

INTRODUCING SENETAS





ABOUT SENETAS

Senetas develops and manufactures certified high-assurance network encryption hardware; protecting transmitted data without compromising application or network performance.

Senetas encryptors are secure, tamper-proof devices, dedicated to providing high-assurance encryption security. They all feature zero-touch encryption key management and deliver authenticated network encryption using standards-based algorithms.

Our CN Series encryptors support all Layer 2 protocols and network topologies; from modest 10Mbps bandwidth requirements to ultra-fast 100Gbps 'mega-data' applications. They are certified by leading independent authorities (FIPS, Common Criteria and NATO) as "suitable for government and defence" use.

Senetas encryptors are distributed and supported globally by Gemalto under its SafeNet Identity and Data Protection Solutions brand.



WHY ENCRYPT NETWORK DATA?

The rapid growth of Big Data applications, virtualisation, data centre and Cloud computing technologies means we are becoming increasingly reliant upon our high-speed, high-availability data networks to securely deliver information when and where we need it.

However, these networks are not inherently safe. Encryption is proven to be the optimal security technology when it comes to protecting network transmitted data from theft, eavesdropping, rogue data inputs and simple technical or human error.

**Not all network encryption solutions
are the same.**



HIGH-ASSURANCE ENCRYPTION

Not all encryption solutions are created equal. So-called 'hybrid' encryption devices - such as network routers/switches with embedded encryption or those using MACSec or similar standards (not originally intended for WAN and MAN security) provide "low assurance" data protection.

Senetas CN Series encryptors are purpose engineered for dedicated, high-assurance network data security.

There are four essential capabilities necessary for high-assurance network data encryption:

- > **Dedicated, secure and tamper proof hardware**
- > **Automatic, 'zero-touch' encryption key management**
- > **Authenticated, end-to-end network encryption**
- > **Robust, standards-based encryption algorithms**

CERTIFIED HIGH-ASSURANCE

Senetas CN Series encryptors include the added security assurance of certification by leading international, independent testing authorities as suitable for government and defence use.

FEDERAL
INFORMATION
PROCESSING
STANDARD
(FIPS) 140-2
LEVEL 3

COMMON
CRITERIA
EAL2+
EAL4+

NATO
CLASSIFICATION
– RESTRICTED –
GREEN

For 20 years, Senetas R&D has included a commitment to 'certification in depth'. Customers value the benefits of exhaustive and ongoing testing authorities' product evaluation.

PERFORMANCE

How well do Senetas encryptors perform in real-life network environments?

Senetas certified, high-assurance encryptors provide maximum security, without compromising network performance.

Our products.

Provide support for all bandwidth requirements:

- > Modest 10Mbps to 100Mbps
- > High-speed 1Gbps to 10Gbps and rate-limited
- > Multi-link 10x 1GBps to 10Gbps
- > Ultra-fast 100Gbps

¹@ 100Gbps

Operate in full-duplex mode at full line speed without packet loss:

- > Ultra-low latency < 2us¹
- > Zero network overhead

Leverage state-of-the-art key management; where your keys are encrypted and stored securely.

What the FBI refers to as “unbreakable encryption”

LAYER 1 VS LAYER 2 VS LAYER 3

Layer 1 (link) encryption requires that the entire contents of the packet be encrypted - starting with the Ethernet destination address. Because all the data is encrypted, including the network information, it is unable to pass through switches, so Layer 1 is only suitable for point-to-point networks.

Layer 2 networks provide customers with dedicated bandwidth for separated data transmission; delivering the levels of performance necessary for high-speed, high-volume computing tasks. Importantly, Layer 2 networks enable all network architectures, from point-to-point to fully meshed multi-point topologies.

However, it's when protection of transmitted data is critical that the real benefits of encrypting over Layer 2 become apparent. By comparison, when encrypting at Layer 3, networks may lose up to 50% of their bandwidth and speed performance; because of the inherently high overheads.

The Senetas range of certified high-assurance encryptors are purpose designed to efficiently encrypt all Layer 2 network protocols and topologies; offering maximum network and application performance through near-zero latency and bandwidth use.

SENETAS ENCRYPTED **LAYER 2** BENEFITS

- Speed and performance – low latency and wire speed encryption
- Scalability – simple growth and expansion as network needs increase
- Ease of use – the simplicity of network changes also avoiding risks of errors
- Lower capital investment - potential router and OTN hardware savings
- Fully interoperable product family, including backwards compatibility
- Seamless, end-to-end, secure network connectivity
- Encrypted bandwidth and secure data throughput
- Lower management requirements and costs – no complex routing architecture due to transparent encryption
- Traffic flow analysis protection
- Fully featured platform from 10Mbps to 100Gbps, compact to rack-mounted

