

## Mediant™ CE/VE/SE

## Mediant CE/VE/SE Software Session Border Controller (SBC)

AudioCodes Mediant Software Session Border Controller (SBC)는 광범위한 SIP 상호 운용성, 훌륭한 미디어 처리 및 강력한 보안을 지원하는 확장성이 뛰어난 SBC 솔루션입니다. AudioCodes Mediant 소프트웨어 SBC는 기업 및 서비스 공급자가 Private 또는 Public Cloud를 통해 SIP 트렁킹 및 통합 커뮤니케이션과 같은 음성 서비스를 제공할 수 있게 합니다.



Mediant 소프트웨어 SBC는 다양한 고객의 배포 요구 사항을 충족시키기 위하여 아래와 같은 세 가지 방식으로 제공됩니다.

**Mediant CE** | 가상화 된 클라우드 환경에서 높은 확장성과 탄력성을 제공하는 클라우드 네이티브 SBC

**Mediant VE** | 가상화 된 데이터 센터, Public 클라우드 및 NFV 환경 배포를 위해 구축

**Mediant SE** | 대규모 통신 환경에서 Commercial off-the-shelf servers(COTS)에 실행하도록 설계

**포괄적인 SBC 기능 및 SIP 상호 운용성**

현장에서 검증된 AudioCodes의 하드웨어 기반 SBC로 코드 베이스 공유

**신속한 Cloud 배포**

Microsoft Azure 및 Amazon Web Services, Google Cloud Platform과 같은 private 및 public Cloud에서 최소한의 리소스 사용

