeting may state “Leave me a message or press 2 to reach me on my mobile phone”, “press 5 to reach me at home”, or “press 8 to reach my assistant”, allowing callers to choose their course of action. Administrators also can restrict this caller-flow customization to prevent toll fraud or apply policies through restriction tables for each user.
Mandatory message expiry	Administrators can better manage and maintain the message store on the system by using mandatory message expiry. This option enforces a policy whereby subscribers must delete messages upon expiry.
Future message delivery	Up to 1 year in advance, you can address a message to users on local or remote systems for delivery at a future time.
Integrated messaging	Taking advantage of existing messaging infrastructure and IMAP email clients, Cisco Unity Express desktop messaging access provides simple, native access to voicemail from Microsoft Outlook, Outlook Express, and Lotus Notes, providing continuous and global access to messages. With Version 3.2 and later, Cisco Unity Express supports IMAP access on the Apple Mac family of products with Microsoft Entourage 2004. With Version 8.0, Cisco Unity Express supports IMAP access on the Apple iPhone.
Cisco Unity Express VoiceView Express	VoiceView Express, a convenient and faster visual alternative to TUI, is used to access and manage messages and mailbox settings with the Cisco Unified IP Phone display and softkeys. VoiceView Express improves your productivity by providing quick visibility into your voice mailboxes, helping you better manage your day-to-day tasks.
Web Inbox	Web Inbox is yet another alternative for the end-users to access and manage their messages and mailbox settings. Using an Internet browser, end-users can connect directly to Cisco Unity Express from their computer and access their messages with a few mouse clicks. Message playback and recording through the Web Inbox do not count towards the system ports. This feature is available on all Cisco Unity Express platforms.
Secure Messaging	Secure messaging gives the users and administrators the ability to lock down the message in a mailbox. Features that allow forwarding or downloading this message from the mailbox are disabled.
Remote message notification	This system service notifies you upon the arrival of all new or urgent messages. You can configure each mailbox (individual and GDM) to have notifications sent to multiple destinations simultaneously: up to four numeric devices (such as phone numbers) and up to two text devices (such as text pagers or email addresses). You can configure destinations and manage your notification schedule for each destination using the TUI, GUI, or VoiceView Express.
Message notification cascading	Cascading message notification allows you to set up a series of notifications to a widening circle of recipients. For example, to create a hierarchy of message notifications for a technical support department, set the first message notification to be sent immediately to the front-line technical support representative’s pager. You can configure the application to send the next notification after a delay of 15 minutes to the department manager’s pager, and then to send a third notification after a delay of 30 minutes to an employee in the problem-resolution group. Notifications continue to cascade according to the options selected until a recipient saves or deletes the message.
Cisco Unified Communications Manager Express password synchronization (Version 3.2 and later)	Cisco Unity Express passwords are automatically synchronized across Cisco Unity Express and Cisco Unified Communications Manager Express.
Desktop and mobile Client support	Cisco Unity Express offers a range of choices when it comes to messaging access on the desktop or on the mobile devices. Messages can be accessed using the Cisco Unified Personal Communicator (CUPC), Cisco Unified Communications Integration for Microsoft Office Communicator (CUCIMOC) and Cisco Jabber clients on a variety of mobile clients.

