



Telefonix Voice & Data Avaya Manual

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IP Telephony

Contact Centers

Mobility

Services

PRODUCT BRIEF

Avaya Communication Manager

Enabling Intelligent, Highly Available and Open Communications Across Your Enterprise

Business Communications Applications Software will help you capture the benefits of advanced IP Telephony.

To meet the changing needs of your enterprise network, Avaya powers converged infrastructures with the new Avaya Communication Manager. With this latest release of telephony software, Avaya delivers industry-leading intelligent call processing plus features that help improve network security, resiliency and extensibility at lower costs. And, it provides a flexible path to highly available converged voice and data networks while protecting your current investments.

Avaya Communication Manager gives you the power to introduce IP telephony when and where it makes the best sense for your business while leveraging your existing Avaya DEFINITY® Communications Servers and Avaya Media Servers.

A New Era of Intelligent Communications

Avaya has introduced a new era of Intelligent Communications – simplifying and expanding communications so your business can gain strategic value and competitive advantage. Communication Manager offers advanced functionality to help you connect people, processes and applications throughout the extended enterprise and around the globe.

Leadership and Innovation in Communication

Avaya is a global leader and innovator in enterprise communications serving customers that require superior communications technology to power their business. Avaya Business Communications Applications provide intelligent, secure network infrastructures and reliable voice and data applications that help make people more productive, processes more intelligent, and customers more satisfied.

Intelligent Communications

Communication Manager offers advanced functionality to help you connect people, processes and applications throughout the extended enterprise and around the globe.



Avaya Communication Manager Powered Solutions

Avaya Integrated Management

- Configuration & Operations
 - ◊ Avaya Site Administration
 - ◊ Avaya MultiSite Administration
 - ◊ Avaya Voice Announcement Manager
 - ◊ Avaya ATM WAN Survivable Processor Manager
 - ◊ Avaya Directory-Enabled Management
 - ◊ Avaya Terminal Configuration
 - ◊ Avaya Installation Wizard
 - ◊ Avaya Software Update Manager
 - ◊ Avaya Network Configuration Manager
- Performance & Availability
 - ◊ Avaya Fault & Performance Manager
 - ◊ Avaya VoIP Monitoring Manager
- Network Management
 - ◊ Avaya Network Management Console
 - ◊ Avaya QoS Manager
 - ◊ Avaya SMON Manager
 - ◊ Avaya Address Manager

End-to-end, integrated business communications applications:

Avaya delivers core business communications applications across the enterprise so users are not as dependant on isolated third parties to provide these capabilities. This design results in optimized efficiency through greater stability, consistency, and minimized redundancy.

Presence-enabled communications extended to every device:

The entire enterprise can now be presence-enabled versus only a few IP-based devices. The exchange of presence information improves productivity and optimizes communications, reducing the time to complete transactions, and enhancing the quality of the transaction itself.

Adaptable User Agents: Avaya offers a superior portfolio of User Agents and Smart Devices for communication access, enabling the elimination of redundant, peripheral applications and reducing management costs. End-user productivity can also be increased through consistently available functionality, choice of device and ease of use.

Network Intelligence: Communication Manager optimizes route selection and offers high availability through a unique ability to split signaling and bearer channels in a distributed network over a narrowband, versus broadband, connection. This normalized network access approach eliminates the requirement for an infrastructure upgrade for the realization of a converged communications solution, typically 40%-60% of the total cost of the solution.

Call Routing Intelligence: The Avaya patented routing intelligence can connect your customers to the correct knowledge worker. In the past this capability had been limited to the contact center environment, however, with the flatness of converged communications, this inherent intelligence is expanding beyond those boundaries; allowing the creation of an ever-increasing level of customer satisfaction and a differentiated, branded customer experience.

Adaptable Communications: Centralized configurations allow easy deployments across your locations and provide you with greater flexibility to accommodate dynamic business models.

Highly Available & Secure

Avaya Communication Manager is designed to meet traditional voice expectations for availability and security. Proactive management, self healing features and end-to-end global services support a high availability infrastructure throughout your extended enterprise for superior communications confidence. High availability is supported in a number of ways including:

Survivable capabilities for the distributed enterprise —

including branches: The award winning survivability capabilities of Avaya Communication Manager deliver up to six times better performance in minimized downtime, with the fastest call controller failover time of systems in its class¹. This level of availability helps to deliver business continuity across the business from edge to edge.

