Hybrid SBC and Media Gateway

The AudioCodes Mediant 500 enterprise session border controller (E-SBC) and media gateway is a compact, high performance VoIP connectivity solution for small enterprises and branch office locations.

Scaling up to 250 concurrent sessions, the Mediant 500 connects IP-PBXs to any SIP trunking service provider and offers superior performance in connecting any SIP to SIP environment.

The Mediant 500 also supports up to 30 voice channels in a 1U platform to enable versatile connectivity between TDM and VoIP networks, such as connecting legacy TDM PBX systems to IP networks and IP-PBXs to the PSTN.

250 SBC Sessions | 30 TDM Sessions | 1+1 High Availability | WebRTC Gateway

- **Comprehensive interoperability**
  Proven interoperability with SIP trunks, SIP platforms and IP cloud services

- **Hybrid functionality**
  True hybrid SBC and gateway platform for gradual migration and reduced space and power footprints

- **Enhanced security**
  Robust perimeter defense against cyber, DoS and DDoS attacks, as well as eavesdropping, fraud and service theft

- **Superior voice quality**
  Advanced capabilities for optimizing and monitoring voice service quality

- **High resiliency**
  High availability using 1+1 redundancy, local branch survivability and Ethernet redundancy
## Specifications

### Capacities

<table>
<thead>
<tr>
<th>Feature</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Signaling</td>
<td>250</td>
</tr>
<tr>
<td>Max. RTP/SRTP Sessions</td>
<td>200</td>
</tr>
<tr>
<td>Max. Registered Users</td>
<td>1,500</td>
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</tbody>
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### Telephony Interfaces

- **Digital**: Single E1/T1 interface
- **Clock Source**: 5 ppm High Precision
- **Digital PSTN Protocols**: Various ISDN PRI protocols such as EuroISDN, North American NI-2, Lucent™ 4/SESS, Nortel™ DMS-100 and others. Different CAS protocols, including MFC R2, E&M immediate start, E&M delay dial/start and others.

### Network Interfaces

- **Ethernet**: 4 GE interfaces configured in 1+1 redundancy or as individual ports

### Security

- **Access Control**: DoS/DDoS line rate protection, bandwidth throttling, dynamic blacklisting (Intrusion Detection System)
- **VoIP Firewall**: RTP pinhole management, rogue RTP detection and prevention, SIP message policy, advanced RTP latching
- **Encryption/Authentication**: TLS, SRTP, HTTPS, SSH, client/server SIP Digest authentication, RADIUS Digest
- **Privacy**: Topology hiding, user privacy
- **Traffic Separation**: VLAN/physical interface separation for multiple media, control and OAMP interfaces

### Interoperability

- **SIP B2BUA**: Full SIP transparency, mature and broadly deployed SIP stack, stateful proxy mode
- **SIP Interworking**: 3xx redirect, REFER, PRACK, session timer, early media, call hold, delayed offer
- **Registration and Authentication**: User registration restriction control, registration and authentication on behalf of users, SIP authentication server for SBC users
- **Transport Mediation**: Mediation between SIP over UDP/TCP/TLS, IPv4/IPv6, RTP/SRTP (SDES)
- **Header Manipulation**: Add/modify/delete SIP headers and message body using simple WireShark-like language with powerful capabilities such as variables and utility functions
- **Number Manipulations**: Ingress and egress digit manipulation
- **Signal Conversion**: DTMF/RFC 2833/SIP, T.38 fax, T.38 V3, V.34, packet-time conversion
- **NAT**: Local and far-end NAT traversal for support of remote workers

### Voice Quality and SLA

- **Call Admission Control**: Limit number and rate of concurrent sessions and registers per peer for inbound and outbound directions
- **Packet Marking**: 802.1p/Q VLAN tagging, DiffServ, TOS
- **Standalone Survivability**: Maintains local calls in the event of WAN failure. Outbound calls can use PSTN fallback (including E911)
- **Voice Monitoring and Enhancement**: Transrating, RTCP-XR, acoustic echo cancellation, replacing voice profile due to impairment detection, fixed and dynamic voice gain control, packet loss concealment, dynamic programmable jitter buffer, silence suppression/comfort noise generation, RTP redundancy, broken connection detection
- **Direct Media**: Hair-pinning (no media anchoring) of local calls to avoid unnecessary media delays and bandwidth consumption
- **High Availability**: SIP high availability with two-box redundancy, active calls preserved
- **Test Agent**: Ability to remotely verify connectivity, voice quality and SIP message flow between SIP UAs

### SIP Call Handling

- **Criteria**: Incoming SIP trunk, DID ranges, host names, any SIP headers, codecs, GoS, bandwidth
- **Querying External Databases**: Destinations based on customized queries of ENUM, LDAP, HTTP server (REST API)
- **Available Destinations**: Configured SIP peers, registered users, IP address, request URI
- **Advanced Features**: Alternative destinations, load balancing, LCR, call forking, E911 emergency call detection and prioritization
- **SIPREC**: IETF standard SIP recording interface

### Management

- **OAM&P**: Browser-based GUI, CLI, SNMP, INI Configuration file, REST API, OVOC

### Physical/Environmental

- **Dimensions**: 43.7 (1U) x 310 x 210 mm (HxWxD)
- **Weight**: 4.4 lb (2.0kg)
- **Mounting**: Desktop or 19" rack mount
- **Power**: 100-240V, 50-60 Hz, 0.8A
- **Environmental**: Operational: 0 to 40°C (41 to 104°F); Storage: -25 to 70°C (-13 to 185°F) Relative Humidity: 10 to 90% non-condensing

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**International Headquarters**

1 Hayarden Street, Airport City

Lod 7019900, Israel

Tel: +972-3-976-4000

Fax: +972-3-976-4040

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**AudioCodes Inc.**

27 World’s Fair Drive,

Somerset, NJ 08873

Tel:+1-732-469-0880

Fax:+1-732-469-2298

Contact us: www.audiocodes.com/contact

Website: www.audiocodes.com

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