

Cisco Unified CallManager Version 4.3

Product Overview

Cisco® Unified Communications is a comprehensive IP communications system of voice, video, data, and mobility products and applications. It enables more effective, more secure, more personal communications that directly affect both sales and profitability. It brings people together by enabling a new way of communicating—where your business moves with you, security is everywhere, and information is always available...whenever and wherever it is needed. Cisco Unified Communications is part of an integrated solution that includes network infrastructure, security, mobility, network management products, lifecycle services, flexible deployment and outsourced management options, end-user and partner financing packages, and third-party communications applications.

Cisco Unified CallManager is the call-processing component of the Cisco Unified Communications system. Cisco Unified CallManager extends enterprise telephony features and capabilities to packet telephony network devices such as IP phones, media processing devices, voice-over-IP (VoIP) gateways, and multimedia applications. Additional services such as unified messaging, multimedia conferencing, collaborative contact centers, and interactive multimedia response systems interact with the IP telephony solution through Cisco Unified CallManager application programming interfaces (APIs). Cisco Unified CallManager is installed on Cisco MCS 7800 Series Media Convergence Server platforms and selected third-party servers. It has a suite of integrated voice applications and utilities, including the Cisco Unified CallManager Attendant Console (an ad-hoc conferencing application), the Cisco Unified CallManager Bulk Administration Tool (BAT), the Cisco Unified CallManager Call Detail Record (CDR) Analysis and Reporting tool, the Cisco Unified CallManager Real-Time Monitoring Tool (RTMT), the Cisco Unified CallManager Auto-Attendant (CM-AA), the Tool for Auto-Registered Phone Support (TAPS), and the Cisco Unified CallManager Assistant application.

Features and Benefits

Cisco Unified CallManager Version 4.3 is an enterprise IP telephony call-processing solution that is scalable, distributable, and highly available. Multiple Cisco Unified CallManager servers are clustered and managed as a single entity. Cisco Unified CallManager clustering yields scalability of from 1 to 30,000 IP phones per cluster, load balancing, and call-processing service redundancy. Interlinking multiple clusters allow system capacity to reach 1 million users in a system of more than 100 sites. Clustering aggregates the power of multiple, distributed Cisco Unified CallManager installations, enhancing the scalability and accessibility of the servers to phones, gateways, and applications—and triple call-processing server redundancy improves overall system availability.

Cisco Unified CallManager Version 4.3 allows customers to migrate to an operating system based on Microsoft Windows Server 2003. To ensure a smooth migration, this version does not include any new features. Cisco Unified CallManager Version 4.3 includes all the features of Cisco Unified CallManager 4.2(3), for example, enhanced call park, and the ability to log in and out of hunt groups. Cisco Unified CallManager 4.3 continues to utilize Microsoft SQL Server 2000 as its database.

Product Specifications

Platforms

- Cisco MCS 7800 Series, including the Cisco MCS 7815, 7816, 7825, 7835, and 7845
- Selected third-party servers; for details, visit: <http://www.cisco.com/go/swonly>

