



IP Telephony

Contact Centers

Mobility

Services

PRODUCT BRIEF

Avaya Meeting Exchange S6200, S6500 and S6800 Media Servers

The Avaya S6000 Media Server series offers an open conferencing platform with a SIP-based architecture that supports the Avaya Meeting Exchange conferencing solution.

When deployed on the S6200, Meeting Exchange allows enterprises to deploy a flexible, cost-effective conferencing solution in a SIP environment. Combining this software-based IP conferencing platform with carrier class platforms such as the Avaya S6500 or S6800 Media Servers creates a high-density deployment of the Meeting Exchange solution and provides industry leading performance, features, and scalability for large next generation networks.

Benefits of IP Deployment

- Support for all conference types in a single solution
 - Reservationless, attended, event, mobile, web
- Open APIs
 - Rapid development or integration with custom or third party applications
- Proven voice quality
- Leverage existing Avaya conferencing applications and APIs for migration to softswitch architecture
- Seamlessly integrate value-added applications and IP-enabled features including Presence and Instant Messaging
- Ensure compatibility with any network through open software structure
- Reduce operating costs
 - Shared hardware resources across applications
 - Streamline maintenance and management requirements
 - Small footprint platform reduces facilities costs

Meeting Exchange offered on the S6200 provides:

- Capacity of 24-240 IP ports
- Conference management: web-based or touchtone controls
 - Mute, dial-out, sub-conference, disconnect, lock conference, conference recording, billing code capture, roll call
- Scheduling and notification options
 - Microsoft Outlook, Lotus Notes, Web Portal, or custom scheduling tools
- Support for G.711 codecs
- Value-added functionality
 - Integrated audio and web conference recording, with Avaya Web Conferencing
- Robust, customizable reporting and billing options
 - Integration with industry-leading Presence, Availability and Instant Messaging applications
- Customization
 - Brandable interfaces and conference messages

Meeting Exchange offered on the S6200 combined with the S6500 provides:

- Capacity to 300 IP ports
 - Offers up to 300 media processing ports in a slim 1 RU package, resulting in per port capital and operational costs significantly below TDM-equivalent technology
- Supports the widest range of codecs today
 - G.711, G.711 VAD, G.723, G.726, G729A/B



The Avaya S6800 Media Server



The Avaya S6200 Media Server



The Avaya S6500 Media Server

- **Advanced Media Processing Capabilities**
—Provides tools for announcement generation, audio and video bridging, DTMF tone detection and generation, various codec options and transcoding, message play/record, and speech processing
- **Industry Standard Control Protocols**
—Control media processing features with industry standard protocols including SIP, VoiceXML, MSML/MOML, MGCP, PacketCable NCS and Megaco/H.248
—Shared and control media servers with multiple softswitches, call agents or application servers in any voice over packet next generation network
- **Carrier Reliability**
—Offers carrier scale reliability features including NEBS Level 3 compliance, as well as redundant power inputs, fans, and Ethernet ports

Meeting Exchange offered on the S6200 combined with the S6800 provides:

- **Capacity 10—15,000 ports**
Based on the latest DSP technology for carrier scale IP media packet processing
—Supports up to 18,000 media processing ports in a 13 RU shelf
—Support for up to 2,000 conferencing ports
- **Supports the widest range of codecs today**
—G.711, G.711 VAD, G.723, G.726, G729A/B
—Deployment can support multiple S6200s
—Support for additional applications
- **Support for various third party applications:**
—Multimedia conferencing, pre-paid calling card, unified messaging, IP Centrex, personalized ringback tones, network gaming, or speech portals
- **Reduced Media Processing Costs**
—Total cost of ownership drastically reduced by consolidating the functions of traditional announcement servers, audio and video conference bridges, interactive voice response units (IVR/VRU), messaging platforms, and speech platforms onto a single, scalable platform purpose built for IP media processing
- **Interoperability Through Standards Compliance**
—Controlled by softswitches, call agents, or application servers in a voice over packet next generation network
—Functionality is controlled using industry standard

control protocols including SIP, VoiceXML, MSML/MOML, MGCP, PacketCable NCS, or Megaco/H.248

- **Carrier Reliability**
—Built to NEBS Level 3 standards for the telecom central office environment
—TDM-equivalent reliability achieved through redundant interfaces, cards, fans, and power

S6200 Technical Specifications

Hardware

- S6200
- Intel Xenon 2.8 GHz / 512 MB RAM / 36 GB Drive
- Runs in standard off-the-shelf server technology

Operating System

- UnixWare 7.11

Chassis

- 1 RU

Capacity

- IP - 240 Ports G.711
- TDM - 240 Ports T1 / PRI / E1 (*this solution is bundled with an external gateway; check with Avaya for latest list of certified compatible gateways)

