

Mediant™ 3000 IMS Media and Transcoding Gateway

The **Mediant™ 3000** is a feature rich, highly available VoIP media and transcoding gateway supporting low to medium channel densities. The Mediant 3000 compact footprint meets the needs of Service Providers that deploy a geographically dispersed network.

CARRIER GRADE HIGH AVAILABILITY

The Mediant 3000 offers robust high availability architecture, meeting the most stringent availability requirements of current Service Providers worldwide. The high availability architecture is based on a 1+1 redundancy of the processing blades and load sharing of fans and power supplies. The Mediant 3000 can also be configured in a simplex, non-HA configuration and can be upgraded later in the field, as the network evolves, to a fully redundant system.

MULTI CONTROL PROTOCOL SUPPORT

Supporting H.248, MGCP, TGCP and SIP, the Mediant 3000 can be deployed with different Softswitches, offering investment protection and flexibility to Service Providers.

MARKET LEADING CAPACITY

The Mediant 3000 capacity can scale from 480 channels up to 2016 Low-Bit-Rate channels, with a simple software upgrade and with a very small footprint of 2 Rack Units.

ADVANCED SECURITY SUITE

With the advent of VoIP, security is becoming more and more important. The Mediant 3000 addresses Service Provider's security concerns, offering advanced security capabilities which include SRTP for media, IPSec for control and OAM and TLS for SIP.

ALL IP EVOLUTION

With the arrival of Next Generation networks towards all-IP, there is a growing requirement for IP to IP transcoding in peering, access and Fixed-Mobile-Convergence scenarios. The Mediant 3000 is flexible enough to primarily be installed as a classic VoIP Media Gateway, while supporting IP to IP transcoding, as the PSTN interfaces are gradually relinquished.

WIDE RANGE OF VOCODERS FOR TRUE NETWORK CONVERGENCE

The Mediant 3000 is a truly converged platform that suits wireline, wireless (GSM, UMTS, CDMA), Cable, IMS and Fixed-Mobile-Convergence applications. It enables the use of the most popular Vocoders, including advanced High Definition wideband vocoders, such as Wideband AMR and G.729EV. These enable Service Providers to differentiate themselves by providing better than toll quality voice services.

BROAD PSTN INTERFACES OPTIONS AND PROTOCOLS

The Mediant 3000 provides the flexibility to be globally deployed, interfacing with all popular PSTN interfaces, including E1, T1, J1, DS3 and OC3/STM1, without the need for expensive, cumbersome external converters. The Mediant 3000 also supports CAS, ISDN PRI and SS7 protocols for connecting to almost any PSTN switch or PBX.

FLEXIBLE NETWORKING OPTIONS

The Mediant 3000 can easily integrate into Service Provider's existing networks by offering a broad choice of networking connectivity options and protocols, including logical and physical separation of control, bearer and management interfaces that are paramount for security purposes.



- Carrier Grade, VoIP Access, Trunking and Transcoding gateway
- Offers cost effective scalability from 480 to 2016 protected channels in a small 19" 2U footprint
- Provides high voice quality and supports a large selection of wireline, wireless, cable and wideband vocoders
- Complete VoIP Media Gateway for VoBB, IP Centrex, Cable, Small Trunking, IMS and FMC networks
- Supports flexible deployment options with broad PSTN interfaces (Electrical/Optical), Signaling (MF, CAS, PRI, SS7) and Call Control (SIP/MGCP/TGCP/H.248) options
- Meets the needs of All-IP evolution, supporting IP to IP transcoding
- Allows advanced networking and security features including IPSec, TLS and SRTP
- Comprehensive management options
- Enables Integrated SigTran backhauling (IUA, M2UA and M3UA)

