



## Cisco Unified CallManager Version 5.1

**The Cisco® Unified Communications family of voice, video, and IP communications products and applications helps enable organizations to communicate more effectively—helping them streamline business processes, reach the right resource the first time, and reduce costs and maximize revenue. The Cisco Unified Communications system is an integral part of a complete, integrated business communications solution for organizations of all sizes that also includes network infrastructure, security, and network management products; wireless connectivity; a lifecycle services approach; and flexible deployment and outsourced management options, end-user and partner financing packages, and third-party communications applications.**

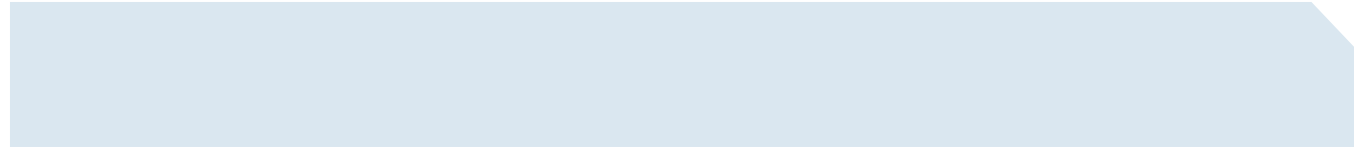
Cisco Unified CallManager software is the call-processing component of the Cisco Unified Communications system. Cisco Unified CallManager extends enterprise telephony features and capabilities to packet telephony network devices such as IP phones, media processing devices, voice-over-IP (VoIP) gateways, and multimedia applications. Additional services such as unified messaging, multimedia conferencing, collaborative contact centers, and interactive multimedia response systems are made possible through Cisco Unified CallManager open telephony application programming interfaces (APIs). Cisco Unified CallManager is installed on the Cisco MCS 7800 Series of 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 impromptu conferencing application, the Cisco Unified CallManager Bulk Administration Tool, the Cisco Unified CallManager CDR Analysis and Reporting Tool, the Cisco Unified CallManager Real-Time Monitoring Tool, and the Cisco Unified CallManager Assistant application.

### FEATURES AND BENEFITS

Cisco Unified CallManager 5.1 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 on an IP network, a distinctive capability in the industry that yields scalability of 1 to 30,000 IP phones per cluster, load balancing, and call-processing service redundancy. Interlinking multiple clusters allows 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 accessibility of the servers to phones, gateways, and applications, and triple call-processing server redundancy improves overall system availability.

Call Admission Control (CAC) helps ensure that voice quality of service (QoS) is maintained across constricted WAN links, and it automatically diverts calls to alternate public-switched-telephone-network (PSTN) routes when WAN bandwidth is not available. A Web interface to the configuration database enables remote device and system configuration. HTML-based online help is available for users and administrators.

Cisco Unified CallManager 5.1 builds upon the feature set available today with Cisco Unified CallManager 5.0 and 4.1(3). The appliance model provides a platform for call processing with the software preloaded on a Cisco Media Convergence Server (MCS) platform; the software is optionally available as a DVD kit for customer-provided servers. The appliance comes with a single firmware image that includes the underlying operating system as well as the Cisco Unified CallManager application. The appliance is accessed through a GUI, and a command-line interface has been added to enable diagnostics along with basic systems management such as starting or stopping services and rebooting the appliance. No access to the underlying operating system is necessary. All systems management activities, such as disk space monitoring, system monitoring, and upgrades, are either automated or are controlled through the GUI. Because onboard agents are no longer supported on the appliance in this version, all Cisco Unified CallManager management interfaces are enhanced to



allow for tight integration with third-party applications. The Simple Network Management Protocol (SNMP) interface has added an Overall Syslog performance MIB, the Serviceability interface has instrumented appliance-specific counters, and the Programming interface has added the ability to execute insert, update, and delete database commands. To further enhance security, Cisco Security Agent for Cisco Unified CallManager comes preloaded on the appliance. A host-based firewall has been added, along with IP Security (IPsec) connectivity between all cluster members.

Session Initiation Protocol (SIP) support is available in Cisco Unified CallManager 5 with support of line-side devices, including IETF RFC 3261-compliant devices available from Cisco Systems® and other manufacturers. Cisco SIP-compliant devices include the Cisco Unified IP Phone 7905G, 7912G, 7940G, and 7960G models. SIP is also available on the Cisco Unified IP Phone 7911G, 7941G, 7941G-GE, 7961G, 7961G-GE, 7970G, and 7971G-GE models.