Bundled Software

- Cisco Unified CallManager Version 4.3—This is a Windows server-based call-processing and call-control application.
- Cisco Unified CallManager Version 4.3 configuration database—This database contains system and device configuration information, including dial plan.
- Cisco Unified CallManager administration software
- Cisco Unified CallManager Auto-Attendant—This application is bundled with Cisco Unified CallManager with the extended services CD.
- Cisco Unified CallManager Attendant Console—This application allows a receptionist to answer and transfer or dispatch calls within an organization. The attendant can install the attendant console, which is a client-server application, on a PC that runs Windows 98, ME, NT 4.0 (Service Pack 4 or greater), 2000, or XP. The attendant console connects to the Cisco Telephony Call Dispatcher (TCD) server for login services, line state, and directory services. Multiple attendant consoles can connect to a single Cisco TCD server.
- Cisco Unified CallManager CDR Analysis and Reporting Tool (CAR)—This application provides reports for calls based on CDRs. Report features include calls on a user basis, calls through gateways, simplified call quality, and a CDR search mechanism. In addition, Cisco Unified CallManager CAR provides limited database administration; for example, deleting records based on database size.
- Cisco Unified CallManager Bulk Administration Tool (BAT)—This application allows the administrator to perform bulk add, delete, and update operations for devices and users.
- Cisco Unified CallManager Real-Time Monitoring Tool (RTMT)—This client tool monitors real-time behavior of the components in a Cisco Unified CallManager cluster. It uses HTTP and TCP to monitor device status, system performance, device discovery, and computer telephony integration (CTI) applications. It connects directly to devices by using HTTP for troubleshooting system problems.
- Cisco Unified CallManager Trace Collection Tool—This tool collects traces for a Cisco Unified CallManager cluster into a single zip file. The collection includes all traces for Cisco Unified CallManager and logs such as Event Viewer (application, system, and security), Dr. Watson log, Cisco Update, Prog logs, RIS DC logs, Structured Query Language (SQL) logs, and Microsoft Internet Information Services (IIS) logs.
- Cisco Conference Bridge —This application provides software conference bridge resources that can be used by Cisco Unified CallManager.
- Cisco Customer Directory Configuration Plug-in—This plug-in guides the system administrator through the configuration process for integrating Cisco Unified CallManager with Microsoft Active Directory and Netscape Directory Server.
- Cisco Unified CallManager Assistant—Cisco Unified CallManager Assistant provides call-routing and display capabilities required by busy administrative assistants and their managers in a business environment. By combining a PC-based console application and

various soft keys and display panes on Cisco Unified IP phones, Cisco Unified CallManager Assistant can present users job-specific tools to more efficiently manage calls in this important environment. This function is also available as an Extensible Markup Language (XML) service on the phone.

- Cisco Unified IP Phone Address Book Synchronizer—This application allows users to synchronize Microsoft Outlook or Outlook Express address books with Cisco Personal Address Book. It provides two-way synchronization between the Microsoft and Cisco products. After installing and configuring Cisco Personal Address Book, users can access this feature from the Cisco Unified IP Phone Configuration Website.
- Cisco Unified CallManager Locale Installer—This application provides user and network locales for Cisco Unified CallManager, adding support for languages other than English. Locales allow users to view translated text, receive country-specific phone tones, and receive TAPS prompts in a chosen language when working with supported interfaces. This application is downloaded from the Cisco Website as needed.
- Cisco Unified CallManager JTAPI—This plug-in is installed on all computers that host applications that interact with Cisco Unified CallManager with the Java Telephony API (JTAPI). JTAPI reference documentation and sample code are included.
- Cisco Telephony Service Provider—This application contains the Cisco Telephony Application Programming Interface (TAPI) service provider (TSP) and the Cisco Wave Drivers that TAPI applications use to make and receive calls on the Cisco Unified IP Telephony system.
- Cisco Tool for Auto-Registered Phones Support (TAPS)—This tool loads a preconfigured phone setting on a phone.
- Cisco Dialed Number Analyzer—This serviceability tool analyzes the dialing plan for specific numbers.

System Capabilities Summary

- Attenuation and gain adjustment per device (phone and gateway)
- Automated bandwidth selection
- Auto route selection (ARS)
- AXL Simple Object Access Protocol (SOAP) API with performance and real-time information
- Basic Rate Interface (BRI) endpoint support; registers BRI endpoints as Skinny Client Control Protocol (SCCP) devices
- Call Admission Control (CAC)—intercluster and intracluster
- Call coverage
 - Forwarding based on internal and external calls
 - Forwarding out of a coverage path
 - Timer for maximum time in coverage path
 - Time of day
- Call display restrictions
- Call forward—Busy
- Call forward—No answer