Media Interface / Protocol

- SIP

LAN Interfaces

- Dual Broadcom NetXtreme 10/100/1000 Integrated-Ethernet

Power

- 120V / 240 V 332W Auto Restart Power Supply

TDM

- External TDM gateway or Internal PCI gateway required for TDM Interfaces (1,2,4,8 T1/E1 Trunks)

Standards Compliance

- RFC 3261 – SIP Standard
- RFC 2833 - RTP payload for DTMF digits
- RFC 3550 - RTP
- RFC 3605 - RTCP (Control Protocol Extended Reports)
- RFC 3556 - SDP for RTCP
- RFC 2976 - SIP INFO Method

- RFC 3389 - RTP for Comfort Noise Generation
- MSML / MOML and MSCML – partial
- RFC 1945 - HTTP V1.0 - full
- RFC 2616 - HTTP V1.1 - full
- RFC 1094 - NFS V2 - full
- RFC 1157 - SNMP V2.2 - full
- RFC 3164 - Syslog - full
- RFC 854 - Telnet - full

Third Party Compatibility:

- The S6200 Media Server is interoperable with leading IP-PBXs, IP phones, gateways, softswitches. Check with Avaya for a full list of certified interoperable devices

Voice Quality:

- Toll quality support
- Support for high quality codecs including G.711 a-law or u-law Codecs

S6500 and S6800 Technical Specifications

Capacity

S6500

- Up to 300 media processing ports per shelf
- Up to 100 3-way conferences
- Up to 300 participants per conference

S6800

- Up to 18,000 ports per shelf
- Up to 2,000 conferencing ports

Control Interfaces

- S6500: SIP (RFC 3281)
- S6800: SIP (RFC 3271)
- SIP + VoiceXML 2.0
- SIP + MSML
- MGCP v1.0
- PacketCable NCS v1.0
- MEGACO/H.248*
- SALT*

Enhanced Service Building Blocks

Tones and Announcements

- Fully customizable

- Multiple languages
- Dynamic prompts and variables
- PacketCable BAU, AAU compliant

DTMF

- DTMF detection and generation
- Inband and RFC 2833
- Redundant RFC 2833

Conferencing

- N-way audio bridging
- Loudest N and preferred speaker
- Independent gain control on all ports
- Automatic gain control
- Current speaker notification
- Custom mix for each participant

Recording and Playback

- Audio recording / playback
- VCR Control (pause, skip, etc.)
- Internal and external storage (NFS/HTTP)

Stream Connection

- Legal intercept support*

Fax

- Fax detection and notification

Speech

- Automatic speech recognition (ASR)
- Text-to-speech (TTS)
- Speaker verification*
- MRCP*, SRCP/SPEECHSC*

Media Storage

- For announcements, recordings, or other content
- Internal storage: up to 48 hours
- External storage: unlimited (via NFS/HTTP)

Media Support

Media over IP

- RTP, RTCP, DiffServ

Audio Codecs

- G.711, G.723.1A, G.726, G.729AB, AMR, EVRC, GSM-FR, GSM-EFR
- H.261, H.263, MPEG-4*
 - QCIF, CIF
 - 128 Kbps up to 2 Mbps

- Up to 30 fps
- Full transcoding and rate matching

Voice

- Voice activity detection
- Silence suppression
- Comfort noise generation

Fax*

- T.38, T.4

Network Interfaces

S6500

- Dual 100 BaseT Ethernet (RJ45)

S6800

- 100 BaseT Ethernet
- Gigabit Ethernet

Redundancy

S6500

- Redundant network interfaces
- Redundant power inputs and cooling fans
- Redundant BITS interfaces

S6800

- Hot swappable cards
- Redundant power inputs, backplane, cooling fans
- Redundant network I/O and BITS interfaces
- 1+1 redundancy on control cards
- N+1 redundancy on media cards

Management

- SNMP v2c, v3*
- Web-based element management suite
- Extensive alarms, logs, and statistics

Developer Tools

Remote Interoperability Testing

- Available over the Internet to qualified developers and partners

Media Server Controller (MSC)

- C++ API and SDK

Physical / Environmental

S6500

- 1 RU high, 16" deep, 19" rack mount
- Redundant 120/240 VAC or –48 VDC power
- Temperature: 0°C to 50°C (operating)
- Humidity: 5% to 95% (non-condensing)

S6800

- 13 RU high shelf, 12" deep, 19" rack mount
- Redundant –48 VDC power
- Temperature: 0°C to 50°C (operating)
- Humidity: 5% to 95% (non-condensing)

Certifications

- Reliability: NEBS Level 3 compliant (Bellcore SR-3580)
- Safety: UL 60950, CSA 22.2 No.950, EN 60950
- EMI: FCC Part 15 Class B, EN50081
- Immunity: EN55024

*Planned

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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