The SIP trunk interface is available and conforms to RFC 3261, allowing support of video calls over the SIP trunk and improving conferencing and application support experiences when used with the Cisco Unity® and Cisco Unified MeetingPlace® solutions.

Cisco Unified CallManager 5 supports Resource Reservation Protocol (RSVP) agent capability. The RSVP agent on a Cisco router extends CAC capability beyond a hub-and-spoke topology within a cluster. Now a call can be routed directly between two locations without having to traverse the hub, allowing alternative network topologies and more efficient use of networks.

Cisco Unified CallManager 5.0 includes Japanese, Korean, and Chinese (Traditional and Simplified) languages, Cisco Unified CallManager 5.1 now supports Arabic too.

SNMP is available to manage Cisco Unified CallManager, allowing managers to set and report traps on conditions that could affect service and send them to the remote monitoring systems.

Cisco Unified CallManager allows immediate diversion of an incoming call or an in-progress call to voicemail. In Cisco Unified CallManager 5.1, the feature has been enhanced to address transferred calls as well. Users now have the option to forward calls that have been transferred to them either to their own voicemail or to the voicemail of the original transferring party.

Cisco Unified CallManager provides a choice of operating system, either a Windows-based server (Release 4) or the appliance model (Release 5). The feature enhancements listed in this section are available only on the appliance model at this time.

## **SPECIFICATIONS**

### **Platforms**

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

### **Bundled Software**

- Cisco Unified CallManager Version 5.1—Call-processing and call-control application
- Cisco Unified CallManager Version 5.1 configuration database—Contains system and device configuration information, including dial plan
- Cisco Unified CallManager administration software
- Cisco Unified CallManager CDR Analysis and Reporting Tool—Provides reports for calls based on call detail records (CDRs) that include calls on a user basis, calls through gateways, simplified call quality, and a CDR search mechanism. The Cisco Unified CallManager CDR Analysis and Reporting Tool also provides limited database administration; for example, deleting records based on database size.

- Cisco Unified CallManager Bulk Administration Tool (BAT)—Allows administrators to perform bulk add, delete, and update operations for devices and users
- Cisco Unified CallManager Attendant Console—Allows a receptionist to answer, transfer, and dispatch calls within an organization. The attendant can install the attendant console, a client-server application, on a PC running Windows 2000 or Windows 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 Real-Time Monitoring Tool (RTMT)—A client tool that monitors real-time behavior of the components in a Cisco Unified CallManager cluster. Cisco Unified CallManager RTMT uses HTTP and TCP to monitor device status, system performance, device discovery, and computer-telephony-integration (CTI) applications. It also provides trace and log file management capabilities, including scheduling downloads of all trace and log files, user-defined events in trace and log files, and real-time monitoring of trace and log files. Cisco Unified CallManager RTMT can send e-mail and page alerts when problems are detected. It connects directly to Cisco Unified CallManager by using HTTP for troubleshooting system problems.
- Cisco Conference Bridge—Provides software conference bridge resources for Cisco Unified CallManager
- Cisco Unified IP Phone Address Book Synchronizer—Allows users to synchronize Microsoft Outlook or Outlook Express address books with Cisco Personal Address Book. 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—Provides user and network locales for Cisco Unified CallManager, adding support for languages other than English. The locales installer allows users to view translated text, receive country-specific phone tones, and receive Tool for Auto-Registered Phones Support (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 hosting applications that interact with Cisco Unified CallManager with the Java Telephony API (JTAPI); JTAPI reference documentation and sample code are included
- Cisco Unified CallManager Telephony Service Provider—Contains the Cisco Telephony API (TAPI) service provider (TSP) and the Cisco Wave Drivers that enable TAPI applications to make and receive calls on the Cisco IP Telephony system
- Cisco Dialed Number Analyzer—Serviceability tool that analyzes the dialing plan for specific numbers
- Cisco Unified CallManager Assistant—Provides administration features along with administration Webpages for improved call handling

## System Capabilities Summary

Items marked with an asterisk (\*) are new or enhanced for Cisco Unified CallManager 5.1.

