

EdgeMarc 5300 Network Services Gateway

Introduction

The EdgeMarc Series 5300 network services gateway provides the demarcation point for real-time, interactive IP services. The EdgeMarc 5300 is used in large office deployments and is RoHS (Restriction of certain Hazardous Substances - a directive in electrical and electronic equipment) and WEEE compliant.

Supporting up to 300 concurrent calls the EdgeMarc 5300 is the ideal solution for converged IP voice and data networks requiring high performance and delivers:

- Significant cost savings
- Comprehensive security
- Guaranteed voice quality
- Simplified management

Feature Rich, Simple to Use - Key Features

- 1 X 10/100/1000 Mbps Ethernet WAN interface
- 1 X 10/100/1000 Mbps Ethernet LAN interface
- High availability option for redundancy
- VoIP survivability (local)
- 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
- Passive call quality monitoring (MOS, jitter, latency and more)
- DHCP server
- NAT/PAT
- Management: HTTP, HTTPS, SSH, Telnet, SNMPv1 and V3

Product Benefits

VoIP Application Layer Gateway

Enables a single public IP address to be used for multiple IP phones or IADs (SIP and H.323)

Traffic management

Prioritizes voice over data traffic to ensure toll quality voice calls while allowing 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 signaling states to dynamically open and close ports.

Plug & Dial phone support

Interoperates with top softswitch vendors to configure IP phones and the integrated analog ports in minutes.

Simplified Troubleshooting

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

Survivability

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

Call quality monitoring

Provides MOS scoring and alarms on operator defined minimum MOS thresholds for voice calls.



Converged Networking. Simplified.



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Specifications

Interfaces

Ethernet WAN	1 X 10/100/1000 Mbps
Ethernet LAN	1 X 10/100/1000 Mbps
Aux Ports	1 X 10/100 Mbps
Serial	1 X RS 232

Power, Dimensions, Safety

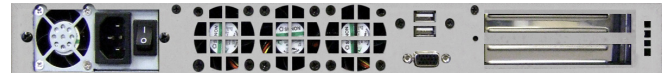
Size (2RU rack mountable)	Height 1.7", Width 16.9", Depth 14"
Weight	WEEE weight: 13 lbs. Shipping weight: 18 lbs.
Power	100/240v VAC, auto-selecting, 50 to 60 Hz
Power Consumption (Maximum)	200W
Safety	cUL, UL
Emissions	FCC Part 15 Class A, ICES-003, VCCI Class A, MIC, C-tick
Immunity	CE
Environmental	WEEE, RoHS compliant

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

System Services

DHCP server	Yes
Local TFTP/FTP server	Yes
Automatic TFTP/FTP download on restart	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

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

VoIP

SIP ALG	Yes
H.323 ALG	Yes
NAT for SIP	Yes
NAT for H.323	Yes
Survivability (SIP) - station to station	Available
Survivability (SIP) - PSTN failover	Yes
Stateful 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	Yes
H.323 version 4	Yes
H.225.0v5	Yes
H.245.0v10	Yes
VoIP Test Call Agent	Yes

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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

Ordering Information/SKU	
5300: EdgeMarc 300 (EM-5300-300)	5300 EdgeMarc 300 Network Services Gateway
5300: EdgeMarcPV10 (EM-5300-PV-10)	5300 EdgeMarc H.323 Video NAT and Bandwidth Manager 10Mbps
5300: EdgeMarcPV25 (EM-5300-PV-25)	5300 EdgeMarc H.323 Video NAT and Bandwidth Manager 25Mbps
5300: EdgeMarcPV10 Upgrade to EM530025 (EM-5300-PV-25U)	5300 EdgeMarc H.323 Video NAT and Bandwidth Manager 25Mbps Upgrade
VOS-SURV-5300-01	VOS VoIP SIP Survivability - Basic