



IP Telephony

Contact Centers

Mobility

Services

OVERVIEW

Avaya Media Servers and Avaya Media Gateways



The Converged Infrastructure portfolio extends the power of converged networks across your enterprise to help you triumph over the bottom-line realities of business: the need to drive revenue, reduce costs, redeploy resources and serve customers better every day.

Communication equals a competitive advantage. Today's enterprise is changing. As organizations enter new markets, open branches closer to customers and introduce remote work options, they become increasingly distributed and mobile. Yet more than ever they must run lean while gaining full value from every resource.

The Avaya Converged Infrastructure is designed to build on your existing communication investments and deliver the availability and security you require. So your enterprise can pursue opportunities freely, and maximize the effectiveness of people and processes.

With an Avaya Multi-Vantage solution you receive the benefits of Intelligent Communications. This modular architecture of media servers brings Avaya Communication Manager call processing and control through a distributed network of media gateways, to adapt to your enterprise's

needs. This software delivers uniform telephony services to headquarters, branch locations and mobile users all across your enterprise. Here is a cost-effective, reliable and highly flexible telephony solution—networked and based on open-standards—for one location or multiple sites, regardless of scale or distance. Intelligent Communications equals RIGHT TIME, RIGHT DEVICE, RIGHT PERSON, RIGHT NETWORK

Now you can choose your own path to convergence, at your own pace. . . with confidence.

Avaya Communication Manager **Powering the benefits of IP Telephony** **through Avaya Media Servers and Gateways**

Avaya Communication Manager is high-quality, high performance voice-application software with rich call

processing capabilities, and contact center functions. It supports widely accepted application-programming interfaces that enable a range of Avaya and third-party applications. This software, designed to meet country-specific networking requirements, brings continuous communications and application innovation to your enterprise, whether local or global.

Flexibility Avaya Communication Manager is the core of the Avaya MultiVantage™ Communications Applications, and helps support IP telephony solutions. It offers midsize to large enterprises greater flexibility. This software delivers applications over multi-protocol networks, so you can move to a converged network where and when it makes sense. It provides networking capabilities so you can extend applications to the edge of your organization. Avaya Communication Manager provides enhanced, distributed, standards-based networking that you can extend to communications devices such as cellular phones, PCs, and Pocket PC devices.

Scalability Supporting up to 12,000 IP endpoints on one system, and up to 1 million users per network, Avaya Communication Manager delivers scalability to Avaya Media Servers and Gateways. It provides up to three times the intelligent call processing capability of the largest Avaya DEFINITY Server—up to 420,000 busy-hour call completions. You can scale up a single network to support a large headquarters location and scale down to the smallest remote office, cost effectively and reliably. This software supports a uniform dial plan of up to 7 digits.

Availability Your network needs to be available 24/7, without compromise, to help drive your business results. To help meet that goal, Avaya Communication Manager brings decades of reliability and performance in software design into the world of IP telephony. Proactive remote monitoring and maintenance combined with built-in self-diagnostics and self-healing capabilities provide enterprises the highest levels of business continuity. In all, Avaya Communication Manager provides up to 99.999% reliability.

The Avaya communications architecture enhances survivability with powerful options ranging from Enterprise Survivable Servers placed strategically

throughout an enterprise to maintain operations when the connection to the primary or even the secondary server fails, to branch gateway recovery features such as modem dial back-up and enhanced Local Survivable Processors that keep remote locations up and running with 100% Avaya Communication Manager feature availability.

Avaya Media Servers and Avaya Media Gateways

As integral components of the Avaya Converged Infrastructure, Avaya Media Servers and Media Gateways provide highly flexible, scalable, and standards-based building blocks that can be mixed and matched to create customized solutions. They enable the centralized management efficiency of a single, streamlined network—while delivering best-in-class call-processing quality and availability that have made Avaya the communication solution provider more than 90% of FORTUNE 500® companies rely on every day.

Media Server/Gateway Matrix

Powered by Avaya Communication Manager, Avaya Media Servers and Gateways can be mixed and matched to create custom convergence solutions to meet your individual enterprise needs. The matrix which follows provides a broad-brush overview of the different media server/gateway offerings and their features. Consider the information below when reviewing the server/gateway combinations in the matrix.

Interoperability Standards: H.323, H.248, QoS, DiffServ, Via Controlling Media Server & Media Gateway: H.323, H.320 MMCH

Network Standards: All the following solutions support IP, ISDN-PRI, Q.Sig, and DCS

Application Interface Standards: All the following solutions support TSAPI, TAPI, JTAPI, DAPI, and ASAI, except for R300, which supports TSAPI, TAPI, and JTAPI only

System Management: All the following solutions are supported by Avaya Integrated Management.