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SPECIFICATIONS

Capabilities

Capacity	Up to 2,016 channels in simplex or redundant configuration
Voice Coders	<ul style="list-style-type: none"> • G.711, G.723.1, G.726/7, G.729A/B, EG.711 • GSM-FR, AMR (8 rates), iLBC¹ • EVRC², EVRC-A¹, EVRCB¹ • G.729E¹ • High Definition Wideband Vocoders: G.722¹, G.729.1¹, AMR-WB¹ • 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)
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, SS7 (MTP2/MTP3)
SIGTRAN	ISDN-IUA/SCTP SS7- M2UA/SCTP, M3UA/SCTP
IP Transport	IETF RFC 3550, RFC 3551 RTP/IP Transport, TCP, UDP GSM / UMA (AMR): RFC3267 CDMA: IETF RFC 2658 and RFC 3558 RTP/UDP/IP R4 CS: Nb-IP (TS 29.415)
Control Protocols	MGCP (RFC 3435), TGCP (PacketCable), MEGACO (H.248, RFC 3015), SIP (RFC 3261) IMS Mn - TS 29.332, IMS Mc (TS 29.232)
Security	<ul style="list-style-type: none"> • IPSEC for control protocols and for Management Interfaces • TLS for SIP • HTTPS for WEB • SRTP¹ and AES¹ for data plane security • VLAN and IP separation support for separating OAM, Control and Media traffic • Physical separation on E1/T1 configuration

Maintenance

Management	Element Management System, SNMP v2, SNMPv3, CLI, WEB (Simplex only)
Maintainability	All shelf modules are hot swappable, including boards, power supplies, fans
Redundancy Scheme	Power supply, fans: N+1 load shared Media Gateway blades (including PSTN interfaces): 1+1 Optical Interfaces (PSTN): 1+1, APS protected

Hardware Specifications

Interfaces	PSTN: 1 OC-3 or STM-1 APS optical links, 1-3 T3 (DS3) electrical links, 84/63 T1/E1 links IP: Dual Redundant 100/1000 BASE-T Ethernet ports Clock Synchronization: BITS/SETS ² (GR-1244 Stratum-3 and G.813 compliant), line synchronization (via STM-1/OC-3 link or DS1 trunk)
Enclosure	4-slot, 2U cPCI chassis
Dimensions (HxWxD)	88 mm x 482.6 mm x 296.8 mm
Weight	Approx. 35.27 lbs. (16 kgs.), fully loaded
Mounting	Per EIA Standard RS-310-C in 19-inch rack specification
Power	48 V DC Dual Feed, with up to 2 DC Power modules; 100-240 V AC redundant Dual Feed
Cooling	Replaceable fan tray & filter

Regulatory Compliance

Telecommunication Standards	FCC part 68, TBR4 and TBR13
Safety and EMC Standards	<ul style="list-style-type: none"> • 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

1. Reduced channel capacity

2. Scheduled for Version 5.6 release

ABOUT AUDIOCODES

AudioCodes Ltd. (NASDAQ: AUCD) provides innovative, reliable and cost-effective Voice over Packet (VoP) technology, Voice Network products, and applications to OEMs, Network Equipment Providers, Service Providers and System Integrators worldwide. AudioCodes provides a diverse range of flexible, comprehensive media gateway and media processing technologies (based on VoIPerfect™ – AudioCodes' underlying, best-of-breed, core media gateway architecture) and Session Border Controllers (SBCs). The company is a market leader in product development, focused on VoIP Media Gateway, Media Server and SBC technologies and network products. AudioCodes has deployed tens of millions of media gateway and media server channels globally over the past few years and is a key originator of the ITU G.723.1 standard for the emerging Voice over IP market. The Company is a VoIP technology leader focused on quality, having recently received a number one ranking from ETSI for outstanding voice quality in its media gateways and media servers. AudioCodes voice network products feature media gateway and media server platforms for packet-based applications in the converged, wireline, wireless, broadband access, enhanced voice services and video markets. AudioCodes enabling technology products include VoIP and CTI communication blades, 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.

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