Inter-Gateway Alternate Routing (IGAR): IGAR provides unique monitoring of latency and packet loss with automatic re-route to PSTN for optimal voice quality.

Connection preserving upgrades for duplex servers: This capability provides greater flexibility for customization and changes by allowing uninterrupted communication service during an upgrade of duplex servers from Communication Manager 3.0 to a later release.

Anytime, Any Place and Any Network: Ubiquitous access to resources including IP, PSTN, and Cellular, offers businesses and their customers anywhere, anytime access through virtually any device to key communication resources.



¹ Winner, Miercom "Best-in-Test Large Enterprise IP PBX" Competition, 2005

Self-healing Management for Quality of Service (QoS)

assurance: This on-premise or Managed Service proactive feature provides a unique management capability for applications running on converged networks. It allows you to minimize the risk of deploying business communication applications by significantly increasing the ability to manage the prevention of system failures.

Flexible security choices over multi-vendor networks:

Communication Manager offers “best of breed” security options in a multi-vendor network environment to accommodate ever-changing security needs.

Avaya EXPERT SystemsSM Diagnostic Tools: These tools provide automated, remote resolution of problems, up to 96% of the time, often within minutes. With 30,000 artificial intelligent algorithms, Avaya EXPERT Systems provides self-healing, 24 x 7 support, maximizing availability.

Secure Access and Control: This monitoring solution lets you control access to your network devices, gives you a detailed audit trail, and helps you comply with government regulations for security and privacy. Secure Access and Control lowers your costs by allowing for maintenance of converged infrastructure through a secure IP Virtual Private Network, and provides centralized access for up to 500 monitored servers. The connectivity between your site and the Avaya Remote Technical Center is secure, encrypted, and always connected.

Open Interoperability

Open Interoperability allows communications to be embedded into business processes, and enables more value to enterprises. Communication Manager supports interoperability through an extensive ecosystem of partners providing flexible support for virtually any application on any network through:

End-to-End Standards-based Application Integration:

The Linux based Communication Manager software solution provides integration of old (TSAPI, JTAPI) and new (CSTA, Web) standards. This ability allows you to flexibly embed communications into real-time business processes, while protecting investments.

Full Coverage of Latest SIP Standards: Communication Manager provides an open SIP and H.323 call model, with SIP/SIMPLE presence and instant messaging

extensions. Avaya provides full coverage of H.323 support, Open API/SDK. This approach allows seamless integration of voice into other applications and flexibility to integrate third party endpoints and applications.

CSTA-Compliant Web Services Interface: Open, Web Services Interfaces for Communications-to-Business Application Integration deliver access to the full functionality of Communication Manager and Call Center software. By expanding the developer community for enhanced solutions, customization and control can be offered through direct access to untapped telephony functionality for business process integration.

Business Communications Applications Translate Into Business Benefits

The intelligent communications, high availability and security, and interoperability of Avaya Business Communications Applications lead to benefits for your business and the end-users you support. Flexible options enabled by IP Telephony and Communication Manager can keep your people, processes and applications connected in new ways.

Boost End-User Productivity

Avaya Communication Manager enables dynamic call control and full telephony functionality plus the new applications, infrastructure, and communications devices your end users need to:

- **Handle incoming calls effectively**

The Call Coverage feature automatically redirects calls based on preset criteria such as time of day or type of call; Send All Calls allows users to temporarily redirect all incoming calls to coverage; priority queuing, backup alerting, timed reminders, and attendant vectoring help attendants route calls effectively even in the peak traffic hours; a night-service console provides you with options in handling incoming callers after normal business hours.

- **Increase efficiency**

Abbreviated Dialing, Last Number Dialed, and Internal Automatic Answer are simple to use features that can save your enterprise hundreds of hours of call set up and answering time; Integrated Directory gives display telephone access to the system database for one-touch extension dialing; Intelligent Call

Avaya Communication Manager Powered Solutions

Contact Center Solutions

- Contact (Call) Center Enhancements
- Display Vector Directory Number
- Best Service Routing
- Time-of-Day Clock Synching (with Avaya Servers)
- Co-Resident LAN Gateway

Security/Reliability

- World-Class Routing
- Alternate Gatekeeper
- Power Failure Transfer
- PSTN Fail-Over
- Malicious Call Trace
- Media Encryption
- Crisis Alert
- Class of Restriction
- Access Security Gateway Products
- S8700/S8710 Media Server physical separation up to six miles

Routing sends calls along the best and most efficient path based on your rules or the time of day.

