

## Benefits

- Reduce telecom costs for SIP trunking and IP telephony business services
- High performance, compact, secure, and integrated VoIP platform for SMB Applications
- Scalable platform supporting up to 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

- 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

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# EdgeMarc 4700 Series

## 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 4750 (a member of the EdgeMarc 4700 series) delivers superior performance for multiple simultaneous services including voice, voice quality monitoring, traffic management, high capacity data throughput and firewall. It is the ideal solution for small and medium business, and service provider managed services such as SIP trunking and hosted IP telephony.

## 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.



## 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

- 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, and 100 calls while compute-intensive features are active

## Specifications

- W: 10", D: 7", H: 1.7" (1U)
- Weight: 2.0 lbs
- Mounting: desktop, wall mount, and 19" rack mount
- Voltage: 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)

- 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** - 3 years hardware / 90 days software

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

Part Number	Description
4750U-1x1-0005	4750: EdgeMarc Upgrade 5 call increment
4750U-1x1-0010	4750: EdgeMarc Upgrade 10 call increment
4750U-1x1-0020	4750: EdgeMarc Upgrade 20 call increment
4570U-100-SURV	4750: VOS VoIP SIP Survivability - Basic