- Alternate automatic routing (AAR)
- 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
- 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
- \*Codec support for automated bandwidth selection: G.711 (mu-law and a-law), G.722, G.722.1, G.723.1, G.728, G.729A/B, GSM-EFR, GSM-FR, wideband audio (proprietary 16-bit resolution; 16-kHz sampled audio), and Advance Audio Coding (AAC) for use with Cisco Telepresence devices
- 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
  - Virtual clusters of up to eight Cisco Unified CallManager servers for scalability, redundancy, and load balancing
  - Maximum of 7500 IP phones per Cisco Unified CallManager server and 30,000 per server cluster (configuration-dependent)
  - Maximum of 100,000 busy-hour call completions (BHCCs) per Cisco Unified CallManager server and 250,000 per server cluster (configuration-dependent)
  - Intercluster scalability to more than 100 sites or clusters through H.323 gatekeeper
  - Intracluster feature and 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
- \*Divert calls to voicemail (iDivert)
- Language support for client-user interfaces (languages specified separately)
- Multilevel precedence and preemption (MLPP)
- 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 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
- PSTN failover on route nonavailability—AAR
- Q.SIG:
  - Alerting name specified in ISO 13868 as part of the SS-CONP feature
  - Basic call
  - ID services
  - General functional procedures
  - Call back—ISO/IEC 13870: 2nd ed., 2001-07 (completion of calls to busy subscriber [CCBS] and call completion on no reply [CCNR])
  - Call diversion, including 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
  - Identification restriction: Calling Name Identification Restriction (CNIR), 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)
- Call preservation—redundancy and automated failover—on call-processing failure
- Station to station
- Station through trunk (Media Gateway Control Protocol [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 (ETSI BRI basic-net3 user side only)
- Security
  - Configurable operation modes—Nonsecure or secure modes can be configured.
  - Device authentication—New model phones have an embedded X.509v3 certificate; a certificate authority proxy function (CAPF) is used to install locally significant certificate in the phones.
  - Data integrity—The Transport Layer Security (TLS) cipher NULL-SHA is supported; messages are appended with the SHA1 hash of the message to ensure that they are not altered on the wire and can be trusted.
  - Cisco Unified CallManager 5 offers secure HTTP support for Cisco Unified CallManager Admin, Cisco Unified CallManager Serviceability, Cisco Unified CallManager User, Cisco Unified CallManager RTMT, Cisco Unified CallManager Trace Analysis,

Cisco Unified CallManager Service, Cisco Unified CallManager Trace Collection Tool, and Cisco Unified CallManager CDR Analysis and Reporting Tool.

- Privacy—Signaling and media are encrypted; including Cisco Unified IP Phone 7911G, 7940G, 7941G, 7941G-GE, 7960G, 7961G, 7961G-GE, 7970G, and 7971G models; Cisco Unified Survivable Remote Site Telephony (SRST); and Media Gateway Control Protocol (MGCP) gateways.
- Secure Sockets Layer (SSL) for directory—Supported applications include Cisco Unified CallManager BAT, Cisco Unified CallManager CDR Analysis and Reporting Tool, Cisco Unified CallManager Admin User Pages, Cisco Unified CallManager Assistant Admin Pages, Cisco Unified CallManager User Pages and Cisco Unified IP Phone Options Pages, Cisco Conference Connection, Cisco CTI Manager, Cisco CallManager Extension Mobility, and Cisco IP Manager Assistant.
- A USB eToken containing a Cisco rooted X.509v3 certificate is used to generate a Certificate Trust List (CTL) file for the phones and configure the security mode of the cluster.
- Phone security—Trivial File Transfer Protocol (TFTP) files (configuration and firmware loads) are signed with the self-signed certificate of the TFTP server; the Cisco Unified CallManager system administrator can disable HTTP and Telnet on IP phones.
- SIP trunk (RFC 3261) and line side (RFC 3261-based devices)
- Cisco SRST
- Shared resource and application management and configuration:
  - Transcoder resource
  - Conference bridge resource
  - Topological association of shared resource devices (conference bridge, music-on-hold sources, and transcoders)
  - Media termination point (MTP)—Support for SIP trunk and RFC 2833
  - Annunciator
- Silence suppression and voice activity detection
- Simplified North American Numbering Plan (NANP) and non-NANP support
- T.38 fax support (H.323 and SIP)
- Third-party applications support:
  - Broadcast paging—Through foreign exchange station (FXS)
  - Simplified Message Desk Interface (SMDI) for MWI
  - Hook-flash feature support on selected FXS gateways
  - 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:
  - Prevent trunk-to-trunk transfer
  - Drop conference call when originator hangs up
  - Require forced authorization codes

- Unified device and system configuration
- Unified dial plan
- Video codecs: H.261, H.263, H.264, and Cisco Wideband Video Codec (Cisco Unified Video Advantage)
- Video Telephony (SCCP, H.323, and SIP)

## Summary of User Features

Asterisks (\*) in this list indicate SIP support for Cisco Unified CallManager 5.

