Multi-Service Gateways EdgeMarc 4806, 4808

As enterprises of all sizes make the transition from legacy technologies to IP-based solutions such as SIP Trunking and Hosted Unified Communications, they require flexibility to cost effectively support this transition. Edgewater Networks EdgeMarc Multi-Service Gateways provides the interfaces and functions that allow service providers to deliver a single edge device that adapts to an end user's changing needs.

Ribbon Communications' EdgeMarc Multi-Service Gateways provide both PSTN gateway functions to support PRI and analog trunks, as well as an Enterprise Session Border Controller (eSBC) for security and Quality of Service (QoS) management of VoIP services. WAN interfaces include both Ethernet and optical, enabling the EdgeMarc 4806 and EdgeMarc 4808 to operate as an optical termination device. EdgeMarc 4806 and EdgeMarc 4808 are optimized to support the demanding needs of enterprises, supporting 1 Gbps symmetric WAN connections with up to 500 concurrent calls.

Key Benefits

- Future-proof design
- Supports both TDM and IP reduces capital expenses
- Supports data rates up to 1 Gbps
- Supports 2,000 registered users and 500 concurrent sessions
- VoIP aware firewall with stateful packet inspection

Ease of Management

As with all EdgeMarc devices, the EdgeMarc 4806 and EdgeMarc 4808 are managed with Edgewater Networks' industry leading EdgeView services control platform. EdgeView provides a comprehensive view of key performance parameters, enabling service providers to quickly diagnose issues and proactively solve them, minimizing escalations and truck rolls. EdgeView also features user management and reporting capabilities along with menu driven configuration and provisioning tools to make set-up and internetworking simple and intuitive.

	EdgeMarc 4806	EdgeMarc 4808
Concurrent Calls (max)	500	500
WAN Inputs (10/100/1000, RJ45)	2	2
Optical WAN (SFP)	2	2
LAN Ports (10/100/1000, RJ45)	8	8
PRI (RJ-48)	up to 2	up to 2
TI WAN (RJ-48)	up to 2	up to 2
FXO (RJ-11)	2	2
FXS (Amphenol)	6	22
SD Card	1	1

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Features and Capabilities	Specifications
Performance	
Maximum data throughput	1Gbps
Maximum sessions, voice only	500
Maximum number of registered devices (endpoints)	2000
Cloud2Edge Complete Compatible	Yes. See www.edgewaternetworks.com/products-services/cloud2edgecomplete for more details
Analog Port Features	
FXO Port (RJ-11)	Loop start, Far end disconnect supervision, Battery reversal, RTP silence detection
FXS Port (Amphenol telco connector)	• Loop Start • Ringer Equivalency Number (REN) – 5/port, 20/system • Ringing voltage >= 48Vrms 20Hz, selectable impedance • 48v on hook voltage, 24mA off-hook current
SIP Features	
Network Address Translation	• Network Address Translation (NAT): static, dynamic • Port Address Translation (PAT) • (provides topology hiding of hosts on the LAN)
Back-to-Back User Agent	Yes
Application Layer Gateway (SIP proxy)	Yes
Proxy Modes	• Transparent proxy mode • Multi-homed proxy mode
SIP Registration Pacing	Registration rates (LAN-side/WAN side) can be controlled
VoIP Test Call Agent	Remotely verify and troubleshoot connectivity
Header Manipulation	Full control to add/delete/modify SIP headers
Signaling Protocol (LAN/WAN)	UDP, TCP, TLS
Media Protocol (LAN/WAN)	RTP, SRTP
SIP Standards Compliance (primary standards)	• RFC 3261 • RFC 2327 • RFC 3263 • RFC 2833
Codecs	G.711, G.722, G.726 G.729
Fax	T.38 support for FXS interfaces
Security	
Firewall	Stateful, VoIP aware firewall
Denial of Service protection	SYN flood, UDP flood, ICMP flood, Fragment flood
Encryption and Authentication	TLS, SRTP, HTTPS, SSH, Radius
Encryption protocols supported	3DES, AES, SHA-256, MD-5
Key Management	IKE key management, IPSec
Proxy ARP	Yes
IPsec VPN	Yes (max 12 tunnels)
PPTP support	MSCHAP, MSCHAP V2, MSCHAP+MPPE
Voice Quality Measurement	
Per call statistics (LAN/WAN)	Full MOS support (including Jitter, Packet Loss)
Mean Opinion Score (MOS)	MOS tabulated every 10 seconds of every call on both WAN and LAN side of call leg.

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Features and Capabilities	Specifications
Traffic Management/Routing/QoS	
Routing	• BGP - fully functional BGP stack supporting Layer 2/3 IP WAN solutions (MPLS) • RIP • OSPF • PPPoE • Secondary address / Subinterface
Multicast	Protocol Independent Multicast – sparse mode (PIM-SM)
Traffic prioritization	• Class-based queueing (up to 8) • Prioritization on IP and port • Prioritization on VoIP protocol • Traffic Shaping • Call Admission Control • Upstream, downstream bandwidth management
DHCP server	Yes
QoS	Diffserv (DSCP), IP Precedence, policing
VLANs	• 802.1Q (up to 16) • Multi-VLAN ALG support
Network addressing	IPv4, IPv6
System Management	
Device Management	CLI, (SSH, Telnet) Web GUI (HTTP, HTTPS)
Remote upgrades, back-up, restore	TFTP, FTP, SCP, HTTP, HTTPS
Firmware	Dual local firmware image for upgrade and recovery
Network Management	SNMP v1, v3
Message Analytics	System monitoring and SIP statistics
Debug tools	Packet capture (tcpdump), traceroute, ping, syslog
Endpoint monitoring	Two-way Active Monitoring Protocol (TWAMP)
Edge Orchestration	EdgeView Service Control Center for device and endpoint management
EdgeView key functions	• Remote troubleshooting • Proactive management • Inventory management • Configuration management • Reporting and data analytics (for more information, please see: www.edgewaternetworks.com/products-services/edgeview/)
Hardware Specifications	
Dimensions (W x D x H)	16.75" x 13.375" x 1.7" (1 u)
Weight	6.5 lbs.
Mounting Options	Rack Mountable
MTBF	179,330 hours
Operating Temperature	0-40 deg. Celsius
Operating Relative Humidity	4% to 90% (non-condensing)
Compliance	RoHS 2.0, UL/cUL, CB, FCC part 15, FCC part 68, IC, CE, RCM and VCCI
Power	100/240 VAC-auto selecting, 50-60 Hz
Hardware Warranty	5 years
Software support and maintenance	First year included

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