The Mediant™ 8000 VoIP Media Gateway is a scalable, IMS-ready, standards-compliant, high channel density system for wireline, wireless, cable, broadband access and Fixed-Mobile-Convergence networks.

**Carrier-Grade High Availability**
The Mediant 8000 offers robust architecture meeting service providers’ stringent requirements for high availability. This high availability architecture is based on cost-effective N+1 redundancy of the processing blades and load sharing of fans and power supplies.

**Multiservice Media Gateway**
The Mediant 8000 Media Gateway provides extensive support for regional PSTN interfaces, broad voice coder options, Signaling Gateway Interworking, control protocols and advanced security features, enabling multilayer deployment flexibility for a variety of customers (ILECs, IOCs, CLECs, MSOs, large Enterprises and contact centers). The Mediant 8000 can be used for backhauling TDM over IP, part of class 4 & 5 TDM switch replacements, IP connection, IP service node, IP Centrex Application and as a PacketCable gateway. In the wireless/cellular space, the Mediant 8000 is ideal for UMA and Femtocell applications.

**High Level of Scalability**
The Mediant 8000 is a modular platform which can scale up to 16,000 protected channels, allowing customers to begin with a low capacity entry point and later extend to a higher capacity by increasing the number of processing blade modules.

**All-IP Evolution**
With the introduction of Next Generation networks, there is a growing demand for IP to IP transcoding in peering, access and Fixed-Mobile-Convergence scenarios. The Mediant 8000 has the flexibility to primarily be installed as a classic VoIP Media Gateway, and in parallel accommodate the growing demand of IP peering as PSTN interfaces are gradually being phased out.

**True Network Convergence on a single platform**
The Mediant 8000 offers a high voice quality ranging from low-bit rate to wideband high-definition voice coders. This enables true network convergence between mobile/wireless networks and fixed line, cable and broadband networks on a single media gateway platform.

**Broad PSTN Interfaces Options and Protocols**
The Mediant 8000 provides the flexibility to be globally deployed, interfacing with all popular PSTN interfaces, including E1, T1, J1, DS3 and OC3/STM1.

**Migration from TDM Class 5 Exchange to NGN**
In addition to the connection of Enterprises on PRI/ISDN and MFC/R2 interfaces to the NGN, the Mediant 8000 can be used as a V5.2 Access Gateway for connecting V5.2 Access Networks installed base to the NGN thus retiring legacy Class 5 Switches while protecting investment in Enterprises and Access Networks equipment.

**Advanced Security Suite**
With the advent of VoIP, security has become a mandatory requirement. The Mediant 8000 addresses service providers and large enterprises security concerns, offering advanced security capabilities which include Interface Separation, SRTP for media, IPSec for control, OAM and TLS and PKI for SIP.
AudioCodes Voice Network Products for Wireline, Wireless, Cable and Converged Applications

Mediant™ 8000

**Specifications**

### Capabilities

**Capacity**
- Up to 16,000 protected VoIP/GSM/UMTS channels

**Voice Coders**
- High Definition Voice Codes: G.722, G.722.2 (Wide Band AMR), G.729.1 (Wideband G.729), EVRC, RTA-WB
- Wireline: G.711, G.722, G.723.1, G.726/7, G.729A/B, EG.711, MS GSM, iLBC
- GSM/UMTS: GSM-FR, GSM EFR, AMR, AMR-WB
- CDMA: EVRC, EVRC-B, QCelp 8k, QCelp 13k
- Cable: G.711, G.726/7, G.723.1, G.728, G.729E, G.729A/B, ilBC

Independent dynamic vocoder selection per channel (within each group)

Not all coders can be used simultaneously. Some coders will result in channel density degradation

**Echo Cancellation**
- G.165 and G.168 compliant

**Fax Support**
- Fax/Modem Detection Control, T.38 (IP) compliant
- Group 3 fax relay and fax fallback (automatic fallback to G.711) support

**DTMF**
- Packet side or PSTN side detection and generation, RFC 2833 compliant

**Voice Over Packet Capabilities**
- Call progress tones, VAD, CNG, Dynamic programmable jitter buffer, DTMF detection and generation, E911 CAS support

