

# Mediant™ 5000 VoIP Media Gateway



- Deliver competitive, complete, best-of-breed media gateway functionality, featuring highest voice quality
- Create Voice over Packet (VoP) networks based on advanced media gateway technology
- Meet the demands of converged wireless, wireline and cable, broadband local loop and fixed-mobile-converged VoIP networks from a single media gateway platform .
- Utilize scalable medium-sized media gateway designed for carrier environment. Support up to 8,000 VoIP/LBR/AMR channels.
- Accommodate the need for VoIP Trunking, IP Centrex and VoIP Access Gateway markets with a right-sized and cost-effective media gateway
- Deploy globally with a rich offering of PSTN interfaces and signaling
- Integrate 3G and 2G packet-enabled media gateway functionality into end-to-end system solutions
- Meet the demands of both ATM and IP from a single media gateway platform
- React quickly to dynamic market requirements

The **Mediant™ 5000** VoIP Media Gateway is a scalable, market-ready, standards-compliant, medium channel density media gateway system for wireline, wireless, cable, broadband access and Fixed-Mobile-Convergence networks. Designed for the carrier environment, the Mediant 5000 is a robust system solution which incorporates AudioCodes' leading Voice over Packet technology. The Mediant 5000 VoIP Gateway System enables Network Equipment Providers (NEPs) and System Integrators (SIs) rapid time-to-market and cost-effective deployment of next-generation networks. The Mediant 5000 is based on VoIPerfect™ architecture, AudioCodes' underlying, best-of-breed, core media gateway technology for all of its products.

## DEPLOY HIGH AVAILABILITY SOLUTIONS

The Mediant 5000 reliability features include redundancy for common equipment, preserving stable calls using N+1 redundant media gateway boards. The compact size of the Mediant 5000 Media Gateway allows for a much smaller footprint in office locations where space is at a premium.

## CREATE FLEXIBLE PRODUCTS AND SERVICES

The Mediant 5000 Media Gateway enables NEPs to immediately address opportunities that utilize a myriad of legacy circuit-switched infrastructure features and functionality. The Mediant 5000 covers all bases when it comes to support for regional PSTN interfaces, voice coder options, Signaling Gateway Interworking and control protocols. The Mediant 5000 can interface with PBXs , PSTN, Radio Access Network, centralized Mobile Switching Center (MSC) servers to enable complete 2G and 3G enterprise solutions. The Mediant 5000 allows superior deployment flexibility for these solutions which include Softswitches, Cable Call Management Systems (CMS), Media Terminal Adaptors (MTAs) PacketCable solutions, Broadband Wireless Local Loop (WLL) Base Stations (WiFi, WiMax). The Mediant 5000's open platform offers NEPs the option to add one or more Single Board Computer(s) to run complementary applications within the Mediant chassis.

## MEDIANT 5000 FEATURES

- Meets NEBS Level 3
- Redundant common equipment (Power, Controller, Ethernet Switch)
- Optional N+1 protection of media gateway blades
- Scalable density options
- Field-proven, high voice quality
- Open, scalable architecture
- SIGTRAN (SS7: M2UA/M3UA, PRI: IUA);
- SS7 and TDM peer-to-peer tunneling over IP
- Wide support of PSTN protocol termination
- Packet telephony standards-compliant
- Easy connectivity with emerging VoIP and VOATM networks
- UMTS/GSM-compliant version available
- CDMA-compliant version available
- PacketCable Standards compliant
- Flexible deployment options
- Compact footprint

# AudioCodes Voice Network Products for Wireline, Wireless, Cable and Converged Applications

## Mediant™ 5000

### SPECIFICATIONS

#### Capabilities

Capacity	Up to 8,064 (6,048 protected) VoIP/GSM/UMTS channels
Voice Coders	VoIP: G.711, G.723.1, G.726/7, G.729A/B • GSM/UMTS: GSM-FR, AMR (8 rates) & VoIP <b>CDMA:</b> EVRC <sup>1</sup> , QCELP 8k <sup>2</sup> , QCELP 13k <sup>2</sup> & VoIP: <b>Cable:</b> G.711, G.726/7, G.723.1, G.728 <sup>1</sup> , G.729E <sup>1</sup> , G.729A/B Independent dynamic vocoder selection per channel (within each group)
Echo Cancellation	G.165 and G.168 compliant
Fax Support	T.38 (IP) compliant Group 3 fax relay and fax bypass (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

