

Avaya G450 Media Gateway

The Avaya G450 Media Gateway provides a secure, reliable, and scalable platform for the delivery of Avaya Communication Manager-based IP telephony applications. It is targeted to mid to large sized branch offices, medium sized standalone businesses or small campus environments. Like other Avaya GX50 series Media Gateways, it can be configured to extend Communication Manager features and applications to branch offices at the edge of the enterprise network. The G450 can also be configured with an S8XXX Server to deliver Communication Manager-based telephony to campus environments.

Product Details

The Avaya G450 Media Gateway consists of a 3U high, 19" rack mountable chassis with field- removable Supervisor Main Board Module, Power Supplies, Fan Tray, DSP resources and memory. It has eight Media Module slots that host a combination of interface boards to support T1/E1, ISDN-BRI, WAN interfaces, digital or analog telephones and analog trunks. The first Media Module slot can also host an S8300 Server to provide integrated IP Telephony for standalone

businesses or mission-critical survivability for branch office-deployed G450s.

Important G450 capabilities include:

Field-replaceable Main Board Module supports optional DSP and Memory add-ons. Built-in interfaces include two 10/100/1000 Base-T LAN ports, two 10/100 Base-T WAN ports, two USB ports, console and services ports, contact closure adjunct port, and an ETR port (for emergency calls during power failures) Compact Flash slot for additional announcements storage.

Modular DSP Resources are available as daughterboards for Main Board Module. These daughterboards can be implemented in increments. The maximum capacity is 320 channels. Codecs supported include G.711, G.729, and G.726.

Robust TDM Capabilities for scalability and deployment flexibility including 320 voice channel capacity, 192 analog or digital (DCP) ports, up to 8 T1/E1s* up to 10,000 Busy Hour Call Completions.

High-resiliency features such as dual, redundant, load-sharing power supplies; modular fan tray, standard Local Survivability and Enhanced Local Survivability (with S8300 Server).

Basic routing capabilities including OSPF, RIP, PPP, Frame Relay and VRRP support. Available IP WAN routing media modules add support for PPP/Frame Relay connectivity over E1/T1 or Universal Serial Port (USP) interfaces. The G450 can also connect to an external WAN device via fixed 10/100 Ethernet WAN router ports, which support traffic shaping to match data transfer rates with available WAN bandwidth.

Enhanced Quality of Service including Dynamic Call Admission Control for improved bandwidth utilization and Respond Time Report for better WAN monitoring.

Advanced Security including VPN support, SRTP encryption, SSH/SCP, SNMP v3 support, secrets management.

* Maximum of 238 voice channels are supported with Communication Manager 5.2





Features and Benefits

- **Robust Resiliency Features Support Business Continuity**

The G450 delivers a variety of voice survivability options to help ensure that the branch can continue to function effectively in the event of network outages. By using an S8300 Server in Local Survivable Processor (LSP) mode, full-featured IP telephony is restored quickly when the WAN link between the main S8XXX Server and the remote G450 is broken. Even without the LSP, the G450 supports Standard Local Survivability, where basic telephony features are available when the WAN link fails. Furthermore, dual, redundant hot-swappable power supplies, and replaceable, hot-swappable main board modules and fan trays ensure help to lower both MTBF and MTBR.

- **Designed for Deployment Flexibility**

The G450 is interoperable with other Avaya Media Gateways and can be used in either the main headquarters location (with an S8XXX Server running Communication Manager) or a mid to large branch office networked back to a central S8XXX Server.

- **Scalable, High Capacity Platform provides Investment Protection**

The G450 has the capacity to grow as business needs expand with its modular architecture and capacity for 192 analog or digital endpoints, 8 T1/E1s*, 320 DSPs, and 64 announcements.

- **Enhanced Serviceability lowers Total Cost of Ownership**

The G450's modular design streamlines serviceability for both customers and field technicians. Fans can be easily replaced, DSPs and RAM easily added, supervisor modules swapped out, power supplies changed. Given that all media modules, main board modules, power supplies and fan trays are hot-swappable; downtime is minimized.