- \*Abbreviated dial
- \*Answer and answer release
- \*Autoanswer and intercom
- \*Barge
- \*Call-back busy, no reply to station
- \*Call connection
- \*Call coverage
- \*Call forward—All (off net and on net), busy, and no answer
- \*Call hold and retrieve
- Call join
- \*Call park and pickup
- \*Call pickup group—Universal
- \*Call status per line (state, duration, and number)
- \*Call waiting and retrieve (with configurable audible alerting)
- \*Calling line identification (CLID) and calling party name identification (CNID)
- Calling line identification restriction (CLIR) call by call
- \*Conference barge
- \*Conference list and drop any party (impromptu conference)
- \*Direct inward dial (DID) and direct outward dial (DOD)
- \*Directory dial from phone—Corporate and personal
- \*Directories—Missed, placed, and received calls list stored on selected IP phones
- \*Distinctive ring for on- and off-net status, per-line appearance, and per phone
- \*Drop last conference party (impromptu conferences)
- \*Extension mobility support
- \*Hands-free, full-duplex speakerphone
- \*HTML help access from phone
- \*Immediate divert to voicemail
- \*Last number redial (on and off net)
- 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
- Manager-assistant service (Cisco Unified CallManager Assistant 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 directory; handle calls on their own lines; immediate divert or transfer, intercom, barge, privacy, multiple calls per line, direct transfer, and join; send DTMF digits from console; and MWI status of manager phone
- Manager-assistant service (Cisco Unified CallManager Assistant application) system capabilities—Multiple managers per assistant (up to 33 lines) and redundant service
- Manager-assistant service on Cisco IP phones with Cisco Unified CallManager 5.1
- \*MWI
- \*Multiparty conference—Impromptu with add-on, meet-me features
- \*Multiple calls per line appearance
- \*Multiple line appearances per phone
- \*Music on hold
- \*Mute capability from speakerphone and handset
- \*On-hook dialing
- Operator attendant—Cisco Unified CallManager Attendant Console: call queuing, broadcast hunting, and 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, and direct transfer of two parties on a line
- \*User-configured speed dial and call forward through Web access
- \*Video (SCCP, H.323, and SIP)
- \*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
- Cisco Unified CallManager BAT



- CDRs
- Cisco Unified CallManager CDR Analysis and Reporting 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
- 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 computer telephony interface
- Lightweight Directory Access Protocol (LDAP) Version 3 directory interface to selected vendors' LDAP directories: Active Directory and Netscape Directory Server
- MGCP signaling and control to selected Cisco VoIP gateways
- Native supplementary services support to Cisco H.323 gateways
- Paperless phone DNIS—Display-directed 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)
- Select specified line appearance to ring
- 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

- Cisco Unity software user integration
- TAPS
- Extensible Markup Language (XML) API into IP phones (Cisco Unified IP Phone 7940G and 7960G models)
- Zero-cost automated phone moves
- Zero-cost phone adds
- Data migration assistant
- Log partition monitor
- Disaster recovery framework
- Cisco Security Agent for Cisco Unified CallManager
- IPsec and certificate management
- CDR delivery manager
- Command-line interface
- Enhanced remote access through serial, console, and Secure Shell (SSH) Protocol
- Scheduled provisioning with Cisco Unified CallManager BAT
- Scheduled trace collection
- User-defined events
- Real-time trace monitoring
- Enhanced upgrade process to minimize service downtime
- Enhanced installation process to minimize install times
- Installation answer file for no-touch installs
- Syslog to SNMP trap MIB
- Enhanced AXL SOAP API to modify the database

## **CISCO UNIFIED CALLMANAGER VERSION 5 ENHANCEMENTS**

### **SIP Trunk and Endpoint Support**

SIP trunk and endpoint support provides enhancements to support SIP and host SIP phones, improving interoperability and opening ways to develop innovative applications. Cisco Unified CallManager supports coexistence of SCCP and SIP phones, allowing migration to SIP while protecting investments in existing devices. Cisco Unified CallManager 5 includes the following major SIP functions:

- Native support of SIP devices
- CTI for Internet service provider (ISP) phones
- Presence information for SIP devices
- Fault, configuration, accounting, performance, and security (FCAPS) enhancements to support SIP
- SIP trunk enhancements for external applications, such as conferencing and presence
- Third-party SIP devices supporting RFC 3261
- SIP line-side RFCs: RFCs 3261, 3262, 3264, 3265, 3311, 3515, and 3842
- SIP trunk RFC support: RFCs 2833, 2976, 3261, 3262, 3264, 3265, 3311, 3515, 3842, 3856, and 3891

## Licensing

Application and phone software licenses are enforced. The system manages the maximum number of devices that can be provisioned.

