Mediant™ 3000 High Availability VoIP Gateway

The **Mediant™ 3000** is a feature-rich, highly available VoIP gateway supporting low to medium channel densities. The Mediant 3000 compact footprint (2U) meets both the needs of service providers with geographically dispersed networks, as well as those of large enterprises, where reliable and dense VoIP gateways are necessary for business-critical communications.
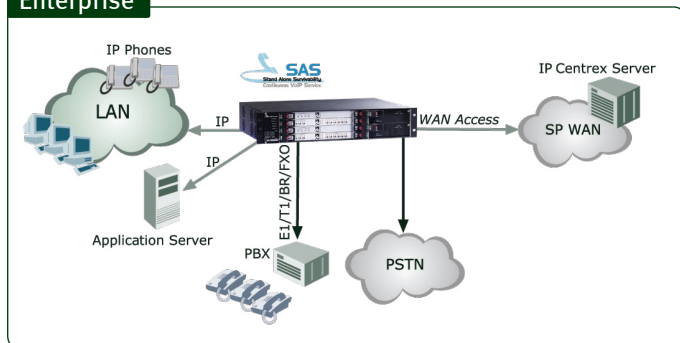
Mediant 3000 in Service Provider Networks

Service Providers are currently migrating from centralized legacy TDM networks to decentralized IP networks. The Mediant 3000 is aligned with these developments, offering exceptional channel scalability of up to 2016 DS0s in a compact 19"-2U chassis, allowing it to be placed in small POPs, close to local telephone networks. Additionally, the Mediant 3000 delivers the same carrier-grade availability that service providers are accustomed to on their legacy equipment. A wide range of trunking and access protocols to suit any application are provided, such as PRI, V5.2 and CAS access protocols and SS7/M2UA/M3UA trunking protocols. The Mediant 3000 fits the needs of wireline, cable, cellular and mixed service providers.
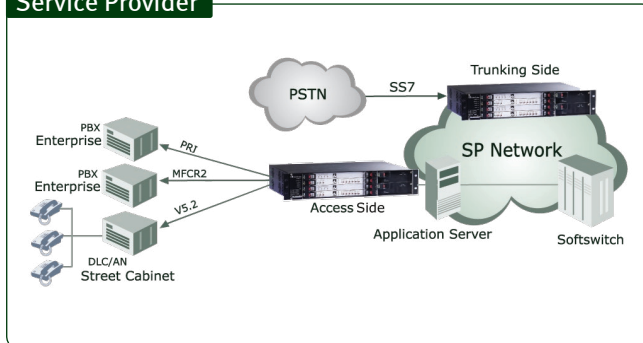
Mediant 3000 in Large Enterprises

The migration to VoIP in the enterprise is driven by cost considerations and the need for a richer, integrated telephony service. This transition leads to heterogeneous enterprise telephony networks that deploy multiple PBXs from various vendors, some of which are legacy and some of which are IP-based. An enterprise might choose to connect to a PSTN Service Provider or to an Internet Telephony Service Provider (ITSP) or both. The Mediant 3000 has comprehensive PSTN access capabilities as well as SIP to SIP interworking features that enable the interconnection between all these elements. Large enterprises typically deploy business critical contact centers where the high availability of the Mediant 3000 is a key factor. In addition to E1/T1 interfaces, the Mediant 3000 supports high-density PSTN interfaces, such as T3, STM-1 and OC3 to provide the enterprise with lower PSTN lease costs. The proven interoperability of the Mediant 3000 with different PBXs and PSTN switches facilitates smooth deployment.

- Low to mid-density VoIP gateway offering scaling from 480 to 2016 channels
- Supports high availability configuration with reliable 1+1 redundancy
- Compact footprint (2U), ideal for small locations
- Allows easy capacity upgrades via a software key
- Provides multi-control protocol support: SIP, H.248, MGCP and TGCP
- Offers broad range of PSTN interfaces including E1, T1, T3, OC3 and STM-1
- Enables flexible interworking between IP - TDM and IP - IP
- Supplies a wide range of vocoders which include Low Bit Rate (LBR), wireline, cellular and wideband vocoders
- No capacity hit on most of the LBR vocoders (e.g., G.729, G.723 and AMR)
- Functions as an IMS Media Gateway and I-BGF network elements

