THALES
Building a future we can all trust

High Speed Network Encryption

Encrypting data on the move from the edge to the core

A collection of use cases

E-Book

What is High Speed Encryption?

Digital information transported between locations either within or between Local Area Networks (LANs) is **data in motion** or **data in transit**. High Speed Encryption (**HSE**) is the process of securing that data as it moves across the network between locations.

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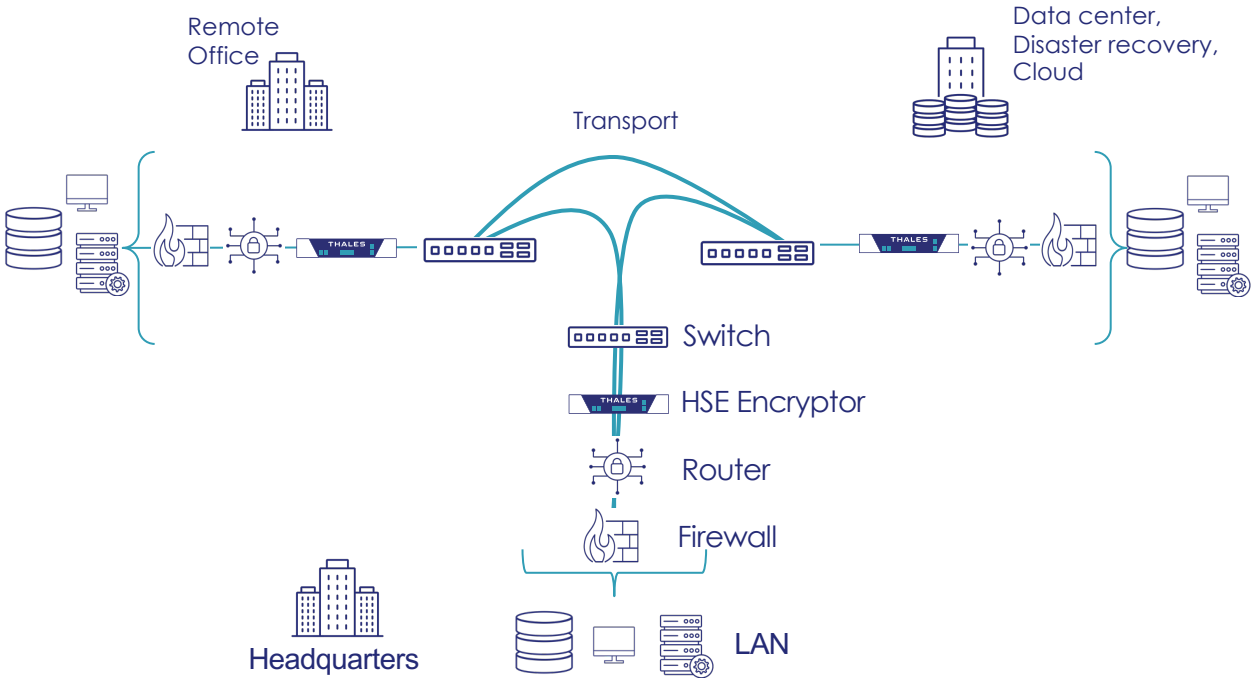
Thales Network Encryption



What do HSEs do?

- Sit between a firewall and switch
- Encrypt data across all networks
- Encrypt with low overhead and extremely low, micro-second, latency
- Certified to global standards to ensure compliance

Encrypt data as it moves between sites, from data center to data center, to the last mile, up to and in the cloud

Who We Protect

Some of our satisfied customers for over 30 years include:

Financial Services

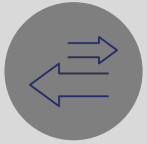
Technology

Healthcare

National Government

Local Government

Critical Infrastructure



Industry/Manufactring

Top Verticals and Global Locations

Thales has tens of thousands of HSE units installed in many industries for a wide variety of use cases in 35 countries around the world.

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National Government—Why you need HSE

Security Requirement

- Secure or encrypted communications to friendly nations
- End to end - in other words cannot be decrypted and re-encrypted while in transit

Performance Requirements

- Range of speeds and feeds 100M to 100G
- latency sensitive applications, remote video feeds, mission critical data

Business Need/Outcome

- Protect national intelligence around the world
- Communications between friendly nations

National Government—Real world use case

About the Client

An Asia-Pacific government agency, responsible for providing integrated control and monitoring of their border security, implemented an extensive closed-circuit television (CCTV) network to monitor a number of major transport hubs.

