# Cisco Unified Communications Manager Express 7.0

Cisco Unified Communications Solutions unify voice, video, data, and mobile applications on fixed and mobile networks enabling easy collaboration every time from any workspace.

Cisco® Unified Communications Manager Express provides call processing for Cisco Unified IP phones for small-office or branch-office environments. It enables the large portfolio of Cisco integrated services routers to deliver unified communications features that are commonly used by business users to meet the voice and video communications requirements of the small or medium-sized office. Cisco Unified Communications Manager Express allows the deployment of a cost-effective, highly reliable communications system using a single device with Cisco IOS® Software.

Cisco Unified Communications Solutions unify voice, video, data, and mobile applications on fixed and mobile networks, delivering a media-rich collaboration experience across business, government agency, and institutional workspaces. These applications use the network as the platform to enhance comparative advantage by accelerating decision time and reducing transaction time. The security, resilience, and scalability of the network enable users in any workspace to easily connect anywhere, any time, and anyplace, using any media, device, or operating system. Cisco Unified Communications is part of a comprehensive solution that includes network infrastructure, security, wireless, management applications, lifecycle services, flexible deployment and outsourced management options, and third-party applications.

Customers can now scale unified communications to a small or medium-sized site with a system that is very simple to deploy, administer, and maintain. Cisco Unified Communications Manager Express is best suited for customers who are looking for an integrated, reliable, feature-rich telephony system for up to 250 users.

## Key Features and Benefits

Unified communications is currently undergoing tremendous growth, accelerated by access to value-added features and applications only unified communications can provide to the end user. Additionally, the cost benefits of converging data, voice, and video onto a single network are adding to the rapid acceptance of this technology.

Cisco Unified Communications Manager Express is available for the enterprise branch office using the Cisco integrated services routers or for the small office business owner as part of the Cisco Smart Business Communications System.

Cisco Unified Communications Manager Express enhances the advantages of convergence by offering the following benefits:

- **Cost-effective operations through a single, integrated voice-and-data platform for all branch-office needs:** Highly reliable routers, including the Cisco 1800, 2800, and 3800 Series Integrated Services Routers, provide robust quality of service (QoS), network security, encryption, firewall, and network modules that deliver content networking and enhanced VPN services to address branch and small-office business needs. The system delivers integrated IP telephony, voicemail, and automated-attendant functions, allowing

customers to deploy one device to address all their business needs, thereby simplifying management, maintenance, and operations and delivering a lower total cost of ownership (TCO).

- **Complete voice and data networking solution for the small business:** Cisco Smart Business Communications System provides a unique, comprehensive business communications solution with tightly coupled voice, data, video, network security, wireless mobility, and system management. Its components were designed to be deployed as a complete system especially designed for the small business, allowing your business communications to evolve as your needs change.

- **Sophisticated key system and private-branch-exchange (PBX) capabilities:** Small offices have different workflows and require specialized features to support their work practices. Cisco Unified Communications Manager Express delivers a robust set of telephony features for the small office and delivers unique value-added capabilities through Extensible Markup Language (XML). These capabilities, which cannot be delivered by traditional systems, enhance the productivity of the end user and the business.

- **Contact center capabilities:** From basic call queuing to sophisticated contact centers for small to medium-sized companies, branch locations, or departments, customers can deploy agent-assisted or self-service applications to reduce business costs and improve customer response by providing sophisticated and distributed automatic call distributor (ACD), interactive voice response (IVR), computer telephony integration (CTI), and agent and desktop services.

- **Interoperability with Cisco Unified Communications Manager:** Customers can deploy Cisco Unified Communications Manager at larger sites and deploy Cisco Unified Communications Manager Express at branch-office locations where local call processing is required. Using H.323 or Session Initiation Protocol (SIP) trunking, calls can be routed over the WAN with calling-party name and number information, plus compressed voice for better WAN bandwidth utilization.

- **Cisco Unified CallConnectors for desktop Computer Telephony Integration (CTI):** Simplify communications and facilitate collaboration between users and customers with the easy-to-use interface of the Cisco Unified CallConnector suite. These products extend customer information with call control to the Microsoft Windows desktop, providing integration with popular customer-relationship-management (CRM) products or Microsoft Outlook for more effective communications.

- **Investment protection and ease of upgrade to centralized call-processing systems:** Through a simple software configuration change on the router, an integrated services router system with Cisco Unified Communications Manager Express can be converted to a highly available survivable telephony gateway for a remote site in a centralized Cisco Unified Communications Manager deployment architecture. This flexibility helps ensure full investment protection to successful businesses that might outgrow the system capacity.