- Call forward internal or external

- Call forward on non-registered device
 - Codec support for automated bandwidth selection G.711 (mu-law and a-law), G.723.1, G.729A/B, GSM-EFR, GSM-FR, and wideband audio (proprietary 16-bit resolution and 16-kHz sampled audio)
- Device mobility—Automatic upgrade of location-specific information when a phone moves
- Digit analysis and call treatment (digit string insertion, deletion, stripping, dial access codes, and digit string translation)
- Distributed call processing
 - Deployment of devices and applications across an IP network
 - “Clusters” of Cisco Unified CallManager servers for scalability, redundancy, and load balancing
 - Maximum of 7,500 IP phones per Cisco Unified CallManager server (configuration-dependent)
 - Maximum of 50,000 busy-hour call completions (BHCCs) per Cisco Unified CallManager server (configuration-dependent)
 - Eight Cisco Unified CallManager servers per cluster
 - Maximum of 125,000 BHCCs per Cisco Unified CallManager cluster (configuration-dependent)
 - Maximum of 30,000 IP phones per cluster (configuration-dependent)
 - Intercluster scalability to more than 100 sites or clusters through H.323 gatekeeper
 - Intracluster feature transparency
 - Intracluster management transparency
- Fax over IP-G.711 pass-through and Cisco Fax Relay
- Forced authorization codes and client matter codes (account codes)
- H.323 interface to selected devices
- H.323 FastStart (inbound and outbound)
- Hotline and private line automated ringdown (PLAR)
- Hunt groups—Broadcast, circular, longest idle, and linear
- Interface to H.323 gatekeeper for scalability, CAC, and redundancy
- Language support for client-user interfaces (languages specified separately)
- Multilevel precedence and preemption (MLPP)
 - Primary Rate Interface (PRI) 4ESS user-to-user information element (UUIE) support
- Interworking and tunneling of PRI 4ESS UUIE-based MLPP over an intercluster trunk (ICT)
- Differentiated services code point (DSCP)-to-MLPP precedence-level mapping
- Multilocation—Dial-plan partition
- Multiple ISDN protocol support
- Multiple remote Cisco Unified CallManager platform administration and debug utilities
 - Prepackaged alerts, monitor views, and historical reports with RTMT
 - Real-time and historical application performance monitoring through operating system tools and Simple Network Management Protocol (SNMP)
 - Monitored data-collection service

- Remote terminal service for off-net system monitoring and alerting
- Real-time event monitoring and presentation to common syslog
- Trace setting and collection utility
- Browse to onboard device statistics
- Clusterwide trace setting tool
- Trace collection tool
- Multisite (cross-WAN) capability with intersite CAC
- Dial-plan partitioning
- Off-premises extension (OPX)
- Outbound call blocking
- Out-of-band dual tone multifrequency (DTMF) signaling over IP
- Overlap sending and receiving
 - Media Gateway Control Protocol (MGCP)
 - H.323
- Public switched telephone network (PSTN) failover on route nonavailability—Automated alternate routing (AAR)
 - Forward on no bandwidth
- Q.SIG (International Organization for Standardization [ISO])
 - Alerting name specified in ISO 13868 as part of the Supplementary Service—Connected Name-Identification Presentation (SS-CONP) feature
 - Basic call
 - ID services
 - General functional procedures
 - Call back—ISO/IEC 13870: 2nd Edition, 2001-07 Completion of Calls to Busy Subscriber (CCBS) and Completion of Calls on No Reply (CCNR)
 - Call diversion: SS-CFB (busy), SS-CFNR (no answer), and SS-CFU (unconditional); service ISO/IEC 13872 and ISO/IEC 13873, first edition 1995—Call diversion by forward switching and by reroute
 - Call transfer by join
 - H.323 Annex M.1 (Q.SIG over H.323) —ITU recommendation for Annex M.1
- H.323 Annex M.1 support for H.323 gateways and H.225 trunks
 - Identification restriction (Calling Name Identification Restriction [CNIR] and Connected Line)
 - Identification Restriction (COLR) and Connected Name Identification Restriction (CONR)
 - Loop prevention, diversion counter and reason, loop detection, diverted to number, diverting number, original called name and number, original diversion reason, and redirecting name
 - Message waiting indicator (MWI)
 - Path replacement ISO/IEC 13863: 2nd Ed. 1998, and ISO/IEC 13974: 2nd Ed. 1999
- Redundancy and automated failover on call-processing failure
 - Call preservation on call-processing failure