	S8300 Media Server	S8400 Media Server	S8500 Media Server	S8710 Media Server	S8720 Media Server
Form Factor	Simplex Blade that resides within media gateway slot	Simplex TN Card that resides in G650 Gateway Slot	Simplex Server Rack Mountable	Duplicated Server Rack Mountable	Duplicated Server Rack Mountable
Avaya Media Gateways Supported	G700 G350 G250	G650 G700 G350 G250	G650 initial G700 purchase G350 configuration G250 SCC1 upgrade MCC1 configuration CMC	G650 initial G700 purchase G350 configuration G250 SCC1 upgrade MCC1 configuration CMC	G650 initial G700 purchase G350 configuration G250 SCC1 upgrade MCC1 configuration CMC
Operating System	Linux	Linux	Linux	Linux	Linux
Processor	Intel Celeron 400MHz 30GB hard drive 512MB RAM	Intel Pentium M 600 MHz Mobile Celeron processor 2 GB Solid State Drive 512MB RAM Additional Hard Drive	Intel Pentium Class Server 40GB hard drive 512MB RAM Removable flash card backup	Intel Xeon 3.06GHz 1 72 GB SCSI drive 512 MB	AMD Opteron 2.8GHz 2 72 GB SCSI drive 1 GB
Number of Stations	Up to 450 IP, digital, analog	Up to 900 IP, digital, analog	Up to 2,400 IP, digital, analog	12,000 IP Up to 36,000 total stations	12,000 IP Up to 36,000 total stations
Trunks	Up to 450	Up to 400	Up to 800	Up to 8,000	Up to 8,000
Busy Hour Call Completions (BHCC)	Up to 10,000	Up to 10,000	Up to 100,000	Up to 400,000	Up to 540,000
Networking	50 media gateways (G700, G350 & G250)	5 media gateways (G700, G350 & G250)	250 media gateways (G650, G700, G350 & G250)	250 media gateways (G650, G700, G350 & G250)	250 media gateways (G650, G700, G350 & G250)
Hot Swappable	No	No	Yes – Compact flash, Modems	Yes – Servers, UPS	Yes – Servers, UPS
Duplication (Shadowing)	No	No	No	Duplex, High & Critical	Duplex, High & Critical, SW Duplication
Survivability	Yes	No	Yes	Yes	Yes
Redundancy	No	No	Yes	Yes	Yes
ESS	No	No	Yes	Yes	Yes
LSP	Yes	No	Yes	Yes	Yes
Electrical Requirements	110V	110V	110V	110VAC / 200-240VAC (40/63 Hz)	110VAC / 200-240VAC (40/63 Hz)



Avaya G350 Media Gateway



Avaya S8500 Media Server



Avaya S8710 Media Server

	G250 Media Gateway	G350 Media Gateway	G700 Media Gateway	G650 Media Gateway
Call Controller Support	External via S8300, S8500 and S8700/S8710/S8720 Internal via S8300 Media Server	External via S8300, S8500 and S8700/S8710/S8720 Internal via S8300 Media Server	External via S8300, S8500 and S8700/S8710/S8720 Internal via S8300 Media Server	External via S8500 and S8700/S8710/S8720 Internal via S8400 Media Server
Expansion	1 Media Module Slot (T1/E1 or USP WAN Module only)	5 Media Module Slots 1 High Density Media Module Slot	4 Media Module Slots 1 P330 Expansion Slot 1 Octaplane Stack Fabric Slot	14 Universal TN-based slots
Scalability	Up to 14 extensions Up to 4 trunks	Standalone system for up to 40 extensions	Up to 450 endpoints Up to 450 trunks	Up to 5 units within a port network
Telephone Compatibility	6200/2500 Series Analog Phones 6400/8400 Series Digital Phones 4600 Series IP Phones IP Softphone R2.0+	6200/2500 Series Analog Phones 6400/8400 Series Digital Phones 4600 Series IP Phones IP Softphone R2.0+	6200/2500 Series Analog Phones 6400/8400 Series Digital Phones 4600 Series IP Phones IP Softphone R2.0+	6200/2500 Series Analog Phones 6400/8400 Series Digital Phones 4600 Series IP Phones IP Softphone R2.0+
Trunk Support	Analog ISDN BRI E1/T1 IP (H.323 or SIP)	Analog ISDN BRI/PRI T1/E1 Gigabit Ethernet IP (H.323 or SIP) over Frame Relay or PPP	Analog ISDN BRI/PRI T1/E1 Gigabit Ethernet IP (H.323 or SIP) over Frame Relay or PPP ATM	Analog ISDN BRI/PRI T1/E1 ATM H.323 or SIP over IP
Form Factor	19" rack mounted 2U high	19" rack mounted 3U high	19" rack mount 2U high	19" rack-mounted 8U high

Avaya Media Servers

The Avaya family of media servers provides a robust application platform based on industry-standard operating systems to support distributed IP networking and centralized call processing across multi-protocol networks. These servers are available as an integrated solution or can operate independently, with ability to handle up to 420,000 busy-hour call completions.

