

Product Notice #0232

AudioCodes Mediant MSBR Family Licensing Packages

Notice Subject

AudioCodes Mediant family of Multi-Service Business Routers (MSBR) comprises a scalable set of demarcation devices for service provider cloud business communications services. To help customers get the best out of their MSBRs, AudioCodes offers a flexible software licensing model. This Product Notice presents the MSBR licensing options and explains how the different options can be combined.

Notice Date

January 26, 2015

Notice Effective Date

Immediate

Affected Product Family / Part Numbers

- Mediant MSBR

Notice Details

AudioCodes Mediant family of Multi-Service Business Routers (MSBR) comprises a scalable set of demarcation devices for service provider cloud business communications services. Aimed at SME, SMB and SOHO end-users, the Mediant MSBRs combine access, data, voice and security onto a single device. They are perfectly suited for managed data, SIP Trunking, Hosted PBX, and cloud-based services, and enable service providers to deploy flexible and cost-effective solutions.

To help customers get the best out of their MSBRs, AudioCodes offers a flexible software licensing model. In addition to a rich feature base included by default, the Mediant MSBRs support additional optional licensing packages which significantly enhance the device's functionality, enabling service providers to offer fully customized business services.

The Mediant MSBR licensing options offer:

- Enhanced data routing and switching
- WAN flexibility and redundancy
- Comprehensive data security
- Advanced QoS and policy management

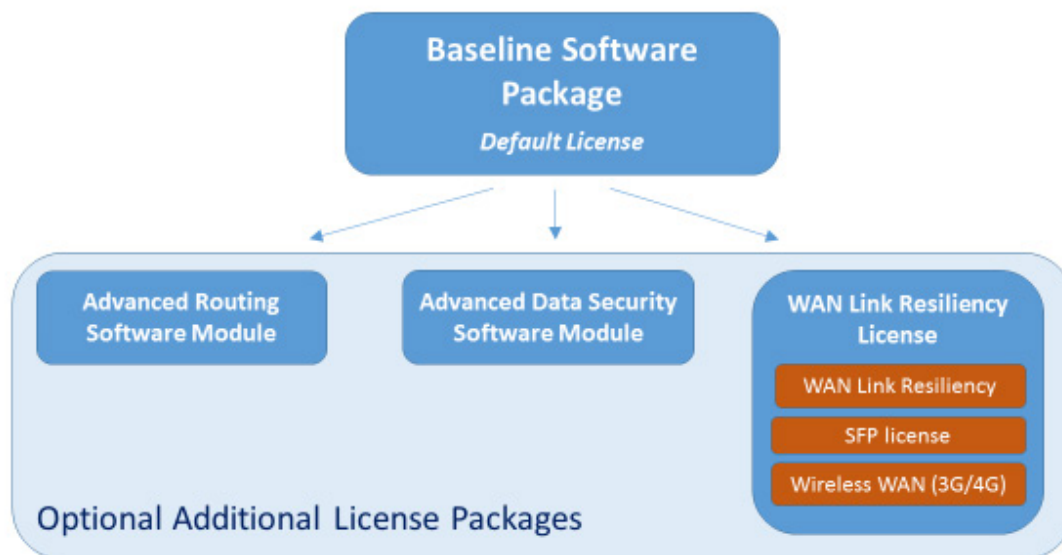
This Product Notice presents the MSBR licensing options and explains how the different options can be combined.

Introduction

Starting with Software Version 6.8 and AudioCodes Price Book Version 4.8, AudioCodes Mediant MSBR software licensing consists of a **Baseline Software Package license** which is included with the product by default and three optional advanced license packages:

- **Advanced Routing Software Module** including advanced data routing and QoS services
- **Advanced Data Security Software Module** offering enhanced protection
- **WAN Link Resiliency License** enabling WAN diversity with interface redundancy

Customers can choose to purchase any combination of the advanced license packages based on their own particular requirements.



Baseline Software Package License

As previously mentioned, this is the default software license provided with all MSBR products. It offers a rich set of routing and other data networking features.

Features	Benefits
IP and IP Services Features	Provides essential IP protocol and routing features for IPv4 and IPv6
Switching	Enables secure and flexible segmentation of network resources
Metro Ethernet	Offers direct connectivity to the Metro edge
xDSL	Supports a variety of xDSL standards, including multi-mode ADSL2+ and VDSL2, SHDSL 4 pairs
T1/E1 Leased lines	Supports legacy-bonded T1/E1 leased lines
Wi-Fi	Supports secured Wi-Fi access
Security	Protects the network from malicious threats and fraud
Quality of Service	Provides comprehensive support for QoS mechanisms including queuing, traffic shaping, packet marking

The complete list of features included in the Baseline Software License can be found in Appendix 1 in this Product Notice.

