

AVAYA



Avaya Media Servers and Avaya Media Gateways



Converged Voice and
Data Networks
Customer Relationship
Management
Unified Communication
Supported by:
Avaya Labs and Services

Communication without boundaries

The Avaya Enterprise Class IP Solutions (ECLIPS) portfolio enables enterprises to tap into the power of converged networks and put them to work. Powered by rock-solid Avaya MultiVantage™ Software, ECLIPS provides proof that you don't have to reinvent your existing networks to take advantage of the power, productivity, and costs savings of IP telephony—you can simply rethink them. The ECLIPS portfolio of components includes Avaya Media Servers and Avaya Media Gateways, Avaya VisAbility™ Management Suite, and Avaya Communications Devices.



Avaya MultiVantage™ Software

Avaya MultiVantage Software is high-quality, high-performance voice-application software with rich call processing capabilities, and contact centre functions. It supports widely accepted application-programming interfaces that enable a range of Avaya and third-party applications. This software is designed to meet country-specific networking requirements, bringing continuous communications and application innovation to your enterprise.

Flexibility

Avaya MultiVantage Software is the core of the Avaya ECLIPS portfolio. Offering midsize to large enterprises greater flexibility with new Avaya components that can be combined with existing Avaya DEFINITY® Servers to create a network that meets your unique enterprise needs and preserves your existing investments, today and in the future. This software delivers applications over multi-protocol networks, so you can move to a converged network where and when it makes sense. It provides enhanced, distributed networking capabilities, so you can extend applications to the edge of your organisation. Avaya MultiVantage provides enhanced, distributed networking, which is standards-based and is extensible to communications devices, including mobile phones, PCs, and Pocket PC devices.

Scalability

Avaya MultiVantage powers the new Avaya Media Servers, supporting up to 12,000 IP endpoints on one system and over 1 million users per network. It provides up to three times the intelligent call processing capability (300,000 busy hour call completions) of the largest Avaya DEFINITY Server.

A single network can be scaled up to support a large headquarters location and scaled down to the smallest remote office, cost effectively and reliably. This software supports a uniform dial plan of up to 7 digits.

Reliability

Avaya MultiVantage brings decades of reliability and performance in software design into the world of IP telephony. Proactive remote monitoring and maintenance combined with inherent self-diagnostics and self-healing capabilities provide the highest levels of business continuity. In all, Avaya MultiVantage provides up to 99.999% reliability.

Avaya Media Servers and Avaya Media Gateways

An integral part of Avaya Enterprise Class IP Solutions (ECLIPS), Avaya Media Servers and Avaya Media Gateways provide highly flexible, scalable, and standards-based components that can be mixed and matched to create customised solutions. Powered by Avaya MultiVantage Software, Avaya Media Servers and Avaya Media Gateways enable the centralised management efficiency of a single, streamlined network—while delivering best-in-class call-processing quality and reliability that have made Avaya the communications solution that more than 90% of FORTUNE 500® companies rely on every day.



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 centralised call processing across multi-protocol networks. These servers are available as an integrated solution or can operate independently, with the ability to handle up to 300,000 busy hour call completions.

Key features:

- Redundant, survivable call and media processing supports crucial business continuity
- Supports standards-based operating systems: Linux, Microsoft® Windows® 2000, and Avaya DEFINITY® Server's version of Unix
- Distributed, survivable IP networking supports campus, global multi-site, and branch environments
- Centralised call processing distributed across multi-protocol networks supports highly diversified network architecture
- Multiple media server options, including integrated or stand-alone configurations, based on Pentium class processing capabilities.



Avaya™ S8700 Media Server

Avaya Media Gateways

These stackable and modular hardware elements deliver application-enabling voice, data, fax, video, and messaging capabilities to your network. They support hardware elements such as intra-switch connectivity, control interfaces, port interfaces, and cabinets. And they support both bearer and signalling traffic routed between packet-switched and circuit-switched networks. Avaya Media Gateways are optimised for enterprise class telephony and provide a variety of flexible, cost-effective deployment options, ranging from blended (e.g., IP and TDM) to a 100% IP environment.