- Station-to-station calls
- Station-through-trunk calls (MGCP gateways)
 - JTAPI and TAPI applications enabled with automated failover and automatic update
 - Triple Cisco Unified CallManager redundancy per device (phones, gateway, and applications) with automated failover and recovery
 - Trunk groups
 - MGCP BRI support (European Telecommunications Standards Institute [ETSI] BRI basic-net3 user-side only)
- Security
 - Configurable operation modes—Nonsecure or secure
 - Device authentication—New model phones have an embedded X.509v3
 - Certificate; a certificate authority proxy function (CAPF) is used to install a locally significant certificate in phones
 - Data integrity—Transparent LAN services (TLS) cipher “NULL-SHA” supported; messages are appended with SHA1 hash of the message to ensure that the message is not altered on the wire and can be trusted
 - HTTPS support for the following applications: Cisco Unified CallManager Administration, Cisco Unified CallManager Serviceability, Cisco Unified CallManager User, Cisco Unified CallManager RTMT, Cisco Unified CallManager TraceAnalysis, Cisco Unified CallManager Service, the Cisco Unified CallManager Trace Collection tool, and the Cisco Unified CallManager CAR tool
 - Privacy—Support for encryption of signaling and media; phone types include Cisco Unified IP Phone 7940G, 7941G, 7941G-GE, 7960G, 7961G, 7961G-GE, 7970G, and 7971G models; Cisco Unified Survivable Remote Site Telephony (SRST) and MGCP gateways are supported
 - Secure Sockets Layer (SSL) for directory—Supported applications include BAT, CAR, Cisco Unified CallManager Administration User Pages, Cisco Unified CallManager Assistant Administration Pages, Cisco Unified CallManager User Pages and IP Phone Options Pages, CTI Manager, Extension Mobility, Cisco Unified CallManager Assistant, and Multilevel Administration (MLA)
 - USB eToken containing a Cisco rooted X.509v3 certificate—Used to generate a Certificate Trust List (CTL) file for the phones as well as configuring the security mode of the cluster
 - Phone security—Provided by Trivial File Transfer Protocol (TFTP) files (configuration and firmware loads) signed with the self-signed certificate of the TFTP server; the Cisco Unified CallManager system administrator can disable HTTP and Telnet on the IP phones
- Session Initiation Protocol (SIP) trunk
- Cisco Unified SRST
- Shared resource and application management and configuration
 - Transcoder resource
 - Conference bridge resource

- Topological association of shared resource devices (conference bridge, music-on-hold [MoH] sources, and transcoders)
- Media termination point (MTP)—Support for SIP trunk and RFC 2833
- Annunciator
- Silence suppression and voice activity detection (VAD)
- Simplified North American Numbering Plan (NANP) and non-NANP support
- T.38 fax support (H.323 only)
- Third-party applications support
 - Broadcast paging—Through foreign exchange station (FXS)
 - Simple Messaging Desktop Interface (SMDI) for MWI
 - Hook-flash feature support on selected FXS gateways
- Support for Cisco Catalyst® 6608, Cisco Communication Media Module (CMM), and Cisco IOS® Software on Cisco 2811, 2821, 2851, 3825, and 3845 Integrated Services Routers, Cisco 3725 and 3745 Multiservice Access Routers, and Cisco 2691, 2600, 3660, 3640, and 3620 Multiservice Platforms
 - TSP 2.1 interface
 - JTAPI 2.0 service provider interface
 - Billing and call statistics
 - Configuration database API (Cisco AXL)
- Time of day, day of week, and day of year routing and restrictions
- Toll restriction—Dial-plan partition
- Toll-fraud prevention
 - Prevention of trunk-to-trunk transfer
 - Dropping of conference call when originator hangs up
 - Forced authorization codes
- Unified device and system configuration
- Unified dial plan
- V.150 Secure Modem Calls
 - V.150 over an ICT
- Video (SCCP and H.323)

Summary of User Features

- Abbreviated dial
- Answer and answer release
- Auto answer and intercom
- Barge
- Call-back busy and no reply to station
- Call connection
- Call coverage
- Call forward all (off-net and on-net)