#### Signaling

PSTN	ISDN PRI, CAS, MFC-R2, MF-R1 Interworking
SIGTRAN	• ISDN-IUA/SCTP • SS7- M2UA/SCTP, M3UA/SCTP; Broadband SS7 (RANAP) – M3UA/SCTP • SS7 and TDM Tunneling using M2UA over SCTP/IP UMTS: I.366.1, I.363.2, Iu-UP, SAAL, Bearer over AAL2 per 3GPP
ATM Transport	IETF RFC 3550, RFC 3551 RTP/IP Transport, TCP, UDP
IP Transport	<b>CDMA:</b> 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), MEGACO (H.248, RFC 3015), SIP (RFC 3261) <sup>2</sup> 3GPP: CS Mc - TS 29.232, IMS Mn - TS 29.332
Security	• IPSEC <sup>1</sup> – for control protocols and for Management Interfaces • HTTPS, SRTP <sup>2</sup> • Media Encryption /Authentication <sup>1</sup> – AES/HMAC (for cable)

#### Maintenance

Management	Element Management System, SNMP v2
Maintainability	All shelf modules are hot swappable, including boards, power supplies, fans
Redundancy Scheme	Shelf Controller and Ethernet Switch blades: 1+1 Power supplies: N+1 Load Shared Media Gateway blades (including PSTN interfaces): N+1 Optical Interfaces (PSTN/ATM): 1+1, APS protected

#### Hardware Specifications

Interfaces	<b>PSTN:</b> Up to 4xOC-3/STM-1 optical/copper ports, each 1+1, APS protected, or up to 96 x E1/T1/J1 spans (not applicable for ATM) <b>IP:</b> Dual Redundant 100/1000 BASE-T (aggregated) Ethernet ports <b>ATM:</b> Up to 4xOC-3c/STM-1 optical ports, each 1+1, APS protected
Enclosure	10-slot, 5U cPCI chassis
Dimensions (HxWxD)	222 mm x 483 mm x 311 mm (8.7 in. x 19 in. x 12.3 in.)
Weight	Approx. 27 lbs. (12.3 kgs.), unloaded Approx. 50 lbs. (22.6 kgs.), fully loaded
Mounting	Per EIA Standard RS-310-C in 19-inch rack or 23-inch rack with mounting brackets
Midplane	• PICMG 2.16 cPCI Packet Switching Backplane (cPSB) • PICMG 2.1 cPCI hot swap specification • PICMG 2.0 cPCI specification
Power	-48 V DC Dual Feed, with 3 DC Power modules OR 100 - 240 V AC with 3 AC Power modules
Cooling	Replaceable fan trays & filters

#### Regulatory Compliance

Telecommunication Standards <sup>3</sup>	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 <sup>3</sup>	NEBS Level 3: GR-63-Core, GR-1089-Core, Type 1 & 3, ETS300 019

1 Reduced channel capacities 2 Future releases 3 Designed to meet – formal approval pending

### ABOUT AUDIOCODES

AudioCodes Ltd. (NASDAQ: AUDC) enables the new voice infrastructure by providing innovative, reliable and cost-effective Voice over Packet technology and Voice Network products to OEMs, network equipment providers and system integrators. AudioCodes provides its customers and partners with a diverse range of flexible, comprehensive media gateway and media processing technologies, based on VoIPerfect™ – AudioCodes' underlying, best-of-breed, core media gateway architecture. The company is a market leader in voice compression technology and is a key originator of the ITU G.723.1 standard for the emerging Voice over IP market. AudioCodes voice network products feature media gateway and media server platforms for packet-based applications in the converged, wireline, wireless, broadband access, and enhanced voice services markets. AudioCodes enabling technology products include VoIP and CTI communication boards, VoIP media gateway processors and modules, and CPE devices. AudioCodes' headquarters and R&D facilities are located in Israel with an R&D extension in the U.S. Other AudioCodes' offices are located in Europe, the Far East, and Latin America.

### International Headquarters

1 Hayarden Street, Airport City  
Lod, Israel 70151  
Tel: +972-3-976-4000  
Fax: +972-3-976-4040

### US Headquarters

2099 Gateway Place, Suite 500  
San Jose, CA 95110  
Tel: +1-408-441-1175  
Fax: +1-408-451-9520

info@audiocodes.com

www.audiocodes.com

© 2006 AudioCodes Ltd. All rights reserved. AC, Ardito, AudioCodes, AudioCoded, AudioCodes logo, IPmedia, Mediant, MediaPack, MP-MLQ, NetCoder, Stretto, TrunkPack, VoicePacketizer and VoIPerfect are trademarks or registered trademarks of AudioCodes Ltd. All other products or trademarks are the property of their respective owners. The information and specifications in this document and the product(s) are subject to change without notice.

Ref. # LTRM-40005 03/06 V.1