Featured Solutions

Thales CN6000 Series Network Encryptor

What was the challenge?

The agency needed to encrypt its live video feeds without interference or glitches due to latency for real-time monitoring and legal evidence.

Solution chosen

Router based IPsec had excessive latency and was causing video to cut out rendering it useless for real time monitoring or as legal evidence. The agency looked to Thales high speed encryption solution to tackle the latency issues.

Business impact

Thales HSE helped eliminate latency and choppy video feeds, while still providing certified encryption to meet compliance mandates.

Financial Services—Why you need HSE

Security Requirement

- Highly regulated, SOX, PCI-DSS, Audits, etc.

Performance Requirements

- Remote connectivity, latency sensitive (trading, real time transactions), for big data analytics

Business Need/Outcome

- Security for remote connectivity, including international
- Compliance/passing audits
- Staying out of the news, customer trust/reputation

Financial Services—Real world use case

About the Client

International bank

Featured Solutions

Thales CN6000 Series
Network Encryptors

What was the challenge?

The global financial institution's existing encryption solution couldn't handle the amount of data required for access to real-time customer data.

Solution chosen

CN series encryptors were connected to their global WAN, incorporating thirty branches on three continents. Redundant devices were used for the hub at the bank headquarters, and other Thales HSE CN series dedicated encryptors were used at the end points.

Business impact

The high-performance encryptors provides the high throughput encryption needed to ensure customer confidentiality, maintain regulatory compliance, and gain access to real-time data.

High-Tech—why you need HSE

Security Requirement

- Protect your IP, your customers IP and PII
- Often multi-nationals, high tech companies need to meet federal/national regulations of their customers

Performance Requirements

- High-bandwidth solutions for large data volumes

Business Need/Outcome

- Be able to meet security requirements of their customers

High-Tech—Real world use case

About the Client

Cloud-based customer relationship management software company

Featured Solutions

Thales CN9000 Series Network Encryptor

What was the challenge?

They were only getting 5G out of 10G pipe and were also looking to update security posture....**"if we get hacked, we're out of business".** The client had customers in the government sector that had higher security standards and regulation requirements.

Solution chosen

The client upgraded their current 10 Gbps systems to the Thales CN9120, 100 Gbps high speed encryptors. The company has high data volumes and needed higher bandwidth services. The deployment is a global, point-to-point environment.

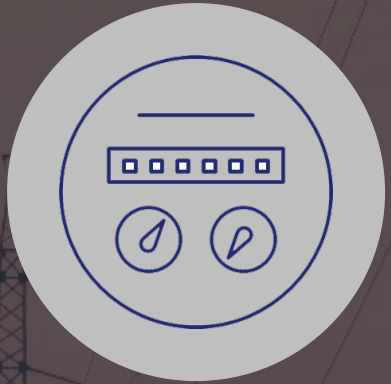
Business impact

With the addition of the high speed encryptors, the software company was able to meet the higher security standards and regulatory compliance needs of its customers. In addition, they were able to save enough money on network services and equipment upgrades that the devices paid for themselves.

Critical Infrastructure—Why you need HSE

Security Requirement

- Regulated — e.g. North American Electric Reliability Corporation (NERC), SCADA, Smartgrid, European Programme for Critical Infrastructure Protection (ECPIP)
- Data integrity



Performance Requirements

- Low latency for real time signaling
- Drop in solution to support legacy connectivity

Business Need/Outcome

- Secure communications to remote sites
- Real time signaling and reliability

Critical Infrastructure—Real world use case

About the Client

As a prominent energy distribution system operator in one of Europe's largest cities, the client is responsible for supplying electricity and gas through a combined system operator in the city proper and the surrounding region.

Featured Solutions

Thales CN6000 Series
Thales CN4000 Series
Network Encryptors

What was the challenge?

Latency sensitive due to real time signaling and response of end applications. National security and target for unfriendly nations to steal, manipulate or redirect sensitive real time information.

Solution

By encrypting communications regarding electricity and gas using the High Speed Encryptors, data within the SCADA network cannot be stolen or manipulated.

Business impact

The company ensures that the city's gas and electric supply has maximum protection from hacker attacks with Thales's High Speed Encryptors.

