NATIONAL CCTV NETWORK HIGH-ASSURANCE ENCRYPTION

CASE STUDY

Application of High-Assurance Network Encryption	
Sector:	Law Enforcement
Use Case:	CCTV Distributed Networks
Solution:	Secure video transmission across Layer 2 network architecture

SENETAS
Security without compromise

Government security CCTV video capture and real-time transmission demands robust, high-assurance encryption without compromising network performance.

CUSTOMER CHALLENGE

RISK TO NETWORK TRANSMITTED CCTV DATA

Our customer is a government agency, responsible for providing integrated control and monitoring of international border security.

Having implemented an extensive CCTV network to monitor a number of major transport hubs, it was essential that the integrity of the network transmitted data remain intact.

High volumes of potentially sensitive video information were being captured and transmitted across the network; with the risk of interception between the cameras and the remote monitoring stations.

Network performance was also crucial as the system's effectiveness depends on real-time monitoring.

The agency originally planned to encrypt the video stream using a Layer 3 IPsec solution. However, trials of a competitor's Layer 3 encryption solution were a failure; resulting in a near 50% deterioration in network performance.

The additional latency introduced by the Layer 3 solutions also caused an unacceptable degradation of video quality and badly impacted the network economics.

Senetas was approached to see if a Layer 2 encryption solution would offer the right combination of network security and performance.

We worked closely with our customer to implement an initial proof of concept (POC) using Layer 2 Ethernet encryptors running at 100Mbps.

Following the successful POC, Senetas high-assurance encryptors were chosen as they offered optimal data protection and maximum network performance.

SENETAS SOLUTION

HIGH-ASSURANCE NETWORK DATA PROTECTION

Initially, the Senetas encryptors were installed at major transport hubs and connected the central monitoring station to a number of CCTV cameras using Layer 2 links.

Extensive testing proved that the latency introduced by the Senetas encryptors was virtually non-existent. Furthermore, the Senetas encryptors did not impair the quality of video, nor the ability to remotely control the cameras.

The POC also demonstrated significantly improved network economies and a range of performance and management benefits.

Our customer's selection of Senetas encryptors was based on their designed in agility and security - High-Assurance Encryption

>> Secure and tamper-proof hardware dedicated to encryption

>> Certified by leading testing authorities.

>> True end-to-end encryption.

>> State-of-the-art, client-side encryption key management

>> Standards-based authenticated encryption (AES256)

BUSINESS BENEFITS
SECURE DATA TRANSMISSION

Our customer purchased a number of Senetas encryptors for progressive roll-out across an extensive network at the major transport hubs.

The high-assurance encryption experience has been excellent to date, featuring:

>> Dependable and consistently near-zero latency; ensuring the best possible video quality

>> No consumption of additional, expensive bandwidth

>> Simplicity of implementation and ongoing management

>> 99.999% availability

The combination of near-zero latency and Layer 2 network performance also generates cost efficiencies; such as low costs per gigabyte and low network management costs.

Choosing Layer 2 encryption, especially for latency-sensitive applications (such as video or voice) combines the benefits of high-assurance data security and integrity with scalable line-rate performance across point-to-point of fully meshed topologies.

GLOBAL SUPPORT AND DISTRIBUTION

Senetas CN series encryptors are supported and distributed globally by Gemalto under its SafeNet encryption brand. Gemalto also provides pre-sales technical support to hundreds of accredited partners globally: systems integrators, networks providers, cloud and data centre service providers, telecommunications companies and network security specialists.

www.gemalto.com/enterprise-security/enterprise-data-encryption

SENETAS
Security without compromise

SENETAS CORPORATION LIMITED

E info@senetas.com
www.senetas.com