Table 4. Automated-Attendant Features

Feature	Customer Benefit
Built-in Automated Attendant with dial-by-name, dial-by-extension, and return-to-operator features	The standard Automated-Attendant services provided with Cisco Unity Express simplify self-service for callers by allowing them to quickly reach the right person without the assistance of an operator 24 hours a day, with the option to return to an operator at any time if they need more assistance. Cisco Unity Express offers two standard Automated-Attendant options: one includes dial-by-name and dial-by-extension features, and a second allows single-digit dialing for up to nine users or groups.
Custom Automated Attendant with Cisco Unity Express Editor	The Cisco Unity Express Editor is a Microsoft Windows GUI-based visual scripting tool that gives administrators a simple way to create up to four separate, customized Automated-Attendant flows in addition to the system Automated Attendant.
Simple web-based Automated-Attendant editor	A simple interface to change parameters of the built-in Automated Attendant makes managing and updating the call Automated Attendant easy enough for a nontechnical user. For more advanced functions where the Automated-Attendant structure needs to be modified, you can use the feature-rich Cisco Unity Express Editor.
Multilevel Automated Attendant	With the Cisco Unity Express Editor, system administrators can create up to four multilevel Automated-Attendant flows that provide a hierarchical dual-tone multi-frequency (DTMF)-based menu. The multilevel Automated Attendant allows callers to reach individuals, departments, or prerecorded information such as directions or business hours. It also provides customizable time-of-day or day-of-week call management.
Cisco Unity Express Administration via Telephone (AVT) (formerly the greeting management system)	You can easily record custom Automated-Attendant prompts through the Cisco Unity Express AVT feature, through either the TUI or an offline WAV file recording tool. You can record prompts using AVT, allowing Automated-Attendant administrators to modify prompts without needing GUI access to change file names. Additionally, you can use alternative greetings in a custom Automated Attendant as a sub-flow.
Holiday schedules	Cisco Unity Express allows you to define holidays and set up a customized Automated-Attendant prompt to be played during the holidays. These prompts, which are easily updated through the AVT, can give you customized information about the operation of the business or special events.
Business hours	The business hours function allows you to define up to four schedules, providing different Automated-Attendant prompts to be played based on the time of day, without the need for manual intervention.
Alternative Automated-Attendant greeting	The system administrator can record an alternative Automated-Attendant greeting, which can be used in case of an emergency or another short-term event, such as a snow day. The alternative greeting works much like the alternative voicemail greeting by prompting the system administrator to simply toggle between either the active or inactive mode.
Automated-Attendant peg counts	Cisco Unity Express can generate peg counts for the Automated-Attendant function. These peg counts report the flow of incoming Automated-Attendant calls, helping organizations make sure that they have the right staffing during the appropriate hours of the day to meet traffic demands, maximizing revenue opportunities.
TUI-managed Automated-Attendant flows	You can manage Automated-Attendant flows from the telephone by changing script flows dynamically.

Table 5. Optional IVR Features

Feature	Customer Benefit
Optional IVR	Because IVR provides caller self-service, it improves customer satisfaction and lowers operational costs. The Cisco Unity Express optional IVR allows you to update personal information and preferences, order products, track delivery, check payment status, and request product information, thereby alleviating the burden on the customer service representative or contact center agent.
Broad range of IVR sessions	Because IVR is available on the same integrated hardware modules supported for Cisco Unity Express, it provides a broad range of IVR sessions: from 2 to a maximum of 30, depending on the hardware platform chosen and the number of licensed voice mailboxes.
Tight integration with Cisco Unity Express voicemail and Automated Attendant	The Cisco Unity Express IVR is tightly integrated with the voicemail and Automated-Attendant services available on the product. This tight integration gives you more options to resolve transactions, including breaking out to an operator or leaving a voicemail message.

