Introduction

Cisco CallManager serves as the software-based, call-processing component of the Cisco IP Telephony Solution for the Enterprise. The Cisco IP Telephony Applications Server provides a high-availability server platform for Cisco CallManager call processing, services, and applications.

The Cisco CallManager system extends enterprise telephony features and functions to packet telephony network devices such as IP phones, media processing devices, voice-over-IP (VoIP) gateways, and multimedia applications. Additional data, voice, and video services, such as unified messaging, multimedia conferencing, collaborative contact centers, and interactive multimedia response systems, interact through Cisco CallManager open telephony application program interface (API).

Cisco CallManager provides signaling and call control services to Cisco integrated telephony applications as well as to third-party applications. It performs the following primary functions:

- Call processing
- Signaling and device control
- Dial plan administration
- Phone feature administration
- Directory services
- Operations, administration, management, and provisioning (OAM&P)
- Programming interface to external voice-processing applications such as Cisco IP Communicator, Cisco IP Interactive Voice Response (IP IVR), and Cisco CallManager Attendant Console

Cisco CallManager as an Appliance

Cisco CallManager release 5.0 works as an Appliance on a non-Windows-based Operating System. The Cisco CallManager appliance refers to the following functions:

- Works on a specific hardware platform(s) that Cisco specifies and supplies and, in some cases, the customer supplies
- Works in a carefully controlled software environment that Cisco specifies and installs
- Includes all software that is required to operate, maintain, secure, and manage a server or cluster of servers (including Cisco Security Agent)
- Outputs a variety of management parameters via a published interface to provide information to approved management applications such as, but not limited to, NetIQ Vivinet Manager, HP Openview, and Integrated Research Prognosis

- Operates in a headless manner (without keyboard, mouse, or VGA monitor support) or (in the case of some of the hardware platforms) in a headed manner (with keyboard, mouse, and monitor)
- Exposed interfaces:
  - Ethernet to the network
  - Web interface for Platform and Cisco CallManager Administration
  - Command Line Interface (CLI) based platform shell for administrator use
  - APIs such as JTAPI, AXL/SOAP, and SNMP for third-party application and management support
- Cisco CallManager servers get preinstalled with software to ease customer and partner deployment and automatically search for updates and notify administrators when key security fixes and software upgrades are available for their system. This process comprises Electronic Software Delivery.
- You can upgrade Cisco CallManager servers while they continue to process calls, so upgrades takes place with minimal downtime.
- Cisco CallManager supports the Asian and Middle Eastern markets by providing support for Unicode on higher resolution phone displays.
- Cisco CallManager provides Fault, Configuration, Accounting, Performance, and Security (FCAPS).

Key Features and Benefits

The Cisco CallManager system includes a suite of integrated voice applications that perform voice conferencing and manual attendant console functions. Supplementary and enhanced services such as hold, transfer, forward, conference, multiple-line appearances, automatic route selection, speed dial, last-number redial, and other features extend to IP phones and gateways. Because Cisco CallManager is a software application, enhancing its capabilities in production environments requires only upgrading software on the server platform, thereby avoiding expensive hardware upgrade costs.

Distribution of Cisco CallManager and all Cisco IP Phones, gateways, and applications across an IP network provides a distributed, virtual telephony network. This architecture improves system availability and scalability. Call admission control ensures that voice quality of service (QoS) is maintained across constricted WAN links and automatically diverts calls to alternate public switched telephone network (PSTN) routes when WAN bandwidth is not available.

A web-browsable interface to the configuration database provides the capability for remote device and system configuration. This interface also provides access to HTML-based online help for users and administrators.

Where to Find More Information

Additional Cisco Documentation

- *Cisco CallManager Administration Guide*
- *Cisco CallManager Features and Services Guide*
- *Cisco CallManager Serviceability System Guide*
- *Cisco CallManager Serviceability Administration Guide*
- *Cisco IP Telephony Solution Reference Network Design Guide*

- *Cisco IP Telephony Platform Administration Guide*
- *Cisco IP Telephony Disaster Recovery System Administration Guide*