INTRODUCING SENETAS

SENETAS

Security without compromise

# ABOUT SENETAS

Senetas is a leading developer of end-to-end encryption security solutions; trusted to protect enterprise, government, defence, Cloud and service provider network data in over 35 countries.

From certified high-assurance hardware and virtualised encryption, to encrypted file sharing with patented content disarm and reconstruction technology; all deliver security without compromise.

THE BREACH LANDSCAPE

SINCE 2013, DATA RECORDS HAVE BEEN LOST OR STOLEN AT AN ALARMING RATE.
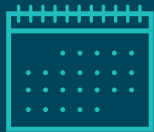
every day
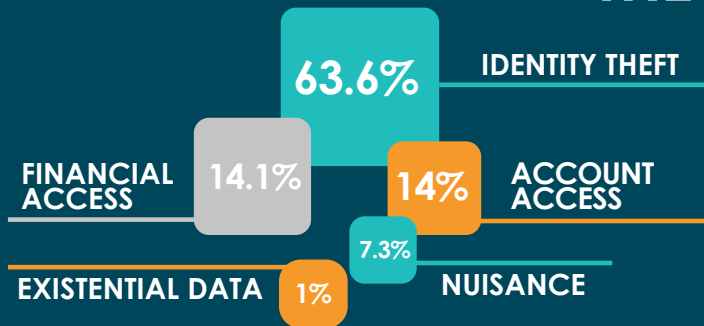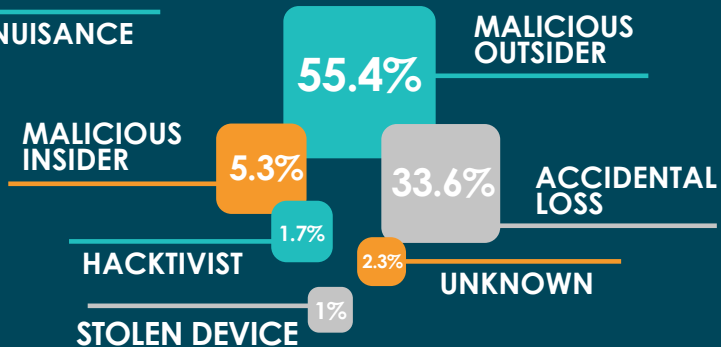5,882,341

every hour
245,098

every minute
4,085

every second
68

BY TYPE

THE BREACH LANDSCAPE

63.6% IDENTITY THEFT

FINANCIAL ACCESS **14.1%**

14% ACCOUNT ACCESS

EXISTENTIAL DATA **1%**

7.3% NUISANCE

BY SOURCE

55.4% MALICIOUS OUTSIDER

MALICIOUS INSIDER **5.3%**

33.6% ACCIDENTAL LOSS

1.7% HACKTIVIST

2.3% UNKNOWN

STOLEN DEVICE **1%**

WHY ENCRYPT NETWORK DATA?

The rapid adoption of Cloud Services, Big Data Applications and Virtualised Infrastructure means we are becoming increasingly reliant upon our high-speed, high-availability data networks to securely deliver information when and where we need it.

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.

THE THREAT LANDSCAPE

Senetas protects data in motion against:

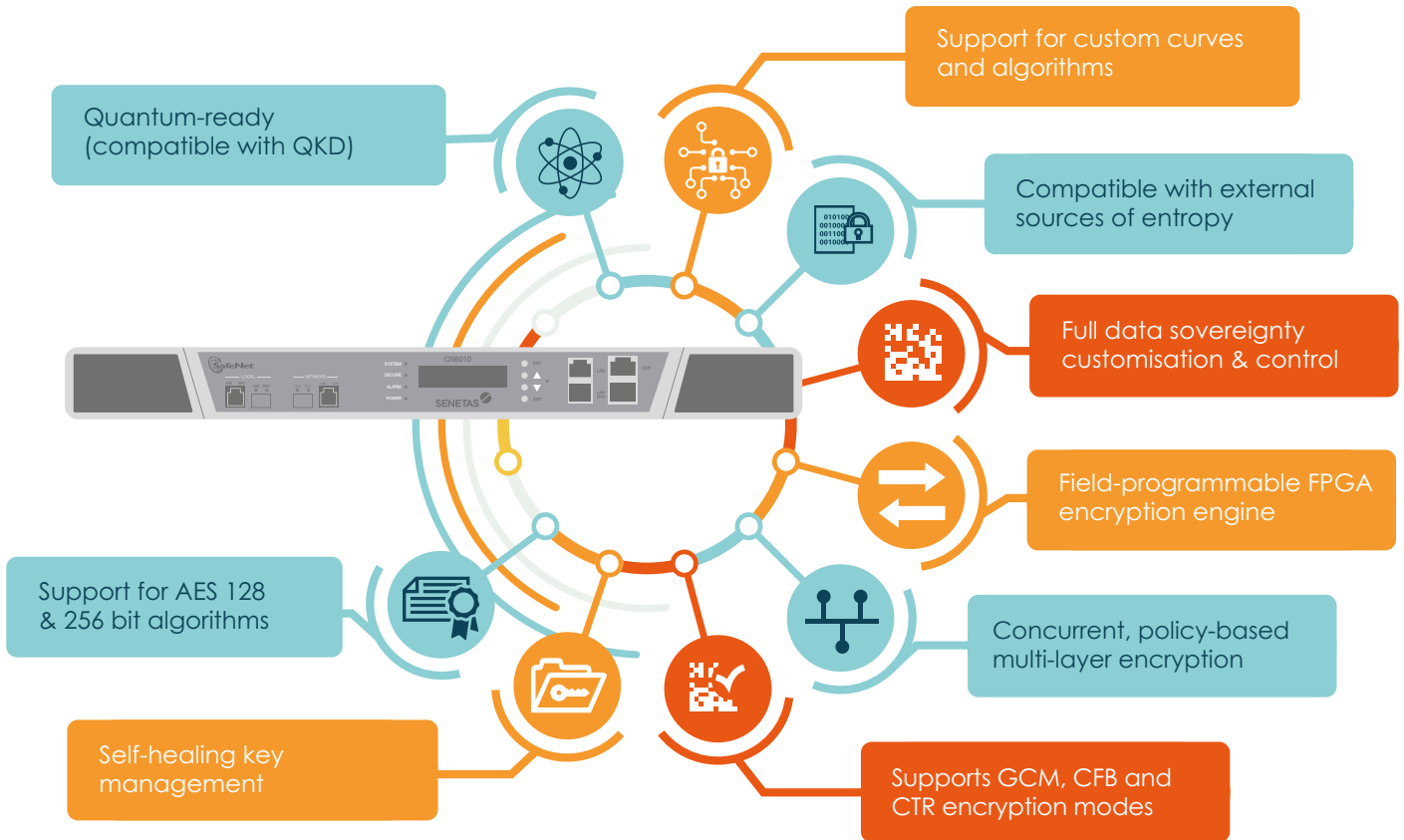Intellectual Property Theft   Business Disruption   Compliance Issues   Loss of Customer Data   Hack Attacks

CRYPTO-AGILITY

The key to long-term data protection,
sustainable ROI and lower TCO.

Quantum-ready
(compatible with QKD)

Support for custom curves
and algorithms

Compatible with external
sources of entropy

Full data sovereignty
customisation & control

Field-programmable FPGA
encryption engine

Concurrent, policy-based
multi-layer encryption

Supports GCM, CFB and
CTR encryption modes

Self-healing key
management

Support for AES 128
& 256 bit algorithms

CN SERIES
HARDWARE ENCRYPTION

FOR CORE NETWORK & IT INFRASTRUCTURE

CV SERIES
VIRTUALISED ENCRYPTION

FOR VIRTUAL CPE & WIDE AREA NETWORKS

SUREDROP
ENCRYPTED FILE-SHARING

FOR ENTERPRISE-WIDE SECURE FILE EXCHANGE

CN SERIES
HARDWARE
ENCRYPTION
FOR CORE IT
AND NETWORK
INFRASTRUCTURE

Username

Cancel   Log in

0 1 1 0 1
0 0 1 0 0
0 1 0 0 1
1 0 0 1 0
0 1 0 0 1
1 1 0 1 0
1 1 1 1 1
0 1 0 0 1
1 0 0 1 0
1 0 0 1 0

