



IP Telephony

Contact Centers

Mobility

Services

PRODUCT
BRIEF

The Avaya G250 Media Gateway

Extending converged, intelligent Business Communications Applications to the small branch office

Solution Overview

The Avaya G250 Media Gateway is a powerful branch communication solution that packs an IP telephony gateway, an advanced IP WAN router, and a high-performance LAN switch into a compact, 2U high 19" rack mount unit. The G250 Gateway is a new member of the Avaya branch gateway product line that extends the Avaya Business Communications Applications from a headquarters location to a branch. It is ideally suited for enterprises with multiple branch locations needing from 2 to 12 extensions.

The system gains its functionality from a centralized Avaya Media Server running Avaya Communication Manager, and includes several survivability options for increased reliability and confidence. Alternatively, where a stand-alone branch solution is desired, the G250 Gateway can operate as a stand-alone system with Avaya Communication Manager running on an internally installed media server. As part of the Avaya Media Gateway family, the G250 can be installed in very small branch locations, while the Avaya G350 and G700 Media Gateways serve small and medium sized branches, delivering commonality across the entire enterprise.



The Avaya G250 Media Gateway



A Complete Branch Office Solution

The G250 Gateway is designed to meet the increased communication needs of branch offices by connecting everyone in an organization regardless of where they work. All users in an enterprise can now have access to a full set of enterprise communication applications. No longer do branch employees have to settle for a separate, often isolated communication system that requires them to remember different dialing codes to reach other employees. Additionally, with a single set of centralized applications, management is significantly simpler than managing multiple systems serving each branch location.

High Availability

With several powerful survivability options, the G250 Media Gateway can be installed with confidence that communications will continue to work even if the connection back into the main system is lost. The G250 survivability features include:

- **Standard Local Survivability:** Embedded capability provides operations if connection into the centralized Avaya Media Server is disrupted.
- **Modem Dial Back-up:** Allows the gateway to reconnect to the centralized Avaya Media Server over a modem if the main connection is lost.
- **Enhanced Local Survivability:** An Avaya S8300 Media Server can be installed in the G250 Gateway to

operate as a Local Survivable Processor delivering 100% of the Avaya Communication Manager features.

- **Connection Preserving Migration:** Keeps calls connected if the gateway loses connection and is migrating to a back-up connection or an alternative media server.

Single box solution

The Avaya G250 also functions as an edge router to support the consolidation of voice and data traffic over an IP network. Optional IP WAN routing media modules add support for PPP/Frame Relay connectivity over E1/T1 or Universal Serial Port (USP) interfaces. The G250 media gateway can also connect to an external WAN device via a fixed 10/100 Ethernet WAN router port, which supports traffic shaping to match data transfer rates with available WAN bandwidth.

End-to-end security

The G250 Gateway complies with the Avaya end-to-end security architecture, delivering advanced security features such as AES encryption and integrated VPN. The G250 Gateways are also available in FIPS 140-2 certified versions meeting the U.S. Government's most demanding security requirements. Because the gateway is typically installed as part of an enterprise-wide Avaya Communication Manager solution, system and security management is enhanced providing a lower total cost branch solution.

Technical Specifications

Capacities and Features

The Avaya G250 Media Gateway is available in two models, the standard G250 and the ISDN BRI G250. The gateway interfaces are fixed with the exception of a slot for the Local Survivable Processor and a slot for a WAN media module.

Gateway Interfaces

- Four (4) analog trunk ports (standard gateway) or one analog trunk port (ISDN BRI gateway)
- Two (2) 4-wire S/T ISDN BRI RJ-45 ports (ISDN BRI gateway only) supporting up to 4 channels
- Two (2) analog station ports. Emergency Transfer Relay (ETR) is supported between one station port and one analog trunk port.
- Eight (8) RJ-45 Power of Ethernet (PoE) 10/100Base TX Ethernet LAN ports (80 Watts aggregated across all ports)
- One (1) RJ-45 10/100BaseTX Ethernet WAN port
- One (1) RJ-45 RS232 console port
- One (1) USB port (future use)
- One (1) RJ-45 interface for an ACS (308) contact closure adjunct box
- One (1) media server slot to support an optional Avaya S8300 Media Server
- One (1) WAN media module slot

WAN Media Modules (optional)

- One (1) T1/E1 Port WAN Routing Media Module
- One (1) USP Port (supporting V.35/X.21) WAN Routing Media Module

Telephone Capability

- 6200/2500 Series Analog Phones
- Analog tip/ring devices such as single line telephones
- Modems or group 3 fax machines
- Avaya 4600 Series IP Phones
- Avaya IP Softphone R2.0+
- FAX, Modem & TTY over IP

Survivability Options

- Automatic alternate Media Gateway Controller connection if primary gateway connection is lost (existing call connections are preserved)
- Modem dialer interface can reconnect to the Avaya Media Server over DSL modem if WAN connection is lost
- Standard Local Survivability provides basic telephony when Avaya Media Server connection is unavailable (not available on ISDN BRI gateway)
- Enhanced Local Survivability option provides 100% of the Avaya Communication Manager features
- Automatic fallback to primary server when connection or server returns

Technical Specifications

Physical

- 2U high, 19" Rack Mount
- Dimensions (H x W x D): 3.5 in. x 17.3 in. x 13.4 in. (88 mm x 440 mm x 340 mm)
- Weight (without optional modules): 16.5 lb (6.5 kg)
- Power: 100-240 V, ~2.2 A Max, 50-60 Hz

Environmental

- Operating Temperature: +0° C - 40° C
- Humidity: 20% – 60% relative humidity

Routing/LAN Switching

- Routing and WAN protocol support: OSPF, RIP v1, RIP v2, PPP, Frame Relay, and VRRP (Virtual Router Redundancy Protocol)
- RTP (Real-Time Protocol) header compression
- VoIP QoS Mode: Optimizes G.729 VoIP traffic by bounding voice traffic delay
- 802.1p Priority Tagging and 802.1Q VLAN Tagging
- 802.1w Rapid Spanning Tree
- 802.3af Power over Ethernet
- RMON - RFC 1757
- SMON - RFC 2613
- Link Layer Discovery Protocol

Agency/Type Approvals Safety

- US: UL 60950-1
- Canada: CAN/CSA-C22.2 No. 60950-1-03
- EU: CB Certification to IEC 60950-1 (2001)

EMI Emissions & Immunity

- US: CISR R22, 47CFR FCC Part 15, Subpart B, Class A
- Europe: EN55022, IEC6100 0-3-2, IEC61000-3-3, CISPR24, EN55024
- Japan: VCCI:2001
- Taiwan: CNS 13438

Telecommunications

- FCC Registers, ANSI/TIA-968-A plus amendment 1
- Canada: CS-03

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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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