- Call hold and retrieve
 - Call join
 - Call park and pickup
 - *Directed call Park
 - Busy lamp field (BLF) for park slot
 - Park reversion to a directory number other than the one that parked the call
 - Call pickup group
 - One-touch invocation
 - Informed invocation; hitting pickup key gives the user calling and called party information
 - Call pickup notification
 - Call status per line (state, duration, and number)
 - Call waiting and retrieve (with configurable audible alerting)
 - Calling line identification (CLID)
 - Calling line identification restriction (CLIR) call by call
 - Calling party name identification (CNID)
 - Conference barge
 - Conference list and drop any party (ad hoc conference)
 - Direct inward dial (DID)
 - Direct outward dial (DOD)
 - Directory dial from phone—Corporate or personal
 - Directories—Missed, placed, and received calls list stored on selected IP phones
 - Distinctive ring (on-net vs. off-net)
 - Distinctive ring per line appearance
 - Distinctive ring per phone
 - Drop last conference party (ad hoc conferences)
 - Extension mobility support
 - Group pickup
 - Other group pickup
 - One-touch group pickup
 - Hands-free, full-duplex speakerphone
 - HTML help access from phone
 - Immediate diversion to voicemail
 - Last number redial (off-net and on-net)
 - Log in or out of hunt group
 - Malicious call ID and trace
 - Manager-assistant service (Cisco Unified CallManager Assistant application)
 - Proxy line support
- Manager features—Immediate divert or transfer, do not disturb, divert all calls, call intercept, call filtering on CLID, intercom, and speed dials

Assistant features—Intercom, immediate divert or transfer, divert all calls, and manager call handling through assistant console application

- Shared-line support
 - Manager features—Immediate divert or transfer, do not disturb, intercom, speed dials, barge, direct transfer, and join
 - Assistant features—Handle calls for managers; view manager status and calls; create speed dials for frequently used numbers; search for people in the corporate or Cisco Unified CallManager Directory; handle calls on their own lines; immediate diversion or transfer, intercom, barge in, privacy, multiple calls per line, direct transfer, or join; send DTMF digits from console; and MWI status of manager phone
- System capabilities—Multiple managers per assistant (up to 33 lines) and redundant service
- Cisco Unified CallManager Assistant on the phone with XML service
- MWI
- Multiparty conference—Ad hoc conference with add-on, meet-me features
- Multiple calls per line appearance
- Multiple line appearances per phone
- MoH
- Mute capability from speakerphone and handset
- On-hook dialing
- Operator attendant—Cisco Unified CallManager Attendant Console
 - Call queuing
 - Broadcast hunting
 - Shared-line support
- Privacy
- Real-time QoS statistics through HTTP browser to phone
- Recent dial list—Calls to phone, calls from phone, autodial, and edit dial
- Service URL—Single button access to IP phone service
- Single directory number and multiple phones—Bridged line appearances
- Speed dial—Multiple speed dials per phone
- Station volume controls (audio and ringer)
- Transfer
 - Blind
 - Consultative
 - Direct transfer of two parties on a line
 - Complete transfer by going on hook
- User-configured speed dial and call forward through Web access
- Video (SCCP and H.323)
- Web services access from phone
- Web dialer—Click to dial
- Wideband audio codec support—Proprietary 16-bit resolution, 16-kHz sampling rate codec

Summary of Administrative Features

- Application discovery and registration to SNMP manager
- AXL SOAP API with performance and real-time information
- BAT
- CDRs
- CAR tool
- Call forward reason code delivery
- Centralized, replicated configuration database and distributed Web-based management viewers
- Configurable and default ringer .wav files per phone
- Configurable call forward display
- Database automated change notification
- Date and time display format configurable per phone
- Debug information to common syslog file
- Device addition through wizards
- Device-downloadable feature upgrades—Phones, hardware transcoder resource, hardware conference bridge resource, and VoIP gateway resource
- Device groups and pools for large-system management
- Device mapping tool—IP address to MAC address
- Dynamic Host Configuration Protocol (DHCP) block IP assignment—Phones and gateways
- Cisco Unified CallManager Dialed Number Analyzer (DNA)
- Dialed number translation table (inbound and outbound translation)
- Dialed number identification service (DNIS)
- Enhanced 911 service
- H.323-compliant interface to H.323 clients, gateways, and gatekeepers
- JTAPI 2.0 CTI
- Lightweight Directory Access Protocol (LDAP) Version 3 directory interface to selected vendors' LDAP directories
 - Active Directory
 - Netscape Directory Server
 - Support for password aging, complex password requirements, one-time passwords, etc. with LDAP directory
- Cisco Unified CallManager Multilevel Administration (MLA) access
- MGCP signaling and control to selected Cisco VoIP gateways
- Native supplementary services support to Cisco H.323 gateways
- Paperless phone DNIS—Display-activated button labels on phones
- Performance-monitoring SNMP statistics from applications to SNMP manager or to operating system performance monitor
- QoS statistics recorded per call
- Redirected DNIS (RDNIS), inbound and outbound (to H.323 devices)
- Ability to select specified line to ring

