# AudioCodes Session Border Controller (SBC) Products

# Mediant<sup>™</sup> 500L

### Hybrid E-SBC and Media Gateway



#### **Benefits**

- Fully integrated device for secured SIP trunking and PSTN access
- Hybrid SBC and Media Gateway platform lowers CAPEX and reduces space and power footprints
- Extensive interoperability and partnerships that extend across multiple vendor devices and protocol implementations
- Offers comprehensive security, interoperability and reliability
- Delivers high service performance and voice quality
- Branch office survivability in the event of a WAN outage

#### **Key Features**

- Rich and powerful SIP normalization and routing mechanisms for seamless interoperability
- Hybrid SBC enables seamless migration and PSTN fallback
- Support for BRI interfaces
- Perimeter defense against denial of service, fraud and eavesdropping
- VoIP quality monitoring and enforcement

The AudioCodes **Mediant 500L Enterprise Session Border Controller (E-SBC)** and Media Gateway offers a complete connectivity solution for small-to-medium sized enterprises.

The Mediant 500L connects IP-PBXs to any SIP trunking service provider, scaling up to 60 concurrent SBC sessions. It offers superior performance in connecting any SIP to SIP environment, legacy TDM-based PBX systems to IP networks, and IP-PBXs to the PSTN, supporting up to 4 BRI interfaces.

#### Vast mediation capabilities and proven interoperability

The Mediant 500L supports a wide range of voice coders and is capable of transcoding between narrowband and wideband voice coders, providing SIP normalization, fax handling, gain control and numerous additional media processing features. It offers certified interoperability with leading unified communications solutions and SIP trunking providers.

#### Security

The Mediant 500L provides robust protection for the IP communications infrastructure, preventing Denial of Service, fraud and service theft and guarding against cyber-attacks and other service-impacting events.

#### Reliability

The Mediant 500L offers and maintains high voice quality to deliver reliable enterprise VoIP communications. Advanced call routing mechanisms, network voice quality monitoring and branch survivability capabilities (including PSTN fallback with E911) result in minimum communications downtime.

#### Applications

- SIP trunking
- Hosted PBX & UC as a Service
- IP contact centers
- · Remote and mobile worker support
- SIP mediation between UC and IP-PBX systems