- **Remote maintenance and troubleshooting:** Customers can use the industry-standard Cisco IOS Software command-line interface (CLI) or user-friendly graphical user interface (GUI) to configure and administer Cisco Unified Communications Manager Express.

Cisco Unified Communications Manager Express allows a Cisco integrated services router or Cisco Smart Business Communications System to provide call processing for locally attached IP and analog phones. All the necessary files and configurations for IP phones are stored internally on the appliance, providing a single platform solution. In addition, the solution offers a robust set of public-

switched-telephone-network (PSTN) interfaces, integrated voicemail and automated attendant, and a full phone portfolio. Cisco IOS Software offers industry-leading voice features designed for IP-based telephony systems, such as H.323 and SIP signaling, advanced QoS, and integrated services router interworking with an H.323 gatekeeper or SIP proxy server, all available for use with Cisco Unified Communications Manager Express deployments. In addition, integrated functions such as channel service unit/data service unit (CSU/DSU) and Network Termination 1 (NT1) devices are available with digital PSTN interface cards to provide flexible and robust voice services.

## IP Phone Support

Although Cisco Unified Communications Manager Express is typically suitable for fewer than 200 users, a maximum of 250 IP phones can be supported across a choice of platforms. IP phone operation is similar to Cisco Unified Communications Manager, allowing for ease of user training if customers migrate to a Cisco Unified Communications Manager as they outgrow the Cisco Unified Communications Manager Express solution. Table 1 lists the maximum numbers of phones supported on each platform with Cisco Unified Communications Manager Express 7.0.

**Table 1.** IP Phone Support per Platform

| Platform | Maximum Number of Phones |
| --- | --- |
| **Cisco Unified Communications 500 Series for Small Business as part of the Cisco Smart Business Communications System** | 48 |
| **Cisco 1861 Integrated Services Router** | 8 |
| **Cisco IAD2430 Integrated Access Device** | 24 |
| **Cisco 2801 Integrated Services Router** | 25 |
| **Cisco 3250 Rugged Integrated Services Router** | 10 |
| **Cisco 3270 Rugged Integrated Services Router** | 50 |
| **Cisco 2811 Integrated Services Router** | 35 |
| **Cisco 2821 Integrated Services Router** | 50 |
| **Cisco 2851 Integrated Services Router** | 100 |
| **Cisco 3725 Multiservice Access Router** | 144 |
| **Cisco 3745 Multiservice Access Router** | 192 |
| **Cisco 3825 Integrated Services Router** | 175 |
| **Cisco 3845 Integrated Services Router** | 250 |

Cisco Unified Communications Manager Express supports the Cisco Unified IP Phone models described in Table 2.

**Table 2.** Supported Cisco Unified IP Phone Models

| Executive | Manager | Business | Basic |
| --- | --- | --- | --- |
| Cisco Unified IP Phone 7975G | Cisco Unified IP Phone 7965G | Cisco Unified IP Phone 7945G | Cisco Unified IP Phone 7911G |
| Cisco Unified IP Phone 7971G-GE | Cisco Unified IP Phone 7962G | Cisco Unified IP Phone 7942G | Cisco Unified IP Phone 7906G |
| Cisco Unified IP Phone 7970G | Cisco Unified IP Phone 7961G-GE | Cisco Unified IP Phone 7941G-GE | Cisco Unified SIP Phone 3911 |
| | Cisco Unified IP Phone 7961G | Cisco Unified IP Phone 7941G | |
| | Cisco Unified IP Phone 7960G | Cisco Unified IP Phone 7940G | |

| Multi-button | Mobility | Conference Stations | Video Telephony |
|---|---|---|---|
| Cisco Unified IP Phone 7931G | Cisco Unified Wireless IP Phone 7920 | Cisco Unified IP Conference Station 7936 | Cisco Unified Video Advantage |
| Cisco Unified IP Phone Expansion Module 7914, 7915, 7916 (56 buttons maximum) | Cisco Unified Wireless IP Phone 7921G | Cisco Unified IP Conference Station 7937 | Cisco Unified IP Phone 7985G personal desktop videophone. |
| | Cisco IP Communicator softphone for Windows | | |

These intelligent Cisco Unified IP phones (Figure 1) support the following enhancements:

- Display-based features with easy-to-use soft keys

- Customer choice of using Skinny Client Control Protocol (SCCP) or SIP for commonly deployed IP phones

- Language localization and feature customization along with support for XML-based applications

- Support for 802.3af or Cisco prestandard Power over Ethernet from a Cisco Catalyst® switch, or Cisco EtherSwitch® network module or high-speed WAN interface card available on the Cisco 1800, 2800, 3700, and 3800 Series Integrated Services Routers and Cisco Unified Communications 500 Series for Small Business.

