



DATA SHEET

CISCO CALLMANAGER EXPRESS

PRODUCT OVERVIEW

The Cisco® CallManager Express is a solution embedded in Cisco IOS® Software that provides call processing for Cisco IP phones. This solution enables the large portfolio of Cisco access routers to deliver telephony features that are commonly used by business users to meet the requirements of the small or medium sized office. CallManager Express enables the deployment of a cost-effective, highly reliable, IP Communications solution using a single Cisco access router.

Customers can now scale IP telephony to a small or medium site with a solution that is very simple to deploy, administer, and maintain. The Cisco CallManager Express solution is best suited for customers who are looking for a low-cost, reliable, feature-rich telephony solution up to 240 users.

KEY FEATURES AND BENEFITS

IP telephony is currently undergoing tremendous growth, accelerated by access to value-added features and applications only IP telephony can provide to the end user. Additionally, the cost benefits of converging voice, video, and data onto a single network are fueling the rapid acceptance of this technology. Because it is integrated into a router, the Cisco CallManager Express solution enhances the advantages of convergence by offering the following unique benefits:

- Cost-effective operations through a single, integrated voice-and-data platform for all branch office needs—Highly reliable access routers such as the Cisco 1700, 2600XM, and 3700 series platforms already provide industry-leading features, including 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. Now these routers can also deliver integrated IP telephony, voice mail, and automated attendant. This allows customers to deploy one device to address all their business needs, simplifying management, maintenance, and operations, and delivering a lower total cost of ownership (TCO). The next generation 2800 and 3800 series integrated services routers enhances the CallManager Express solution by delivering advanced features such as integrated voice termination, transcoding, V3PN and voice security.
- Robust set of commonly used key system and low-end PBX capabilities—Small offices have different workflows and require specialized features to support their work practices. Cisco CallManager Express delivers a robust set of telephony features for the small office, and delivers unique value-added capabilities through Extensible Markup Language (XML) that enhance the productivity of the end user and of the business, that cannot be delivered by traditional solutions.
- Inter-operability with Cisco CallManager—Customers can deploy Cisco CallManager at larger sites and deploy Cisco CallManager Express at branch office locations where local call processing is required. Using H.323 trunking calls can be routed over the wide area network (WAN) with calling party name and number.
- Investment protection and ease of upgrade to centralized call-processing solutions—Through a simple software configuration change on the router, a system with Cisco CallManager Express can be converted to a highly available, robust voice gateway for a remote site in a centralized Cisco CallManager deployment architecture. This flexibility helps ensure full investment protection to successful businesses that might outgrow the system capacity.
- Remote maintenance and troubleshooting using Cisco IOS Software command-line interface (CLI) or Web-based Graphical User Interface (GUI)—Customers have the option of using the industry-standard Cisco IOS Software CLI or user-friendly GUI to configure and administer Cisco CallManager Express.

- Cisco CallManager Express allows a Cisco access router 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 router, so no external database or file server is required. In addition, the solution offers a robust set of public switched telephone network (PSTN) interfaces, a wide selection of WAN interfaces, integrated voice mail and automated attendant, and a full phone portfolio. Cisco IOS Software offers a robust set of industry-leading voice features designed for IP-based telephony systems, such as H.323 signaling, advanced QoS, and interworking with an H.323 gatekeeper, all available for use with Cisco CallManager Express deployments. In addition, integrated functions such as channel service unit/digital service unit (CSU/DSU) and Network Termination 1 (NT1) devices are available on the PSTN interface cards to provide flexible and robust voice services.

IP Phone Support

While the Cisco CallManager Express is typically suitable for less than 200 users, a maximum of 240 IP phones can be supported across a choice of platforms with CallManager Express. IP phone operation is similar to Cisco CallManager allowing for ease of user training should customers migrate to a Cisco CallManager as they outgrow the Cisco CallManager Express solution. The maximum numbers of phones supported on each platform with CallManager Express 3.2 is listed in Table 1.

Table 1. IP Phone Support per Platform

Platform	Maximum Phones
Cisco IAD 2430 Series integrated access devices	24
Cisco 2801 Integrated Services Router, 1760-V and 1751-V Access Routers	24
Cisco 2811 Integrated Services Router, 261xXM and 262xXM Series Access Routers	36
Cisco 2821 Integrated Services Router, 265xXM Access Router	48
Cisco 2691 Access Router	72
Cisco 2851 Integrated Services Router	72*/96**
Cisco 3725 Access Router	96*/144**
Cisco 3745 Access Router	120*/192**
Cisco 3825 Integrated Services Router	168
Cisco 3845 Integrated Services Router	240

* Available with IOS version 12.3(8)T4—August 2004

** Available with IOS version 12.3(11)T—September 2004

Figure 1. Cisco IP Phone Family



Cisco CallManager Express supports the IP Phone 7902G, 7905G, 7912G, 7910G, 7914 Expansion module, Wireless IP phone 7920, Color IP phone 7970, IP Conference Station 7936, 7940G, and 7960G. These next-generation, intelligent Cisco IP phones (Figure 2) support the following enhancements:

