

AudioCodes CPE & Access Gateway Products

Mediant™ 850 MSBR

Multi-Service Business Router



- An all-in-one integrated device for VoIP, Data, Security and Access
- Consistent performance driven by dual-core architecture
- Branch survivability for distributed enterprises during WAN failures
- Flexible multiple WAN connectivity for redundancy and improved SLA
- Ideal for small and medium sized businesses (SMB) and enterprises (SME)
- Clear single managed point of demarcation
- SIP Trunking connectivity through E-SBC
- 802.11n WiFi and LAN Power-over-Ethernet (PoE) support
- Microsoft Lync Enhanced Gateway
- Scalability: from four analog voice channels, up to two E1/T1 voice trunks

AudioCodes Mediant™ 850 MSBR is an all-in-one box solution, designed to provide converged data and voice connectivity for small-to-mid size enterprise and business (SME and SMB) customers, and to form a well-managed point of demarcation for service providers.

Based on AudioCodes' VolPerfectHD technology, the Mediant 850 MSBR integrates a variety of communication functions into a single platform, including Router, WAN access, branch survivability, VoIP mediation, Enterprise Session Border Controller, voice and data security, and an optional server for hosting added value services.

FLEXIBLE WAN ACCESS CAPABILITIES

AudioCodes Mediant 850 MSBR has a versatile WAN interface supporting copper and optical fiber Gigabit Ethernet, T1/E1 WAN and a selection of DSL protocols such as SHDSL, ADSL2+ and VDSL. It also supports a 4G/3G cellular connection through a USB dongle. This range of options enables great flexibility and branch resiliency in connecting to service provider networks.

The Mediant 850 MSBR provides redundant WAN connectivity links for continued services in the event of WAN failure. Each device comes with copper Gigabit Ethernet (GE) along with a mix of additional two WAN ports of xDSL or GE (copper or Optical Fiber SFP)

INTEGRATED ROUTER AND LAN SWITCH

AudioCodes Mediant 850 MSBR has an integral LAN switch supporting up to 12 Power-over-Ethernet (PoE) LAN ports for IP phones and other PoE devices. It is equipped with an integrated WiFi (802.11n) access point, as well as optional dynamic and static routing capabilities.

To accommodate connectivity support for rich multimedia devices, such as video phones and motored cameras, the M850 MSBR supports 802.3at PoE of up to 30 Watts per port and 200 Watts in total.

BRANCH SURVIVABILITY

Customers served by a centralized, SIP-based IP Centrex server or branch offices of distributed enterprises, may face service interruptions because of WAN failure. In such cases the multiple redundant WAN links and the integrated Stand Alone Survivability (SAS) feature of the Mediant 850 enable internal office communication between SIP clients (e.g. IP phones), along with alternate WAN connectivity or PSTN fallback for making and receiving external calls.

OPEN PLATFORM FOR HOSTING VALUE ADDED APPLICATIONS

AudioCodes Mediant 850 MSBR extends the flexibility of the Multi-Service Business Router with a built-in Open Solution Network (OSN) server option based on an Intel processor. Independent software vendors and OEM customers can utilize this integrated, general purpose server to host their own applications such as IP-PBX, IVR, call center, conferencing, and more.

TARGET APPLICATIONS

- SIP Trunking
- IP Centrex and hosted services
- Service Provider managed services
- Migration from TDM to IP

Security

Session Border Controller (SBC)	SIP Header conversion SIP Normalization Survivability IP-to-IP routing translations of various SIP transport types; UDP, TCP, TLS Translation of RTP, SRTP Support SIP trunk with multi-ITSP (Registrations to ITSPs is invoked independently) Topology hiding Call Admission Control Call Black/White list
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Data Firewall	IPsec ESP - Tunnel mode Encryption Authentication IKE mode - IPsec VPN IDS/IPS: - Fragmented traffic - Malformed Request - Ping of Death - Properly formed request from unauthenticated source - DDoS attack - SYN flood Stateful packet inspection firewall DMZ Host Port Triggering Packet Filtering Application Layer Gateway
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OSN Server Platform (Optional)

Single Chassis Integration	Embedded, open Network Solution Platform for third-party services
CPU Options	Intel Atom 1.6 GHz Intel Celeron Dual Core 1.1GHz

Memory	1G RAM, 2G RAM, 4G RAM depends on model
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Hardware Specifications

Power Supply:	Single, universal 90-260 V AC
Physical Dimensions:	320mm x 345mm x 1U

Regulatory Compliance

Safety and EMC Standards	UL60950-1, EN60950-1, CB certification including National deviations EN55024, EN55022 Class A, EN61000-3-2, EN61000-3-3, EN300 386, FCC 47 Part 15 Class A
Telecommunication Standards	TIA/EIA-IS-968, ETSI ES 203 021 (FXO interface)

* Check available Mediant 850MSBR Configurations on AudioCodes Price Book
** Roadmap

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, Enterprise networks and Cable. The company provides a range of innovative, cost-effective products including Media Gateways, Multi-Service Business Routers, Session Border Controllers (SBC), Residential Gateways, IP Phones, Media Servers and Value Added Applications. AudioCodes' underlying technology, VolPerfectHD™, 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.