SENETAS CN SERIES ENCRYPTORS

CN4000 Series: Compact, Cost-Effective Encryptors

CN6000 SERIES: Versatile, Rack-Mounted Encryptors

CN9000 SERIES: Ultra-Fast, 100Gbps Encryptors

THE IMPORTANCE OF CERTIFICATION

Senetas CN Series encryptors include the added security assurance of certification by leading, independent testing authorities as suitable for government and defence use.
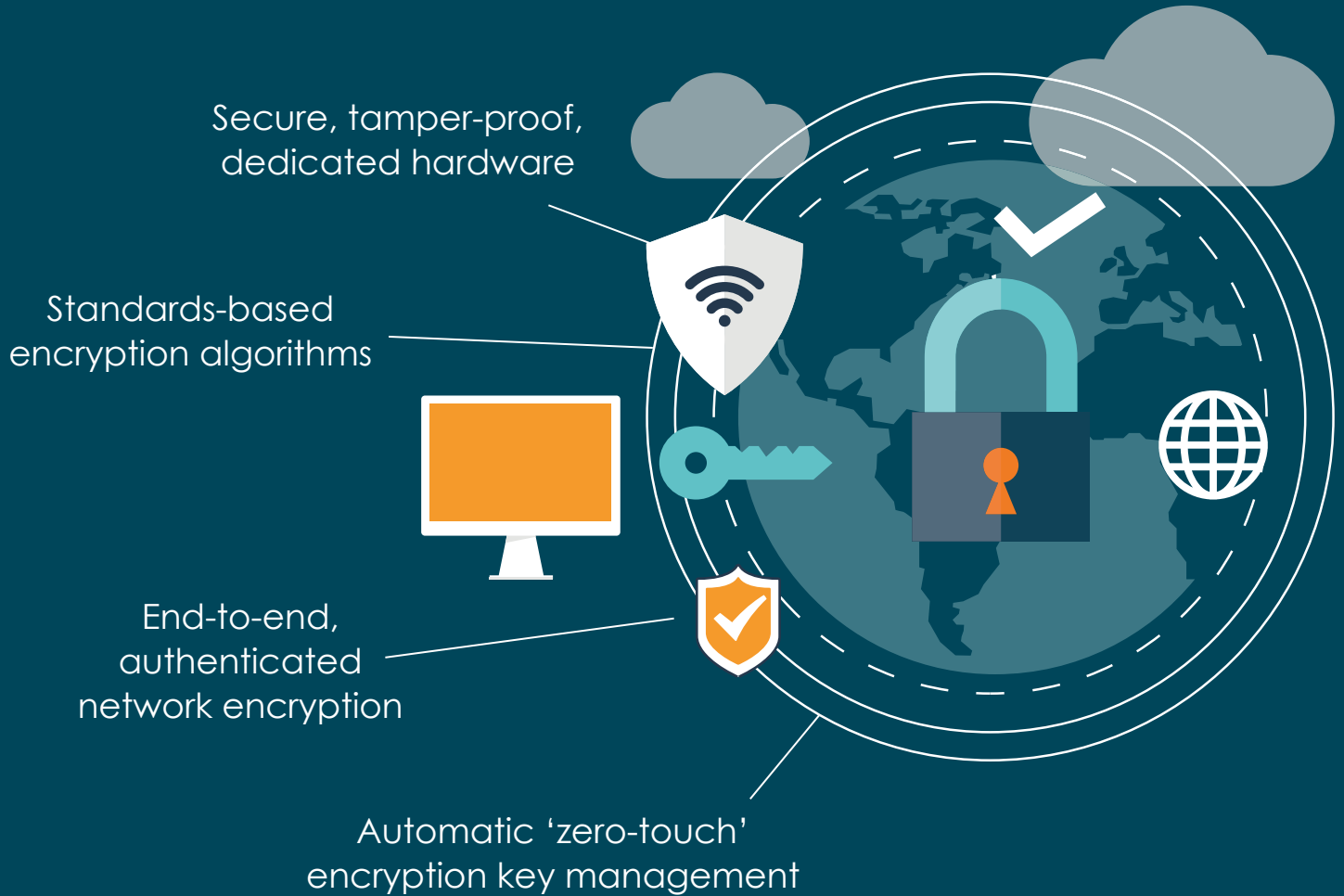
FEDERAL INFORMATION PROCESSING STANDARD (FIPS) 140-2 LEVEL 3	COMMON CRITERIA EAL2+ EAL4+	NATO CLASSIFICATION – RESTRICTED – GREEN

For over 20 years, Senetas R&D has included a commitment to 'certification in depth'.

WHAT IS HIGH-ASSURANCE?

Secure, tamper-proof, dedicated hardware

Standards-based encryption algorithms

End-to-end, authenticated network encryption

Automatic 'zero-touch' encryption key management

MAXIMUM PERFORMANCE

Now offering the same Network Independent Encryption as the CV Series, CN Series encryptors provide maximum security, without compromising network or application performance.