## Mediant<sup>™</sup> 500L

#### SPECIFICATIONS

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|--|---|---|--|
| Capacities   |   |   |  |
| Max. Signaling/Media<br>Sessions   | 60  | Max. SRTP/RTP Sessions  | 45   |
| Max. Registered Users  | 200   |   |  |
| Telephony Interfaces   |   |   |  |
| Digital  | 1-4 BRI ports, network S/   | T interfaces, NT or TE terminatior  | 1  |
| Clock Source   | 5 ppm High Precision  |   |  |
| Network Interfaces   |   |   |  |
| Ethernet   | 4 FE interfaces configure   | d in 1+1 redundancy or as individ   | lual ports   |
| Security   |   |   |  |
| Access Control   | DoS/DDoS line rate prote  | ction, bandwidth throttling, dynar  | nic blacklisting   |
| VoIP Firewall  | RTP pinhole managemen<br>RTP latching   | t, rogue RTP detection and prever   | ntion, SIP message policy, advanced  |
| Encryption/Authentication  | TLS, SRTP, HTTPS, SSH, o  | lient/server SIP Digest authentica  | ation, RADIUS Digest   |
| Privacy  | Topology hiding, user privacy   |   |  |
| Traffic Separation   | VLAN/physical interface separation for multiple media, control and OAMP interfaces  |   |  |
| Intrusion Detection System   | Detection and prevention of VoIP attacks, theft of service and unauthorized access  |   |  |
| Interoperability   |   |   |  |
| SIP B2BUA  | Full SIP transparency, ma   | ture and broadly deployed SIP sta   | ack, stateful proxy mode   |
| SIP interworking   | 3xx redirect, REFER, PRACK, session timer, early media, call hold, delayed offer  |   |  |
| Registration and<br>Authentication   | User registration restriction control, registration and authentication on behalf of users, SIP<br>authentication server for SBC users   |   |  |
| Transport Mediation  |   | Pv4 / IPv6, RTP / SRTP (SDES)   |  |
| Message Manipulation   | Ability to add/modify/delete SIP headers and message body using advanced regular expressions  |   |  |
| URI and Number<br>Manipulations  | (regex)<br>URI user and host name manipulations, ingress and egress digit manipulation  |   |  |
| Transcoding and Vocoders   | Coder normalization including transcoding, coder enforcement and re-prioritization, extensive vocoder support: G.711, G.723.1, G.726, G.729, GSM-FR, AMR-NB/WB, SILK-NB/WB, Opus-NB/WE  |   |  |
| Signal Conversion  | DTMF/RFC 2833/SIP, T.38 fax, packet-time conversion   |   |  |
|  | DTMI/10 2000/01, 1.0  | o lax, packet-time conversion   |  |
| NAT  |   | versal for support of remote work   | ers  |
|  |   |   | ers  |
| Voice Quality and SLA  | Local and far-end NAT tra   |   |  |
| Voice Quality and SLA<br>Call Admission Control  | Local and far-end NAT tra   | versal for support of remote work<br>sion establishment rate, number  |  |
| Voice Quality and SLA<br>Call Admission Control<br>Packet marking  | Local and far-end NAT tra<br>Based on bandwidth, ses  | versal for support of remote work<br>sion establishment rate, number<br>DiffServ, TOS   |  |
| Voice Quality and SLA<br>Call Admission Control<br>Packet marking<br>Standalone Survivability  | Local and far-end NAT tra<br>Based on bandwidth, ses<br>802.1p/Q VLAN tagging,<br>Maintains local calls in th<br>Packet Loss Concealmen   | versal for support of remote work<br>sion establishment rate, number<br>DiffServ, TOS<br>e event of WAN failure.  | of connections/registrations<br>uffer, Silence Suppression/Comfort   |
| Voice Quality and SLA<br>Call Admission Control<br>Packet marking<br>Standalone Survivability<br>Impairment Mitigation<br>Voice Enhancement  | Local and far-end NAT tra<br>Based on bandwidth, ses<br>802.1p/Q VLAN tagging,<br>Maintains local calls in th<br>Packet Loss Concealmen<br>Noise Generation, RTP re   | versal for support of remote work<br>sion establishment rate, number<br>DiffServ, TOS<br>ne event of WAN failure.<br>t, Dynamic Programmable Jitter B<br>dundancy, broken connection det<br>justic echo cancellation, replacing   | of connections/registrations<br>uffer, Silence Suppression/Comfort<br>ection   |
| Voice Quality and SLA<br>Call Admission Control<br>Packet marking<br>Standalone Survivability<br>Impairment Mitigation<br>Voice Enhancement<br>Direct Media  | Local and far-end NAT tra<br>Based on bandwidth, ses<br>802.1p/Q VLAN tagging,<br>Maintains local calls in th<br>Packet Loss Concealmen<br>Noise Generation, RTP re<br>Transrating, RTCP-XR, Acc<br>detection, Fixed & dynam  | versal for support of remote work<br>sion establishment rate, number<br>DiffServ, TOS<br>ne event of WAN failure.<br>t, Dynamic Programmable Jitter B<br>dundancy, broken connection det<br>justic echo cancellation, replacing   | of connections/registrations<br>uffer, Silence Suppression/Comfort<br>ection<br>g voice profile due to impairment  |
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| Voice Quality and SLA<br>Call Admission Control<br>Packet marking<br>Standalone Survivability<br>Impairment Mitigation<br>Voice Enhancement<br>Direct Media<br>(No Media Anchoring)<br>Voice Quality Monitoring<br>Quality of Experience<br>Test agent<br>SIP Routing<br>Routing Methods<br>Advanced Routing Criteria<br>Routing Features<br>SIPRec<br>Management<br>OAM&P<br>Physical / Environmental<br>Dimensions<br>Weight<br>Mounting | Local and far-end NAT tra<br>Based on bandwidth, ses<br>802.1p/Q VLAN tagging,<br>Maintains local calls in th<br>Packet Loss Concealmen<br>Noise Generation, RTP re<br>Transrating, RTCP-XR, Acd<br>detection, Fixed & dynam<br>Hair-pinning of local calls<br>RTCP-XR, AudioCodes See<br>Access control and media<br>Ability to remotely verify of<br>Request URL, IP address,<br>REST API<br>QoE, bandwidth, SIP mess<br>Least-cost routing, call for<br>and prioritization<br>IETF standard SIP record<br>Browser-based GUI, CLI, S<br>51 x 296 x 160 mm (2 x<br>670g<br>Desktop<br>Single universal AC powe | versal for support of remote work<br>sion establishment rate, number<br>DiffServ, TOS<br>ee event of WAN failure.<br>t, Dynamic Programmable Jitter B<br>dundancy, broken connection det<br>boustic echo cancellation, replacing<br>ic voice gain control<br>to avoid unnecessary media dela<br>ssion Experience Manager (SEM)<br>a quality enhancements based on<br>onnectivity, voice quality and SIP<br>FQDN, ENUM, advanced LDAP, th<br>sage (SIP request, coder type, etc<br>rking, load balancing, E911 gatew<br>ng interface<br>SNMP, INI Configuration file, REST<br>11.65 x 6.3 in.) (HxWxD) | of connections/registrations  uffer, Silence Suppression/Comfort ection g voice profile due to impairment ys and bandwidth consumption  QoE and bandwidth utilization message flow between SIP UAs anird-party routing control through c.), Layer-3 parameters vay support, emergency call detection  API, EMS //3A or 12V/5A            |

#### **ABOUT AUDIOCODES**

AudioCodes Ltd. (NasdagGS: 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, VolPerfect HDTM, 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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