Key features:

- Interoperable with standards-based data networks to provide maximum flexibility and reduce the total cost of ownership
- Redundant capabilities
- Distributed networking provides a cost-effective way to distribute your network to the edge of your enterprise
- Optimised for enterprise class telephony (voice, data, and video)
- Connects users across any public or private network
- Interoperable and network agnostic
- High-performance physical connectivity concentration
- Stackable, modular, configurable component solutions
- Deployment options include 19" rack-mountable systems, or upgrade of Avaya DEFINITY PBX/Servers.

Migrate to IP While Leveraging Your Current Technology

Designed to meet the goals of today's enterprises and government organisations—growing revenue, reducing costs, and utilising resources more efficiently—Avaya Enterprise Class IP Solutions (ECLIPS) and Avaya MultiVantage Software offer a welcome alternative to a total reinvention of voice and data networks. Now you don't have to reinvent; you can rethink by leveraging current investments in Avaya or others while migrating toward a fully converged network. Or, you can build a fully converged network from the ground up with the peace of mind that the investments made today won't have to be reinvented tomorrow.



Avaya™ S8700 Media Server with an Avaya™ G600 Media Gateway



Avaya™ S8300 Media Server with an Avaya™ G700 Media Gateway

Media Server/Gateway Matrix

Powered by Avaya MultiVantage Software, Avaya Media Servers and Avaya Media Gateways can be mixed and matched to create custom convergence solutions to meet your individual enterprise needs. The following matrix 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, except for Avaya R300 Remote Office Communicator. 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, except for Avaya R300 Communicator, which offers ISDN-PRI only

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 VisAbility Management Suite

Please refer to the following page for the Media Server/Gateway Matrix.