- **Improve collaboration**

Meet Me Conferencing replaces third-party services by providing pre-established bridge numbers; encrypted signal links provide greater security for sensitive conference calls. Group Paging enables speakerphone announcements to preset user groups. Combine Communication Manager, Avaya Converged Communications Server (CCS) software and the Avaya IP Softphone for secure Instant Messaging (IM) with a presence-enabled contact list that can be used to increase access and collaboration.

- **Increase mobility**

Remote Call Coverage/Forward Off-Net allows users to redirect calls through their office phones to another location; Personal Station Access allows telecommuters to activate their extension and preferences on a shared office phone. EMU provides users the ability to associate the features of their primary telephones to telephones of the same type anywhere within the customer enterprise.

Extension to Cellular allows incoming calls to simultaneously ring a user's office phone and mobile phone, providing one-number access for mobile employees. IP Softphone is a Windows-based client applications that transforms an IP network-connected laptop PC into a fully-featured office phone that can be used at home, a client's site or a hotel room.

- **Improve Contact Center Management**

This robust Automatic Call Distribution (ACD) feature set available delivers call routing capabilities for contact centers of any size, from small, single sites to large, sophisticated, multisite deployments.

Scale to Your Current Size and Your Potential

Avaya Communication Manager allows any business to support its operations, simplify management, and significantly reduce total cost of ownership. Running on the powerful Avaya Media Servers and Gateways, Avaya Communication Manager scales effectively from fewer than 100 users to as many as 36,000 on a single system and more than 1 million users on a single network. Even the busiest corporations can get performance that meets their needs, with support for up to 8,000 trunks and up to 375,000 Busy Hour Call Completions (BHCC).

Rely on Your Communications

Avaya Communication Manager utilizes proven Avaya call processing combined with proactive network and application monitoring through Avaya EXPERT Systems and Enterprise Service Platform to provide up to 99.999% reliability in an IP-based voice network. In the event of an emergency, World-Class Routing and Alternate Gatekeeper redirect calls away from trouble. Power Failure Transfer facilitates emergency



communications in the event of a total power outage while optional Avaya Uninterrupted Power Supply Units automatically provide alternative in-line power to your system if necessary, and IP Trunk with PSTN fail-over automatically bumps calls to the public telephone network to maintain communications during times of IP network congestion.

Enterprise Survivable Servers (ESS) can be deployed where needed throughout your network to provide increased communications continuity in the event of an emergency. The IP Server Interface card in the port networks automatically obtains service from an ESS server(s) if the control signal to the main server is lost. Enterprise Survivable Servers can be connected to ATM, IP and Center Stage Switch (CSS) connected port networks

Security features include “challenge and response” login protocol security violation notification and LAN/WAN voice privacy through real-time media encryption, Malicious Call Trace, Crisis Alert, and E911 compliance help protect your property and employees. Class of Restriction (COR) allows you to set different classes of privileges for making and terminating calls. And Access Security Gateway products help secure, monitor, and control ports used for remote access.

Be Flexible for Migration and Global Business Needs

Avaya Communication Manager lets you create a network that meets your business and budget needs by taking advantage of distributed networking to extend applications to the edge of your enterprise. Compatible with Linux®, Microsoft Windows® 2000, and Avaya’s proprietary (DEFINITY Server) operating systems, the software gives you the ability to:

- Deliver applications over IP, TDM, ATM, and wireless networks, and leverage existing devices whether they’re digital, analog, IP, or wireless.
- Support communications anywhere in the world via a variety of signaling methods including H.323, ISDN-PRI, ISDN-BRI, multi-frequency, and Q.Sig.
- Support stations, port networks, remote offices, and gateways located in multiple countries using a single

media server. Parameters that can typically vary by country can be specified for each country/location to enable support of features across national borders.

- Easily integrate third-party applications using open programming interfaces including TAPI, JTAPI, TSAPI, and ASAI.

Uphold Your Reputation with Quality of Service (QoS)

Avaya Communication Manager features a high-performance VoIP engine that maintains excellence in voice, video, and data quality. Utilizing industry-standard controls — H.323, H.248, and SIP — the software can provide the highest level of performance for all transmissions, with low latency and delay levels. Your



most important communications, and especially voice traffic, are given highest priority by industry-standard QoS protocols including DiffServ, 802.1p/Q, VLAN, and RSVP. And Avaya reporting and system monitoring help ensure service quality.