**Figure 1.**     Cisco Unified IP Phone Family



## Product Features

Cisco Unified Communications Manager Express provides a sophisticated set of key system and PBX telephony features especially designed for the small and medium-sized business or branch location. It also provides several industry-unique features that are not available with most other traditional telephony solutions. Table 3 summarizes the features available with Cisco Unified

Communications Manager Express Version 7.0. Consult the Feature Navigator at
http://www.cisco.com for the latest Cisco IOS Software version.

**Table 3.**     Cisco Unified Communications Manager Express 7.0 Features

| Feature | Description |
|---|---|
| **Phone Features** | <ul><li>Maximum 250 phones per system</li><li>Up to 34 line appearances per phone</li><li>Attendant console functions using Cisco Unified IP Phone Expansion Module 7914</li><li>Fast transfer: blind or consult</li><li>Busy lamp</li><li>Silent ringing options</li><li>Automatic line selection for outbound calls</li><li>Call forward on busy, no answer, and all (internal or external)</li><li>Call-forward-all restriction control</li><li>Do not disturb (DND)</li><li>Feature ring with DND set</li><li>IP phone display of DND state</li><li>Dial-plan pattern load on SIP phones</li><li>Diversion of calls directly to voicemail</li><li>Customization of soft keys</li><li>Enable and disable call-waiting notification per line</li><li>Call waiting with overlay directory number</li><li>Call-waiting ring</li><li>Dual or 8 call* line appearances per button</li><li>After-hours toll-bar override</li><li>Auto-answer with headset</li><li>European date formats</li><li>Hook flash passthrough across analog PSTN trunks</li><li>Idle URL: periodically push messages or graphics on IP phones</li><li>Last-number redial</li><li>Live record to Cisco Unity® Express mailbox*</li><li>Local name directory lookup</li><li>On-hook dialing</li><li>Station speed dial with configuration changes from IP phone</li><li>System speed dial for 10,000 numbers</li><li>Silent and feature ring options</li><li>SIP-based line-side subscribe, providing basic presence of phone status</li><li>Transfer to voicemail softkey*</li><li>Call barge with privacy on shared lines*</li><li>Access features using soft keys or feature access codes</li><li>Remote teleworker IP phone support</li><li>Dynamic hunt-group join or leave</li><li>Support for analog phones using Cisco ATA 186 Analog Telephone Adapter or Cisco VG224 Analog Phone Gateway in SCCP mode</li><li>Support for fax machines on foreign-exchange-station (FXS) ports or ATA using H.323, SCCP, or SIP</li><li>XML application services on Cisco Unified IP display phones</li><li>Station-to-station video with voice using Cisco Unified Video Advantage or Cisco Unified IP Phone 7985G endpoints</li><li>Extension mobility within the single site</li><li>Wideband audio (G.722) and iLBC codec*</li></ul> |

| Trunk Features | <ul><li>Analog foreign exchange office (FXO) loop and ground start</li><li>Ear and mouth (E&M)</li><li>Basic Rate Interface (BRI) and Primary Rate Interface (PRI) support (NI2, 4ESS, 5ESS, EuroISDN, DMS100, and DMS250) and several other switch types currently supported in Cisco IOS Software</li><li>Caller ID name and number</li><li>Automatic number identification (ANI)</li><li>Digital trunk support (T1/E1)</li><li>Direct inward dialing (DID)</li><li>Direct outward dialing</li><li>E1 R2 support</li><li>Dedicated trunk mapping to phone button</li><li>H.323 trunks with H.450 support</li><li>H450.12 automatic detection of H.450 support for remote H.323 endpoints</li><li>H.323-to-H.323 hairpin call routing for non-H.450-compliant H.323 endpoints</li><li>SIP trunks and RFC 2833 support</li><li>Transcoding with G.711, G.729a, and iLBC*</li><li>ECMA/ISO ISDN Q.SIG supplementary services of basic calls, including:</li><li>Call forwarding busy, no answer, all</li><li>Calling name and line identification (CLIP and CNIP)</li><li>Connected line and name identification (COLP and CONP)</li><li>Message waiting indicator (MWI) and message center support</li><li>MWI passthrough QSIG-to-time-division multiplexing (TDM) voicemail</li></ul> |
| --- | --- |