10Mbps to 100Gbps

Zero packet loss

Ultra-low latency

Near-zero network overhead

SENETAS ENCRYPTED **NETWORKS** BENEFITS

Scalability

LOW LATENCY

Lower capital expenditure

NETWORK INDEPENDENT ENCRYPTION

WIRE-SPEED

Ease of use

Tamper proof hardware

Quantum-ready

Interoperability

Traffic flow analysis protection

END-TO-END NETWORK SECURITY

NETWORK TRANSPARENCY

Secure data throughput

Flexible management

Topology agnostic

ENCRYPTION

APPLICATIONS

Data Centre
Interconnect

Cloud Services
and Networks

Big Data
Applications

Real-time CCTV
Networks

SCADA & Industrial
Control Networks

Multi-location
Organisations

CV SERIES
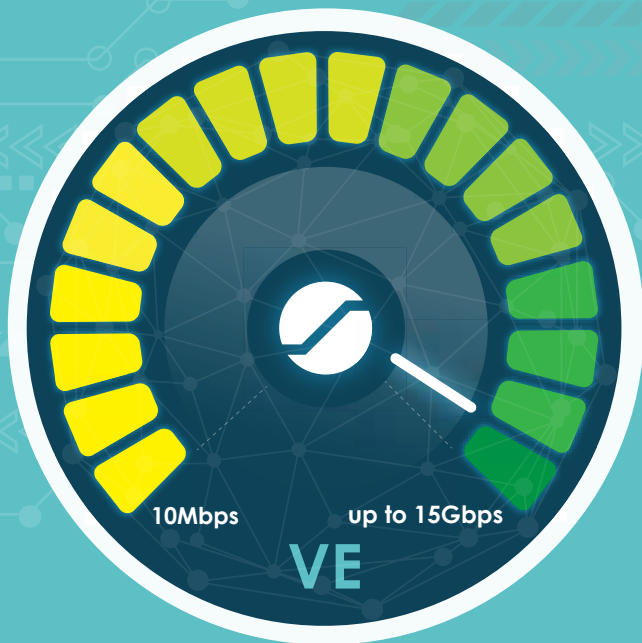# **VIRTUALISED ENCRYPTION**
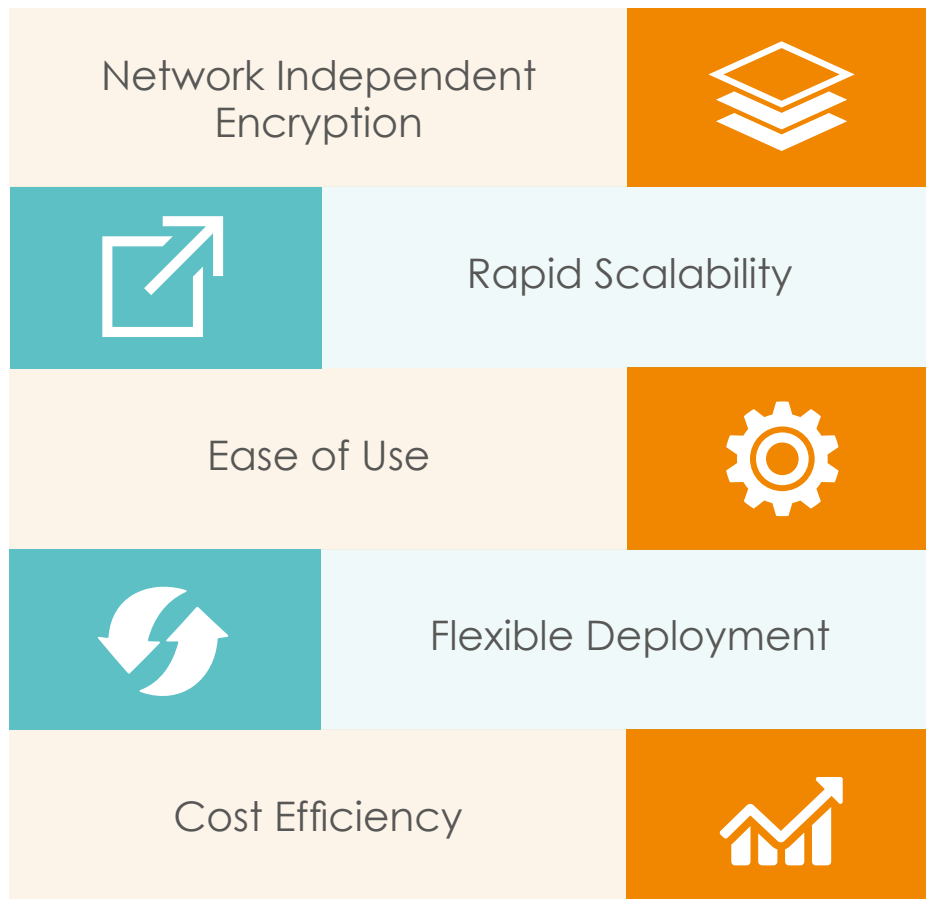# FOR VIRTUAL CPE & VIRTUALISED WAN

SENETAS CV1000
UP TO 15GBPS VIRTUALISED ENCRYPTION

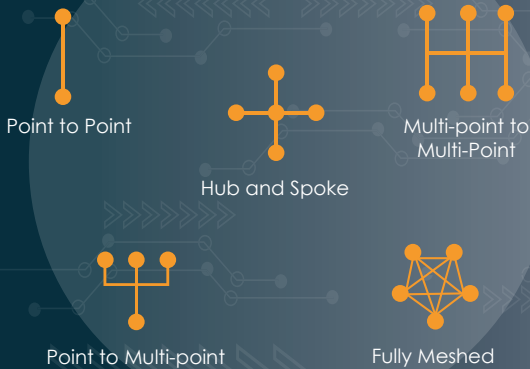The Crypto-agile virtualised encryption appliance, designed for virtual CPE and Wide Area Networks.