Integrate Devices That Empower End Users

Among the variety of digital, analog, IP, and wireless end-user devices Avaya Communication Manager supports, these are particularly effective on distributed IP networks:

- The Avaya Extension to Cellular feature of Avaya Communication Manager can connect callers to employees wherever they are – with just one call. Extension to Cellular transparently bridges calls to any digital mobile phone; regardless of location or wireless service provider. Users still have access to the same productivity-enhancing Communication Manager features as in their office phone, such as call transfer, multiparty conference, and abbreviated extension dialing, on calls extended to their mobile phone. In addition, all unanswered Extension to Cellular calls will be forwarded to the employee's enterprise, rather than personal, voice mailbox.
- Avaya IP Telephones including the Avaya 4602 and 4620 IP telephones, bring high-quality audio and all of the capabilities of Avaya Communication Manager to the user desktop. They are also available in multi-button models with 6, 12, and 24-buttons as well as a full-color touch screen phone with flexible key functionality for a variety of uses. Programmable button designation is now paperless allowing for easy, fast customization.
- Avaya IP Softphone is a flexible tool for accessing and managing all business telephony communications from any location with Internet access. When combined with Communication Manager and Converged Communication Server (CCS), IP Softphone adds

secure Instant Messaging (IM) capabilities with a presence-enabled contact list that can be used to streamline both voice and IM communications using any PC or laptop computer. Avaya IP Softphone also integrates easily with desktop and group video applications, making videoconferencing as easy as a phone call.

Simplify Network Management

Avaya Integrated Management provides a comprehensive set of tools that make it easier for you to manage complex network infrastructures. The applications in Avaya Integrated Management manage both voice and data communications through a common web-based user interface designed for System Management, Network Management and Application Integration platforms. Avaya Integrated Management can improve network uptime; increase staff productivity and reduce operating costs.

IP Telephony Consulting and Integration Services

Avaya employs a standard, time-proven delivery approach to support every customer implementation for Communication Manager solutions. Avaya Consulting & Integration services ensures you:

- Choose the right solution for your business strategy
- Get the most value from your total IP solution, including existing technology
- Deploy a secure, available and manageable communication environment

Learn More

To learn more about Avaya Communication Manager, Business Communication Applications, and Avaya Global Services, talk to your Avaya Client Executive or Authorized BusinessPartner. Also, visit us at avaya.com/iptelephony.

For more information about Avaya and our other award-winning solutions, visit avaya.com.

Avaya Communication Manager Capabilities

Employee Productivity

- Call Coverage
- Send All Calls
- Priority Queuing
- Backup Alerting
- Timed Reminders
- Attendant Vectoring
- Abbreviated Dialing
- Last Number Dialed
- Internal Automatic Answer
- Integrated Directory
- Universal Access—Phone Status
- Intelligent Call Routing
- Multi-party Conferencing (up to 300)
- Meet-Me Conferencing
- Group Paging
- Remote Call Coverage/Forward Off-Net
- Personal Station Access
- Automatic Call Distribution (ACD)

Unified Access Related

- SIP telephony support with Converged Communications Server (CCS)
- Avaya 4602 IP Telephone
- Avaya 4620 IP Telephone
- Avaya IP Softphone
- Avaya IP Softphone for Pocket PC
- Extension to Cellular

Networking

- Q.Sig Management
- 7-Digit Dial Plan
- T.38 fax over IP
- Modem over IP

About Avaya

Avaya enables businesses to achieve superior results by designing, building and managing their communications infrastructure and solutions. For over one million businesses worldwide, including more than 90 percent of the FORTUNE 500®, Avaya's embedded solutions help businesses enhance value, improve productivity and create competitive advantage by allowing people to be more productive and create more intelligent processes that satisfy customers.

For businesses large and small, Avaya is a world leader in secure, reliable IP telephony systems, communications applications and full life-cycle services. Driving the convergence of embedded voice and data communications with business applications, Avaya is distinguished by its combination of comprehensive, world-class products and services. Avaya helps customers across the globe leverage existing and new networks to achieve superior business results.

The Avaya logo consists of the word "AVAYA" in a bold, white, sans-serif font, set against a solid red rectangular background.

COMMUNICATIONS
AT THE HEART OF BUSINESS

avaya.com

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