- Ability to select specified phone to ring
- Single CDR per cluster
- Single point system and device configuration
- Sortable component inventory list by device, user, or line
- System event reporting—To common syslog or operating system event viewer
- TAPI 2.1 CTI
- Time-zone configurable per phone
- TAPS
- Cisco Unity[®] software user integration
- Voice-quality statistics on a call-by-call basis
 - Mean-opinion-score (MOS) calculation using k-factor
 - Concealed seconds calculation
- XML API into IP phones (Cisco Unified IP Phone 7940G and 7960G models)
- Zero-cost automated phone moves
- Zero-cost phone adds

Ordering Information

Software Upgrades

For upgrades or new installations of Cisco Unified CallManager 4.3, Cisco Unified CallManager CDs must be ordered.

Customers with a Cisco Software Application Support plus Upgrades (SASU) contract or a Unified Software Subscription, who are running Cisco Unified CallManager Versions 3.3(5), 4.0(2a), 4.1(3) or 4.2(x) and want to upgrade to Cisco Unified CallManager Version 4.3 can order a free upgrade by using the Product Upgrade Tool (PUT) located at: <http://www.cisco.com/upgrade>.

Customers without SASU who require a CD upgrade can order one of the Cisco Unified CallManager part numbers in Table 1.

Table 1. Cisco Unified CallManager Part Numbers

| Product ID | Description |
|---------------------------|---|
| CM4.3-K9-UPG= | SW CallManager Upgrade To 4.3 For SASU/UCSS |
| CM-4.3-K9-SUP= | SW CallManager Upgrade To 4.3 For SMARTnet |
| CM4.3-U-K9-7815SE= | SW CallMgr 3.3 to 4.3 Upgd, MCS-7815, 100 Svr Usr Lic |
| CM4.3-U-K9-7815= | SW CallMgr 3.3 to 4.3 Upgd, MCS-7815, 300 Svr Usr Lic |
| CM4.3-U-K9-7825SE= | SW CallMgr 3.3 to 4.3 Upgd, MCS-7825, 100 Svr Usr Lic |
| CM4.3-U-K9-7825= | SW CallMgr 3.3 to 4.3 Upgd, MCS-7825, 1000 Svr Usr Lic |
| CM4.3-U-K9-7835= | SW CallMgr 3.3 to 4.3 Upgd, MCS-7835, 2500 Svr Usr Lic |
| CM4.3-U-K9-7845= | SW CallMgr 3.3 to 4.3 Upgd, MCS-7845, 5000 Svr Usr Lic |
| CM4.3-U-K9-DL320= | SW CallMgr 3.3 to 4.3 Upgd, HP DL320, 1000 Svr Usr Lic |
| CM4.3-U-K9-DL380= | SW CallMgr 3.3 to 4.3 Upgd, HP DL380/1CPU, 2500 Svr Usr Lic |
| CM4.3-U-K9-DL380D= | SW CallMgr 3.3 to 4.3 Upgd, HP DL380/2CPU, 5000 Svr Usr Lic |
| CM4.3-U-K9-X206= | SW CallMgr 3.3 to 4.3 Upgd, IBM X206, 300 Svr Usr Lic |
| CM4.3-U-K9-X306= | SW CallMgr 3.3 to 4.3 Upgd, IBM X306, 1000 Svr Usr Lic |
| CM4.3-U-K9-X345= | SW CallMgr 3.3 to 4.3 Upgd, IBM X345, 2500 Svr Usr Lic |

| | |
|--------------------------|---|
| CM4.3-U-K9-X345D= | SW CallMgr 3.3 to 4.3 Upgd, IBM X345/2CPU, 5000 Svr Usr Lic |
| CM4.3-U-K9-X346= | SW CallMgr 3.3 to 4.3 Upgd, IBM X346/1CPU, 2500 Svr Usr Lic |
| CM4.3-U-K9-X346D= | SW CallMgr 3.3 to 4.3 Upgd, IBM X346/2CPU, 5000 Svr Usr Lic |
| LIC3.X-4.3U-2500= | License Upgrade Of 2500 Addtl Users, CM 3.x To CM 4.3 |

New Installations

For new Cisco Unified CallManager installations, Cisco Unified CallManager software must be ordered. Table 2 lists these part numbers.