Healthcare—Why you need HSE

Security Requirement

- HIPAA and other data privacy regulations
- Sprawling campus environments

Performance Requirements

- High resolution files and real time information need to be transferred efficiently and securely between sites and to other medical offices, insurance, etc.

Business Need/Outcome

- Bandwidth and operational efficiencies.
- Compliance mandates for internal communications/transfers of PII

Healthcare—Real world use case

About the Client

A large integrated regional health care delivery system in the U.S. with a multi-site campus environment

Featured Solutions

Thales CN6000 Series Network Encryptors

What was the challenge?

The customer needed to secure data as it moved between multi-site network of hospitals, clinics, and administrative sites. They also needed high speed links to handle massive file size documents and imaging files, as well as PII (personally identifiable information.

Solution chosen

The customer selected Thales CN 6100 Network Encryptor for point-to-multiple point data in motion encryption.

Business impact

The CN6100s were installed at each site in the health care group. The customer found the 'Bump in the Wire' design made it easy to install, and it's been a cost-effective solution that meets their needs with little attention.

Local Government—Why you need HSE

Security Requirement

- Compliance with local regulations or requirements for doing business with federal/national government
- PII (Personally identifiable information)

Performance Requirements

- High-speed throughput

Business Need/Outcome

- Can be cost sensitive due to limited budgets and lack of ability to upgrade existing infrastructure.
- Large volumes of data need to be protected securely keeping in mind tight budgets

Local Government—Real world use case

About the Client

A U.S. County Sheriff's Office provides police services for more over a million residents in several cities and towns

Featured Solutions

Thales CN6000 Series Network Encryptor

What was the challenge?

To access the US Criminal Justice Information system (CJIS) law enforcement agencies transferring data between any physical locations (even internally) must now encrypt that data while in transit. FIPS certification is required for CJIS.

Solution chosen

By encrypting data-in-transit using high-assurance Thales network encryptors, data being transmitted between their facilities cannot be exposed or manipulated. And the Sheriff's office is fully CJIS compliant.

Business impact

By using Thales Encryptors, the County Sheriff's Office, ensures their voice, video and data communications are secure as they share sensitive information with authorized parties in different facilities. The drop in solution provided allowed the customer to maintain existing infrastructure and services.

Industry/Manufacturing—Why you need HSE

Security Requirement

- Manufacturers need to secure not only their own IP, but the IP of their customers IP, data, and blueprints as it moves between locations/sites

Performance Requirements

- Business continuity
- Efficiency to manage costs

Business Need/Outcome

- Secure sharing and collaboration of information, operational efficiencies and maximum uptime

Industry/Manufacturing—Real world use case

About the Client

A leading global Original Design Manufacturer (ODM) with operations spread across Asia, North America, and Europe

Featured Solutions

Thales CN6000 Series

What was the challenge?

The ODM needed a solution to protect sensitive data without additional network and operational overhead

- Need to comply with security
- Wanted a plug & play, solution that did not need any post-deployment maintenance.

Solution chosen

Each of the company's sites are connected with two 10 Gbps active and passive links. Thales network encryptors were deployed at each link without any significant changes in the overall network topology, and while achieving near-zero latency.

Business impact

ODM secured its data in motion to meet security standards like FIPS 140-2 level 3, Common Criteria, with no impact on latency, and ensured maximum network bandwidth. The deployment was fast and easy, with seamless integration with network topology.

Benefits of Thales High Speed Encryption

Trusted Security

Certified FIPS 140-2 L3, Common Criteria, NATO, UC APL, Thales Network Encryptors are preferred by market leading financial institutions, telcos and other commercial organizations and governments in more than 35 countries.

Maximum performance

Proven to deliver max uptime in the most demanding, performance intensive environments. The solutions have near-zero latency, and can operate in full-duplex mode at full line speed.

Optimal Flexibility

Flexible, vendor agnostic interoperability, meaning they're compatible with all the leading network vendors throughout your network. The product range supports network speeds of 10 Mbps to 100 Gbps and single to multi-port appliances and virtual solutions.

About Thales

The **people** you rely on to **protect your privacy** rely on **Thales** to protect their data. When it comes to data security, organizations are faced with an **increasing number of decisive moments.** Whether the moment is building an encryption strategy, moving to the cloud, or meeting compliance mandates, you can **rely on Thales to secure your digital transformation.**

DECISIVE TECHNOLOGY FOR DECISIVE MOMENTS

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