Enterprise

Service Provider

Mediant™ 3000 High Availability VoIP Gateway

SPECIFICATIONS

Media Processing

Capacity	Up to 2,016 channels in simplex or redundant configuration
Voice Coders	High Definition Voice Codecs[1]: G.722, G.722.2 (Wideband AMR), G.729.1 (Wideband G.729) Wireline: G.711, G.722[1], G.723.1, G.726/7, G.729A/B, EG.711, MS GSM, iLBC[1] GSM/UMTS: GSM-FR, GSM EFR, AMR, AMR-WB[1] CDMA: EVRC[1], EVRC-B[1] Independent dynamic vocoder selection per channel (within each group) Not all coders can be used simultaneously
Echo Cancellation	G.165 and G.168-2002 compliant, with 32, 64 or 128 ms tail length
Fax and Modem Transport	Fax/Modem Detection Control, T.38 (IP) compliant Group 3 & SG3 fallback to T.30, fax and modem bypass (automatic fallback to G.711) support
DTMF/MF	IP-side or PSTN-side detection and generation, RFC 2833 compliant DTMF relay Detection and Generation of Call Progress tones
Quality Enhancement	VAD, CNG, dynamic programmable jitter buffer, 802.1p/Q VLAN tagging, DiffServ

Signaling

PSTN Access	E1 ISDN: EuroISDN, QSIG, Australia, Hong Kong (HKT), Korea, New Zealand, INS-1500 (Japan), VN3, VN4, VN6 (France); T1 ISDN: NI2, 4ESS, 5ESS, DMS100;E1 CAS: MFC-R2 (multiple variants), MELCAS; T1 CAS: E&M, GroundStart, LoopStart; V5.2; IUA
PSTN Trunking	SS7/Sigtran: M3UA, M2UA, Redundancy (1+1), SS7 Tunneling
IP Transport	IETF RFC 3550, RFC 3551 RTP/IP Transport, TCP, UDP, RFC3267, RFC 3558 RTP/UDP/IP, 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	IPSEC, SIP/TLS, HTTPS, SRTP[1] and AES[1] Separation of OAM, Control and Media traffic is possible by using either different IP interfaces (available only on T1/E1 configuration) or VLANs
SIP IP - IP Mediation[3]	SIP - SIP Normalization, Network Topology Hiding, Transcoding and Conversion, Signaling Translation, Multiple Service Provider Connectivity and Load Balancing, Redundancy between Servers/Softswitch, Survivability (SAS)[2]

Maintenance

Management	Element Management System, SNMPv2, SNMPv3, CLI, WEB[3]
Maintainability	All shelf modules are hot swappable, including boards, power supplies, fans, and power entry modules
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 to 3 T3 (DS3) electrical links, up to 63/84 E1/T1 links **IP:** Dual Redundant 100/1000 Base-T Ethernet ports and additional two Dual Redundant 100 Base-T Ethernet ports for OEM and Control (Available on the E1/T1 configuration only) **Clock Synchronization:** BITS/SETS (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 lb (16 kg), 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	• 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) provides innovative, reliable and cost-effective Voice over IP (VoIP) technology, Voice Network Products, and Value Added Applications to Service Providers, Enterprises, OEMs, Network Equipment Providers and System Integrators worldwide. AudioCodes provides a diverse range of flexible, comprehensive media gateway, and media processing enabling technologies based on VoIPerfect™ - AudioCodes' underlying, best-of-breed, core media architecture. The company is a market leader in VoIP equipment, focused on VoIP Media Gateway, Media Server, Session Border Controllers (SBC), Security Gateways and Value Added Application network products. AudioCodes has deployed tens of millions of media gateway and media server channels globally over the past ten years and is a key player in the emerging best-of-breed, IMS based, VoIP market. The Company is a VoIP technology leader focused on quality and interoperability, with a proven track record in product and network interoperability with industry leaders in the Service Provider and Enterprise space. AudioCodes Voice Network Products feature media gateway and media server platforms for packet-based applications in the converged, wireline, wireless, broadband access, cable, enhanced voice services, video, and Enterprise IP Telephony markets. AudioCodes' headquarters and R&D are located in Israel with an additional R&D facility in the U.S. Other AudioCodes' offices are located in Europe, India, the Far East, and Latin America.

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1 Reduced channel capacity   2 Future Release   3 Available on non High Availability configuration