Feature	Customer Benefit
Cisco Unity Express Editor for scripting IVR	The Cisco Unity Express Editor is a Microsoft Windows GUI-based visual scripting tool that gives administrators a simple way to create customized IVR scripts in addition to those for the Automated Attendant. Steps within the drag-and-drop menu are represented graphically in the Cisco Unity Express Editor, making the operation straightforward and intuitive. Further simplifying the process, administrators can debug and validate IVR call flows using the Cisco Unity Express Editor.
Simple web-based Cisco Unity Express Editor for IVR	Cisco Unity Express provides a simple interface to change parameters of the built-in Automated Attendant to make managing and updating the Automated Attendant easy enough for a nontechnical user. This function is also available for the Cisco Unity Express IVR.
VoiceXML 2.0 browser	As an alternative to the Cisco Unity Express Editor, you can use the built-in VoiceXML 2.0-based browser in conjunction with a general-purpose web browser to customize the IVR. This feature allows IVR applications to make HTTP requests so you can use the "Call Me" button on the business webpage to call the IVR for self-service or to connect with an agent.
Broad range of supported databases	Cisco Unity Express optional IVR supports a variety of databases that handle the needs of both the enterprise branch office and the small and medium-sized business: • Microsoft SQL 2000 • Microsoft SQL Desktop Edition (MSDE) 2000 • Sybase Adaptive Server Version 12 • Oracle 10g • IBM DB2 9
Outbound email and fax	Administrators and script developers can further customize the customer experience by creating and sending email messages and faxes with the Cisco Unity Express Editor for the IVR. Email messages can have up to five files attached.
AVT for prompt management	Administrators can use the intuitive AVT prompt management system available with Cisco Unity Express to record prompts for interaction with the caller, further customizing the user experience.
HTTP support	Support for HTTP requests allows developers and administrators to web-enable the Cisco Unity Express optional IVR. You can also make an HTTP request from your IVR application and use the response from the request to play back information or send an email message or fax.
Real-time and historical reports	The Cisco Unity Express IVR introduces an extensive set of real-time and historical reports, giving administrators powerful information for understanding customer preferences, network resource planning, and general business assessment purposes. The reports cover all crucial IVR information, including system status such as traffic analysis, active calls, incoming calls over time, and rejected calls, with user-defined thresholds for each.

Table 5a. Optional TimeCardView Features

Feature	Customer Benefit
Employee interface	Employees can log in their hours using a shared or personal Cisco Unified IP Phone, by either using the on-screen display or by dialing into the system. They can review their work hours for the day, week, month.
Supervisor interface	The office supervisor can monitor, review and approve the employee time cards through the Cisco Unified IP Phone interface or through the Web interface. The employee status can be monitored in real-time. A supervisor can also override the employee time cards.
Payroll specialist interface	The payroll specialist can use a web-based interface to import and export time card data, customize reports, and perform other administrative tasks. The payroll data can be extracted in Excel CSV format also.
Integration with Intuit QuickBooks	The time card data collected by Cisco Unity Express is easily exported out to Intuit QuickBooks on a schedule or manually with a few clicks.

Product Summary

Table 6 lists the Cisco routers that support Cisco Unity Express, and Table 7 lists the software supported.

Table 6. Supporting Routers

Platform	Cisco Unified Communications Manager Express Support	Cisco Unity Express Support
Cisco 1861 Integrated Services Router	Yes	Yes (ISE-CUE only)
Cisco 2801 Integrated Services Router	Yes	Yes (AIM-CUE and AIM2-CUE-K9 only)
Cisco IAD2400 Series Integrated Access Devices	Yes	No
Cisco 2800 Series Integrated Services Routers	Yes	Yes
Cisco 2900 Series Integrated Services Routers	Yes	Yes (SM-SRE-700-K9, SM-SRE-710-K9, SM-SRE-900-K9, SM-SRE-910-K9, ISM-SRE-300-K9 and NME-CUE with SM-SM-ADPTR)
Cisco 3700 Series Multiservice Access Routers	Yes	No
Cisco 3800 Series Integrated Services Routers	Yes	Yes
Cisco 3900 Series Integrated Services Routers	Yes	Yes (SM-SRE-700-K9, SM-SRE-710-K9, SM-SRE-900-K9, SM-SRE-910-K9, ISM-SRE-300-K9 and NME-CUE with SM-SM-ADPTR)