Advanced Routing License

The Advanced Routing License includes additional routing features for IPv4 and IPv6 as well as advanced QoS mechanisms. For more details, refer to Appendix 2.

Advance Data Security License

The Advanced Data Security License offers additional secure VPN features including remote user access and VRF-aware VPNs. For more details, refer to Appendix 3.

WAN Link Resiliency License

For the MSBR models that offer WAN resiliency (i.e., Mediant 500L, 500 and 800), there are a set of license options available to activate multiple simultaneous WAN connections. By default, the MSBR is provided with two activated WAN ports – one copper Ethernet and the other either xDSL or E1/T1 – only one of which can be used at any one time.

The following license options are available:

License Option	Description
WAN Link Resiliency	Activates both copper Ethernet and xDSL/E1-T1 ports simultaneously, in active:standby or active-active mode
SFP License	Enables SFP interface and WAN-Link Resiliency license
WWAN (3G/4G)	Enables Wireless WAN and WAN-Link Resiliency license



Note: The SFP and WWAN licenses both include the WAN Link Resiliency License giving users full flexibility when planning their data connectivity redundancy strategy.

Appendix 1 – Baseline Software License Full Details

IP and IP Services Features – IPV4
• RIPv1 and RIPv2
• Generic Routing Encapsulation (GRE)
• Fastpath forwarding
• Layer 2 Tunneling Protocol (L2TPv2)
• Dynamic Host Configuration Protocol (DHCP) Server, Relay, Client - IPv4
• Dynamic Domain Name System (DNS), DNS Proxy
• Network Address Translation (NAT): 1:1, 1:N
• Network Address Port Translation (NAPT)
• DHCP Server options for IP Phone provisioning
• Embedded TFTP server for IP Phone configuration
• HDLC and Point-to-Point and Multilink-Point-to-Point (PPP, ML-PPP) - T1/E1 leased lines WAN
• Layer 3 reachability Object-tracking
• Flexible WAN: xDSL, T1-E1 WAN, copper Ethernet, dual-mode SFP and 3G/4G dongles
IP and IP Services Features – IPv6
• IPv6 address architecture
• IPv4/IPv6 Dual Stack
• IPv6 Stateless Address Auto Configuration (SLAAC)
• IPv6 DHCP, Relay, Client
• Internet Control Message Protocol v6 (ICMPv6)
• Network Control Protocol v6 (NCPv6)
• Fastpath forwarding
ATM Services ADSL/SHDSL (ATM interfaces only)
• ATM Unspecified Bit Rate (UBR)
• Constant Bit Rate (CBR)
• Variable Bit Rate non-real-time (VBR-nrt)
• ATM Variable Bit Rate real-time (VBR-rt)
• ATM Operations, Administration, and Maintenance (OA&M) support for F5 Continuity Check
• Segment and end to end loopback;
• Integrated Local Management Interface (ILMI) support
• 8 ATM virtual circuits
• RFCs 1483 and 2684

<ul style="list-style-type: none"> • Point-to-Point Protocol over ATM (PPPoA) • PPP over Ethernet (PPPoE)
Switch Features
<ul style="list-style-type: none"> • Auto Media Device In/Media Device Cross-Over (Medium Dependent Interface (MDI)/MDI crossover (MDX)
<ul style="list-style-type: none"> • 50 802.1Q VLANs
<ul style="list-style-type: none"> • Access/Trunk Port for 802.1Q VLANs
<ul style="list-style-type: none"> • 802.3af and 802.3at PoE for up to 8 LAN ports on M500L and 12 LAN ports on M800
<ul style="list-style-type: none"> • Port mirroring
<ul style="list-style-type: none"> • Port forwarding
<ul style="list-style-type: none"> • LLDP, LLDP-MED for automatic SIP client discovery, configuration
<ul style="list-style-type: none"> • Rapid Spanning-Tree Protocol (RSTP)
<ul style="list-style-type: none"> • Flow control 802.3x
<ul style="list-style-type: none"> • 802.1x authenticator for client authentication
<ul style="list-style-type: none"> • Static MAC address lock
Metro Ethernet
<ul style="list-style-type: none"> • L2 bridging
<ul style="list-style-type: none"> • VDSL and SHDSL EFM mode
<ul style="list-style-type: none"> • Jumbo frames
<ul style="list-style-type: none"> • 802.1ag Connectivity Fault Management
<ul style="list-style-type: none"> • 802.3ah Ethernet OAM
xDSL
<ul style="list-style-type: none"> • Multimode VDSL2/ADSL2+ over Annex A, B, J, and M
<ul style="list-style-type: none"> • VDSL2 PSD Profiles up to 30 with support for Spectral Shaping
<ul style="list-style-type: none"> • VDSL2 Vectoring to offer near-fiber speeds over copper
<ul style="list-style-type: none"> • Support for 4-pair multimode G.SHDSL; i.e., ATM and EFM
<ul style="list-style-type: none"> • Remote management with TR-069/CWMP
<ul style="list-style-type: none"> • Investment protection with GE/SFP for Future Fiber that could replace xDSL deployment
<ul style="list-style-type: none"> • SHDSL.bis Annex F, Annex G – 5696 Kbps per pair