- **Enhanced Security protects Sensitive Information**

The G450, like other GX50 Media Gateways, helps to encrypt voice traffic and signaling over the IP network to prevent eavesdropping. In addition, the G450 supports advanced security features such as comprehensive secrets management, SSH/SCP and SNMP v3 so network managers can securely configure and manage the G450.

*Maximum of 238 DSOs are supported in CM5.2

Specifications

Physical

- Dimensions (H X W X D):
133.3mm x 482.6 mm x 460 mm
- Weight of empty chassis: 7.5 kg
- Power: 90V-264V AC, 48-62 Hz

Environmental

- Operating Temperature: +0°C to +40°C
- Humidity: 10%-90% relative humidity, non-condensing
- Front clearance: 30 cm
- Rear clearance: 45 cm
- Operating Altitude: up to 3000 m

Supervisor Module

- Field removable
- DSP daughterboard(s) – up to 4
- 2 10/100 Base T WAN ports
- 2 10/100/1000 Base T LAN ports
- 2 USB ports
- Console and Services ports for services and maintenance access
- ETR (Emergency Transfer Relay) port
- Contact closure adjunct port
- Compact Flash Slot

Media Module Slots

- 8 media module slots, supporting up to 8 telephony media modules, 3 IP WAN modules or 1 S8300 Server



Media Modules

- MM711 8 port Analog Media Module
- MM714 4 trunk + 4 telephone Analog Media Module
- MM714B 4 trunk + 4 telephone Analog with ETR Media Module
- MM716 24 port Analog Media Module
- MM712 8 port DCP Media Module
- MM717 24 port DCP Media Module
- MM710 1 port T1/E1 Media Module
- MM720 8 port BRI Media Module
- MM722 2 port BRI Media Module

IP WAN Modules

- MM340 T1/E1 WAN Media Module
- MM342 USP WAN Media Module

Capacities

- Busy Hour Call Completions: 10,000
- Chassis slot count: 8 Media Module Slots
- DSP Channels: 20/80 on Daughterboard, scale to 320
- Touch Tone Receivers: 64
- Announcements: 63 Playback; 1 Record
- Announcement and MOH Storage: 45 Minutes/4 hours with Branch Memory Kit**
- Power Supplies: 2
- Maximum DCP/Analog endpoints: 192
- Maximum IP Telephones: 450 (w/S8300 Server); more with external Avaya server
- Maximum BRI Telephones: 128
- Maximum BRI Trunks: 64
- Maximum PSTN Trunks: 184 T1, 238 E1
- Maximum G450s per External Avaya Server: 250
- Maximum G450s per S8300 Server: 50

**Branch Memory Kit is available in CM5.2

Telephone Compatibility

- Avaya 4600, 9600 and 1600 Series IP Telephones
- Avaya 2400, 6400 and 8400 Series Digital Telephones
- Avaya or other analog telephones

Server/Application Options

- Avaya S8300 Media Server running as either a Local Survivable Processor (LSP) or Primary Call Controller
- Communication Manager Messaging Application (on S8300)

Routing/Switching Features

- OSPF, RIP, PPP, PPPoE, Frame Relay, VRRP
- RTP Header Compression

- Dynamic Call Admission Control
- WFVQ (Weighted Fair Voice Queuing)
- Traffic shaping
- 802.1p/q VLAN tagging
- Inter-VLAN routing
- Port Redundancy
- 802.1d/802.1w Spanning Tree/Rapid Spanning Tree support

Agency/Type Approvals

- FCC part 15 and 68, CE Mark, A Tick Mark, China CCC and MII, Japan Telecom, BSMI, VCCI, Canadian ICES-003, UL, GOST, Russian Telecom Ministry, NOM NYCE, COFETEL, ANATEL

Requirements

The Avaya G450 Media Gateway requires Avaya Communication Manager 5.0, which must be purchased separately.

Learn More

For more information about how the Avaya G450 Media Gateway may be leveraged to support your business, please contact your Avaya Account Manager or Avaya Authorized Partners or visit us at avaya.com.

About Avaya

Avaya is a global leader in enterprise communications systems. The company provides unified communications, contact centers, and related services directly and through its channel partners to leading businesses and organizations around the world. Enterprises of all sizes depend on Avaya for state-of-the-art communications that improve efficiency, collaboration, customer service and competitiveness. For more information please visit www.avaya.com.

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