Table 7. Software Support

Cisco Unity Express Version	Cisco Unified Communications Manager Version	Cisco Unified Communications Manager Express or Survivable Remote Site Telephony (SRST) Version	Cisco IOS Software Release
1.1	3.3	3.0 and 3.1	12.3(4)T, 12.3(7)T, 12.3(8)T, and 12.3(11)XL
2.0	3.3 and 4.0	3.0, 3.1, and 3.2	12.3(4)T, 12.3(7)T, 12.3(7)XL, 12.3(8)T, 12.3(11)T, and 12.3(11)XL
2.1 and 2.2	3.3, 4.0, and 4.1	3.0, 3.1, and 3.2	12.3(4)T, 12.3(7)T, 12.3(7)XL, 12.3(8)T, 12.3(11)T, and 12.3(14)T
2.3	4.1, 4.2, 5.0, and 5.1 (only with 2.3.4)	3.1, 3.2, 3.3, 3.4, 4.0, and 4.0(1)	12.3(7)T, 12.3(8)T, 12.3(11)T. 12.3(14)T, 12.4T, 12.4M, and 12.4(4)XC
3.0	4.1, 4.2, 5.0, 5.1, and 6.0	3.2, 3.3, 3.4, 4.0, 4.0(3), and 4.1	12.3(7)T, 12.3(8)T, 12.3(11)T. 12.3(14)T, 12.4T, 12.4M, 12.4(4)XC, and 12.4(15)T
3.1	4.1, 4.2, 5.0, 5.1, and 6.0	3.2, 3.3, 3.4, 4.0, 4.0(3), and 4.1	12.3(7)T, 12.3(8)T, 12.3(11)T. 12.3(14)T, 12.4T, 12.4M, 12.4(4)XC, and 12.4(15)T
3.2	4.2, 5.1, 6.0, 6.1, 7.0, and 7.1	4.0, 4.1, 4.2, 4.3, 7.0, and 7.1	12.4(4)XC4, 12.4(11)T, 12.4(11)XJ, 12.4(15)T, 12.4(11)XW, 12.4(15)XY, and 12.4(15)XZ
7.0	4.2, 5.1, 6.0, 6.1, 7.0, and 7.1	4.0, 4.1, 4.2, 4.3, 7.0, and 7.1	12.4(4)XC4, 12.4(11)T, 12.4(11)XJ, 12.4(15)T, 12.4(11)XW, 12.4(15)XY, 12.4(15)XZ, 12.4(20)T, and 12.4(22)T
7.1	4.2, 4.3, 6.0, 6.1, 7.0, and 7.1	4.0, 4.1, 4.2, 4.3, 7.0, 7.1, and 8.0	12.4(15)T, 12.4(20)T, 12.4(22)T, 12.4(22)YB, 12.4(24)T, and 15.0(1)M
8.0	6.1, 7.1, and 8.0	4.0, 4.1, 4.2, 4.3, 7.0, 7.1, and 8.0	12.4(15)T, 12.4(20)T, 12.4(22)T, 12.4(22)YB, 12.4(24)T, 15.0(1)XA, and 15.0(1)M
8.5 & 8.6	6.1, 7.x and 8.x	4.3, 7.0, 7.1, and 8.x	12.4(15)T, 12.4(20)T, 12.4(22)T, 12.4(22)YB, 12.4(24)T, 15.0(1)XA, and 15.0(1)M

Microsoft Internet Explorer Version 6.0 and later or Mozilla Firefox 2.0 and later is required for Cisco Unity Express GUI support.

License Support

Cisco Unity Express user license levels are available on the network module (NME-CUE) and advanced integration module (AIM-CUE) for Version 7.0 and earlier (Table 8).

Table 8. License Support for Version 7.0 and Earlier

	Cisco Unity Express Network Module (NME-CUE)			Cisco Unity Express Advanced Integration Module (AIM-CUE)		
License Level: Number of Mailboxes	**GDMs**	**Hours of Storage**	**Concurrent Voicemail and Automated-Attendant Ports and Sessions**	**GDMs**	**Hours of Storage**	**Concurrent Voicemail and Automated-Attendant Ports and Sessions**
12	5	300	8-24	5	14	6
25	10	300	8-24	10	14	6
50	15	300	8-24	15	14	6
100	20	300	8-24	Not supported		
150	25	300	8-24	Not supported		
200	25	300	8-24	Not supported		
250	25	300	8-24	Not supported		

Cisco Unity Express user license levels are available on the network module (NME-CUE) and advanced integration modules (AIM-CUE and AIM2-CUE-K9) for Version 7.1 and later (Table 9). You can order the Cisco Unity Express IP Services Engine (ISE-CUE) module only with the Cisco 1861 Integrated Services Router. Please refer to the Cisco 1861 Integrated Services Router product data sheet for more details: http://www.cisco.com/en/US/prod/collateral/routers/ps5853/ps8321/product_data_sheet0900aecd806c4dce.html.