Table 2. New Cisco Unified CallManager Order Numbers

| Part Number | Number of Phones (Maximum Per Server) |
|---------------------------|---------------------------------------|
| CM4.3-K9-7815I2S-1 | 100 |
| CM4.3-K9-7815I2-1 | 300 |
| CM4.3-K9-7815R | 300 |
| CM4.3-K9-7816-H3 | 300 |
| CM4.3-K9-7816-H3 | 300 |
| CM4.3-K9-7825H2-1 | 1000 |
| CM4.3-K9-7825I2-1 | 1000 |
| CM4.3-K9-7835-H2 | 2500 |
| CM4.3-K9-7835-I2 | 2500 |
| CM4.3-K9-7845-H2 | 5000 |
| CM4.3-K9-7845-I2 | 5000 |
| CM4.3-K9-DL320 | 1000 |
| CM4.3-K9-DL380 | 2500 |
| CM4.3-K9-DL380D | 5000 |
| CM4.3-K9-X306M-1 | 1000 |
| CM4.3-K9-X3650 | 2500 |
| CM4.3-K9-X3650D | 5000 |
| LIC-CCM4.3-2500= | 2500 |

Servers with the following part numbers support Cisco Unified CallManager Version 4.3:

- MCS-7815I-3000 (IBM xSeries 206)
- MCS-7815-I1 (IBM xSeries 206)
- MCS-7815-I2 (IBM xSeries 206m)
- MCS-7825H-2266 (HP DL320-G2)
- MCS-7825H-3000 (HP DL320-G2)
- MCS-7825I-3000 (IBM xSeries 306)
- MCS-7825-H1 (HP DL320-G3)
- MCS-7825-H2 (HP DL320-G4, both 2.8 and 3.4 GHz)
- MCS-7825-I1 (IBM xSeries 306)
- MCS-7825-I2 (IBM xSeries 306m, both 2.8 and 3.4 GHz)
- MCS-7835H-2400 (HP DL380-G3)
- MCS-7835I-2400 (IBM xSeries 345)
- MCS-7835H-3000 (HP DL380-G3)

- MCS-7835I-3000 (IBM xSeries 345 8670 [3.06 GHz])
- MCS-7835-H1 (HP DL380-G4, both RoHS and pre-RoHS))
- MCS-7835-I1 (IBM xSeries 346 8840)
- MCS-7835-H1 RoHS (HP DL380-G4)
- MCS-7835-I1 RoHS (IBM xSeries 346r)
- MCS-7835-H2 (HP DL380-G5)
- MCS-7835-I2 (IBM xSeries 3650)
- MCS-7845H-2400 (HP DL380-G3)
- MCS-7845I-2400 (IBM xSeries 345)
- MCS-7845H-3000 (HP DL380-G3)
- MCS-7845I-3000 (IBM xSeries 345 8670 [3.06GHz])
- MCS-7845-H1 (HP DL380-G4)
- MCS-7845-I1 (IBM xSeries 346 8840)
- MCS -7845-H1 RoHS (HP DL380-G4)
- MCS-7845-H1 (HP DL380-G4 (pre- RoHS))
- MCS-7845-I1 RoHS (IBM xSeries 346r)
- MCS-7845-H2 (HP DL380-G5)
- MCS-7845-I2 (IBM xSeries 3650)

