CN6100 10G Ethernet Encryptor

Greener, Smaller, Scalable Network Encryption

NEW CN6100 10G Ethernet Encryptor

The **Senetas CN6100** is the first product in the new Senetas CN6 series high performance encryption platform and it offers significant benefits for users and for the environment.

CN6100 is greener

it operates with 30–60% less power consumption than typical 10 Gb encryptors

CN6100 is smaller (1U)

occupies only 30% of the rack space of a 3U 10 Gb device

CN6100 is scalable

variable speed licence up to 10 Gbps as the network grows

The Senetas CN6100 is a versatile, simple to use platform designed to provide highly secure, full line rate transparent encryption over Ethernet networks in point-point, hub & spoke or any meshed environment.

More than two year's research and development went into the CN6100. It was designed with customer input to be more user-friendly. It offers dual redundant hot swappable AC or DC power, front panel access for all interfaces, user hot swappable fans and battery tray.

Senetas engineers are already working on the next evolution of the 6 series platform to enable it to operate over the next generation data networks running at 40 & 100Gbps.

the CN6100 is tamper resistant and employs automatic key management and is protected by robust AES 256-bit algorithms.

The Senetas CN6100 is highly resilient, offering smart network discovery, automatic connection establishment and fault tolerance with self-healing in the event of network outages.

Key Features

- Low overhead full duplex line-rate encryption at 10Gbps
- Ultra low latency for high performance Ethernet networks (<8µs per device)
- Support for jumbo frames
- Smart network discovery and automatic connection establishment
- Dual redundant hot swappable AC or DC power supplies
- User-serviceable fans
- Flexible policy engine
- encrypts unicast, multicast and/or broadcast traffic
- select encryption by traffic type, MAC address or VLAN ID
- protocol and application transparent
- per packet confidentiality and integrity using AES-GCM encryption
- Simple automatic key management
- Centralised configuration and management system using CypherManager
- Remote management using SNMPv3 (inband and out of band)
- Fully interoperable with CS10, 100 & CN1000, 3000 Ethernet encryptors
- Support for external PKI (X.509v3 CAs, CRL & OCSP servers)

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Metro Ethernet or Wide Area Ethernet Services:

With the pervasive growth of 10Gb Ethernet services, CN6100 is the ideal solution for all organisations from small to large enterprises and government or service provider clouds.

The Senetas CN6100 addresses the need for highly secure, highly resilient wire speed encryption of Ethernet traffic across both dark fibre and metro or wide area Ethernet services.

Supporting over 500 concurrent encrypted connections, the CN6100 operates at full line speed without packet loss to ensure the confidentiality of encrypted data regardless of frame size or application.

The intrinsic key generation and distribution capability in CN6100 removes reliance on external key servers and provides a robust fault-tolerant security architecture, whilst its rugged tamper resistant chassis gives uncompromising protection to key material held in the encryptor.

Full interoperability with the Senetas CN & CS family of encryptors means customers can standardise on one platform to secure data in motion across large hub & spoke or meshed networks from the branch to head office.

Network and Management:

Senetas CypherManager provides simple, secure remote management either out-of-band – using a dedicated Ethernet management interface or in-band - using the encrypted Ethernet port.

Local management using a command line interface is available via a serial RJ45 connector.

XFP optical interfaces allow operation over single mode fibre or over WDM services by choosing an appropriate wavelength.

Ethernet standards compliant, the CN6100 is fully interoperable with industry standard network equipment from leading vendors including Cisco, Juniper, HP and Alcatel.

Specifications:

Cryptography

AES CTR or AES-GCM128 modes

128 or 256 bit key

Performance

10Gbps full duplex encryption

Latency of 7.5µs per device

Device management

Dedicated management interface (out-of-band)

Or via the encrypted interface (in-band)

SNMPv3 remote management

- SNMPv1 read only monitoring
- SNMPv2c traps

Syslog

IPv4 & IPv6 capable Alarm,

event & audit logs Command

line serial interface

Installation

Size: 447mm, 43mm (1U), 327mm (WxHxD)

Weight: 9kg

Max temperature: 40°C

Interfaces

XFP private (RED) and public (BLACK) interfaces 1

All signal connectors are on the front 2

Front panel LED for status indications

Bit-mapped LCD display 3

RJ45 serial console 4

Dual USB ports 4

RJ45 LAN/LINK connectors 4

Power Requirements

AC Input: 90 to 264VAC; 1.5A; 47-63Hz 5

DC Input: 40.5 to 60 VDC, 48VDC nominal 6

Power Consumption: 55W typical, 85W maximum

Physical security

Active/Passive tamper detection and key erasure

Tamper evident markings

Anti-probing barriers

Regulatory

Safety

EN 60950-1 (CE)

AS/NZS 60950.1

(UL approval pending)

EMC (Emission and Immunity)

FCC Part 15 Class B

ICES-003 Class B

EN55022 Class B (CE)

AS/NZS CISPR 22 Class B (C-Tick)

EN 61000-3-2 (CE)

EN 61000-3-3 (CE)

EN 61000-6-1 (CE)

Environmental

RoHS Compliant

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