The AudioCodes Mediant Server Edition (SE) and Virtual Edition (VE) Session Border Controllers (SBC) are software-only versions of AudioCodes field-proven hardware-based SBC products, designed to offer service providers and enterprises a flexible and scalable SBC solution that meets the requirements of today's data center infrastructures. The Mediant SE/VE SBCs support wide-ranging SIP interoperability, delivering service assurance and enabling scalable, reliable and secured connectivity between different VoIP networks.

Mediant SE (Server Edition)
- Runs on dedicated Commercial Off-the-Shelf (COTS) servers
- Aimed at high-scale environments

Mediant VE (Virtual Edition)
- Runs in virtualized datacenter environments
- Supports VMware and Hyper-V

Extensive Mediation Capabilities and Proven Interoperability
The Mediant SE/VE SBCs include comprehensive media security and SIP normalization capabilities. It offers full interoperability with an extensive list of IP-PBXs, unified communications solutions and SIP trunking provider networks.

Security
The Mediant SE/VE SBCs provide robust protection for the IP communications infrastructure, preventing fraud and service theft and guarding against cyber-attacks and other service-impacting events.

Reliability
The Mediant SE/VE SBCs offer active/standby high availability and maintain high voice quality to deliver reliable enterprise VoIP communications. Advanced call routing mechanisms, network voice quality monitoring and branch survivability capabilities 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
- Residential VoIP

Benefits
- Designed for deployment in standardized data center environments
- Supports Network Functions Virtualization (NFV)
- Same code base as AudioCodes field-proven hardware-based SBCs
- Simplifies and accelerates SBC deployments
- Offers comprehensive security, interoperability and reliability
- Delivers high service performance and voice quality
- Flexible licensing options for cost-effective scalability
- Runs on dedicated COTS servers and in virtualized environments

Key Features
- Scalable to thousands of SBC sessions
- Extensive SIP mediation capabilities
- Supports remote workers and mobile SIP clients
- Perimeter defense against denial of service, fraud and eavesdropping
- VoIP quality monitoring and enforcement
- Branch survivability during WAN failure
- Active/Standby High Availability
### AudioCodes Session Border Controller (SBC) Products

#### Mediant™ SE/VE

**Specifications**

<table>
<thead>
<tr>
<th>Capacities</th>
<th>Mediant VE SBC</th>
<th>Mediant SE SBC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Signaling/Media Sessions</td>
<td>2,000</td>
<td>16,000</td>
</tr>
<tr>
<td>Max. SRTP-RTP Sessions</td>
<td>1,000</td>
<td>12,000</td>
</tr>
<tr>
<td>Max. Registered Users</td>
<td>10,000</td>
<td>24,000</td>
</tr>
</tbody>
</table>

**Security**

- **Access Control**: DoS/DDoS line rate protection, bandwidth throttling, Dynamic Blacklisting
- **VoIP Firewall**: RTP pinhole management, Rogue RTP detection and prevention, SIP message policy
- **Encryption and 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 OAM interfaces
- **Intrusion Detection System**: Detect and mitigate VoIP attacks, prevent Theft of Service and unauthorized access.

**Interoperability**

- **SIP B2BUA**: Full SIP transparency, mature & broadly deployed SIP stack
- **SIP Interworking**: 3xx redirect, REFER, PRACK, Session Timer, Early media, Call hold, Delayed offer
- **Registration**: Registration and authentication on behalf of an IP-PBX
- **Transport Mediation**: SIP over UDP to SIP over TCP or SIP over TLS, IPv4 to IPv6, RTP to SRTP
- **Header Manipulation**: Ability to add/modify/delete headers using advanced regular expressions
- **URI and Number Manipulations**: URI User and Host name manipulations, Ingress & Egress Digit Manipulation
- **Coder normalization**: Coder enforcement and re-prioritization
- **NAT**: Local and Far End NAT traversal for support of remote workers

**Voice Quality and SLA**

- **Call Admission Control**: Based on bandwidth, session establishment rate, number of connections/registrations
- **Packet Marking**: 802.1p/Q VLAN tagging, DiffServ, TOS
- **Stand Alone Survivability**: Maintain local calls in the event of WAN failure
- **Transparent Media**: Low latency, unprocessed payload transfer
- **Media De-anchoring**: Hair-pinning of local calls to avoid unnecessary media delays and bandwidth consumption
- **Redundancy**: High availability with two box redundancy, Active calls preserved
- **Voice Quality Monitoring**: AudioCodes Session Experience Manager (SEM)
- **Quality of Experience**: Access control and media quality enhancements based on QoE and bandwidth utilization
- **Test agent**: Ability to remotely verify connectivity, voice quality and SIP message flow between SIP UAs

**SIP Routing**

- **Routing Methods**: Request URL, IP Address, FQDN, ENUM, advanced LDAP
- **Advanced Routing Criteria**: QoE, bandwidth, SIP message (SIP request, Coder type etc)
- **Redundancy**: Detect proxy failures and route to alternative proxies
- **Routing Features**: Least cost routing, call forking, load balancing
- **SIPRec**: IETF standard SIP recording interface

**Mediant VE SBC Minimum Requirements**

- **Hypervisor**: VMware ESXi version 5.1 or later / Hyper-V 2008 & 2012
- **Virtual NICs**: 2 (Standalone) / 3 (High Availability)
- **Memory**: 2 GB
- **Disk space**: 10 GB

**Mediant SE SBC Minimum Requirements**

Contact AudioCodes or an authorized AudioCodes reseller for a list of recommended server specifications

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**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, VoIPerfect 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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