Media Server/Gateway Matrix

		Avaya S8100 Media Server		Avaya S8300 Media Server	
Gateways		Avaya CMC1 Media Gateway	Avaya G600 Media Gateway	Avaya G700 Media Gateway (Standalone)	With LSP* & Avaya G700 Media Gateway
Configuration Characteristics and Capacities	Operating System	Windows® 2000	Windows® 2000	Linux (Red Hat 6.2)	Linux (Red Hat 6.2)
	Processor	Intel® Pentium® Class Server <ul style="list-style-type: none"> • 20GB hard drive • 256MB RAM 	Intel® Pentium® Class Server <ul style="list-style-type: none"> • 20GB hard drive • 256MB RAM 	Intel® Pentium® Class Server <ul style="list-style-type: none"> • 20GB hard drive • 256MB RAM 	Intel® Pentium® Class Server <ul style="list-style-type: none"> • 20GB hard drive • 256MB RAM
	Dimensions	<ul style="list-style-type: none"> • The wall-mounted CMC1 Media Gateway is 25.5" in height, 24.5" in width, 12" in depth 	<ul style="list-style-type: none"> • 19" rack-mounted Gateway • 6 U high 	<ul style="list-style-type: none"> • 19" rack-mounted Gateway • 2 U high 	<ul style="list-style-type: none"> • 19" rack-mounted Gateway • 2 U high
	Electrical Requirements	<ul style="list-style-type: none"> • 200 - 240 VAC 	<ul style="list-style-type: none"> • 200 - 240 VAC 	<ul style="list-style-type: none"> • Internal power supply • 200 - 240 VAC 	<ul style="list-style-type: none"> • Internal power supply • 200 - 240 VAC
	Operating Environment	<ul style="list-style-type: none"> • +5°C to 40°C • 20% to 60% relative humidity 	<ul style="list-style-type: none"> • +5°C to 40°C • 20% to 60% relative humidity 	<ul style="list-style-type: none"> • +5°C to 40°C • 5% to 85% relative humidity 	<ul style="list-style-type: none"> • +5°C to 40°C • 5% to 85% relative humidity
	Number of Stations	<ul style="list-style-type: none"> • Up to 450 • IP, digital, or analogue 	<ul style="list-style-type: none"> • Up to 450 • IP, digital, or analogue 	<ul style="list-style-type: none"> • Up to 450 • IP, digital, or analogue 	<ul style="list-style-type: none"> • Limited by controlling server • IP, digital, or analogue
	Trunks	<ul style="list-style-type: none"> • 300 trunks 	<ul style="list-style-type: none"> • 300 trunks 	<ul style="list-style-type: none"> • Up to 450 trunks • LS, GS, DID, T1, E1, IP • International BRI trunks 	<ul style="list-style-type: none"> • Limited by controlling server LS, GS, DID, T1, E1, IP • International BRI trunks
	BHCC Rate	<ul style="list-style-type: none"> • 5,000 non-call centre • 2,000 call centre 	<ul style="list-style-type: none"> • 5,000 non-call centre • 2,000 call centre 	<ul style="list-style-type: none"> • 50,000 	<ul style="list-style-type: none"> • Determined by S8300 or S8700 Media Server
	Networking	<ul style="list-style-type: none"> • 64 	<ul style="list-style-type: none"> • 64 	<ul style="list-style-type: none"> • 50 controlled by S8300 • 10 Media Gateways or P330 devices per stack 	<ul style="list-style-type: none"> • 50 controlled by S8300 Media Server • 250 controlled by S8700 Media Server • 10 Media Gateways or P330 devices per stack
	LAN Capacity	<ul style="list-style-type: none"> • With Avaya Cajun® Adjunct 	<ul style="list-style-type: none"> • With Avaya Cajun® Adjunct 	<ul style="list-style-type: none"> • Built-in LAN functionality • Layer-2 Ethernet switch 	<ul style="list-style-type: none"> • Built-in LAN functionality • Layer-2 Ethernet switch
	Reliability	Hot Swappable	No	No	Yes
Duplication (Shadowing)		No	No	No	Yes
Survivability		Yes	Yes	Via local survivable processor	Yes
Redundancy		No	No	Via local survivable processor	Yes

*Local Survivable Processor (LSP) Software. The Avaya S8300 Media Server with LSP or the Avaya G700 Media Gateway without a processor are always in a configuration with a controlling media server. They can be controlled by an Avaya S8300 or Avaya S8700 Media Server.

