The Avaya G650 Media Gateway

The system of choice for large-scale enterprise business communications and call center applications

Solution Overview

The Avaya G650 Media Gateway delivers the scalability, features, and system uptime that enterprises require for mission-critical telephony applications in campus and large office environments. The G650 seamlessly integrates traditional circuit-switched and IP-based telephony networks, providing core telephony gateway services to all endpoints in a mixed TDM/IP environment, including:

- Tone Generation and Detection
- Protocol Translation
- Voice Codec Compression and Transcoding
- Audio Mixing for Call Conferencing
- Call Classification
- Audio Processing
- Announcement Storage and Playback

Designed to address the need for converged solutions, the Avaya G650 Media Gateway gives enterprises flexibility to adapt to changing business needs and allows them to evolve easily from circuit-based telephony infrastructures to the next generation of IP infrastructures, including those based on the open SIP (Session Initiation Protocol) standard.

A Networked Gateway Solution

Avaya solutions are based on a modular architecture of centralized media servers that provide call processing and control through Avaya Communication Manager and a distributed network of media gateways. For call control, the G650 Gateway connects to an external Avaya S8500 or S8700 Media Server over an IP link. This enables the enterprise to design and administer telephony services for all gateways from one central location.

The G650 is complemented by the TN2312BP IP Server Interface (IPSI) circuit pack, which adds Emergency Transfer, environmental maintenance, and duplicated call control features in the gateway. For scalability, up to five G650 Media Gateways can be combined to form a high-capacity port network that may be integrated into existing telephony networks, supporting voice connectivity over IP, TDM, or ATM transport. A single IPSI may be used to provide server connectivity for the entire port network. For mission-critical applications, port networks with two or more G650 gateways can support duplicated IPSI circuit packs that provide fully redundant control paths to the Media Server, ensuring call preservation and operational continuity in the event of path failure within the network.

Flexible Deployment

The G650 Gateway is designed to be the standard migration gateway for Avaya MCC, SCC, CMC, and G600 carriers. The G650 supports a variety of network availability and transport configurations, allowing it to be integrated into existing networks to provide a physical integration path that allows an enterprise to consolidate their voice/data infrastructure onto a common form factor. For enterprises that demand no compromise TDM/IP telephony support, the G650 Media Gateway provides a highly scalable solution that combine the full benefits of IP with the mission-critical availability of traditional TDM telephony.

Specifications

The Avaya G650 Media Gateway provides a single 8U high, 14-slot chassis that can be installed in industry standard EIA-310 19", 24", or 600 mm ETSI open or closed racks. Available dual redundant, load-sharing power supplies with AC/DC inputs enhance system reliability by providing N+1 redundancy and optional connectivity to back-up power sources. For scalability, up to 5 G650 gateways can be stacked using a TDM/LAN cable and a built-in connector in the back of the chassis.

Physical

- Dimensions (H x W x D): 14" x 19" x 22" (360 mm x 480 mm x 560 mm)
- Weight: 35-39 lbs (16-18 kg)
- Power: 2 AC Inputs, 1 DC Input
  - AC: 100-120 VAC at 50Hz – 60 Hz, 9.0 Amps Max
  - AC: 200-240 VAC at 50Hz – 60 Hz, 4.5 Amps Max
  - DC: -48 VDC (-40 VDC to –60 VDC), 21.0 Amps Max

Environmental

- Operating Temperature: 41˚ F - 104˚ F (+5˚ C - 40˚ C)
- Humidity: 10% – 90% relative humidity, non-condensing below 10,617 feet (3,326 meters)

Supported Media Servers

- S8500 or S8700 Media Server running Communication Manager 2.0 or higher

Supported Configurations and Availability Options

- Direct Connect
- IP Connect: Standard/Duplex Availability
- Multi-Connect Center Stage: Standard/Duplex/Critical Availability
- Multi-Connect ATM Center Stage: Standard/Duplex/Critical Availability

Telephone Compatibility

- Avaya 6200/2500 Series Analog Phones
- Analog tip/ring devices such as single line telephones, modems or group 3 fax machines
- Avaya 6400/8400 Series Digital Phones
- Avaya 4600 Series IP Phones
- Avaya IP Softphone R2.0+
- Avaya IP Agent
- Avaya Softconsole
- Avaya DEFINITY® Wireless
- Avaya Transtalk®
- Avaya CALLMASTER®

Agency/Type Approvals

US	UL Listing, Title 47 CFR Part 15 Class A, CISPR 22:1997 Class A, ANSI/TIA-968A, Title 47 CFR Part 68
Canada	C-UL Listing, ICES 003 Class A, CS03
Mexico	NOM/NYCE, COFETEL
Australia	AS/NZA 3260, TS001, AS/NZS 3548 (C-Tick), Applicable telecom interface compliance (A-Tick)
EU	CE Mark, EN 60950:2000, EN55022:1998, EN61000-3-2:1995 + A1, EN61000-3-3:1995, EN55024:1998
Japan	VCCI- A
Russia	Gosstandard of Russia, Russian Telecom Ministry
Argentina	UL-Argentina, Secretaria de Comercio Argentina

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

About Avaya

Avaya enables businesses to achieve superior results by designing, building and managing their communications networks. Over one million businesses worldwide, including more than 90 percent of the FORTUNE 500®, rely on Avaya solutions and services to enhance value, improve productivity and gain competitive advantage.

Focused on enterprises large to small, Avaya is a world leader in secure and reliable IP telephony systems, communications software applications and full life-cycle services. Driving the convergence of voice and data communications with business applications – and distinguished by comprehensive worldwide services – Avaya helps customers leverage existing and new networks to unlock value and enhance business performance.

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