Table 9. License Support for Version 7.1 and Later

Platform	Number of Mailboxes	Hours of Storage	Concurrent Voicemail and Automated-Attendant Ports and Sessions
Cisco Unity Express Network Module (NME-CUE)	0-275	300	8-24
Cisco Unity Express Advanced Integration Module (AIM-CUE and AIM2-CUE-K9)	0-65	14	6
Cisco Integrated Services-Ready Engine (ISM-SRE-300-K9)	0-100	60	2-10
Cisco Service Module Services-Ready Engine (SM-SRE-700-K9, SM-SRE-710-K9, SM-SRE-900-K9, SM-SRE-910-K9)	0-500	600	4-32

Language Support

Cisco Unity Express currently supports the languages listed in Table 10.

Table 10. Supported Languages

Language	Variation	Cisco Unity Express Version: Voicemail and Automated Attendant	Cisco Unity Express Version: IVR
Arabic		3.2	3.2
Chinese	Mandarin	2.3	3.1
Chinese	Hong Kong	8.6	8.6
Chinese	Taiwan	8.6	8.6
Danish		2.1.3	3.0
Dutch		3.1	3.1
English	British	2.1.3	3.0

Language	Variation	Cisco Unity Express Version: Voicemail and Automated Attendant	Cisco Unity Express Version: IVR
English	U.S.	1.0	3.0
French	Canadian	2.3	3.0
French	European	2.0	3.0
German		2.0	3.0
Hungarian		7.0	7.0
Italian		2.1.3	3.0
Japanese		2.3	3.1
Korean		2.3	3.1
Norwegian		7.0	7.0
Portuguese	Brazilian	2.1.3	3.0
Portuguese	Portuguese	7.0.2	7.0.2
Russian		3.2	3.2
Spanish	European	2.0	3.0
Spanish	Latin American	2.1.3	3.0
Spanish	Mexican	2.3	3.0
Swedish		3.1	3.1
Turkish		3.2	3.2

The Cisco Unity Express AIMs (AIM-CUE and AIM2-CUE-K9) can support two concurrent languages (reducing the total amount of voicemail storage to 8 hours from 14 hours on the AIM-CUE), and the Cisco Unity Express Network Module (NME-CUE), Cisco Integrated SRE (ISM-SRE-300-K9), and Cisco Service Module Services-Ready Engine (SM-SRE-700-K9, SM-SRE-710-K9, SM-SRE-900-K9 & SM-SRE-910-K9) can support five concurrent languages.

Physical Specifications

Table 11 lists the hardware specifications for the Cisco Unity Express Network Modules. You can order the Cisco Unity Express ISE (ISE-CUE) module only with the Cisco 1861 Integrated Services Router. Please refer to the Cisco 1861 Integrated Services Router product data sheet for more details: http://www.cisco.com/en/US/prod/collateral/routers/ps5853/ps8321/product_data_sheet0900aecd806c4dce.html.

Table 11. Hardware Specifications

Feature	Cisco Unity Express Network Module (NME-CUE)	Cisco Unity Express Advanced Integration Module (AIM-CUE, AIM2-CUE-K9)	Cisco Service Module Services-Ready Engine (SM-SRE-700-K9)	Cisco Integrated Services-Ready Engine (ISM-SRE-300-K9)
Network size	Small and medium-sized offices or branch offices	Small or branch office	Small and medium-sized offices or branch offices	Small or branch office
Hardware				
Maximum synchronous dynamic RAM (SDRAM)	512 MB	256 MB	4GB	512 MB
Network interfaces	None	None	1 USB connector 1 RJ-45 Gigabit Ethernet connector	None