The following third-party servers are supported:*

- IBM X206 (IBM xSeries 206)
- IBM X206 (IBM xSeries 206m)
- IBM X306 (IBM xSeries 306, [3.06 GHz])
- IBM X306 (IBM xSeries 306, [3.4 GHz])
- IBM X345 Single Processor (IBM xSeries 345/1 CPU 8670 [2400 MHz])
- IBM X345 Single Processor (IBM xSeries 345/1 CPU 8670 [3.06 GHz])
- IBM X346 Single Processor (IBM xSeries 346/1 CPU 8670 [3.4 GHz])
- IBM X345 Dual Processor (IBM xSeries 345 8670-71x [3.06 GHz])
- IBM X346 Dual Processor (IBM xSeries 346/2 CPU 8840 [3.4 GHz])
- IBM x3650 Single Processor (IBM xSeries 3650, Intel 5140 2.33 GHz)
- IBM x3650 Dual Processor (IBM xSeries 3650, Intel 5140 2.33 GHz)
- Compaq DL320 (HP DL320-G2 [2266 MHz])
- Compaq DL320 (Compaq DL320 [3.06 GHz])
- HP DL320 (HP DL320-G4 [3.4 GHz])
- HP DL380 Single Processor (HP DL380-G3/1 CPU [2400 MHz])
- HP DL380 Single Processor (HP DL380-G3/1 CPU [3.06 GHz])
- HP DL380 Single Processor (HP DL380-G4/1CPU [3.4 GHz])
- HP DL380 Single Processor (HP DL380-G5/1CPU, Xeon 5140 2.33 GHz)
- HP DL380 Dual Processor (HP DL380-G3/2 CPU [2.4 GHz])
- HP DL380 Dual Processor (HP DL380-G3/2 CPU [3.06 GHz])

- HP DL380 Dual Processor (HP DL380-G4/2 CPU [3.4 GHz])
- HP DL380 Dual Processor (HP DL380-G5/2 CPU, Xeon 5140 2.33 GHz)

* Go to <http://www.cisco.com/go/swonly> for configuration details.

Customers who have older, nonsupported servers and wish to upgrade to Cisco Unified CallManager Version 4.3 can reference the server upgrade program found at:

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

Non-MCS servers that are supported with Cisco Unified CallManager Version 4.3 can be found at:

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

Cisco Unified Communications Services and Support

Using the Cisco Lifecycle Services approach, Cisco and its partners offer a broad portfolio of end-to-end services to support the Cisco Unified Communications system. These services are based on proven methodologies for deploying, operating, and optimizing IP communications solutions. Initial planning and design services, for example, can help you meet aggressive deployment schedules and minimize network disruption during implementation. Operate services reduce the risk of communications downtime with expert technical support, and optimize services enhance solution performance for operational excellence. Cisco and its partners offer a system-level service and support approach that can help you create and maintain a resilient, converged network that meets your business needs.



Americas Headquarters
Cisco Systems, Inc.
170 West Tasman Drive
San Jose, CA 95134-1706
USA
www.cisco.com
Tel: 408 526-4000
800 553-NETS (6387)
Fax: 408 527-0883

Asia Pacific Headquarters
Cisco Systems, Inc.
168 Robinson Road
#28-01 Capital Tower
Singapore 068912
www.cisco.com
Tel: +65 6317 7777
Fax: +65 6317 7799

Europe Headquarters
Cisco Systems International BV
Haarlerbergpark
Haarlerbergweg 13-19
1101 CH Amsterdam
The Netherlands
www-europe.cisco.com
Tel: +31 0 800 020 0791
Fax: +31 0 20 357 1100

Cisco has more than 200 offices worldwide. Addresses, phone numbers, and fax numbers are listed on the Cisco Website at www.cisco.com/go/offices.

©2007 Cisco Systems, Inc. All rights reserved. CCVP, the Cisco logo, and the Cisco Square Bridge logo are trademarks of Cisco Systems, Inc.; Changing the Way We Work, Live, Play, and Learn is a service mark of Cisco Systems, Inc.; and Access Registrar, Aironet, BPX, Catalyst, CCDA, CCDP, CCIE, CCIP, CCNA, CCNP, CCSP, Cisco, the Cisco Certified Internetwork Expert logo, Cisco IOS, Cisco Press, Cisco Systems, Cisco Systems Capital, the Cisco Systems logo, Cisco Unity, Enterprise/Solver, EtherChannel, EtherFast, EtherSwitch, Fast Step, Follow Me Browsing, FormShare, GigaDrive, GigaStack, HomeLink, Internet Quotient, IOS, iPhone, IP/TV, iQ Expertise, the iQ logo, iQ Net Readiness Scorecard, iQuick Study, LightStream, Linksys, MeetingPlace, MGX, Networking Academy, Network Registrar, Packet, PIX, ProConnect, RateMUX, ScriptShare, SlideCast, SMARTnet, StackWise, The Fastest Way to Increase Your Internet Quotient, and TransPath are registered trademarks of Cisco Systems, Inc. and/or its affiliates in the United States and certain other countries.

All other trademarks mentioned in this document or Website are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (0701R)