Multi-Mode ADSL2+ and VDSL2
<ul style="list-style-type: none"> • Lantiq chipset
<ul style="list-style-type: none"> • Dying gasp
<ul style="list-style-type: none"> • IEEE 802.1q VLAN tagging
<ul style="list-style-type: none"> • VDSL2: <ul style="list-style-type: none"> ✓ ITU G.993.2 (VDSL2) ✓ 997 and 998 band plans ✓ VDSL2 profiles: 8a, 8b, 8c, 8d, 12a, 12b, and 17a ✓ U0 band support (25 - 276 kHz) ✓ Ethernet PTM mode only based on IEEE 802.3ah 64/65 octet encapsulation ✓ DELT Diagnostics Mode
<ul style="list-style-type: none"> • ADSL2/2+: <ul style="list-style-type: none"> ✓ ADSL over basic telephone service with Annex A and Annex B ITU G. 992.1 (ADSL), G.992.3 (ADSL2), and G.992.5 (ADSL2+) ✓ ADSL over basic telephone service with Annex M (extended upstream bandwidth) G.992.3 (ADSL2) and G.992.5 (ADSL2+) ✓ G.994.1 ITU GHS ✓ Reach-extended ADSL2 (G.922.3) Annex L for increased performance on loop lengths greater than 16,000 feet from central office ✓ T1.413 ANSI ADSL DMT issue 2 compliance ✓ Impulse Noise Protection (INP) and extended INP ✓ Downstream Power Back-Off (DPBO) ✓ ATM mode only
SHDSL 4-pairs
<ul style="list-style-type: none"> • Lantiq Chipset
<ul style="list-style-type: none"> • 4-pair support
<ul style="list-style-type: none"> • Compliance with standard based on ITU Recommendation G.991.2
<ul style="list-style-type: none"> • Support for G.SHDSL Annexes A (U.S. signaling) and B (European signaling)
<ul style="list-style-type: none"> • Support for Annexes F and G
<ul style="list-style-type: none"> • Symmetrical WAN speeds up to: <ul style="list-style-type: none"> ✓ 1 x 2304 kbps over single copper pair ✓ 2 x 2304 kbps over two copper pairs ✓ 3 x 2304 kbps over three copper pairs ✓ 4 x 2304 kbps over four copper pairs using ITU-T G.991.2 Annexes A and B