SENETAS CN ENCRYPTORS

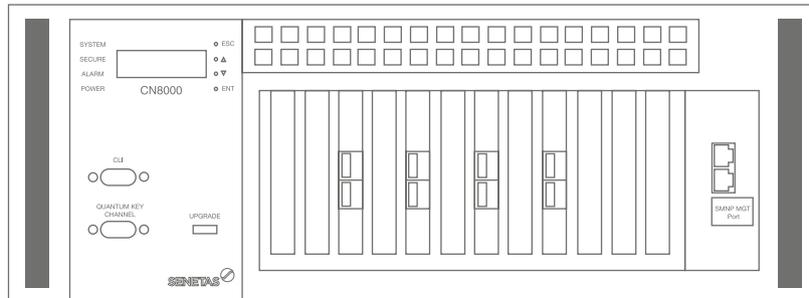
CN4000 Series - compact, cost-effective encryptors for in-field or network edge data security



CN6000 Series - 'carrier-grade', rack-mounted encryptors



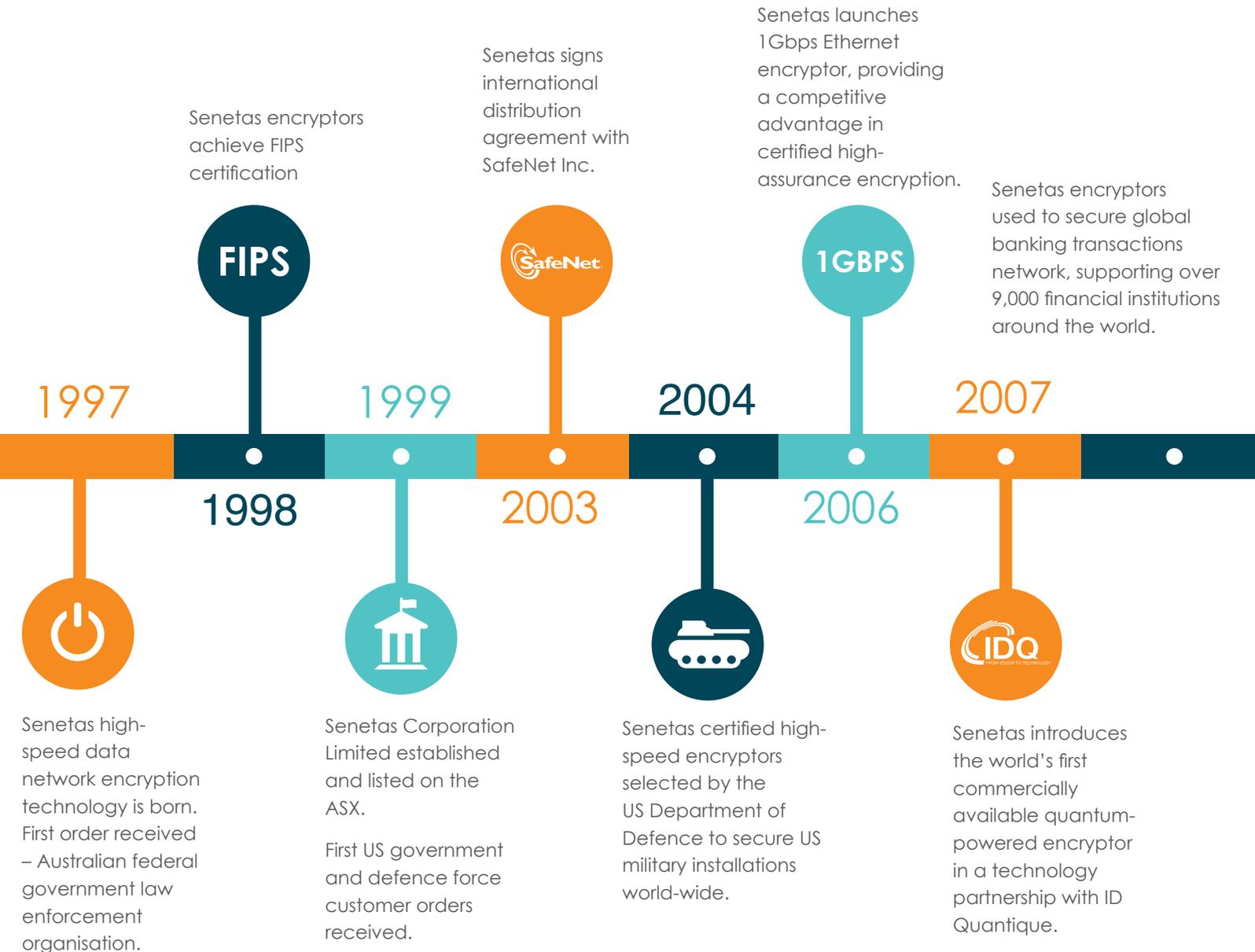
CN8000 Series - multi-link, multi-tenant encryptors



CN9000 Series - ultra-fast 100gbps Ethernet encryptor for 'mega data' applications



OUR STORY SENETAS CHRONOLOGY



OUR STORY SENETAS CHRONOLOGY

Senetas releases new 10Gb Ethernet encryptor and the world's first SONET 10Gbps encryptor.

Senetas expands operations, establishes Senetas Europe, based in the UK.