International Headquarters

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

AudioCodes Inc.

27 World's Fair Drive,
Somerset, NJ 08873
Tel: +1-732-469-0880
Fax: +1-732-496-2298

Contact us: www.audiocodes.com/info

Website: www.audiocodes.com

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Mediant™ 850 Multi-Service Business Router

POWERFUL MEDIA PROCESSING SERVICES

The on-board DSP resource farm enables the implementation of a variety of narrowband and wideband VoIP media processing services such as recording, integrated voice response (IVR), conferencing and transcoding. Utilizing AudioCodes' dedicated DSP resources enables a more robust and predictable voice performance compared to systems that are based on general purpose CPUs.

MEDIANT 850 MSBR IN BUSINESS SERVICES IMPLEMENTATIONS

As small and medium businesses and enterprises strive to control their communications' operating and equipment costs, outsourcing their voice and data infrastructure to a service provider is becoming an attractive option. The Mediant 850 MSBR offers service providers who are delivering hosted and managed communication services, a clear and easy-to-manage demarcation point, combining multiple WAN Access, routing and security, dual PSTN fallback, secured VoIP and branch survivability.

By using the Mediant 850 MSBR, service providers' business customers can easily and securely hook up to cloud-based services.

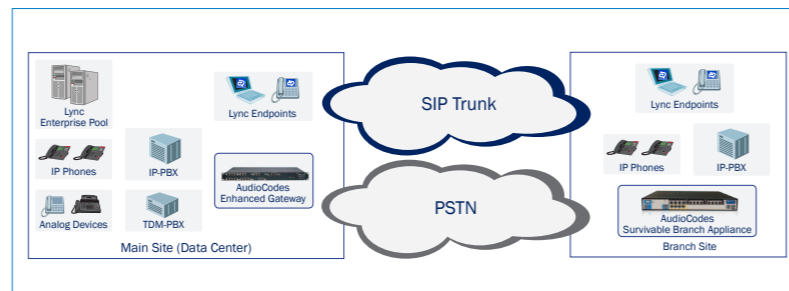
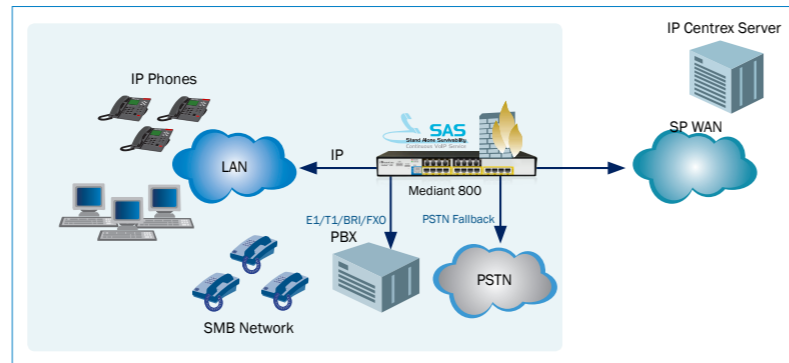
MEDIANT 850 MSBR IN MICROSOFT LYNC ENTERPRISE NETWORKS

Reliable network services at branch offices are essential for maintaining application availability for critical business processes. In Microsoft Lync environments, AudioCodes Mediant 850 MSBR can be deployed as an Enhanced Gateway or Survivable Branch Appliance (SBA) to offer branch-office resiliency for the local IP-Phones along with secured connectivity to the head office's Lync Server and unique built-in complementary services.

These services include integrated data services, such as the Router, WAN termination, Data firewall, Secured SIP Trunk connectivity through an integrated Enterprise class session border controller, advanced applications such as SIP Phones and smartphones integration, and passive recording for Lync.

ENTERPRISE SESSION BORDER CONTROLLER (E-SBC)

By upgrading the platform with software E-SBC licenses, the Mediant 850 MSBR protects the enterprise network and provides secure connectivity into SIP Trunking and other service provider applications. The key security features include Call Admission Control (CAC), encryption and authentication, topology hiding, traffic separation and protection against Denial of Service (DoS) attacks.