| System Features | • Account codes and call-detail-record (CDR) field entry |
|---|---|
| | • Call-back busy subscriber and camp-on |
| | • Per-phone call coverage rules |
| | • Call hold and retrieve |
| | • Call park: personal and directed |
| | • Call transfer* and park recall |
| | • Call park assign to extension |
| | • Call pickup directed |
| | • Call pickup local group |
| | • Call pickup explicit group |
| | • Call transfer: consultative and blind |
| | • Call waiting |
| | • Computer telephony integration (CTI) with Microsoft CRM and Outlook using Cisco IOS Software Telephony Services Provider (TSP) |
| | • E911 with two emergency location numbers per zone, unlimited zones per site* |
| | • Eight-party impromptu conferencing |
| | • Directory services using XML |
| | • Hunt groups: sequential, circular, parallel (blast)*, and longest idle |
| | • Hunt-group dynamic log in and log out |
| | • Hunt-groups statistics: daily and hourly |
| | • Intercom |
| | • Meet-me conferencing (32 party) |
| | • Music on hold (MoH): internal or external source |
| | • Night service bell or call forwarding |
| | • Overlay extensions for enhanced call coverage |
| | • Called-name display for overlay extensions |
| | • Paging: internal through IP phones or to external system |
| | • Per-call caller ID blocking |
| | • Secondary dial tone |
| | • Standards-based network call transfer and call forwarding using H.450 |
| | • Additional system speed-dial option through XML service |
| | • Time-of-day and day-of-week call blocking |
| | • Customizable called-name display |
| | • Support of Survivable Remote Site Telephony (SRST) fallback service phone auto-registration |
| | • Basic automatic call distributor (B-ACD) (three queues) with auto-attendant and call statistics |
| | • Display of number of calls in queue on IP phone |
| | • Agent log in and log out of B-ACD hunt group |
| | • Integration with Cisco Unified Contact Center Express 5.0 for advanced call center features with support for up to 50 agents, agent supervisors, call recording, silent monitoring, and reporting features |
| | • Secure Real-Time Protocol (SRTP) providing media encryption for calls on the IP network |
| | • Secure voice IP phone certificate authentication and provisioning plus secure device signaling using Transport Layer Security (TLS) |
| Voicemail Features | • Integrated voicemail and auto-attendant solution with Cisco Unity Express |
| | • Integration with Cisco Unity Voicemail and Cisco Unity Unified Messaging, or third-party voicemail integration (H.323, SIP, or dual tone multifrequency [DTMF]) |
| International Localization | Per-phone localization for up to five local languages per system, including English, Bulgarian, Chinese Mandarin and Cantonese, Croatian, Czech, Danish, Dutch, European Spanish, Finnish, French, German, Greek, Hungarian, Italian, Japanese Kanji and Katakana, Korean, Norwegian, Polish, Portuguese, Romanian, Russian, Serbian, Slovakian, Slovenian, Swedish, and Turkish. |
| Management Features | • Automatic assignment of extensions to phones for easy phone additions |
| | • Extension assigner, allowing for deployment of new phones using voice prompts |
| | • Single Web-based GUI for moves, adds, and changes for system and integrated voicemail with three levels of GUI administration: system administrator, customer administrator, and user |
| | • Centralized network management deployments using Cisco CNS Configuration Engine |
| | • Telephony-service setup and configuration using HTML Quick Configuration Tool |
| | • Simple Network Management Protocol (SNMP) support with Cisco Unified Operations Manager or third-party management consoles |

* New feature with Version 7.0.

## Summary

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Cisco Unified Communications Manager Express delivers telephony features business users need to meet the requirements of the small office or branch location. Cisco integrated services routers offer high reliability and advanced applications, including unified communications, VPN, firewall, encryption, dial access, Ethernet switching with Power over Ethernet, and content networking within a single all-in-one platform that is easy to deploy and maintain, resulting in a lower Total Cost of Ownership.

As the business expands, Cisco Unified Communications Manager Express can be easily migrated to a Cisco Unified Communications Manager large-scale IP telephony solution. All hardware and software used by this solution is fully compatible with Cisco Unified Communications Manager and Cisco Unified Survivable Remote Site Telephony (SRST), giving customers robust investment protection.

### Cisco Unified Communications Services

Cisco Unified Communications Services allows you to accelerate cost savings and productivity gains associated with deploying a secure, resilient Cisco Unified Communications solution. Delivered by Cisco and our certified partners, our portfolio of services is based on proven methodologies for unifying voice, video, data, and mobile applications on fixed and mobile networks. Our unique lifecycle approach to services enhances your technology experience to accelerate true business advantage.

### For More Information

Partners looking for ordering information, should refer to the Cisco Unified Communications Manager Express ordering guide available on the partner site, http://www.cisco.com/go/partner.

For more information about Cisco Unified Communications Manager Express, visit http://www.cisco.com/go/ccme.

If you have questions, send an e-mail to access-ccme-cue@cisco.com.