

SafeNet Ethernet Encryptor 10G

Reducing WAN costs through protection of high speed layer 2 networks at 10Gbps



Wide area networks (WANs) are used to connect private local area networks (LANs) over circuitry that is typically leased from telecommunications providers. WAN services connect branch offices, data centers and disaster recover sites but recently, the volume of sensitive data traversing the WAN has increased dramatically. It is becoming evident that traditional router-based encryption cannot keep up with today's bandwidth intensive applications, which results in increased cost and complexity, reduced performance and drastically limited scalability.

The SafeNet Ethernet Encryptor 10G provides a complete network security solution that enables the use of all available network bandwidth and elimination of complex administration. Designed to overcome the technological limitations of IPsec encryption, the SafeNet Ethernet Encryptor 10G moves sensitive data faster and more efficiently at network layer 2, thereby lowering the cost of network security and compliance.

IPsec/Router Based Encryption Challenges

Because of its high overhead, significant latency and complex administration, traditional router based encryption at layer 3 often does not scale cost efficiently to the levels of throughput required to protect data sent over high-bandwidth networks. Typical high bandwidth applications include voice, video, virtualization and cloud computing. Encrypting over IPsec results in loss of bandwidth and higher complexity thereby increasing the likelihood of problems. Encrypting through IPsec can tax your bandwidth by up to 50% due to protocol overhead. This translates to thousands of dollars a month in wasted communications expenses.

Layer 2 Network Encryption Lowers Cost and Complexity

Ethernet encryption is better suited for high bandwidth communications because it is less complex and more efficient than using IPsec. By encrypting sensitive data at layer 2, the entire Ethernet frame and consequently all

data traversing the network is encrypted. This is a much more attractive alternative than purchasing or leasing costly bandwidth upgrades with high monthly charges. In addition, replacing a legacy IPsec encryption solution with an Ethernet encryptor, bandwidth availability is effectively doubled and a latent IPsec network connection becomes as much as 10 times more available.

Proven Compliance through Layer 2 Encryption

An increasing number of legislative and industry mandates such as Sarbanes Oxley, PCI-DSS, FISMA, US State Privacy Laws and HIPAA require the protection of sensitive data in transit. Cost of compliance efforts are dramatically reduced by encrypting at layer 2 thereby facilitating compliances and mandatory audit trails.

Best in Class Ethernet Encryption

SafeNet's Ethernet Encryptor 10G provides easy to deploy protection for data transmitted to remote data centers, disaster recovery sites and offsite storage facilities while preserving full network performance, survivability and service level agreements. The SafeNet Ethernet Encryptor 10G offers unparalleled performance, encrypting 10Gps Ethernet links at line rate full-duplex with virtually no latency. AES-256 keys are refreshed every hour and all L2 payload (IP header and data) including IP addresses and higher level protocols are protected. X.509 certificates are used for remote device authentication and secure key exchange. The SafeNet Ethernet Encryptor 10G is designed to the strictest security standards including FIPS 140-2 Level 3 (validation in process), making it the standard for network encryption at leading financial institutions and governments worldwide.

Product Highlights

- Proven compliance through layer 2 encryption
- Best-in-class Ethernet encryption
 - Central Policy Management
 - Ease of integration

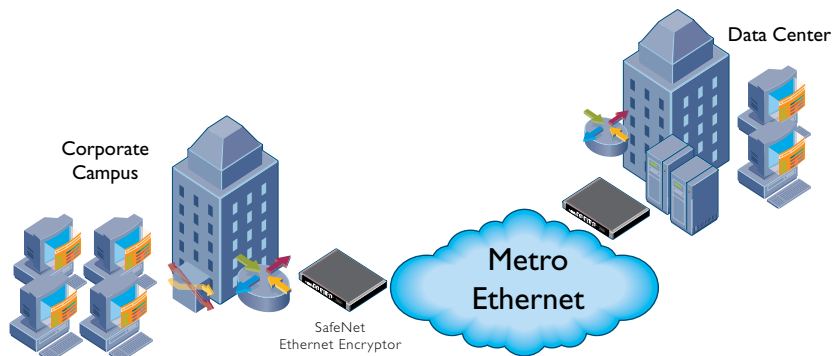
Key Features

- Includes a FIPS 140-2 Level 3 cryptographic module (certification in process)
- Physically tamper-proof
- Minimal latency (typically < 10 microseconds)
 - Connection capability
- Each connection uses unique AES256 symmetric key (changed every hour)
- Connections can be set to Encrypt, Bypass or Discard
- Zero Overhead – data payload encrypted
 - Minimal overhead
- Centrally managed with SMC
 - Supports High Availability Architectures
 - AC and DC Power options