<ul style="list-style-type: none"> • Symmetrical WAN speeds up to: <ul style="list-style-type: none"> ✓ 1 x 5696 kbps over single copper pair ✓ 2 x 5696 kbps over two copper pairs ✓ 3 x 5696 kbps over three copper pairs ✓ 4 x 56964 kbps over four copper pairs <p>using ITU-T G.991.2 Annexes F and G</p>
<ul style="list-style-type: none"> • Support for EFM bonding; supports up to four SHDSL pairs bonding
<ul style="list-style-type: none"> • In ATM mode, support for maximum of 8 permanent virtual circuits (PVCs)
<ul style="list-style-type: none"> • Support for dying gasp and wetting current
<ul style="list-style-type: none"> • Support for point-to-point configuration
<ul style="list-style-type: none"> • Support for 802.1Q, trunk, and VLAN tagging
<ul style="list-style-type: none"> • Support for ATM CoS and IP QoS features, 802.1P, and DSCP
<ul style="list-style-type: none"> • Support for EFM (IEEE 802.3ah) OA&M
Wi-Fi
<ul style="list-style-type: none"> • IEEE 802.11n draft 2.0 standards-based access point with 802.11 b/g compatibility
<ul style="list-style-type: none"> • Automatic rate selection for 802.11g/n
<ul style="list-style-type: none"> • 5GHz band on Mediant 500 and Mediant 800
<ul style="list-style-type: none"> • 2x2 MIMO radio operation (Mediant 500L)
<ul style="list-style-type: none"> • 3x2 MIMO radio operation (Mediant 500, Mediant 800)
<ul style="list-style-type: none"> • Removable antennas
<ul style="list-style-type: none"> • Wi-Fi 802.11n Draft v2.0 certified
<ul style="list-style-type: none"> • Standard 802.11i
<ul style="list-style-type: none"> • WPA and AES (WPA2)
<ul style="list-style-type: none"> • Extensible Authentication Protocol (EAP) authentication
<ul style="list-style-type: none"> • Wired Equivalent Privacy (WEP)
<ul style="list-style-type: none"> • Configurable external RADIUS for wireless clients
<ul style="list-style-type: none"> • 802.1x authenticator for client authentication
Security Features
<ul style="list-style-type: none"> • Access Control Lists (ACL)
<ul style="list-style-type: none"> • Hardware-accelerated DES, 3DES, AES 128, AES 192, and AES 256
<ul style="list-style-type: none"> • Stateful inspection transparent firewall
<ul style="list-style-type: none"> • Stateless or stateful firewall
<ul style="list-style-type: none"> • Advanced application inspection and control
<ul style="list-style-type: none"> • Dynamic and Static port security
<ul style="list-style-type: none"> • Port forwarding
<ul style="list-style-type: none"> • IPv6-aware ACL
<ul style="list-style-type: none"> • IPv6-aware Stateful Packet Inspection Firewall

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<ul style="list-style-type: none"> • IPsec VPN: Point-to-Point • IPsec/L2TP VPN server: teleworker
Quality of Service
<ul style="list-style-type: none"> • Strict Priority Queuing • Weighted Fair Queuing (WFQ) • Random Early Discard (RED) • Low-latency Queuing • Traffic shaping • Class-based WFQ • CoS and Diffserv/IP Precedence marking • CoS to Diffserv DSCP mapping • Minimum reserved throughput for real-time applications • IPv6-aware QoS • Voice quality monitoring with IPsec on WAN
Management Features
<ul style="list-style-type: none"> • Telnet • Simple Network Management Protocol Version 3 (SNMPv3) • Secure Shell (SSH) Protocol • CLI • HTTP management • RADIUS and TACACS+ • NetFlow v9 • Network Quality Monitoring (NQM), similar to IP SLA • NQM MIB • USB stick auto-run • Network Time Protocol (NTP) • Data Packet Capture - logical and physical • Syslog • Wireshark packet capture • AudioCodes SEM QoE reporting • Remote firmware and configuration management through auto-update • Auto archive - automated MSBR configuration file backup • TR-069, TR-104, TR-098 (Motive, Friendly, Axiros) • AudioCodes Redirect Services for zero-touch provisioning • BroadSoft Device Manager for auto-provision • SBC Wizard • Test Call Agent

Appendix 2 – Advanced Routing License Full Details

IP and IP Services Features - IPv4
• iBGP/eBGP
• BGP route distribution to OSPF, RIP
• Multiple VRFs with dynamic routing protocols (RIP, OSPF, BGP)
• VRFs with bridging and/or routing
• Multiple VRFs with system services (OAM, NTP, SNMP)
• VRF-aware NAT/NAPT
• Protocol Independent Multicast - Sparse Mode (PIM-SM)
• Policy-Based Routing
• Integrated Route Bridging
• Open Shortest Path First (OSPF)
• Packet Intercept (destination-based forwarding NAT)
• Internet Group Membership Protocol v3
• Internet Group Membership Protocol v3 snooping
• Multiple IP addresses in a NAT pool with NAT overload (NAPT)
IP and IP Services Features – IPv6
• RIPng
• IPv6 multi-VRF
• Open Shortest Path First (OSPF) v3
• BGP extensions for IPv6
• IPv6 multi-VRF with system services (OAM, NTP, SNMP)
• Multiple VRFs with IPv6 dynamic routing protocols
• IPv6/IPv4 NAT64/NAT46 for voice
• IPv6 WAN-Link Redundancy

Appendix 3 – Advanced Data Security License Full Details

IP and IP Services Features - IPv4
• Road warrior VPN Server (I2TP/IPSec)
• Internal AAA server for 802.1x port authentication
• VRF-aware VPN (GRE, IPSec)