Senetas reaches a manufacturing milestone of \$100,000,000 encryptors sold.

Senetas encryptors used to secure data centre and cloud services for US government.



2009



2011



2012



2013

2008



Senetas patent granted for network data encryptors.

2010



Senetas releases new generation platform and CN6000 Series encryptors.

Common Criteria EAL4+ certification achieved.

2012



Achieved UK CAPS certification, making Senetas products the world's only triple-certified encryptors of their type.

2013



Senetas CN4000 desk-top encryptor range launched, offering certified 10Mbps to 1Gbps encryption anywhere.

OUR STORY SENETAS CHRONOLOGY

Senetas wins 2014 iAwards for its certified high-assurance encryption solutions.

Senetas network partners productisation of 'certified secure network links' wins Australian Information Security Association (AISA) Award.

Senetas launches first multi-link encryptor. The CN8000 provides ten x 1-10Gbps ports with multiple tenancy capabilities.

Senetas wins government technology export award.

Senetas software release (v2.7.1) now supports custom elliptic curves and BYOD entropy.



2014



2015



2016



2017

2014

TRANSEC transmission flow security introduced to Senetas CN Series encryptors.



Senetas CN encryptors achieve NATO (Restricted Green) certification.

2015



Senetas adds support for Suite B algorithms and Elliptic Curve Cryptography (ECC).

First order received for bespoke encryptors featuring custom algorithms.

2015



Senetas R&D adds 'Crypto-Agility' to its product road map providing customer flexibility and Quantum features.

2016

100 GBPS

Senetas CN Series encryptors achieve ultra-low latency milestone of 1.5µs at 100Gbps in customer testing.

Senetas launches the CN9000 Series at RSA, the world's largest IT security event. CN9000 is the world's first commercially available 100Gbps Ethernet encryptor to support all network topologies.

APPLICATIONS



Data centre
interconnect,
back-up and
disaster recovery



Cloud
computing and
SaaS network
links



Big Data
application
network security
solutions



CCTV
network data
transmission
security
solutions



Industrial control
(SCADA)
and critical
infrastructure
networks



Link and location
to location
network data
security



SUREDROP

SUREDROP PROVIDES ALL THE USABILITY,
FAMILIARITY AND CONVENIENCE OF A DROPBOX-TYPE
FILE SHARING AND COLLABORATION APPLICATION;
PLUS ROBUST, STATE-OF-THE-ART ENCRYPTION SECURITY

SureDrop. The high-assurance file sync
and share solution with maximum,
end-to-end encryption security.

1 SECURE, STANDARDS-BASED ENCRYPTION



2 ZERO-TOUCH ENCRYPTION KEY MANAGEMENT



3

ADDITIONAL, FILE FRAGMENTATION SECURITY

SureDrop represents a new way to enjoy secure file sharing and collaboration and has been subjected to rigorous testing by a number of multinational and telecommunications organisations.

We are focused on delivering a service that meets the needs of large commercial and government organisations that are required to frequently share sensitive and confidential information across the web.



SENETAS CUSTOMERS



GOVERNMENT



COMMERCIAL



DEFENCE



HEALTHCARE



FINANCE



INDUSTRIAL



BANKING



CLOUD SERVICES



LAW ENFORCEMENT



UTILITIES
& ENERGY



REGULATORY
AUTHORITIES



DATA CENTRE
SERVICES

MEET THE BOARD



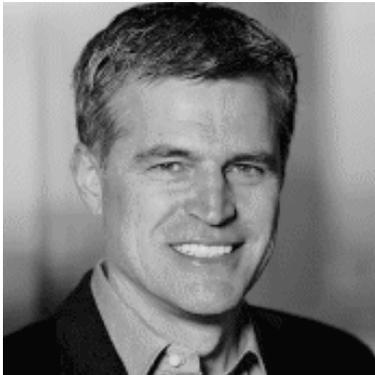
Francis W. Galbally
Non-Executive Chairman



Lieutenant General (Retd)
Ken Gillespie, Director



Lachlan Given
Director



Lawrence D. Hansen
Director



Andrew Wilson
Chief Executive Officer



Brendan Case
Company Secretary

GLOBAL DISTRIBUTION AND SUPPORT



Senetas high-assurance encryptors are supported and distributed globally (excl. AUS & NZ) by Gemalto – the world's largest data security company - under its SafeNet Identity and Data Protection Solutions brand.

PARTNERS



COMPANY HIGHLIGHTS

41%
GROWTH IN
PRODUCT SALES

OPERATING
REVENUE UP
47%

NET PROFIT UP
145%

30%
INCREASE IN
R&D INVESTMENT



**SENETAS
CORPORATION LIMITED**

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Senetas manufactures high-assurance Layer 2 Metro Area and Carrier Ethernet network encryptors. They support all Layer 2 protocols and topologies.

Our multi-certified encryptors are used by some of the world's most secure organisations; including governments and defence forces, commercial and industrial enterprises, Cloud, data centre and telecommunications service providers in more than 30 countries.