Cost Reduction Scenarios

- Site to Site Connectivity
 - Disaster Recovery
- Data Center Consolidation
 - Storage Area Networks
- Application Hosting – Cloud Computing





High speed, low latency encryption for 10Gbps Ethernet networks

Central Policy Management Lowers Cost and Increases Security

The family of SafeNet network encryptors can be managed using the SafeNet Security Management Center (SMC). Encryptors are authenticated by the SMC using digital certificates and management traffic is secured with AES encrypted SNMPv3. The SMC runs on common server platforms and centrally configures, monitors and manages network security devices from a single Web-based console. SMC management is available out-of-band via a 10/100 Ethernet port or in-band within the Ethernet data plane from a single Web-based console. Built in reporting makes compliance auditing easy. SMC management is available out-of-band via a 10/100 Ethernet port or in-band within the Ethernet data plane

Ease of Integration

The SafeNet Ethernet Encryptor 10G easily integrates into networks within minutes reducing maintenance cost and configuration errors. In contrast to traditional IPsec routers, there are no error-prone, complex routing tables to configure and maintain. Once installed, it requires virtually no ongoing configuration and maintenance.

Complete Portfolio of Encryptors

SafeNet's complete family of high-speed network encryptors for all network protocols provide the fastest and easiest way to integrate robust network security to protect mission critical data for Enterprise and Government organizations. Multi-Gigabit throughput and lowest latency make SafeNet's encryptors the ideal solution for protecting massive amounts of data in motion, including time-sensitive voice and video streams. With solutions for Ethernet, SONET, TMD, ATM, Frame Relay and IP encryption, SafeNet offers the world's only complete suite of high-speed WAN encryption for every topology, performance range and network design requirement.

Enterprise Data Protection

SafeNet Network Encryptors are a key component of SafeNet's comprehensive enterprise data protection solution to reduce the cost and complexity of regulatory compliance, data privacy, and information risk management. SafeNet Enterprise Data Protection (EDP) is the only complete solution that secures data across the connected enterprise, from core to edge, with protection of data at rest, data in transit, and data in use. Unlike disparate, multivendor point solutions that can create limited "islands" of security, SafeNet EDP provides an integrated security platform with centralized policy management and reporting for seamless management of encrypted data across databases, applications, networks, and endpoint devices. For more information, visit www.safenet-inc.com/EDP

Technical Specifications

Management

- Out-of-band Ethernet port
- SNMP v3
- RS-232 local console
- In-band management

LED Status Indicator

- Local interface
- Network interface
- Temperature
- Battery level
- System operation
- Secure status
- Power
- LEDs for interface Tx/Rx

Physical Security

- Tamper-proof storage of encryption keys and user passwords
- Tamper-resistant metal case

Environmental

- 5° to 40°C operating temperature
- 0 to 80% RH @ 40°C operating temperature
- 0 to 1980m operating altitude AMSL

Electrical

- Dual -48VDC, 40W maximum
- Dual 90VAC to 250VAC, 110W maximum (external module)

Mechanical

- Height - 134mm (3RU)
- Width - 435mm (19" rack mountable)
- Depth - 360mm
- Weight - 8kg

Cryptography

- AES algorithm - 256-bit key
- SHA-256
- HMAC-SHA-256

Key Management

- RSA 2048-bit public key
- Automatic session key update
- Authentication using X.509 certificates

Regulatory Standards

- RoHS-5
- Meets regulatory standards for emissions and safety including FCC Part 15 Class B, TUV, and CE marks.



www.safenet-inc.com

Corporate Headquarters:

4690 Millennium Drive, Belcamp, Maryland 21017 USA
Tel.: +1 410 931 7500 or 800 533 3958, Fax: +1 410 931 7524,
Email: info@safenet-inc.com

EMEA Headquarters:

Tel.: +44 (0) 1276 608 000, Email: info.emea@safenet-inc.com

APAC Headquarters:

Tel: +852 3157 7111, Email: info.apac@safenet-inc.com

For all office locations and contact information, please visit www.safenet-inc.com/company/contact.asp