

EdgeMarc 4700 Series

Benefits

- Reduce telecom costs for SIP trunking and IP telephony business services
- High performance, compact, secure, and integrated VoIP platform for SMB Applications
- Scalable price optimized platforms supporting 5 - 100 concurrent calls and 1,000 registered devices
- Scalable configuration based on session license and field upgradeable as business need grows
- Connect branch/remote offices via service VPN tunnels
- Converged solution for voice and data services
- Continuous connectivity through high availability, link redundancy, and survivability access
- Supports IPv4 and IPv6

Key Features

- System and SIP Protocol Analytics through EdgeView
- Call pre-emption for priority calls
- Multiple Virtual LAN with ALG
- ALG/B2BUA and NAT for SIP
- MOS scoring and call quality monitoring
- Call statistics, quality measurements, and alarms
- QoS: Traffic shaping, prioritization, guaranteed bandwidth and CAC
- DHCP and local FTP/TFTP server
- VoIP Aware Firewall
- Stateful Packet Inspection (SPI)
- TLS, IPSec, and VPN
- IEEE 802.1X supplicant/client to request network access
- Management through Edgewater EdgeView Systems
- Management through Web GUI, CLI and SNMP
- High availability
- Survivable Access
- WAN Link redundancy
- Multi GigE WAN and LAN ports

Enterprise Session Border Controller

The EdgeMarc 4700 series enterprise session border controller provides the demarcation point for real-time flow control and traffic management for enterprise applications between IP networks. It is the ideal solution for today's high capacity broadband access networks.

The EdgeMarc 4700 series combines advanced real-time, high availability, management, networking, security features, and capabilities for voice and data services into a single, easy to use enterprise session border controller. The EdgeMarc 4700 and EdgeMarc 4750 delivers superior performance for multiple simultaneous services including voice, voice quality monitoring, traffic management, high capacity data throughput, and firewall. The platforms provide a price optimized solution based on capacity requirements. The EdgeMarc 4700 supports 5-100 simultaneous calls while the EdgeMarc 4750 support 15-100 simultaneous calls; both with up to a 100 Mbps symmetric data rate.

VoIP Enterprise Session Border Controller

Enables a single IP address to be used for multiple IP phones or IADs (SIP). Provides protocol fix-up for interoperability via header manipulation rules (HMR).

Traffic Management - Prioritizes voice over data traffic to ensure toll quality voice calls while allowing routed data traffic to burst up to full line rate when possible. Provides Call Admission Control (CAC) to ensure high quality voice calls.

Voice and Data Firewall - Uses stateful packet inspection for data and tracks VoIP signalling states to dynamically open and close ports, (D)DOS protection, VPN, and registration/SIP message rate pacing.

Service Continuity - Equipped with key features and capabilities to ensure continuous services. Services include system High Availability (HA) to provide system backup, WAN link redundancy to provide link backup, and PSTN interconnect (via external gateway) for a survivable option. Local call continuity is also maintained when network is disabled.

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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
- Dynamic VoIP clients list
- SIP over UDP to SIP over TCP or TLS Transport
- VoIP Test Call Agent
- Codec: G711, G729, G726, G722

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

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

Security

- Password encryption for SIP User Agent password
- 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)
- Licence upgrade
- Health monitor/report
- MOS monitor/report for LAN & WAN
- TCPdump, Traceroute, Ping, Syslog

Management Protocol

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

Capacity and Performance

- EdgeMarc 4700 supports 5 - 100 voice simultaneous sessions
- EdgeMarc 4750 supports 15-100 voice simultaneous sessions

- Supports 1,000 device registrations

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

WAN / LAN Interfaces

- 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

System Performance

- Supports 100Mbps downstream, 100 Mbps upstream
- EdgeMarc 4700 supports 5 - 100 calls
- EdgeMarc 4750 supports 15 - 100 calls

Specifications

- W: 10", D: 7", H: 1.7" (1U)
- Weight: 2.0 lbs
- Mounting: desktop, wall mount, and 19" rack mount
- Power requirements:
 - EdgeMarc 4700: 12 VDC * 3.33 AMP
 - EdgeMarc 4750: 12 VDC * 3.33 AMP
- LED Indicator: Power & Status (front/back)
- Operating Temperature: 0° to 40°C
- Relative Humidity: 10% to 90%

Mean Time Between Failures (MTBF)

- EdgeMarc 4700: 175,408 hours
- EdgeMarc 4750: 166,198 hours

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, ANATEL
- CE

Warranty - 5 years hardware / 1 year software

Part Number	Description
4700-100-0005	4700: EdgeMarc 5
4700-100-0010	4700: EdgeMarc 10
4700-100-0015	4700: EdgeMarc 15
4700-100-0030	4700: EdgeMarc 30
4700-100-0050	4700: EdgeMarc 50
4700-100-0100	4700: EdgeMarc 100
4700U-1x1-0005	4700: EM Upgrade 5 call increment
4700U-1x1-0015	4700: EM Upgrade 15 call increment
4700U-1x1-0020	4700: EM Upgrade 20 call increment
4700U-1x1-0050	4700: EM Upgrade 50 call increment
4700U-100-SURV	4700: VOS VoIP SIP Survivability - Basic

Part Number	Description
4750-100-0015	4750: EdgeMarc 15
4750-100-0030	4750: EdgeMarc 30
4750-100-0050	4750: EdgeMarc 50
4750-100-0070	4750: EdgeMarc 70
4750-100-0100	4750: EdgeMarc 100
4750U-1x1-0005	4750: EM Upgrade 5 call increment
4750U-1x1-0010	4750: EM Upgrade 10 call increment
4750U-1x1-0020	4750: EM Upgrade 20 call increment
4750U-100-SURV	4750: VOS VoIP SIP Survivability - Basic