- Each device (Cisco Unified IP phones, third-party devices, and video devices) provisioned in the system corresponds to a number of device license units (DLUs), depending on its capabilities; the total number of units is managed in Cisco Unified CallManager to determine capacity.
- DLUs must be purchased to cover the number of devices connected to Cisco Unified CallManager.
- Third-party SIP devices require DLUs for operation with Cisco Unified CallManager.

## Localization

The following user locales (languages) are supported: French, German, Italian, Spanish, Danish, Portuguese, Swedish, Norwegian, Dutch, Russian, Greek, Hungarian, Polish, Simplified Chinese, Traditional Chinese, Korean, Japanese, Brazilian Portuguese, Catalan, Croatian, Bulgarian, Slovak, Czechoslovakian, Slovenian, Romanian, Serbian, and now Arabic.

Localization for Japanese, Korean, Traditional and Simplified Chinese, and Arabic are available with the Cisco Unified IP Phone 7911G, 7941G, 7941G-GE, 7961G, 7961G-GE, 7970G, and 7971G models.

The following network locales (tones and cadences) are supported: Argentina, Australia, Austria, Belgium, Brazil, Canada, China, Colombia, Cyprus, Czech Republic, Denmark, Egypt, Finland, France, Germany, Ghana, Greece, Hong Kong, Hungary, Iceland, India, Indonesia, Ireland, Israel, Italy, Japan, Jordan, Kenya, Korea Republic, Lebanon, Luxembourg, Malaysia, Mexico, Nepal, Netherlands, New Zealand, Nigeria, Norway, Pakistan, Panama, Peru, Philippines, Poland, Portugal, Russian Federation, Saudi Arabia, Singapore, Slovakia, Slovenia, South Africa, Spain, Sweden, Switzerland, Taiwan, Thailand, Turkey, United Kingdom, United States, Venezuela, and Zimbabwe.

## ORDERING INFORMATION

### Software Upgrades

Cisco Unified CallManager 5.1 installation CDs can be ordered for existing systems.

Customers with a Cisco Software Application Support plus Upgrades (SASU) contract running Cisco CallManager 3.2 or 3.3 or Cisco Unified CallManager 4.0 or 5.0 who want to upgrade to Cisco Unified CallManager 5.1 can order upgrades using the Product Upgrade Tool located at: <http://www.cisco.com/upgrade>.

Customers with no upgrade maintenance contract or upgrades from a previous version of Cisco Unified CallManager can order one of the part numbers in Table 1.

**Table 1.** Cisco Unified CallManager Part Numbers

Cisco Unified CallManager Upgrade Part Numbers	Description
CM5.1-K9-SUP=	SW Upgrade CM 4.1 to 5.1 for Cisco SMARTnet®
CM51-K9-UPG=	SW Upgrade CM 4.1 to 5.1 for SASU
CM5.1-U-K9-7815SE=	SW Upgrade CM 4.1 to CM 5.1 - 7815SE
CM5.1-U-K9-7815=	SW Upgrade CM 4.1 to CM 5.1 - 7815
CM5.1-U-K9-7825SE=	SW Upgrade CM 4.1 to CM 5.1 - MMIPC bundles only
CM5.1-U-K9-7825=	SW Upgrade CM 4.1 to CM 5.1 - 7825
CM5.1-U-K9-7835=	SW Upgrade CM 4.1 to CM 5.1 - 7835
CM5.1-U-K9-7845=	SW Upgrade CM 4.1 to CM 5.1 - 7845
CM5.1-U-K9-DL320=	SW Upgrade CM 4.1 to CM 5.1 - DL320

