

Retail grocery chain protects sensitive data in motion with Thales High Speed Encryptors

Introduction

A regional grocery chain with hundreds of stores across several states was concerned about ongoing leaks of product pricing and time-sensitive offers. The retailer suspected eavesdropping on network communications between its main offices was behind the data breaches.

Challenge

The retailer wanted to implement the highest level of security to protect the internet connection between major offices. This would protect pricing and offer information as well as customer, supplier, and employee sensitive data used across its operations.

The requirement for high-speed communication between its offices meant the solution implemented needed to support high performance and high speeds of data transmission while ensuring end-to-end security.

Solution

Thales High Speed Encryptors

The retailer implemented Thales High Speed Encryptors to provide end-to-end protection for data in motion between main offices. The FIPS 140-2 Level 3 and Common Criteria certified appliance provided high-speed communication with the highest levels of standards-based security:

- **Maximum network performance**

Thales' high speed encryption technology introduces zero protocol overhead, so maximum bandwidth is available for data. This is up to 50% more efficient than competing technologies. Thales Network Encryptors provide the fastest network encryption available, operating at true line speed with no impact on latency, and this ensures the high quality of real-time applications such as VoIP and video. High availability features support architectures with over 99.99% uptime.

- **Easy deployment**

Adding the Thales Network Encryptors to the existing network was effortless due to the "bump in the wire" design aspect of the appliances. There's no need for network reconfiguration, so Thales Network Encryptors can be set up in minutes. The unique features of the encryptors enable them to be seamlessly overlaid onto any network topology.

- **Top rated security**

Thales Network Encryptors use the strongest publicly available cryptographic algorithms developed by NIST (the Advanced Encryption Standard AES-256). The appliances are crypto-agile, using field programmable gate array (FPGA) technology that allows them to be easily upgraded in the field to keep pace with the evolution of cryptographic advancements.

" The retailer was able to protect sensitive data flowing between offices while maintaining performance and speed of communication essential for its operations."



Thales Luna Hardware Security Modules

Thales Luna Hardware Security Modules were deployed later to provide root-of-trust for encryption keys and PKI-based use cases. Thales Luna HSMs are dedicated crypto processors specifically designed to protect the crypto key lifecycle. HSMs act as trust anchors that protect the cryptographic infrastructure of some of the most security-conscious organizations in the world by securely managing, processing, and storing cryptographic keys inside a hardened, tamper-resistant device. Enterprises use HSMs to protect transactions, identities, and applications, because HSMs excel at securing cryptographic keys and provisioning encryption, decryption, authentication, and digital signing services for a wide range of applications.

Results

The retailer was able to protect sensitive data flowing between offices while maintaining performance and speed of communication essential for its operations.

- **Stopped data breach**
Stopped leaks of pricing and offer data by protecting sensitive and confidential data flowing across its main offices.
- **Optimized and secured network performance**
Thales HSEs optimized and secured network performance with zero-overhead protocol with no impact on latency and ensured maximum performance.
- **Enabled fast, and easy deployment**
Seamless 'bump-in-the-wire' integration with no network reconfiguration.
- **Scalability**
Scaled from 1 Gbps HSE solution to a 10 Gbps solution to support increased network traffic.

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.