



## High Performance VPN Platform Optimized For Hybrid Broadband Networks

Encore Networks' VSR-1200 is an integrated security gateway that has been optimized to support high-performance security and VPN solutions over satellite and hybrid broadband networks. With a designed based on next-generation high-performance RISC architecture and purpose-built VPN acceleration processors, the VSR-1200 can meet the requirements of network scalability and application security for carriers and large-enterprise customers.

With its built-in, field-proven ELIOS operating systems, the VSR-1200 is adapted for broadband satellite-based VPN using Encore's innovative patent-pending Selective Layer Encryption feature. The VSR-1200 works across multi-vendor satellite and terrestrial networks and solves the issues of performance degradation associated with running open-standards-based IPSec over TCP-accelerated satellite connections.

The VSR-1200 is integrated with best-of-breed IP VPN features, IP routing, advanced QoS, dynamic packet inspection firewall, embedded address management capabilities, and legacy data support via a high-density Remote Data Unit serial module. Such flexibility provides stateful-inspection firewall, with the scalable performance needed for the most demanding network applications.

### SCALABLE ARCHITECTURE

The VSR-1200 is designed based on next-generation hardware, RISC-based architecture, and high performance packet and encryption processors. Such scalable architecture allows service providers to support small-, medium-, and large-enterprise customers running bandwidth-intensive applications over satellite networks.

### HIGH PERFORMANCE VPN SOLUTIONS

Encore Networks' patent-pending Selective Layer Encryption capability, integrated on top of feature-rich ELIOS operating system, provides channel-efficient VPN solutions over satellite and hybrid networks. Such implementation interoperates with different satellite-modem vendors and Performance Enhancing Proxy (PEP) providers.

### CONVERGENCE OF LEGACY APPLICATIONS

Convergence of legacy data applications to broadband IP networks is feasible with the VSR-1200 via the use of high-density serial module Remote Data Unit (RDU). Each RDU supports up to 12 serial ports and up to 240 remote locations or terminals. A smooth migration strategy solution for both remote terminals and legacy hosts is supported via spoofing and conversion of legacy protocols such as SDLC, bisync, X.25, polled async, ALC, CDLC, and X.42.

### EASY INSTALLATION AND MANAGEMENT

Menu-driven user interface, support of SNMP management, and plug-and-play features allow for remote configuration and support from a centralized Network Operation Center (NOC). A multi-level password-protection scheme limits access to authorized users and personnel

## Key Features

- ▶ Scalable architecture and redundant power supplies
- ▶ Proven ELIOS operating system
- ▶ Innovative SLE-based VPN solutions
- ▶ Spoofing and conversion of legacy data applications to IP
- ▶ Advanced Quality of Service settings
- ▶ Support of DHCP, NAT and Private Address Translation (PrAT)

## Key Benefits

- ▶ Allow the delivery of reliable and high-performance VPN solutions over hybrid networks (terrestrial, wireless, and satellite)
- ▶ Enables value-added services and applications to enterprise customers
- ▶ Provides interoperability with key satellite-modem vendors to produce high-performance VPN over satellite
- ▶ Provides solutions for vertical markets, including banking, travel, utility and lottery
- ▶ Meets the requirements of mission-critical applications such as VoIP and video over IP vendors TCP spoofed (PEP)
- ▶ Allows dynamic IP address configuration management and administration

## VSR-1200™

Front



Back



## TECHNICAL SPECIFICATIONS

### Architecture

ELIOS™ operating system; high performance 800 MHz RISC-based processor; VPN hardware acceleration processors to guarantee high performance; compression; IP QoS tagging, classification and enforcement.

### Port Interfaces

*Standard:* Two Ethernet 100 BaseT/GigE auto-sensing RJ45 full- and half-duplex ports for LAN and WAN. One auto-sensing port switch with eight Ethernet 10/100 BaseT full- and half-duplex RJ45 ports, and 1 PCI slot for future expansion

*Optional:* External Remote Data Unit (RDU) module with up to 12 serial ports for legacy protocol conversion and spoofing. Up to 2 RDU units are supported per a single VSR-1200.

### Network Protocol Support

PPPoE; IP; Ethernet, Link compression

### IP Routing

IP fragmentation/reassembly; standard RIP v1/v2; static routing, routing over VPN tunnels; DHCP client/server/relay, BootP; IP QoS, priority queuing, dynamic bandwidth allocation, Diffserv marking and classification. 802.1q/p VLAN tagging and prioritization.

### IP VPNs

Support up to 1200 simultaneous tunnel interfaces; tunnel initiation, pass-through, multiplexing and termination; standard IPSec encryption (RFC2401); GRE (RFC 1701); Selective Layer Encryption (SLE); AES; DES (56bit) and 3DES (168 bit) encryption; ESP (RFC2406) and AH (RFC 2402) encapsulation; HMAC MD5 (RFC2403) and HMAC SHA-1 (RFC 2404) authentication; IKE (RFC 2409), ISAKMP (RFC2408); CEP and Digital Certificates and DH groups; compatible with other IPSec VPN clients and gateways. SLE-to-IPSec tunnel switching

### Stateful Firewall

Built-in stateful firewall functionality, IP filtering, protection against Denial of Service (DoS) attacks, NAT and Private Address Translation (PrAT).

### Redundancy and High Availability

Support of VRRP (RFC 3768), Virtual Broadband Redundancy System (VBRS) for legacy host applications, device and line failure detection and recovery, auto-learning of IP routes. Fail-over based on flexible policies and network configuration criteria. Dual redundant and load-sharing power supplies with separate AC inputs.

### Network Management

Supervisory port (out-of-band), internal modem dial-in (out-of-band), telnet (in-band), multi-level password protection; TFTP for software upgrades and configuration updates, SNMP (MIB-II with extensions)

### Product Compatibility

Satellite Modem Vendors  
Hughes Network Systems  
Gilat - Spacenet  
iDirect  
Viasat Wild Blue  
ComTech

### Physical Specifications

*Dual Redundant Power:* 100 to 240 VAC, 50–60 Hz; auto-ranging; two separate AC power inputs

*Temperature:* 32° to 104° F (0° to 40° C)

*Humidity:* 10% to 85% non-condensing

*Altitude:* Up to 10,000 ft. (3,048 m)

*Height:* 1.75 in. (4.45 cm);

*Width:* 19 in. (48.26 cm);

*Depth:* 8.3 in. (21.08 cm);

*Weight:* 4 lb. (1.81 kg)

### Agency Compliance Safety

*Safety:* ANSI/UL Std. No. 60950, 3rd Edition (U.S. Safety)  
CAN/CSA-C22.2 No. 60950 (Canadian Safety)  
EN 60950, European Safety (CE Mark)

*Emissions:* FCC Part 15, Sub-Part B, Class A (U.S.)

EN 55022: 1998 (Europe)

*Immunity:* EN 55024: 1998 (Europe)