10Mbps

up to 15Gbps

VE

The CV1000 is designed to meet the demands of today's IT and data network managers:

Network Independent Encryption	
	Rapid Scalability
Ease of Use	
	Flexible Deployment
Cost Efficiency	

NETWORK INDEPENDENT ENCRYPTION

TOPOLOGY AGNOSTIC

Point to Point

Hub and Spoke

Multi-point to Multi-Point

Point to Multi-point

Fully Meshed

DESTINATION DEFINED

Data Centre

Mobile Worker

Remote/ Desktop Worker

Head Office

Branch Office

CONCURRENT, POLICY-BASED MULTI-LAYER ENCRYPTION

DATA LINK

DATA LINK

NETWORK

NETWORK

TRANSPORT

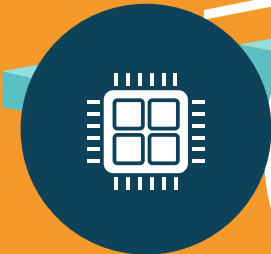TRANSPORT
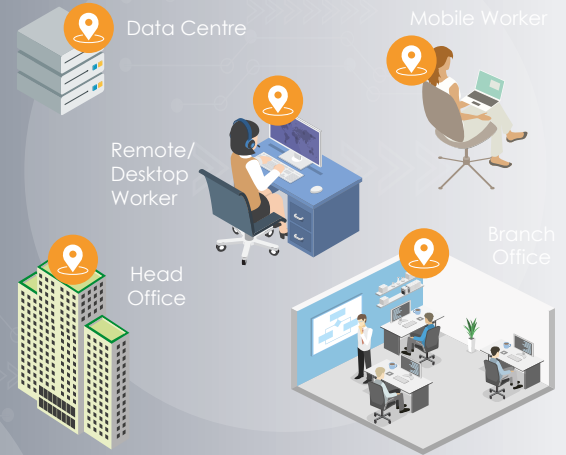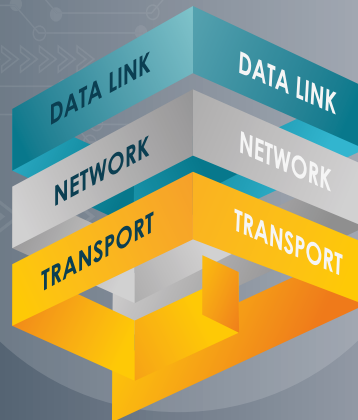
CV1000 IMPLEMENTATION

The CV1000 is a guest virtual machine that runs on industry standard x86 hosts and hypervisors.
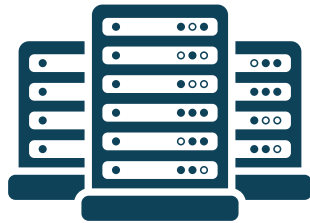
+ DPDK (acceleration) for up to 15Gbps performance

Performance is dependent upon host configuration.

Minimum recommended:

Multi-Core
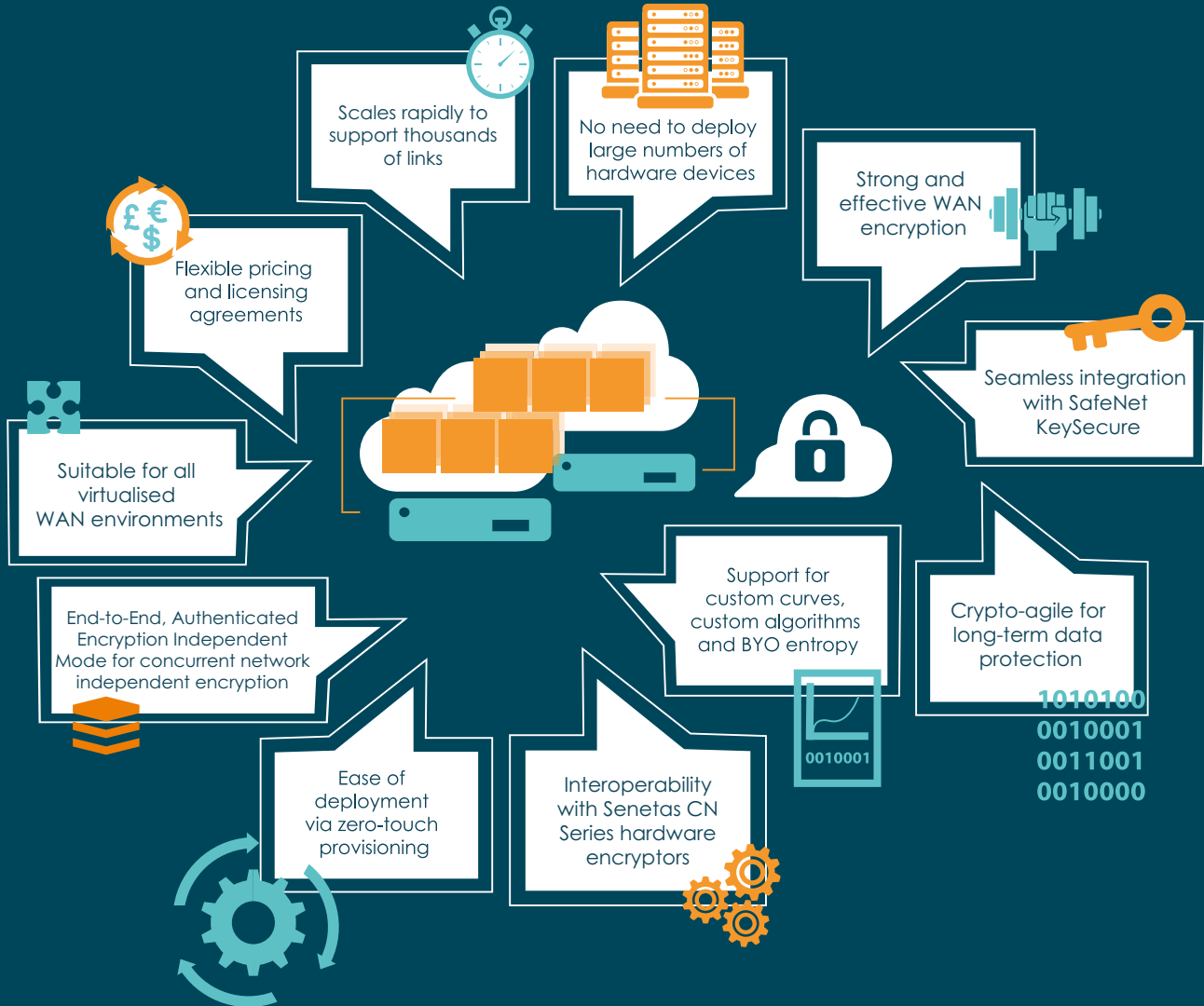
x86 Hardware

2GB Virtual Disk Storage

2GB RAM

KEY FEATURES & BENEFITS

Scales rapidly to support thousands of links

No need to deploy large numbers of hardware devices

Strong and effective WAN encryption

Flexible pricing and licensing agreements

Seamless integration with SafeNet KeySecure

Suitable for all virtualised WAN environments

Crypto-agile for long-term data protection

1010100
0010001
0011001
0010000

End-to-End, Authenticated Encryption Independent Mode for concurrent network independent encryption

Support for custom curves, custom algorithms and BYO entropy

0010001

Ease of deployment via zero-touch provisioning

Interoperability with Senetas CN Series hardware encryptors

SUREDROP
ENCRYPTED
FILE-SHARING
WITH 100%
CONTROL OVER
DATA SOVEREIGNTY

Suredrop provides all the usability, familiarity and convenience of a box-type file sharing application; with the addition of state-of-the-art encryption security, and more.

DESIGNED TO BE BETTER, AND SAFER

- 100% control over data sovereignty
- Maximum customer file security
- AES256bit Encryption Algorithms
- Effortless management and control
- Managed service or on-premises deployment