SPECIFICATIONS*

Networking Interfaces	
WAN	Integral copper GE, plus optional 2 WAN interfaces (xDSL or GE UTP/SFP) Support for T1/E1*, SHDSL, ADSL2+, VDSL, 100Base-X, 1000Base-X (SFP Format)
LAN	2 configurations: 4 ports 10/100/1000Base-T plus additional 8 10/100Base-TX ports or 2 ports 10/100/1000Base-T or 4 ports 10/100/1000Base-T PoE- Power-Over Ethernet on all ports is optional (Compliant to 802.3at-2009 with auto-detection Up to 30W per port, up to 200W in total), PoE management
WiFi	WiFi Access Point support for 802.11 a/b/g/n, dual band 2.4 GHz, 5GHz
WAN Interfaces	
ADSL2+ (Annex A, B, I, J, L, M)	
SHDSL (Annex, A, B, F, G), 2Base-2L	
VDSL1, VDSL2 (bandplan 997, 998, profiles 8, 12, 17, 30), 10PASS-TS	
10/100/1000Base-X Full-Duplex SFP, 100Base-FX, 1000Base-SX/LX	
EFM (802.3ah) for VDSL2 and SHDSL	
ATM for ADSL and SHDSL	
RFC2684, VC-MUX, LLC SNAP	
8 PVCs, multiple IP interfaces	
IP, IPoE, PPPoE, PPPoE, IPCP, NCP, LCP, PAP, CHAP	
ATM Service Categories (UBR, VBR-RT, VBR-nRT, CBR)	
Telephony Interfaces	
PSTN Capacity	Voice interfaces: The Mediant 850 is equipped with up to 24 analog PSTN interfaces, 8 BRI and 2 E1/T1 span, or a combination
Digital Interfaces	2 span E1/T1/J1 using RJ-48c connectors 8 BRI ports using RJ-48c connectors
Analog Interfaces	UP to 12 analog FXS/FXO ports using RJ-11 connectors Option of 1 FXS Lifeline ports in case of power failure
BRI Interfaces	8 BRI ports (16 calls), network S/T interfaces. NT or TE termination, using RJ-45 connectors
Data Routing	
DHCP/PPPoE/L2TP/PPTP	client towards WAN
QoS (Classification, queuing, shaping, marking 802.1p/DSCP), hierarchical queuing	
DHCP server towards LAN VLAN	
Layer 3 routing	
Internal layer 2 switching	
IP/VoIP Quality of Service	
IEEE 802.1P, TOS, DiffServ labeling	
IEEE 802.1Q VLAN tagging	
RTCP-XR (Extended Reports per RFC 3611)	
Shaping Policing, Queuing, Bandwidth Reservation (Optional)	
Media Processing	
Voice Coders	G.711, G.726, G.723.1, G.729A, AMR, G.722, AMR-WB, SILK, SILK-WB Independent dynamic vocoder selection per channel
Echo Cancellation	G.165 and G.168-2002, with 32, 64 or 128 msec tail length
Quality Enhancement	Dynamic programmable jitter buffer, VAD, CNG
DTMF/MF Tones	Packet-side or PSTN-side detection and generation, RFC 2833 compliant DTMF relay and Call Progress tones Detection and Generation
IP Transport	VoIP (RTP/RTCP) per IETF RFC 3550 and 3551, IPv6 Supported
Fax Transport	T.38 compliant (real time fax), Automatic bypass to PCM
Signaling	
Digital - PSTN Protocols	CAS: MF-R1: T1 CAS (E&M, loop start, Feature Group-D, E911CAMA), E1 CAS (R2 MFC), R1.5, numerous protocol and country variants ISDN PRI: ETSI/EURO ISDN, ANSI NI2 and other variants (DMS100, 5ESS), VN3, VN4, VN6 ISDN BRI: Euro ISDN, VN4/6 or QSIG
Analog Signaling	Loop Start FXS/FXO, Caller ID, polarity reversal, distinctive ringing, visual Message Waiting Indication
Control and Management	
Control Protocols	Static and dynamic routing (RIP1, RIP2, OSPF, BGP), multi-VRF, L2 bridging SIP-TCP, SIP-UDP, SIP-TLS, IPv6 Supported** Stand alone Survivability for service continuity
Operations & Management	AudioCodes' Element Management System Embedded HTTP Web Server, SNMP V2/V3, SSH, Telnet, TR-069 Remote configuration and software download via HTTP or HTTPS, RADIUS, Syslog (for events and alarms)