

MULTI-LINK ENCRYPTION CASE STUDY

Securing a global financial WAN with CN8000 high-assurance, multi-link encryption; featuring Quantum Key Distribution

THE CLIENT



International Bank, with 30 office locations on 3 continents

BUSINESS CHALLENGES

- Need to maintain financial services **compliance**
- Need to maintain customer **data security**
- Cost-effective** solution
- Ability to handle increasing volumes of **big data**
- High-performance** network
- Require **real-time access** to customer data

LAYER 2 VS LAYER 3

Layer 2	Layer 3
HIGH ASSURANCE	ASSURANCE LOW
HIGH SIMPLICITY	SIMPLICITY LOW
HIGH THROUGHPUT	THROUGHPUT LOW
LOW OVERHEAD	OVERHEAD HIGH
LOW LATENCY	LATENCY HIGH
LOW FRAGMENTATION	FRAGMENTATION HIGH

THE SOLUTION

Senetas certified high-assurance CN8000 Layer 2 multi-link encryptors; featuring gapless, end-to-end encryption; secure, tamper-proof hardware and Quantum Key Distribution from Swiss quantum cryptography company ID Quantique.



BENEFITS

HIGH-ASSURANCE

- FIPS 140-2 Level 3 and Common Criteria Certification
- Authenticated, standards-based encryption
- Gapless, end-to-end network encryption
- State-of-the-art, client-side key management

HIGH PERFORMANCE

- High throughput across the MPLS network
- 100% bandwidth
- No packet loss in transport mode
- Latency below 7.5 microseconds per encryptor

SCALABILITY & FLEXIBILITY

- Secure unicast, multicast and broadcast transmission
- Compatible with all network devices and Senetas CN hardware
- Scalable from 10Mbps to 10Gbps, up to 500 devices
- Support for all topologies, P2P, multipoint and fully meshed

EASE OF MANAGEMENT

- Single management platform for multiple protocols
- Secure local or remote management and upgrade

CRYPTO AGILITY

- Quantum Key Distribution for long-term data protection
- Custom encryption enabling BYO entropy and custom curves

"Following a successful pilot, we rolled out the encryption platform across our global WAN. We initially used rate-limited devices across a lot of the network, to allow us to meet our CapEx budget. Having said that, it's great to know we have scalability built-in, as we've already dialed up the head office encryptors to 10Gbps."



Senetas manufactures certified high-assurance encryptors for Layer 2 Carrier Ethernet, Metro and Wide Area networks. Senetas encryptors support all Layer 2 network protocols and topologies. They are used by governments, defence forces, leading commercial and industrial organisations, global Cloud and data centre service providers in more than 35 countries.

ID Quantique is the world leader in quantum-safe crypto solutions, designed to protect data for the long-term future. The company provides quantum-safe network encryption, secure quantum key generation and quantum key distribution solutions and services to the financial services industry, leading enterprises and government organisations worldwide.



Senetas CN Series hardware encryptors and CV Series virtual encryptors are distributed and supported internationally by Gemalto under its SafeNet brand; within the US Federal Government by SafeNet Assured Technologies, and throughout Australia and New Zealand by Senetas and accredited partners.