- Zero-day attack protection
- Content disarm and reconstruction
- Anti-Virus and DPL
- Unlimited file size and type
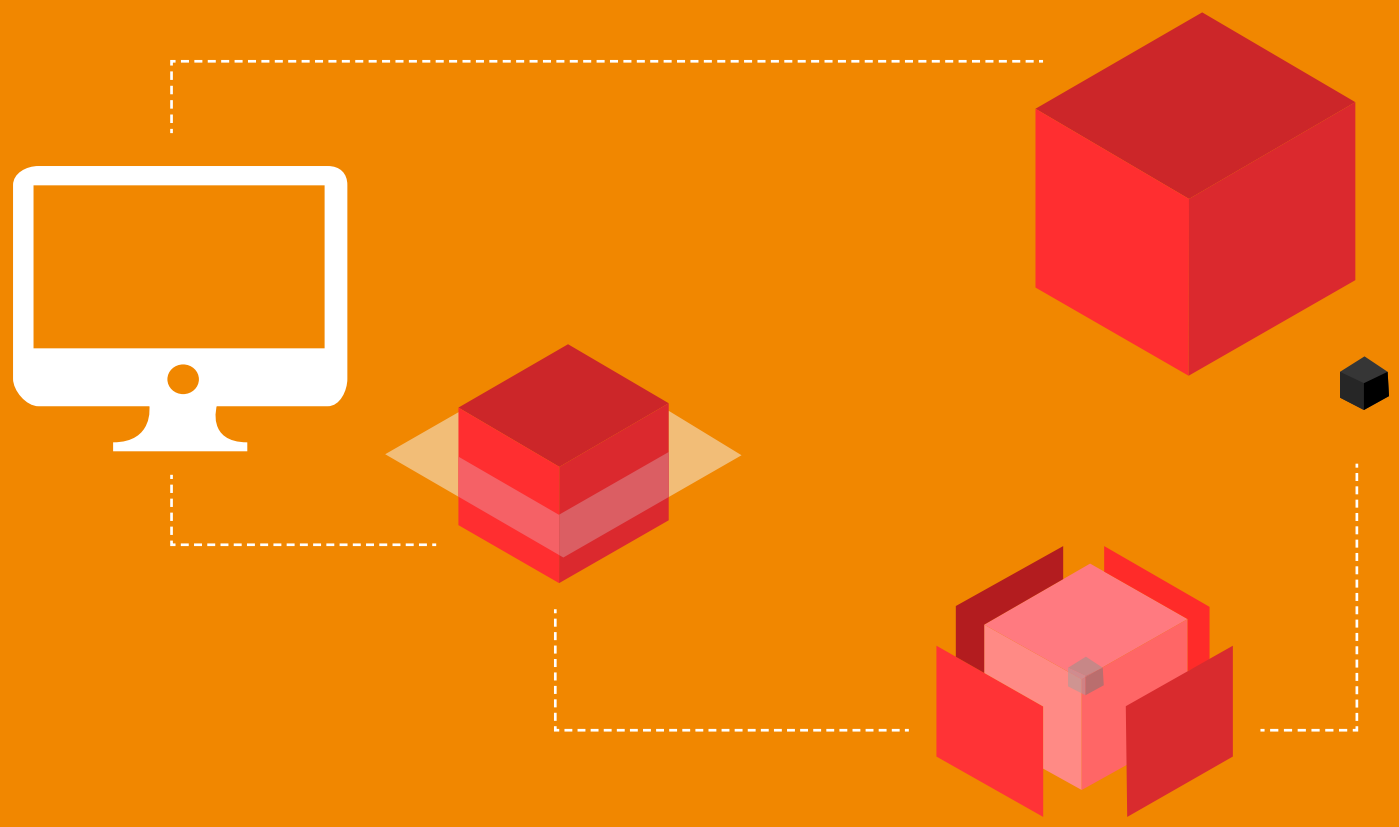- Highly resilient, fully redundant

SECURE, STANDARDS-BASED ENCRYPTION

ZERO-TOUCH ENCRYPTION KEY MANAGEMENT

VOTIRO CONTENT DISARM & RECONSTRUCTION

TAKING **CYBERSECURITY** TO THE NEXT LEVEL

Votiro's award-winning patented Content Disarm and Reconstruction (CDR) technology is a proactive, signature-less technology. It targets the most commonly exploited file formats and protects against the most advanced, persistent cyber-attacks.

It neutralises exploit attempts before they're disclosed, and before any other security system can provide protection against them.

Votiro Disarmer supports the broadest range of file formats:

PST	XLS	PDF	DOC
PNG	PPT	TXT	ICHITARO
VISIO	GIF	HANCOM	JPG

SAFE. SECURE. EFFECTIVE.

Store and share files via any platform. We'll make sure they're safe.

Disarmer for Email

Disarmer for Web

Disarmer for Content Collaboration Platforms

Disarmer for File Transfer

Disarmer for Removable Devices

Disarmer API

SAFE
Preserve 100% functionality of content once neutralised from threats.

SECURE
Disarm files from zero-day and other undisclosed attacks, no matter the source.

EFFECTIVE
Integrate with existing security infrastructure and avoid complex policy management.

THREE STAGES TO NEUTRALISATION

01 Scan

The received file is scanned for known threats.

⌄

02 Disarm

The file is broken down into its basic objects. Each individual section, alongside metadata, is analysed and any malicious content removed.
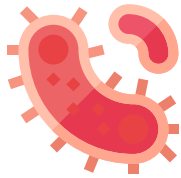
⌄

03 Reconstruct

The cleansed file is reconstructed with its original integrity and functionality preserved. It's now safe to save and edit.

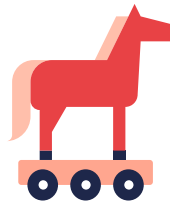# DISARM WITH CONFIDENCE

Votiro Disarmer defends your data against a range of threats, including:
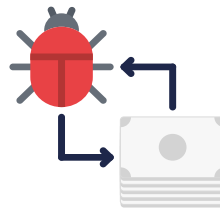
Virus

Worm

Trojan Horse

Spyware

Adware

Ransomware

Malvertising

What's more, it does so without compromising network performance.
Your cybersecurity will be transformed with no negative impact on your users.

