![edgewater NETWORKS]

EdgeMarc IP-IP Gateways

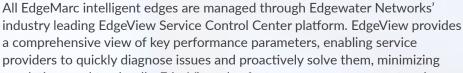## ENTERPRISE SESSION BORDER CONTROLLERS

BENEFITS:

- Scalable configuration based on session license and field upgradeable as business need grows

- EdgeView Service Control Center and EdgeMarc Intelligent Edge and greatly reduce operational expenses and increase customer satisfaction

- Supports data rates up to 1 Gb/s

- Available as a KVM

Deploying voice communications over the Internet can create quality and security issues that don't normally exist with traditional phone systems. To overcome these issues, intelligent edges are deployed on the customer network edge to ensure successful VoIP implementations. VoIP service providers deploy an intelligent edge in the form of an enterprise session border controller (ESBC) to improve voice quality and visibility into the customer environment, supporting both SIP trunking and hosted unified communications.

Edgewater Networks' EdgeMarcs are an ideal fit for today's high capacity broadband access networks, delivering superior performance for multiple simultaneous services including VoIP, voice quality monitoring, traffic management, traffic shaping, high capacity throughput, and security functionality at the customer edge. The EdgeMarc captures call quality statistics every 10 seconds on each call leg of every call with no impact to device performance or call quality. Data is sent to the Edgewater Networks EdgeView Service Control Center for reporting, analytics, and continuous service quality improvement. EdgeMarc can support up to 1,000 simultaneous calls and up to 1 Gb/s data rates.

EdgeMarc scale according to user demands, allowing service providers to deliver high quality VoIP solutions to customers of all sizes and network configurations.

EASE OF MANAGEMENT

All EdgeMarc intelligent edges are managed through Edgewater Networks' industry leading EdgeView Service Control Center 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.

KEY FEATURES:

- Supports 1,000 registered devices and 5 – 1,000 concurrent sessions
- Eight (8) 10/100/1000 Mbps LAN ports
- MOS scoring and call quality monitoring
- VoIP aware firewall with stateful packet inspection
- Call statistics, quality measurements, and alarms
- QoS functions including traffic shaping, prioritization, guaranteed bandwidth and call admission control (CAC)

VoIP Features

- Voice service are licenced per session and upgraded as needed
- ALG/B2BUA
- NAT for SIP
- SIP registration pacing
- Softswitch redundancy
- Proxy mode
- Multi-homed proxy mode
- Transparent proxy mode
- Configuration backup/restore
- Remote upgrades (FTP)
- Licence upgrade
- Health monitor/report
- MOS monitor/report for LAN & WAN
- TCPdump, Traceroute, Ping, Syslog

Voice Quality and SLA

- Per call statistics
- Mean Opinion Score (MOS) for all calls
- MOS measurement for WAN / LAN side
- MOS low threshold setting and alerts
- Listening quality R-factor
- Conversational quality R-factor
- Jitter and packet loss statistics
- Out of order packets

System SLA

- 1:1 System Redundancy for HA
- WAN Link redundancy
- PSTN access for SIP survivability via FXO and PRI (via external gateway)
- Softswitch redundancy

Security

- Password encryption for SIP User Agent
- Stateful packet inspection firewall
- VoIP aware firewall
- Dynamic network address translation
- Static network address translation
- Port address translation
- Denial of Service protection - SYN flood, UDP flood, ICMP flood, Fragment flood
- IPSec and IKE key management
- 3DES; AES; SHA-1; MD-5
- SIP signal security - TLS Transport

System Services

- Supports IPv4 and IPv6 addressing and services
- DHCP server
- Local TFTP/FTP server
- Automatic TFTP/FTP download on restart
- Restart using SD card storage

System Management

- EdgeView Virtual Appliance for device and endpoint management
- Dual local firmware image for upgrade and recovery
- Configuration backup/restore
- Remote upgrades (FTP)
- License upgrade
- Health monitor/report
- MOS monitor/report for LAN & WAN
- TCPdump, Traceroute, Ping, Syslog

SD MMC Slot

- Support classes: 2, 4, 6, 10, and UHS-1
- Maximum storage capacity: 32 GB/SD card, and 4 GB per file
- FTP and TFTP server functionality

Mean Time Between Failures (MTBF)

- EdgeMarc 4700: 175,408 hours
- EdgeMarc 4750: 166,198 hours
- EdgeMarc 4800: 179,330 hours

Specifications

- W: 10", D: 7", H: 1.7" (1U)
- Weight: 2 lbs
- 2 WAN x 10/100/1000 Mbps
- 8 LAN x 10/100/1000 Mbps
- RJ-45 with LED for status info
- Half or Full Duplex Auto Sensing

Hardware Compliance

- RoHS 2.0 compliant
- WEEE compliant
- UL/cUL, LVD, Gost-R, Mexico CoC, UL-AR
- FCC Part 15 Class A, ICES-003, VCCI Class A, KCC, CCC, C-tick, BSMI, ANA-TEL
- CE

Traffic Management/Routing/QoS

- IP Routing Protocols
- Class-based queuing
- Prioritization on IP and Port
- Prioritization on VoIP Protocol
- Traffic shaping
- Guaranteed bandwidth
- Upstream/downstream bandwidth management
- VoIP call admission control
- Diffserv marking; Diffserv policing
- Secondary address/subinterface support
- VLAN - 802.1Q for the LAN

Management Protocol

- Web GUI
- CLI
- HTTP, HTTPS
- SSH, Telnet
- SNMP v1, v3

Warranty

- 5 years hardware
- 1 year software

Features	EdgeMarc 4700	EdgeMarc 4750	EdgeMarc 4800
Max bandwidth (approx.)	100 Mb/s	100 Mb/s	1Gb/s
Concurrent calls	5-100	15-300	10-1,000
WAN inputs (Ethernet)	2	2	2
Optical WAN (SFP) ports	0	0	2
LAN ports	8	8	8
SD Card	1	1	1
Device Registrations (max)	1,000	1,000	2,000
Console Port (DB-9)	1	1	1
Embedded Memory (RAM)	512MB	1GB	2GB

About Edgewater Networks

Founded in October 2002, Edgewater Networks is a market leader in enabling IP-based voice, video and data services. Service providers and enterprises of all sizes use Edgewater Networks solutions to simplify customer premise configurations for quick and smooth installations, reduce time to market and deliver rapid return on invested capital. The company helps customers deliver intelligence at the network edge with its Network Edge Orchestration platform that includes the EdgeView Service Control Center, EdgeMarc Intelligent Edges and QuickConnect certification program.

To learn more, please visit www.edgewaternetworks.com or call (844) 405-3550.
Follow us on Twitter at @ewn_inc.