<b>CM5.1-U-K9-DL380=</b>	SW Upgrade CM 4.1 to CM 5.1 - DL380 1CPU
<b>CM5.1-U-K9-DL380D=</b>	SW Upgrade CM 4.1 to CM 5.1 - DL380 2CPU
<b>CM5.1-U-K9-X306=</b>	SW Upgrade CM 4.1 to CM 5.1 - X306
<b>CM5.1-U-K9-X346=</b>	SW Upgrade CM 4.1 to CM 5.1 - X346 1CPU
<b>CM5.1-U-K9-X346D=</b>	SW Upgrade CM 4.1 to CM 5.1 - X346 2CPU
<b>CM5.0-5.1-U-K9=</b>	SW Upgrade CM 5.0 – 5.1

## New Installations

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

**Table 2.** New Cisco Unified CallManager Part Numbers

Product ID	Description
<b>Cisco Unified CallManager hardware SKUs</b>	
<b>MCS7815I2-K9-CMA2</b>	HW/SW Unified CallMgr 5.1 7815-I2 Appliance, 0 Seats
<b>MCS7825H2-K9-CMA2</b>	HW/SW Unified CallMgr 5.1 7825-H2 Appliance, 0 Seats
<b>MCS7825I2-K9-CMA2</b>	HW/SW Unified CallMgr 5.1 7825-I2 Appliance, 0 Seats
<b>MCS7835H2-K9-CMA2</b>	HW/SW Unified CallMgr 5.1 7835-H2 Appliance, 0 Seats
<b>MCS7835I2-K9-CMA2</b>	HW/SW Unified CallMgr 5.1 7835-I2 Appliance, 0 Seats
<b>MCS7845H2-K9-CMA2</b>	HW/SW Unified CallMgr 5.1 7845-H2 Appliance, 0 Seats
<b>MCS7845I1-K9-CMA2</b>	HW/SW Unified CallMgr 5.1 7845-I1 Appliance, 0 Seats
<b>Cisco Unified CallManager license SKUs</b>	
<b>LIC-CM5.1-7815=</b>	License CallMgr 5.1 7815 Appliance, 500 seats
<b>LIC-CM5.1-7825=</b>	License CallMgr 5.1 7825 Appliance, 1000 seats
<b>LIC-CM5.1-7835=</b>	License CallMgr 5.1 7835 Appliance, 2,500 seats
<b>LIC-CM5.1-7845=</b>	License CallMgr 5.1 7845 Appliance, 5,000 seats
<b>LIC-CCM5.X-2500=</b>	License CallMgr Additional 2500 Users

Customers planning an upgrade to Cisco Unified CallManager Version 5.1 should see the upgrade program for supported servers at: <http://www.cisco.com/go/swonly>.

Hard disk capacity of 72 GB or greater is required.

## Device Licenses

Device licenses are required for all devices provisioned in Cisco Unified CallManager. Table 3 lists part numbers for licenses for Cisco devices.

**Table 3.** Device Licenses for Cisco Devices

Product ID	Description
LIC-CM-DL-10=	CallManager Device License - 10 units
LIC-CM-DL-100=	CallManager Device License - 100 units
LIC-CM-DL-500=	CallManager Device License - 500 units
LIC-CM-DL-1000=	CallManager Device License - 1000 units
LIC-CM-DL-5000=	CallManager Device License - 5000 units
LIC-CM-DL-10000=	CallManager Device License - 10,000 units
LIC-CM-DL-25000=	CallManager Device License - 25,000 units
LIC-CM-DL-50000=	CallManager Device License - 50,000 units
LIC-CM-DL-100000=	CallManager Device License - 100,000 units
LIC-CM-DL-500000=	CallManager Device License - 500,000 units
LIC-CM-DL-1000000=	CallManager Device License - 1,000,000 units
LIC-3PTY-DL-10=	CallManager Third-Party Device License - 10 units
LIC-3PTY-DL-100=	CallManager Third-Party Device License - 100 units
LIC-3PTY-DL-500=	CallManager Third-Party Device License - 500 units
LIC-3PTY-DL-1000=	CallManager Third-Party Device License - 1,000 units
LIC-3PTY-DL-5000=	CallManager Third-Party Device License - 5,000 units
LIC-3PTY-DL-10000=	CallManager Third-Party Device License - 10,000 units
LIC-3PTY-DL-25000=	CallManager Third-Party Device License - 25,000 units
LIC-3PTY-DL-50000=	CallManager Third-Party Device License - 50,000 units
LIC-3PTY-DL-100K=	CallManager Third-Party Device License - 100,000 units
LIC-3PTY-DL-500K=	CallManager Third-Party Device License - 500,000 units
LIC-3PTY-DL-1M=	CallManager Third-Party Device License - 1,000,000 units



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