A HISTORY OF INNOVATION

OUR STORY SENETAS CHRONOLOGY

1997 — Senetas high-speed data network encryption technology is born. First order received – Australian federal government law enforcement organisation.

1998 — **FIPS** — Senetas encryptors achieve FIPS certification.

1999 — Senetas Corporation Limited established and listed on the ASX. First US government and defence force customer orders received.

2003 — *SafeNet* — Senetas signs international distribution agreement with SafeNet Inc.

2004 — Senetas certified high-speed encryptors selected by the US Department of Defence to secure US military installations world-wide.

2006 — **1GBPS** — Senetas launches 1Gbps Ethernet encryptor, providing a competitive advantage in certified high-assurance encryption.
Senetas encryptors used to secure global banking transactions network, supporting over 9,000 financial institutions around the world.

2007 — *IDQ* FROM VISION TO TECHNOLOGY — Senetas introduces the world's first commercially available quantum-powered encryptor in a technology partnership with ID Quantique.

2008 — Senetas releases new 10Gb Ethernet encryptor and the world's first SONET 10Gbps encryptor.

2009 Senetas patent granted for network data encryptors.

2010 Senetas expands operations, establishes Senetas Europe, based in the UK.

2011 Senetas releases new generation platform and CN6000 Series encryptors. Common Criteria EAL4+ certification achieved.

2012 $100M Senetas reaches a manufacturing milestone of $100,000,000 encryptors sold.

2012 Achieved UK CAPS certification, making Senetas products the world's only triple-certified encryptors of their type.

2013 Senetas encryptors used to secure data centre and cloud services for US government.

2013 CN**4000** Senetas CN4000 desk-top encryptor range launched, offering certified 10Mbps to 1Gbps encryption anywhere.

2014 x**4** Senetas CN Series wins 2014 iAward and network partner secures AISA Award for productisation of "certified secure network links".
TRANSEC transmission flow security introduced to Senetas CN Series encryptors.

2014 Senetas CN encryptors achieve NATO (Restricted Green) certification.

2015 · **CN8000**
Senetas launches first multi-link encryptor. The CN8000 provides ten x 1-10Gbps ports with multiple tenancy capabilities.

2015
Senetas adds support for Suite B algorithms and Elliptic Curve Cryptography (ECC). First order received for bespoke encryptors featuring custom algorithms.

2015
Senetas wins government technology export award.

2016
Senetas R&D adds 'Crypto-Agility' to its product road map providing customer flexibility and Quantum features.

2016
Senetas software release (v2.7.1) now supports custom elliptic curves and BYOD entropy.

2017 · **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.

2018 · **ADVA** Optical Networking
Technology partnership with ADVA Optical Networks leads to ADVA's release of Ensemble Connect Guard; an integrated secure networking solution for Virtual Private Networks.

2018 · **CV1000**
Senetas launches its first virtualised network encryption solution. The CV1000 is the first crypto-agile Virtualised Network Function encryptor offering concurrent Network Independent Encryption.

2019 · **VOTIRO SECURED.**
2018 Senetas invests in Cybersecurity firm Votiro. Developers of award-winning Content Disarm and Reconstruction (CDR) technology.

GLOBAL DISTRIBUTION AND SUPPORT

THALES

Senetas encryption solutions are distributed and supported internationally (outside Australia & New Zealand) by Thales, within the US Federal Government by Thales Defense & Security Inc and across Australia and New Zealand by Senetas and its Partner Community.

Extreme networks

IDQ
FROM VISION TO TECHNOLOGY

ADVA™
Optical Networking

Data#3

DATACOM

dimension data

DXC.technology

IBM

VOCUS
communications

SENETAS CUSTOMERS

GOVERNMENT

COMMERCIAL

DEFENCE

HEALTHCARE

FINANCE

INDUSTRIAL

BANKING

CLOUD SERVICES

LAW ENFORCEMENT

UTILITIES
& ENERGY

REGULATORY
AUTHORITIES
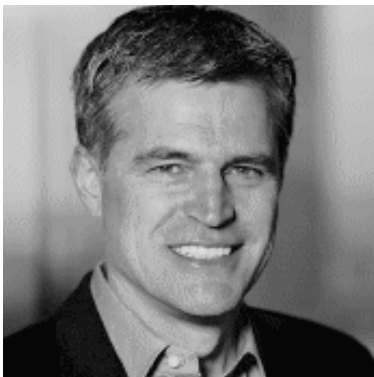
DATA CENTRE
SERVICES

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Non-Executive Chairman

Lieutenant General (Retd)
Ken Gillespie, Director

Lachlan Given
Director

Lawrence D. Hansen
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SENETAS

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www.senetas.com

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From certified high-assurance hardware and virtualised encryption, to secure file sharing with data sovereignty control, all are based on the same crypto-agile platform and deliver security without compromise.

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