Enabling Data and Cloud Services

Service providers that deploy managed data services need a platform that will allow them to provide their business customers much more than just an internet connection. The AudioCodes Mediant™ 500L MSBR meets the requirements needed to support these services with integrated and powerful routing and security software. In addition, thanks to a unique architecture that ensures consistent high performance, the MSBR is a perfect solution for cloud data services enabling service providers to allay customers’ concerns as they move their key business functions to the cloud.

Enabling Voice Services

As service providers move to all-IP services, they encourage their SMB customers to replace their TDM trunks with SIP trunks and hosted PBX services and to take advantage of cost savings and a greater variety of collaborative services. AudioCodes Mediant™ 500L MSBR offers the service provider a robust set of voice features including an integrated voice gateway, analog and digital interfaces with various codecs that support analog phones, fax, PBX and PSTN connectivity, and session border controllers (SBC). The integrated SBC, acting as the demarcation point between the business network and the service provider SIP network, provides the interoperability, survivability, security and the quality assurance. The Mediant 500L MSBR supports both SIP trunking and hosted PBX deployments.

Branch Office Support

The Mediant™ 500L MSBR is a perfect solution for small branch offices that need to be connected to larger enterprise networks. Integrated security features such as VPN encryption, firewall while intrusion prevention protect the network and the perimeter, and integrated survivability and resilience features connectivity business continuity in case of loss of connectivity through redundant and backup networks.
**Mediant™ 500L Multi-Service Business Router**

**SIP Trunking Services**
Integrated with AudioCodes SBC software and SIP trunking connectivity features, the Mediant™ 500L MSBR offers a robust set of high-quality voice features, support for SIP protocols, various codecs, and built-in analog and digital interfaces.

**Hosted PBX Services**
The MSBR allows direct and seamless connection of SIP phones to the service provider IP Centrex service. Integrated with AudioCodes’ Cloud Resilience Package (CRP), the Mediant™ 500L MSBR ensures uninterrupted communications in the event of lost connection with the cloud provider’s control systems and thus alleviates concerns of businesses considering a move to the cloud.

**Specifications**

**TDM Interfaces**
- PSTN Capacity: 4, 6 or 8* voice channels, PSTN configuration dependent
- Digital Interfaces: 2 BRI ports (RJ-48c connectors)
- Analog Interfaces: Available Configurations:
  - 4 FXS ports
  - 3 FXS + 1 FXO
  - 4 FXS + 4 FXO*
  - 8 FXS*
  - FXO lifeline port in case of power failure (in 3FXS+1FXO configuration)
- BRI Interfaces: 2 BRI ports (4 calls), network S/T interfaces. NT or TE termination

**Networking Interfaces**
- WAN: 10/100/1000 Base-T Copper, Dual-Mode SFP (100Base-X and 1000Base-X)
- Support for, ADSL2+, VDSL
- LAN: 4 ports 10/100Base-TX, GbE 1000Base-T* support
- WiFi: WiFi Access Point support for 802.11 b/g/n 300M/600M dual with two antennas

**Media Processing**
- ECHO Cancellation: G.165 and G.168-2002, with 32, 64 or 128 msec tail length
- Quality Enhancement: Dynamic programmable jitter buffer, VAD, CNG
- CTMF/MEF Tones: Dedicated PSTN voice detection and generation, RFC 2833 compliant CTMF relay and Call Progress tones Detection and Generation
- IP Transport: VoIP (RTP/RTCP) per IETF RFC 3550 and 3551
- Flex Transport: T.38 compliant (real time fax), Automatic bypass to PCM

**Voice Signaling**
- Digital – PSTN Protocols: ISDN BRI: Euro ISDN, VN4/6 or QSIG
- Analog Signaling: Loop Start FXS/FXO, Caller ID, polarity reversal, distinctive ringing

**Data Routing**
- PPP, MP, PPPoE, PPVPN, L2TP, IPoE, IPoA
- IPv6: up to 64 PCs
- G.703 (send/receive): loopback, continuity check
- Shaping: LBR, VBR-NRT, VBR-RT, CBIR
- DHCP Client, Relay, server
- VLAN: Layer 3 routing and Layer 2 bridging, Jumbo frames
- Internal L3E to L2E switching
- Static and dynamic routing (RIP, OSPF, OSPFv2, BGP4), Policy-Based Routing
- Multicast routing (IGMPV-2, IPv6, IPv4, IPv4 Dual Stack, EVPMP, DHCPv6, VLAN)

**Security**
- SIP Header conversion
- SIP Normalization
- Cloud Resilience Package
- IP to IP trunking using various SIP transport types: UDP, TCP, TLS Translation of RTP, SRTP
- Support SIP-Peek with multi-ITSP (Registrations to ITSPs is invoked independently) Tying SIP and Call Admission Control
- Call Blacklist/White list
- IPSec, GRE, L2TP
- ESP – Tunnel mode
- Encryption (DES, 3DES, AES)
- Authentication Header
- MD5 and – IPsec (XPF)
- Perfect Forward Secrecy
- 128/192
- Fragmented traffic
- Malformed Request
- Ping of Death
- Properly formed request from unauthenticated source
- DDOS attacks
- SPF flood
- VLAN routing
- Stateful packet inspection firewall
- DNS
- Port Triggering
- Packet Filtering
- Application Layer Gateway

**Hardware**
- Power Supply: Single, wall mount, universal 90-260 V AC
- Physical Dimensions: 310 x 220 x 162

**Regulatory Compliance**
- UL60950-1, EN60950-1, CB certification including National deviations
- EN55022 Class A, EN55024, EN55032, EN61000-3-2, EN61000-3-3, EN300 386, FCC Part 15 Class A
- Safety and EMC Standards: UL60950-1, EN60950-1, CB certification including National deviations
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- Telecommunication Standards: TIA/EIA-606-B, ETSI 300 203-01 (GTP Interface), TBR-4 TE B-13 (E1 interface), AS/AF0013A, AS/AF018 (E1 interface), AS/AF001-00F (FXO port), AS/AF001-00F (FXS port), ITU-T Brazilian specific configurations, H248 (specific configuration), KSA-South Africa TEA (specific configuration)

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