Feature	Cisco Unity Express Network Module (NME-CUE)	Cisco Unity Express Advanced Integration Module (AIM-CUE, AIM2-CUE-K9)	Cisco Service Module Services-Ready Engine (SM-SRE-700-K9)	Cisco Integrated Services-Ready Engine (ISM-SRE-300-K9)
Physical Specifications				
Dimensions (H x W x D)	1.55 x 7.10 x 7.2 in. (3.9 x 18.0 x 18.3 cm)	0.75 x 3.35 x 5.25 in. (1.9 x 8.5 x 13.3 cm)	1.58 x 7.44 x 7.5 in. (4 x 18.9 x 19.1 cm)	0.85 x 4 x 6.1 in. (2.2 x 10.2 x 15.5 cm)
Weight	1.5 lb (0.7 kg) maximum	0.20 lb (0.09 kg) maximum	2.5 lb (1.1 kg)	0.5 lb (0.206 kg)
Operating humidity	5 to 95% noncondensing	5 to 90% noncondensing	10 to 85% operating	Per operating requirements of deployable platform
Operating temperature	32 to 104℉ (0 to 40℃)	23 to 122℉ (-5 to 50℃)	32 to 104℉ (0 to 40℃) normal 23 to 131℉ (-5 to +55℃) short term	Per operating requirements of deployable platform
Nonoperating temperature	-40 to 185℉ (-40 to 85℃)	-40 to 158℉ (-40 to 70℃)	-4 to 149℉ (-20 to +65℃)	13 to 158℉ (-25 to +70℃)
Operating altitude	0 to 10,000 ft (0 to 3000m)	0 to 13,000 ft (0 to 3963m)	104℉ (40℃) at sea level 104℉ (40℃) at 6,000 ft (1,800m) 86℉ (30℃) at 13,000 ft (4,000m) 27.2℃ (81℉) at 15,000 ft (4,600m) Note: De-rate 34.5℉ (1.4℃) per 1,000 ft above 6,000 ft (per 300m above 2,600m)	Per operating requirements of deployable platform
Safety	UL 1950, CSA-C22.2 No.950, EN 60950, and IEC 60950	UL 60950, IEC 950, and EN60950	UL 60950-1, First Edition, Standard for safety for information technology equipment (US); CAN/CSA-C22.2 No. 60950-1-03, Safety of information technology equipment including electrical business equipment (Canada); IEC 60950-1:2001, Safety of information technology equipment/Second Edition - 2005) (Worldwide)- 2nd Ed. 2005 (is optional and will roll in by Dec. 1, 2010); EN 60950 -1:2001, Safety of information technology equipment (CENELEC; includes EU and EFTA); GB4943-2001, Safety of information technology equipment (PRC); AS/NZS 60950-1, Safety of information technology equipment including electrical business equipment (Australia); NOM-019, Safety of data processing equipment (Mexico)	Per safety requirements of deployable platform

Feature	Cisco Unity Express Network Module (NME-CUE)	Cisco Unity Express Advanced Integration Module (AIM-CUE, AIM2-CUE-K9)	Cisco Service Module Services-Ready Engine (SM-SRE-700-K9)	Cisco Integrated Services-Ready Engine (ISM-SRE-300-K9)
EMC	FCC Part 15 Class A; EN55022 Class B; AS/NZS 3548 Class A; CISPR22 Class B; VCCI Class B; EN55024; EN61000-3-2; and 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; and EN61000-3-3	Emission: 47 CFR Part 15 Class A; CISPR22 Class A; EN300386 Class A; EN55022 Class A; EN61000-3-2; EN61000-3-3; SD/EMI (India); KN22 (Korea); VCCI Class I; AS/NZS CISPR 22 Class A Immunity: CISPR24; EN300386; EN50082-1; EN55024; SD/EMI (India); KN22 (Korea); EN61000-6-1	AS/NZS 3548: 1995 incorporating Amendments 1 and 2; Class A (Australia); CISPR 22: 1997; Class A (International); Code of Federal Regulations, Title 47, Part 15, Sub-part B: 2000; Class A (United States - FCC); CNS-13438 (Taiwan); EN55022: 1998, EN61000-3-2: 1995, EN61000-3-3: 1995, EN55024: 1998, EN50082-1: 1997 (European Union & Eastern Block); EN300386: 2000; Class A (European Union - licensed telecommunications network equipment operators); ICES-003 Issue 3, 1998 (Canada); VCCI V-3/00.04 (Japan)

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