Key features:

- The Avaya Enterprise Survivable Server (ESS) solution allows a business to have greater flexibility of consolidation by providing new survivability options.
- Redundant, survivable call and media processing supports crucial business continuity



Avaya S8300 Media Server with an Avaya G700 Media Gateway

- Distributed, survivable IP networking supports campus, global multi-site, and branch environments
- Centralized call processing distributed across multi-protocol networks support a highly diversified network architecture
- Multiple media server options, including integrated or stand-alone configurations, based on Pentium class processing capabilities
- Messaging integration with the Avaya IA770 INTUITY™ AUDIX® application in the Avaya S8300 Media Server
- Redundant system and network options that support high-availability configurations for both TDM and IP-based solutions
- Designed for distributed networked telephony, extending the benefits of Avaya Communication Manager to all enterprise users regardless of location
- Connectivity across any public or private network using a variety of interface options over TDM, ATM, Ethernet, Frame Relay, or PPP
- Survivability features and options that allow gateways to continue operating even if the primary media server fails or in the event a WAN failure affects communications between the gateway and the media server.
- High-density 19" rack-mountable systems that support high-availability IP Connect upgrades from Avaya DEFINITY PBX/servers

Avaya Media Gateways

Designed to extend the power of Avaya Communication Manager software to all users in the enterprise, Avaya Media Gateways address your need for converged solutions that support both TDM and IP telephony environments by seamlessly integrating traditional circuit-switched and IP-switched interfaces.

This gives your enterprise great flexibility to adapt to changing business needs. Avaya Gateways allow your organization to evolve easily from TDM-based telephony to the next generation of IP infrastructures, including those based on the open SIP (Session Initiation Protocol) standard.

Avaya Media Gateways are available in compact standalone, stackable, and chassis-based configurations that support Analog, Digital, IP PoE, LAN, and WAN interfaces. They are optimized for blended TDM/IP and all IP environments in distributed enterprises, small remote offices and large campus environments with thousands of users.

Key Features

- Interoperable with standards-based data networks to provide maximum flexibility and reduce total cost of ownership
- Support multi-protocol environments, maximizing investment protection for enterprises that require concurrent support of TDM and IP-based telephony

Avaya G250 Media Gateway

The G250 is designed to meet the communications needs of small branch offices by connecting everyone in an organization and delivering the full set of enterprise communication features to the branch employees. The gateway is designed to support offices with up to 14 users and comes with analog, ISDN-BRI or T1/E1 trunk ports to provide local connections. Integrated switched 10/100 PoE Ethernet ports connect to PCs and IP telephones eliminating the need for additional branch network equipment as well as digital telephones, protecting your previous investment. An Ethernet WAN port is provide for connecting to the centrally located media server over the WAN network, or alternatively, a WAN Media Module can be installed for E1/T1 or USP WAN connectivity. The G250 provides Standard Local Survivability in the event of a WAN failure so branch employees can still communicate. It can also deliver 100% of Communication Manager features by reconnecting to the primary or a secondary media server using modem dial back-up or with Enhanced Local Survivability which can be provided by installing an S8300 Media Server inside the G250 gateway.

Avaya G350 Media Gateway

The G350 is a powerful converged networking device that packs an IP Telephony Gateway, an advanced IP WAN router and a high-performance LAN switch into a compact modular chassis. It's ideal for enterprises with distributed branch office locations requiring from 8-40 extensions.

The G350 easily accommodates existing on-site analog or digital phones, so you can extend the value of existing telephony investments even as you evolve toward H.323 or SIP-based telephony. The G350 makes it easy to add IP phones, wireless gateways, or any 802.3af compliant device into the network, and provides similar flexibility in trunk connectivity. The G350 has several survivability options that maintain operations in the event a WAN failure affects connectivity to the centrally located media server. The gateway can reconnect to the primary or a secondary media server using modem dial back-up and can also have Enhanced Local Survivability by installing an S8300 Media Server inside the gateway.

Avaya G700 Media Gateway

The G700 Media Gateway is the ideal solution for mid-sized systems, call center applications, or use as a networked gateway for larger branch office locations, linked to a central Avaya Media Server.

The G700 Gateway is designed for growth. With the Avaya Octaplane® Stack Module, up to 10 G700 Media Gateways can be stacked together. The Octaplane even supports integration with the Avaya C360 and P330 Converged Stackable Switches to provide a complete voice/data networking solution. For mid-sized enterprises, an installed S8300 Media Server working with the G700 Gateway serves as a primary call controller for call centers up to 300 agents, or as a business communications system for up to 450 users.

Avaya G650 Media Gateway

The G650 Media Gateway is the system of choice for large-scale enterprise communications and call centers. Designed for campus deployments with connection to an external Avaya S8500 or S8710/20 Media Server over the enterprise LAN or an inter S8400 Media Server, the G650 offers the features, scalability, and system uptime required for mission-critical applications. Up to five G650 Media Gateways can be combined to form a high-capacity port network that can be integrated into many existing telephony networks, supporting voice connectivity over IP, TDM, or ATM transport.

Maximize converged network investments with Avaya Global Services

Avaya Global Services offers a single point of accountability to design, build, and manage multi-vendor communications networks worldwide. From needs assessment to business continuity planning, from integration to maintenance and management, Avaya Global Services can help you do more than ever before, with less than ever before. Plus, we provide a single point of accountability for voice and data convergence in multi-vendor environments, providing you with the confidence and ability to reap business results at your own pace.



To learn more, talk to an Avaya Client Executive or Authorized BusinessPartner. For more information about Avaya and our other award-winning solutions, visit avaya.com.

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.

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