

EdgeMarc 4508E Network Services Gateway

Introduction

The EdgeMarc 4508E combines an 8 port Integrated Access Device (IAD) and multiple voice and data features into a single, easy to use network services gateway. It provides a single Ethernet WAN port, a 4 port managed VLAN switch, and integrated analog phone ports.

The 4508E is a versatile system that replaces standalone IADs and is used to connect PBX/key systems and analog phones to managed PBX and SIP trunking services.

Feature Rich, Simple to Use - Key Features

- 8 x integrated FXS ports (SIP)
- IAD (Integrated Access Device)
- Multiple 4508E systems can be deployed for high port density
- VoIP survivability (local)
- Integrated 4 port managed Ethernet switch with VLAN support
- VoIP-aware VPN/Firewall
- VoIP application layer gateway (SIP and H.323) resolves NAT/Firewall traversal issues
- QoS: priority queuing, traffic shaping, diffserv marking/policing
- Integrated VoIP Test Call Agent-standalone or in conjunction with EdgeView ALT
- VoIP Call Admission Control (CAC)
- Passive call quality monitoring (MOS, jitter, latency and more)
- DHCP server
- NAT/PAT
- Management: HTTP, HTTPS, SSH, Telnet, SNMPv1 and V3

Product Benefits

All-in-one

One box for your data router, Ethernet switch, analog ports, firewall, VoIP ALG – with a single management interface.

Survivability

VoIP calls can be re-routed locally or over the PSTN during WAN link failures - using one device.

Quality of Service

Packet prioritization and data traffic shaping for VoIP calls.

Plug & Dial

Interoperates with top softswitch vendors to configure IP phones and the integrated analog ports in minutes, not hours.

Simplified troubleshooting

MOS statistics, call monitoring, LAN/WAN problem isolation from the router, Integrated VoIP Test Call Agent, TCPdump, PING, Traceroute and more.



Converged Networking. Simplified.

EdgeMarc 4508E Network Services Gateway

Specifications

| Interfaces | |
|--------------------------------------------------------------|---------------------------|
| Ethernet WAN | 1 |
| Autosensing | Yes |
| 10/100 Mbps | Yes |
| Duplex | Half or Full |
| PPPoE | Yes |
| Ethernet LAN | 4 |
| Autosensing | Yes |
| 10/100 Mbps | Yes |
| Duplex | Half or Full |
| Managed VLAN | Yes |
| Phone/FXS | 8 |
| Connector | RJ11 |
| Loop start | Yes |
| Ringer Equivalency Number (REN) | 5 per port; 20 per system |
| Ringing voltage: ≥ 50 Vrms at 20 Hz sinusoidal waveform | Yes |
| Selectable resistive and complex impedances for global usage | Yes |
| 48V on-hook voltage | Yes |
| 24mA off-hook current | Yes |
| USB ports | 2 |
| Console Connector | 1 DB9 Male |



| Power, Dimensions, Certifications | |
|-----------------------------------|---------------------------------------|
| Size | Height 1.70", Width 10.0", Depth 7.0" |
| Weight | 2 lbs. |
| Power | External Brick (AC)- 12V, 3.0A |
| Power Consumption (Maximum) | 30W |
| Certifications | |
| UL, cUL | Yes |
| CE | Yes |
| FCC Part 15 | Yes |
| Industry Canada | Yes |
| CB | Yes |
| RoHS | Yes |

| Management | |
|-----------------------------------|-----|
| Web GUI | Yes |
| CLI | Yes |
| http, https | Yes |
| SSH, Telnet | Yes |
| SNMP V1 | Yes |
| SNMP V3 | Yes |
| TCPdump, Traceroute, Ping, Syslog | Yes |
| Configuration backup/restore | Yes |
| Remote Upgrades (FTP) | Yes |

| Security | |
|-----------------------------------------------|----------|
| Stateful packet inspection firewall | Yes |
| VoIP protocol aware firewall | Yes |
| Dynamic network address translation | Yes |
| Static network address translation | Yes |
| Port address translation | Yes |
| Denial of Service protection - SYN flood | Yes |
| Denial of Service protection - UDP flood | Yes |
| Denial of Service protection - ICMP flood | Yes |
| Denial of Service protection - Fragment flood | Yes |
| IPSec | Yes |
| IKE key management | Yes |
| 3DES | Yes |
| AES | Yes |
| SHA-1 | Yes |
| MD-5 | Yes |
| IPSec Hardware Acceleration | Yes |
| Number of Tunnels | Up to 12 |

| System Services | |
|----------------------------------------|-----|
| DHCP server | Yes |
| Local TFTP/FTP server | Yes |
| Automatic TFTP/FTP download on restart | Yes |