**Signaling**

**PSTN**
- ISDN PRI, SS7/MT2P/3, CAS, MFC-R2, MF-R1, V5.2

**SIGNALTRAN**
- ISDN/IUA/SCTP
- SS7- M2UA/SCTP, M3UA/SCTP
- SS7

**IP Transport**
- IETF RFC 3550, RFC 3551 RTP/IP Transport, TCP, UDP
- CDMA: IETF RFC 2658 and RFC 3558 RTP/UDP/IP
- UMTS: Nb IP User Plane and IPBCP over Mc per 3GPP

**Media Gateway Control Protocols**
- MGCP (RFC 3435), TgCP, MEGACO (H.248, RFC 3015), SIP (RFC 3261)
- 3GPP: CS - TS 29.232, IMS Mn - TS 29.332

**Security**
- SRTP,
- Public Key Infrastructure Certificate for TLS
- IPsec (ESP) with IKE pre-shared key for secure Management with EMS/NMS/QSS and Control with MG
- AES - 128 (Rijndael) cipher algorithm, in CBC mode for Media Security (RTT/RTCP) for packet cable
- SSH Protocol Version 2 for secure Telnet and SFTP Server transfers
- Firewall - for controlled IP access to Media Gateway Blades

**Maintenance**

**Management**
- Element Management System, SNMP v2 over IPSEC/SNMP v3, Command Line Interface (CLI)

**Maintainability**
- All shelf modules are hot swappable, including boards, power supplies, fans

**Redundancy Scheme**
- System Controller and Ethernet Switch blades: 1+1
- Power supplies: N+1 Load Shared
- Media Gateway blades (including PSTN interfaces): N+1
- Optical Interfaces (PSTN): 1+1, APS protected

**Hardware Specifications**

**Interfaces**

**PSTN:**
- Up to 8 x OC-3/STM-1 Optical ports, each 1+1 APS protected
- or up to 24 x T3 (DS-3) Copper ports
- or up to 252 E1/T1/11 spans

**IP:**
- Dual Redundant 100/100 BASE-T (aggregated) Ethernet ports, with Multi-VLAN Interfaces support (QAM, Control, Media)

**Clock Synchronization:**
- BITS/SETS (GR-1244 Stratum-3 and G.813 compliant), line synchronization (via STM-1/3-3 link or DS1 trunk)

**Enclosure**
- 21-slot, 17U PCV chassis

**Dimensions (HxWxD)**
- 533 mm x 488 mm x 480 mm (21 x 19 x 18.9 inches)

**Weight**
- Approx 60 lbs. (27 kgs.), unloaded
- Approx. 88 lbs. (40 kgs.), fully loaded

**Mounting**
- Per 19-inch rack

**Midplane**
- PICMG 2.16 CPC Packet Switching Backplane (CPB)
- PICMG 2.1 CPC hot swap specification
- PICMG 2.0 CPC specification

**Power**
- 48 V DC Ural Feed, with 3 DC Power modules

**Cooling**
- Replaceable fan trays & filters

**Regulatory Compliance**

**Telecommunication**
- FCC part 68
- TBR4 and TBR13

**Safety and EMC Standards**
- UL60950
- FCC part 15 Class A
- CE Mark (EN55022 Class A, EN60950, EN55024, EN300 386)

**Environmental**
- NEBS Level 3: GR-63-Core, GR-1089-Core, Type 1 & 3, ETS300 019

**About AudioCodes**

AudioCodes Ltd. (NasdaqGS: AUDC) designs, develops and sells advanced Voice over IP (VoIP) and converged VoIP and Data networking products and applications to Service Providers and Enterprises. AudioCodes is a VoIP technology market leader focused on converged VoIP & data communications and its products are deployed globally in Broadband, Mobile, Cable, and Enterprise networks. The company provides a range of innovative, cost-effective products including Media Gateways, Multi-Service Business Gateways, Session Border Controllers (SBC), Residential Gateways, IP Phones, Media Servers and Value Added Applications. AudioCodes’ underlying technology, VoPerfectHD™, relies on AudioCodes’ leadership in DSP, voice coding and voice processing technologies. AudioCodes High Definition (HD) VoIP technologies and products provide enhanced intelligibility and a better end user communication experience in Voice communications.

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