- Display based features with easy to use soft keys
- Language Localization and feature customization along with support for XML based applications
- Cisco Power over Ethernet from a Cisco Catalyst switch, Cisco EtherSwitch[®] Network Modules or High-speed WAN Interface Cards available on the Cisco 2800, 3700 and 3800 series routers

Product Features

Cisco CallManager Express provides a full set of common used key system and low-end PBX telephony features especially designed for the small and medium business or branch location. It also provides several industry-unique features that are not available from other traditional telephony solutions. Currently, the following features (Table 2) are available with Cisco CallManager Express Version 3.2, Please consult Feature Navigator on <http://www.cisco.com> for latest IOS version

Table 2. CallManager Express 3.2 Features

Phone Features	Maximum 240 phones per system, up to 34 line appearances per phone, Attendant console functionality using 7914s, Fast Transfer—blind or consult, Busy Lamp, Silent Ringing options, Automatic line selection for outbound calls, Call Forward on Busy/No answer/All, Call Forward All Restriction Control, Do Not Disturb (DND), Feature ring with DND set, IP phone Display of DND State, Divert Calls direct to VM, Customization of softkeys, Enable/disable call-waiting notification per line, Call waiting with overlay DN, Call waiting ring, Dual line appearances per button, After-hours toll bar override, European date formats, Hook flash pass through across analog PSTN trunks, Idle URL—Periodically push messages or graphics on IP phones, Last number redial, Local directory lookup, On-hook dialing, Station speed dial, System speed dial, Speed-dial configuration changes from IP phone, Silent and feature ring options, Support for analog phones using Cisco Analog Telephone Adapter (ATA) in skinny mode. Support of fax machines on FXS ports or ATA in H.323 mode. XML services on Cisco IP phones.
Trunk Features	Analog FXO (loop & ground start), DID, E&M, BRI/PRI support (NI2, 4ESS, 5ESS, EuroISDN, DMS100, DMS250, and several other switch types currently supported in Cisco IOS Software), Caller ID, automatic number identification (ANI), calling name, Digital trunk support—(T1/E1), Direct inward dial, direct outward dial, E1 R2 support, Dedicated trunk mapping to phone button, H.323 Trunks with H450 support, H450.12 Automatic Detection of H450 support for remote H323 endpoints, H.323 to H.323 Hairpin Call Routing for non-H.450 compliant H323 endpoints, Session Initiation Protocol (SIP) trunks and RFC2833 support, Transcoding G.711, G.729a, G.723.
System Features	Account Codes and Call Detail Record (CDR) field entry, Call Back Busy Subscriber/Camp-On, Call Hold and Retrieve, Call Park—Personal and Directed, Call Pickup Directed, Call Pickup local group, Call Pickup explicit group, Call Transfer—Consultative and Blind, Call Waiting, 3 way Conference, Computer Telephony Integration (CTI) with Microsoft CRM and Outlook using Cisco IOS Telephony Services Provider (TSP), Directory services using XML, Hunt Groups—Sequential, Circular, and Longest-idle, Hunt Group Dynamic login/logout, Hunt Groups statistics—Daily and hourly, Intercom, International language support: German, French, Italian, Spanish, Portuguese, Dutch, Danish, Norwegian, Swedish and Russian, Music on Hold (MoH)—Internal or external source, Night Service Bell, Overlay extensions for enhanced call coverage, Called name display for overlay extensions, Paging—built in or to external system, Per-call caller ID blocking, Secondary dial tone, Standards-based Network Call Transfer and Call Forwarding through H450.2 and H450.3, System speed dial option through XML service, Time of Day, Day of Week, call blocking, Customizable called name display, Basic ACD (3 queues) with call statistics.
Voice Mail Features	Integrated Voice Mail Solution with Cisco Unity Express, Integration with Cisco Unity voice mail/unified messaging, or third-party voice mail integration (H.323, SIP, or dual tone multifrequency [DTMF]) with Octel, Active Voice, Stonevoice, Comverse.
Management Features	Automatic assignment of extensions to IP phones, Single Web-based GUI for moves, adds, and changes for system and integrated voice-mail, Centralized Network Management using Cisco CNE Configuration Engine, Telephony-service setup wizard, Three levels of GUI Admin; System administrator, Customer Administrator, and User.

SUMMARY

Cisco CallManager Express delivers telephony features required by business users to meet the requirements of the small office or branch location. The Cisco Integrated Services Router offers high reliability and advanced applications including; VPN, Firewall, encryption, dial access, Ethernet switching with Power over Ethernet, and Content Networking, with a single all in one platform. As a single platform that is easy to deploy and maintain results in a lower total cost of ownership (TCO).