



## EdgeMarc 4500 Converged Networking Router

### AT A GLANCE

- Quality of Service: prioritization, traffic shaping, DiffServ support
- Passive call quality monitoring (MOS, jitter, packet loss, etc.)
- Stateful packet inspection firewall
- 10/100 Mbps Ethernet WAN
- Integrated 4 port managed VLAN switch
- IPSEC VPN hardware accelerator
- Multi-protocol VoIP application layer gateway (SIP)

The 4500 SOHO router is the ideal device for connecting remote SOHO user to main office phone system.

It acts as a demarcation point for VoIP services by combining important VoIP, data, traffic management, diagnostic and security functions into a single, easy-to-use converged networking router. The 4500 SOHO router includes a 10/100 Mbps Ethernet WAN, VPN hardware accelerator and an integrated 4 port managed VLAN switch.

### Feature Rich, Simple to Use - Key Features

- VoIP application layer gateway (SIP) resolves NAT/Firewall traversal issues
- VoIP-aware VPN/Firewall
- Passive call quality monitoring (MOS, jitter, latency and more)
- QoS: priority queuing, traffic shaping, diffserv marking/policing
- Integrated 4 port managed Ethernet switch with VLAN support
- DHCP server
- NAT/PAT
- Management: HTTP, HTTPS, SSH, Telnet, SNMPv1 and V

### All-in-one Solution

Replaces multiple standalone devices needed for converged networking environments.

### Security

IPSec, Stateful packet inspection firewall, optional “media-aware” ALG security.

### Quality of Service

Packet prioritization and data traffic shaping for VoIP calls, survivability.

### Simplified diagnostics

MOS statistics, call monitoring, LAN/WAN problem isolation from the router, TCPdump, PING, Traceroute and more.

### Carrier-grade, yet built for business

Businesses can benefit from a tried and tested platform designed for large scale service provider deployments.



## Specifications

### Interfaces

<b>Ethernet WAN</b>	1
<b>Autosensing</b>	Yes
<b>10/100 Mbps</b>	Yes
<b>Duplex</b>	Full or half
<b>PPPoE</b>	Yes
<b>Ethernet LAN</b>	4
<b>Autosensing</b>	Yes
<b>10/100 Mbps</b>	Yes
<b>Duplex</b>	Full or half
<b>Managed VLAN</b>	Yes
<b>USB ports</b>	2
<b>Console</b>	
<b>Connector</b>	DB9 Male

### Power and Dimensions

<b>Power Supply (AC) - external brick</b>	12V, 3.0A
<b>Dimensions (H/W/L)</b>	1.7"/10"/7"
<b>Weight</b>	2 lbs.

### Certifications

<b>UL, CE, FCC Part 15, Industry Canada</b>	Yes
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### Traffic Management/QoS/Routing

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

### Passive Call Quality Monitoring

<b>Per call statistics</b>	Yes
<b>LAN side measurements</b>	Yes
<b>WAN side measurements</b>	Yes
<b>Mean Opinion Score (MOS)</b>	Yes
<b>Bad MOS score alarms</b>	Yes
<b>Below threshold MOS counters</b>	Yes
<b>Degradation in MOS due to network impairments</b>	Yes
<b>Jitter</b>	Yes
<b>Packet loss</b>	Yes
<b>Consecutive lost packets</b>	Yes
<b>Total # of RTP packets received</b>	Yes
<b>Sum of received &amp; expected packets</b>	Yes
<b>Out of sequence packets</b>	Yes
<b>Average packet loss burst length</b>	Yes
<b>Estimated jitter buffer delay</b>	Yes
<b>Estimated jitter buffer packet discard rate</b>	Yes

### Security

<b>Stateful packet inspection firewall</b>	Yes
<b>VoIP protocol aware firewall</b>	Yes

### Power and Dimensions

<b>Description</b>	Product Stock Number
<b>EdgeMarc 4500 SOHO Router</b>	750481

### Security Cont'd.

<b>Dynamic network address translation</b>	Yes
<b>Static network address translation</b>	Yes
<b>Port address translation</b>	Yes
<b>Denial of Service protection - SYN flood</b>	Yes
<b>Denial of Service protection - UDP flood</b>	Yes
<b>Denial of Service protection - ICMP flood</b>	Yes
<b>Denial of Service protection - Fragment flood</b>	Yes
<b>IPSec</b>	Yes
<b>IKE key management</b>	Yes
<b>3DES</b>	Yes
<b>AES</b>	Yes
<b>SHA-1</b>	Yes
<b>MD-5</b>	Yes
<b>IPSec Hardware acceleration</b>	Yes
<b>Number of tunnels</b>	Up to 15

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