CIPHEROPTICS
Protecting data in motion

CipherOptics SG1001 IPSEC APPLIANCE

Securing IP traffic

Moving from private, leased lines to IP networks makes sense for organizations looking to reduce costs while responding to the need for increased bandwidth, caused by the convergence of data, voice and video onto a single network. However, this move makes your network more vulnerable to security breaches, including eavesdropping, tampering and denial-of-service attacks. IP was designed for resiliency and ease-of-use, not security. Mitigating the risks and eliminating the vulnerabilities of your IP transport network is the most significant protection necessary for ensuring data integrity.

Locking your data in transit

Your firewalls, intrusion detection systems (IDS), anti-virus software and other perimeter security technology do their part in preventing many outside threats from entering your network through your Internet gateway. But what about your data—the core of your business—once it travels from one site to another over an IP network? The only way to protect that data is to encrypt it while in transit, because even private lines are vulnerable to people with access. The CipherOptics SG1001 network security appliance protects data in transit between sites while it travels over Gigabit-speed IP networks.

IPSec at Gigabit speed

Using IP Security Protocol (IPSec), the CipherOptics SG1001 network security appliance is the only solution that provides full-duplex, Gigabit speed protection—all with virtually no latency—providing safe passage for all of your business-critical information, whether it's data, voice or video conferencing. And, because it is a purpose-built appliance, it outperforms other encryption options, such as multi-purpose devices and router acceleration blades, in both price and performance. While these solutions may have encryption capabilities, they also have side-effects, most notably high cost, high latency, complex installation and management, and they reduce network performance.

Fast, simple, transparent

Because it is an appliance and not a multi-purpose device, the CipherOptics SG1001 makes network security simple. No complicated network or router reconfiguration required. It easily integrates into your existing network, without consuming valuable network resources. With simple installation and policy set-up, the CipherOptics SG1001 can be installed in minutes, operating transparently to ensure that all of your data in transit is locked down.

Security best practices for regulatory compliance

By having the CipherOptics SG1001 integrate easily into the network while at the same time being able to manage it separately, you can build a robust security infrastructure that will help withstand the scrutiny of a security audit. In fact, it is an integral part of best practices to encrypt all sensitive data in transit. The flexibility of the CipherOptics SG1001 also makes it a valuable tool in ensuring industry best practices for compliance with such regulations as Graham-Leach-Bliley, California SB1386 and HIPAA.

IPSEC MODES

- Tunnel mode
- Encapsulated Security Payload (ESP)

ENCRYPTION AND INTEGRITY

- *AES:* FIPS 197 (256 bit keys)
- *3DES:* ANSI X.952 (168 bit keys), Std. CBC mode
- HMAC-SHA-1-96
- HMAC-MD5-96

AUTHENTICATION AND KEY MANAGEMENT

- Diffie-Hellman groups 1, 2, and 5
- X.509 v3 digital certificates
- Pre-shared secrets
- Internet Key Management (IKE)
- Manual keys

DEVICE MANAGEMENT

- Secure management interfaces (CLI and browser)
- Out-of-band management
- Alarm condition detection and reporting
- Secure download of software updates
- SNMP v2c MIB managed object support

NETWORK SUPPORT

- IEEE 802.3
- VLAN and MPLS tag support
- Jumbo frame support
- Dead peer detection
- PMTU
- Optical loss pass-through

PERFORMANCE

- *Throughput:* Up to 1.92 Gpbs full-duplex Gigabit Ethernet with AES or 3DES
- *Concurrent IPSec tunnels:* 150
- *Secure Associations:* 16,000

INTERFACES

- Two full-duplex Gigabit Ethernet ports with GBIC interfaces (single mode or multimode)
- *Management:* 10/100 Ethernet and RS-232

ENVIRONMENTAL

- *Operating Temperature:* 0° to 40° C (32° to 104° F)
- *Operating Humidity:* Up to 90% non-condensing
- *Operating Altitude:* -200 to 10,000 feet AMSL

PHYSICAL

- Tamper-evident chassis
- *Footprint:* 4" H x 17" W x 15" D
- Rack mountable in standard 19" rack
- *Power:* 115-240 VAC @ 50/60 Hz, autosensing
- *Weight:* 10 lbs.

REGULATORY

- *Emissions:* FCC Part 15 to Class B Specifications, EN61000-3-2: 1995, EN61000-3-3: 1999, EN61000-4-2 through 4-6, 4-11: 1995
- *Safety:* IEC 60950 (UL), CSA-C22.2 No. 60950-00 EN 60950 for the participating European nations EN 60950 for all country deviations

CERTIFICATION

- FIPS PUB 140-2 Level 2 validated

Corporate Headquarters
701 Corporate Center Drive
Raleigh, NC 27607
(T) 919.865.7330
(F) 919.233.9751
www.cipheroptics.com