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Specifications

| Traffic Management/QoS/Routing | |
|----------------------------------------|----------|
| Class-based queuing | Up to 8 |
| Prioritization on IP | Yes |
| Prioritization on VoIP Protocol | Yes |
| Traffic shaping | Yes |
| Guaranteed bandwidth | Yes |
| Upstream bandwidth management | Yes |
| Downstream bandwidth management | Yes |
| VoIP call admission control | Yes |
| Diffserv marking | Yes |
| Diffserv policing | Yes |
| IP routing | Yes |
| Secondary address/subinterface support | Yes |
| VLAN - 802.1Q | Up to 16 |

| VoIP | |
|------------------------------------------|-----|
| SIP ALG | Yes |
| H.323 ALG | Yes |
| NAT for SIP | Yes |
| NAT for H.323 | Yes |
| Survivability (SIP) - station to station | Yes |
| Survivability (SIP) - PSTN failover | Yes |
| SIP registration pacing | Yes |
| Softswitch redundancy | Yes |
| Proxy mode | Yes |
| Multi-homed proxy mode | Yes |
| Transparent proxy mode | Yes |
| EdgeView Plug & Dial Compatible | Yes |
| Dynamic VoIP clients list | Yes |
| SIP RFC 3261 | Yes |
| SIP RFC 2327 | Yes |
| SIP RFC 3263 | Yes |
| SIP RFC 2833 (Non PRI) | Yes |
| H.323 version 4 | Yes |
| H.225.0v5 | Yes |
| H.245.0v10 | Yes |
| VoIP Test Call Agent | Yes |

| Passive Call Quality Monitoring | |
|---------------------------------------------------------------|-----|
| Per call statistics | Yes |
| LAN side measurements | Yes |
| WAN side measurements | Yes |
| Mean Opinion Score (MOS) | Yes |
| Bad MOS score alarms | Yes |
| Below threshold MOS counters | Yes |
| Degradation in MOS due to network impairments | Yes |
| Jitter | Yes |
| Packet loss | Yes |
| Consecutive lost packets | Yes |
| Total # of RTP packets received | Yes |
| Sum of received & expected packets | Yes |
| Out of sequence packets | Yes |
| Average packet loss burst length | Yes |
| Estimated jitter buffer delay | Yes |
| Estimated jitter buffer packet discard rate | Yes |
| Probability that degradation is due to LAN congestion | Yes |
| Probability that degradation is due to Router congestion | Yes |
| Probability that degradation is due to access link congestion | Yes |
| Probability that degradation is due to diverse routing | Yes |
| Probability that degradation is due to unreliable link | Yes |

| Calling Features- Phone Ports | |
|-------------------------------|-----|
| SIP User Agent | Yes |
| SIP PSTN gateway | Yes |
| Transfer | Yes |
| Hold | Yes |
| Conference | Yes |
| Caller id | Yes |
| Call waiting | Yes |
| T.38 fax support | Yes |
| G711 u-law | Yes |
| G711 a-law | Yes |
| G729 | Yes |
| G728 | Yes |
| G726-16 | Yes |
| G726-24 | Yes |
| G726-32 | Yes |
| G726-40 | Yes |

| Ordering Information/SKU | |
|--------------------------|------------------------------------------------------|
| EM-4508E-08 | 4508E: EdgeMarc 8 with 8 x FXS ports (8 WAN Calls) |
| EM-4508E-15 | 4508E: EdgeMarc 15 with 8 x FXS ports (15 WAN Calls) |
| EM-4508E-30 | 4508E: EdgeMarc 30 with 8 x FXS ports (30 WAN Calls) |



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