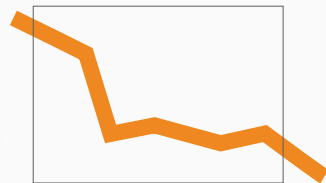


High Speed Ethernet WAN: Is encryption compromising your network?

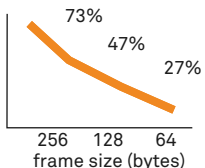


27% →

IPsec encryption facts:

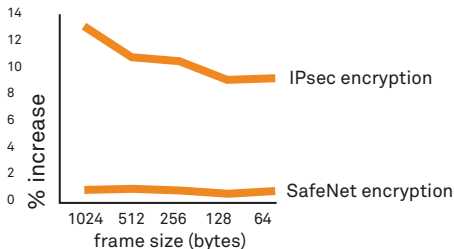
27% Throughput

At smaller frame sizes typical of voice and video, IPsec encryption achieves only 27% of maximum theoretical throughput.



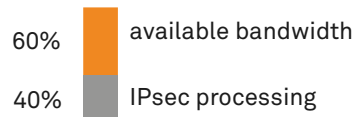
13x Latency

IPsec encryption increase latency 6-13 times.



40% of bandwidth

IPsec encryption can consume up to 40% of available bandwidth.



**Data from Rochester Institute of Technology:
Comparative Performance of Layer 2 and IPsec
Encryption on Ethernet Networks**

“Testing exposed the detrimental effect on network performance that is typically imposed by IPsec’s innate processing requirements”

SafeNet's Layer 2 network encryption solution delivers:

- ✦ maximum performance
- ✦ strongest available protection
- ✦ certified to FIPS 140-2 level 3, Common Criteria and CAPS (UK)*
- ✦ the least administrative overhead
- ✦ the lowest total cost of ownership

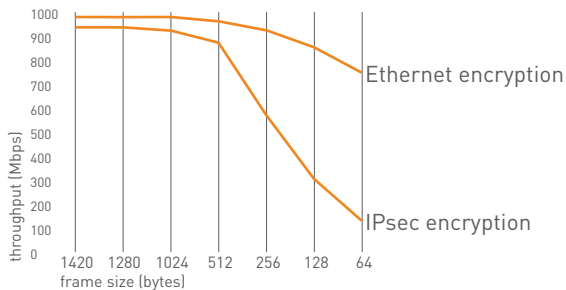
*Approved models

Gemalto enables you to implement a totally secure, full performance, high speed Ethernet WAN, ensuring your data is secure.

Gemalto's SafeNet Network Encryption Solution delivers the fastest initial setup, with no need for network reconfiguration, no need for routing table updates, and has no negative impact on network performance or architecture.

Maximum throughput with zero protocol overhead

Comparative encrypted throughput data



Gemalto's SafeNet high speed Layer 2 encryption technology introduces zero protocol overhead so that maximum bandwidth is available for data – up to 50% more efficient than competing technologies.

SafeNet High Speed Encryptors provide the fastest network encryption available, operating at true line speed. SafeNet High Speed Encryptors have no impact on latency, ensuring the high quality of realtime applications such as VoIP and video – applications with smaller frame sizes. High availability features support architectures with over 99.999% uptime.



Strongest available protection to AES-256 and tamper-proof to FIPS 140-2 level 3

SafeNet high speed encryptors from Gemalto use the strongest cryptographic algorithms that are publicly available (the Advanced Encryption Standard AES-256), developed by NIST and approved by the NSA for top secret information.

Routers and firewalls are plagued by a constant stream of vulnerabilities and attacks. SafeNet encryptors, operating at Layer 2, do not routinely require security patches.

Physically, Gemalto offers high speed Ethernet encryptors with a tamper-proof design, certified to FIPS 140-2 level 3, Common Criteria and CAPS (UK)*.

*Approved models



Minimal administrative overhead for low operational expenditure

A big advantage of Gemalto's SafeNet Network encryption solution is the low administrative overhead.

Using our superior management platform, SafeNet High Speed Encryptors (HSE) can be set up in minutes. There's no need for network reconfiguration and no need for routing table updates – routing updates are transparent to encryption.

As setup and configuration is so easy, less expertise is required. There's no need to manually build complex addressing tables and policies because HSE encryptors automatically discover network MAC addresses. When new encryptors are added key discovery is fully automatic.

Because of SafeNet encryptors unique feature offering, SafeNet HSE encryptors' unique features enable them to be seamlessly overlaid onto any network topology.



Lowest capital cost

SafeNet High Speed Encryptors are the lowest cost solution for aggregation of multiple sites and for high speed networks. Fewer encryptors need to be installed compared to a solution that uses additional routers and IPsec encryption devices.

The simple network topology possible with SafeNet High Speed Encryptors decreases the complexity of network infrastructure, maintenance and administration, supports all Layer 2 network protocols, and is easily and rapidly scalable to thousands of devices.

And of course, reclaiming your network bandwidth could save you a great deal of money every month.



SafeNet's Network Encryption Solutions

Gemalto's SafeNet Network Encryption Solution not only simplifies management, it also allows speedy scaling to thousands of devices with auto-device discovery.

Dedicated encryption processing means routers and other network devices are not burdened with encryption – improving overall network 'headroom', resilience and performance.

A built-in key leader means no need for external key management, any encryptor can be designated as the key leader for automatically generating keys for the entire encryptor network.

Multipoint support allows one encryptor to connect to hundreds of branch offices.

SafeNet High Speed Ethernet encryptors also have built-in VLAN support.

85% of inter-bank transfers are carried on SafeNet High Speed Ethernet encryptors



Gemalto offers the world's only complete suite of dedicated high speed WAN encryption solutions. In addition to Ethernet, SafeNet High Speed Encryptors also supports SONET/SDH, ATM, and Fibre Channel.

85% of inter-bank transfers are carried on high-speed links encrypted by SafeNet High Speed Encryptors, and our devices are used by many enterprises and government agencies across the globe.

Gemalto is the world leader in digital security. SafeNet High Speed Encryptors from Gemalto are designed and built from the ground up as security machines.

There is no better option.

Contact Us: For all office locations and contact information, please visit www.safenet-inc.com

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