	Avaya S8700 Media Server		Avaya™ R300 Remote Office Communicator
Avaya G700 Media Gateway	Avaya G600 Media Gateway	Avaya SCC1 or MCC1 Media Gateway	NA
NA	Linux (Red Hat 6.2)	Linux (Red Hat 6.2)	TAOS Operating System
NA	Intel® Pentium® Class Server <ul style="list-style-type: none"> • 20GB hard drive • 256MB RAM • Removable flash card backup 	Intel® Pentium® Class Server <ul style="list-style-type: none"> • 20GB hard drive • 256MB RAM • Removable flash card backup 	NA
<ul style="list-style-type: none"> • 19" rack-mounted Gateway • 2 U High 	<ul style="list-style-type: none"> • 19" rack-mounted Gateway, 6 U high • 2 U high per server (2 servers) • 2 UPS (2 U high per UPS) 	<ul style="list-style-type: none"> • 19" rack-mounted 2 servers (2 U high per server) • 2 UPS (2 U high per UPS) • 1 or 2 Avaya P133 data switches (2 U high per switch) depending on level of reliability required 	<ul style="list-style-type: none"> • R300 unit - 1 U high (1.17" by 17") • Interconnect unit - 1 U high (1.17" by 17") • Total = 2 U high
<ul style="list-style-type: none"> • Internal power supply • 200 - 240 VAC 	<ul style="list-style-type: none"> • 110VAC/200-240VAC (40/63Hz). 	<ul style="list-style-type: none"> • 110VAC/200-240VAC (40/63Hz) 	<ul style="list-style-type: none"> • 120VAC 50/60Hz 5A/250V
<ul style="list-style-type: none"> • +5°C to 40°C • 5% to 85% relative humidity 	<ul style="list-style-type: none"> • +5°C to 40°C • 5% to 85% relative humidity 	<ul style="list-style-type: none"> • +5°C to 40°C • 5% to 85% relative humidity 	<ul style="list-style-type: none"> • 0°C to 40°C • 90% relative humidity
<ul style="list-style-type: none"> • Limited by controlling server • IP, digital, or analogue 	<ul style="list-style-type: none"> • 350-12,000 IP • 4,000 digital/analogue 	<ul style="list-style-type: none"> • 12,000 IP • 36,000 total stations 	<ul style="list-style-type: none"> • Up to 24 digital stations - 2 analogue stations
<ul style="list-style-type: none"> • Limited by controlling server • LS, GS, DID, T1, E1, IP • International BRI trunks 	Up to 4,000 trunks (total includes combined digital/analogue stations and trunks)	<ul style="list-style-type: none"> • 8,000 total trunks • 400 DS1 circuit packs • 2,000 trunk groups 	<ul style="list-style-type: none"> • 2 analogue trunks • Digital through: <ul style="list-style-type: none"> ◦ T1 Unit (2 trunks) ◦ E1 Unit (2 trunks) ◦ BRI Unit (6 trunks)
<ul style="list-style-type: none"> • Determined by S8700 Media Server 	<ul style="list-style-type: none"> • 300,000 general call mix 	<ul style="list-style-type: none"> • 300,000 general call mix 	Determined by DEFINITY or S8700 Media Server
<ul style="list-style-type: none"> • 50 controlled by S8300 Media Server • 250 controlled by S8700 Media Server • 10 Media Gateways or P330 devices per stack 	<ul style="list-style-type: none"> • 64 	<ul style="list-style-type: none"> • 64 for ATM PNC, 44 for CSS PNC (any mix of MCC and/or SCC) 	Number of R300s supported on each platform: <ul style="list-style-type: none"> • DEFINITY G3r: 250 • DEFINITY Si: 80 • DEFINITY ProLogix: 80 • DEFINITY One: 5
<ul style="list-style-type: none"> • Built-in LAN functionality • Layer-2 Ethernet switch 	<ul style="list-style-type: none"> • Ethernet 10/100 Base T interface 	<ul style="list-style-type: none"> • Direct LAN access for administration • SNMP alarming 	Ethernet 10/100 Base T interface
Yes	Yes (servers, UPS are swappable)	Yes (servers, UPS, Avaya P133 switches are swappable)	No
Dependent upon controlling Media Server	Duplex	Duplex, high & critical	Dependent upon controlling Media Server
Via local survivable processor	Duplicate processors	Duplicate processors	Power failure transfer
Via local survivable processor	Processors	Processors, control network and bearer network can be duplicated	No

Maximise Converged Network Investments with Avaya Services

Maximise the benefit of converged network solutions by leveraging the award-winning expertise of Avaya Services to plan, design, and implement reliable and secure advanced solutions. Team up with Avaya's 11,000 global service professionals, in addition to Avaya's network of Authorised BusinessPartners to protect investments, reduce implementation and training costs, and more effectively integrate converged network solutions into existing and planned networks.

Leadership and Innovation in Communication

Avaya is a global leader and innovator in enterprise communications serving customers who require superior communications technology to power their business. Over 90% of the FORTUNE 500® and government organisations rely on Avaya for secure network infrastructures and reliable voice and data applications that power faster decisions, profitable transactions, and closer relationships between customers, employees, and suppliers.

Contact your Avaya representative or Avaya BusinessPartner today for more information.

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