**NFV-ready**

선도적인 NFV 오케스트레이터와의 입증된 상호 운용성

**향상된 확장성**

10개에서 수만개의 세션까지 쉽게 확장 가능

**High availability**

비즈니스 연속성을 위한 1:1 active-standby 구성

**고성능 및 강력한 보안**

암호화 및 공격 보호를 지원하는 내장형 소프트웨어 기반 미디어 트랜스코딩 지원

**선도적인 UC 및 호스트형 텔레포니 플랫폼에 대한 인증**

미디어 최적화를 지원하는 Teams Direct Routing 인증 SBC

**통합 WebRTC Gateway**

신호 및 미디어를 모두 지원하는 간단하고 안전한 WebRTC 배포

## Specifications

| Capacities                          |                                                                                                                                                                                                          |                     |                                                                  |
|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|------------------------------------------------------------------|
|                                     | Mediant CE                                                                                                                                                                                               | Mediant VE          | Mediant SE                                                       |
| Max. Signaling Sessions             | 40,000                                                                                                                                                                                                   | 24,000              | 70,000                                                           |
| Max. Media Sessions                 | 40,000                                                                                                                                                                                                   | 24,000              | 70,000                                                           |
| Max. SRTP-RTP Sessions              | 40,000                                                                                                                                                                                                   | 10,000              | 40,000                                                           |
| Max. Transcoding Sessions           | 27,000                                                                                                                                                                                                   | 12,000 <sup>1</sup> | 30,000 <sup>1</sup>                                              |
| Max. Registered Users               | 100,000                                                                                                                                                                                                  | 75,000              | 500,000                                                          |
| 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, advanced RTP latching                                                                                                    |                     |                                                                  |
| Encryption and Authentication       | TLS, DTLS, SRTP, HTTPS, SSH, client/server SIP Digest authentication, RADIUS Digest                                                                                                                      |                     |                                                                  |
| Privacy                             | Automatic 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                                                                                                                       |                     |                                                                  |
| STIR/SHAKEN                         | STIR/SHAKEN support. Interworking with STI-AS/VS                                                                                                                                                         |                     |                                                                  |
| 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                                                                                     |                     |                                                                  |
| Transport Mediation                 | SIP over UDP/TCP/TLS/WebSocket/SCTP, IPv4 / IPv6, RTP / SRTP (SDS/DTLS)                                                                                                                                  |                     |                                                                  |
| Header Manipulation                 | Ability to add/modify/delete SIP headers and message body using advanced regular expressions (regex)                                                                                                     |                     |                                                                  |
| URI and Number Manipulations        | 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.729A/B, GSM-FR, AMR-NB, AMR-WB (G.722.2), SILK-NB/WB, Opus-NB/WB |                     |                                                                  |
| Signal Conversion                   | DTMF/RFC 2833/SIP, T.38 fax, packet-time conversion                                                                                                                                                      |                     |                                                                  |
| WebRTC Gateway                      | Interworking between WebRTC devices and SIP networks. Supports WebSocket, Opus, VP8 video coder, lite ICE, DTLS, RTP multiplexing, secure RTCP with feedback                                             |                     |                                                                  |
| 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                                                                                                                                                                     |                     |                                                                  |
| Standalone Survivability            | Maintains local calls in the event of WAN failure.                                                                                                                                                       |                     |                                                                  |
| Impairment Mitigation               | Packet Loss Concealment, Dynamic Programmable Jitter Buffer, Silence Suppression/Comfort Noise Generation, RTP redundancy, broken connection detection                                                   |                     |                                                                  |
| Voice Enhancement                   | Transrating, RTP-XR, Acoustic echo cancellation, replacing voice profile due to impairment detection, Fixed & dynamic voice gain control                                                                 |                     |                                                                  |
| Direct Media                        | Hair-pinning of local calls to avoid unnecessary media delays and bandwidth consumption while avoiding media anchoring                                                                                   |                     |                                                                  |
| Voice Quality Monitoring            | RTP-XR, AudioCodes One Voice Operations Center (OVOC)                                                                                                                                                    |                     |                                                                  |
| High Availability                   | SBC 1+1 high availability with active calls preservation                                                                                                                                                 |                     |                                                                  |
| 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, third-party routing control through REST API                                                                                                         |                     |                                                                  |
| Advanced Routing Criteria           | QoE, bandwidth, SIP message (SIP request, coder type, etc.), Layer-3 parameters                                                                                                                          |                     |                                                                  |
| Redundancy                          | Detection of proxy failures and subsequent routing to alternative proxies                                                                                                                                |                     |                                                                  |
| Routing Features                    | Least-cost routing, call forking, load balancing, E911 gateway support, emergency call detection and prioritization                                                                                      |                     |                                                                  |
| SBC Media Types                     | Audio/Video/Fax/Text/Message Session Relay Protocol (MSRP)/Binary Floor Control Protocol (BFCP)                                                                                                          |                     |                                                                  |
| Recording Solutions                 | Lawful Interception (LI <sup>2</sup> ), SIPREC for both audio and video sessions                                                                                                                         |                     |                                                                  |
| Management                          |                                                                                                                                                                                                          |                     |                                                                  |
| OAM&P                               | Browser-based GUI, CLI, SNMP, INI Configuration file, REST API, HTTP reverse proxy<br>One Voice Operations Center (OVOC), Session Detail Records (SDRs)                                                  |                     |                                                                  |
| Multi-Tenancy                       | Advanced multi-tenant SBC partitioning                                                                                                                                                                   |                     |                                                                  |
| Deployment Tools                    | VNFM/Stack manager (Mediant CE), HEAT templates, Cloud Formation                                                                                                                                         |                     |                                                                  |
| Auto-scaling CE                     | Automatic, REST API, CLI, Web UI                                                                                                                                                                         |                     |                                                                  |
| Cloud Environments                  |                                                                                                                                                                                                          |                     |                                                                  |
| Public Cloud                        | Azure, AWS, GCP                                                                                                                                                                                          |                     |                                                                  |
| Private Cloud                       | OpenStack, VMware® vSphere                                                                                                                                                                               |                     |                                                                  |
| Mediant VE SBC Minimum Requirements |                                                                                                                                                                                                          |                     |                                                                  |
| Hypervisor                          | VMware® vSphere ESXi™ 5.5, & 6.5 and above, Linux KVM, Microsoft Hyper-V                                                                                                                                 | Virtual Resources   | 1 vCPU; 2 GB RAM; 10 GB Disk; Virtual NICS - 2/3 (Standalone/HA) |

<sup>1</sup> With media transcoding cluster

<sup>2</sup> Requires a dedicated software build

## About AudioCodes

AudioCodes Ltd. (NasdaqGS: AUDC)는 디지털 작업 공간을 위한 고급 음성 네트워킹 및 미디어 처리 솔루션의 선두 공급업체입니다. 기업 DNA의 일부인 인간 목소리에 대한 약속으로 AudioCodes는 기업과 서비스 제공업체가 통합 커뮤니케이션, 컨택 센터 및 호스팅된 비즈니스 서비스를 위한 IP 음성 네트워크를 구축하고 운영할 수 있도록 합니다. AudioCodes의 광범위한 혁신적인 제품, 솔루션 및 서비스는 대규모 다국적 기업과 전 세계의 선도적인 1차 사업자들에게 의해 사용되고 있습니다.

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