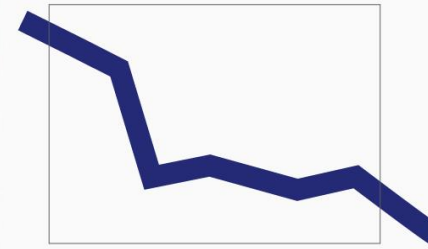


# High Speed Ethernet WAN: Is encryption compromising your network?

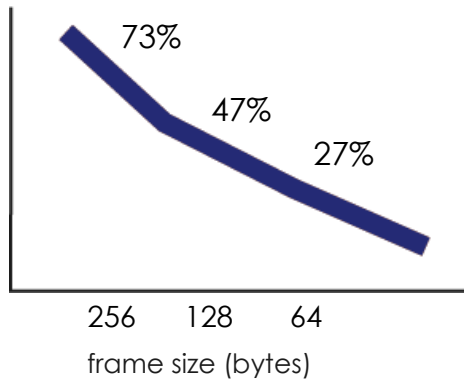


**27%** →

# IPSec Encryption Facts

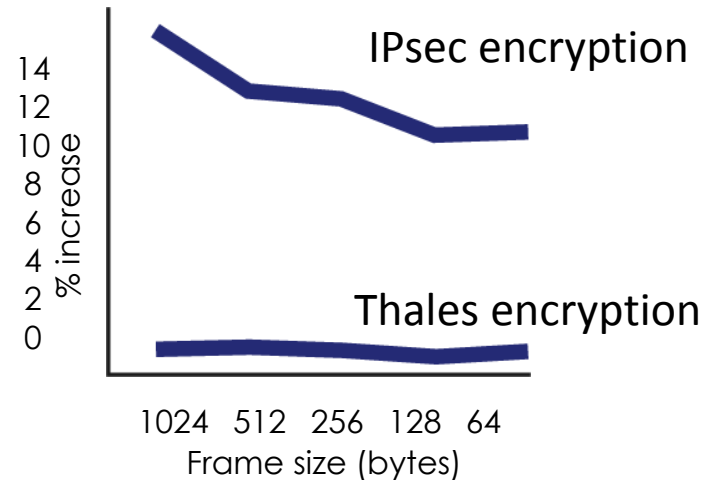
## 27% Throughput

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.



## Thales' Network Encryptors deliver:

- maximum performance
- Strongest available protection
- Certified to FIPS 140-2 level 3, Common Criteria and DODIN APL
- The least administrative overhead
- The lowest total cost of ownership

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

Thales' Network Encryption Solutions 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.

Thales' Network Encryption solutions are available for sale to the U.S. Federal Government exclusively through Thales Trusted Cyber Technologies

## Thales' Network Encryptors deliver:

- maximum performance
- Strongest available protection
- Certified to FIPS 140-2 level 3, Common Criterial and CAPS (UK)
- The least administrative overhead
- The lowest total cost of ownership

Thales' 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.

Thales Network Encryptors provide the fastest network encryption available, operating at true line speed. Thales Network Encryptors have no impact on latency, ensuring the high quality of real-time 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

Thales Network encryptors 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. Thales encryptors, operating at Layer 2, do not routinely require security patches.

Physically, Thales offers network encryptors with a tamper-proof design, certified to FIPS 140-2 level 3, Common Criteria and DoDIN APL\*.

\*approved models





## Minimal administrative overhead for low operational expenditure

A big advantage of Thales' High Speed Encryption (HSE) solutions are the low administrative overhead.

Using our superior management platform, Thales Network Encryptors 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 network encryptors automatically discover network MAC addresses. When new encryptors are added key discovery is fully automatic.



## Lowest capital cost

Thales Network 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 Thales Network 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.





## Thales Network Encryptors

Thales High Speed encryption 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.

Thales Network encryptors also have built-in VLAN support.





# Thales Network Encryptors

Thales offers the world's only complete suite of dedicated high speed WAN encryption solutions. In addition to Ethernet, Thales Network 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.

Thales is the world leader in digital security. Thales Network Encryptors are designed and built from the ground up as security machines.

There is no better option.