

KEY FEATURES

- Full duplex line-rate encryption at up to 1Gbps
- Ultra low latency cut-through architecture
- Operates over point-point copper or fibre links
- Fully compatible with service provider Ethernet services (MEF, VPLS)
- Flexible encryption policy
- Encrypts unicast, multicast and broadcast traffic
- Certified to CAPS Baseline Grade
- Approved by CESG under CAPS for UK Government and MOD use
- Bump in the wire design for easy installation
- AES 128 CFB encryption
- Automatic key management
- Standards based trust model using X.509 certificate authentication
- Centralised configuration and management system using CypherManager V7
- Comprehensive alarm and event reporting
- Secure remote monitoring using SNMPv3
- Tamper resistant/evident enclosure
- Network connections via SFP or RJ45 interfaces

CN1000 Ethernet Encryptor

Senetas CN1000 CAPS Baseline Grade Ethernet encryptors are high performance encryption platforms that provide maximum security within modern Ethernet networks. The units operate at 10Mbps, 100Mbps and 1Gbps across point to point layer 2 links.

Overview

The CN1000 provides users with flexible encryption that addresses the needs of the largest enterprises that have a requirement to secure sensitive information traversing the network. The CAPS approved system can be used to secure point to point links. The unit operates in full-duplex mode at full line speed without loss of packets. Latency is not affected by packet size and is less then 7 microseconds per unit at 1Gbps.

Network and Management

CypherManager, Senetas' element manager can be used to configure and manage the CN1000 within the network. Management connections are via an RJ45 on the front panel, and in addition a Command Line. Interface connection is available via a 9-pin D-sub RS232 serial connector. The local (protected) and network (unprotected) connections are made via SFP optical or RJ45 interfaces.

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CN1000 Ethernet Encryptor

Specifications

Cryptography

- AES encryption algorithm
- 128 bit session keys
- CFB or CTR encryption modes

Key management

- Automatic connection establishment
- X.509 certificate authentication
- RSA Public key Infrastructure
- Periodic automatic key updates
- Master and Session keys
- External Entropy supplied by CESG required for operation

Performance

- Auto-negotiation of line speed
- Speed of up to 1Gbps
- Support for standard and jumbo Ethernet frames
- Latency of less than 7µS/unit at 1Gbps (19µS at 100Mbps and 150µS at 10Mbps)

Management

- CypherManager V7 element manager
- IPv4 and IPv6 management support
- Automatic encryptor discovery
- Syslog, NTP
- SNMPv3 control, SNMPv1 monitoring
- Out-of-band and Inband management
- Alarm, Event, and Audit logs
- SNMP traps and monitoring
- RS232 local console (CLI)

Front panel

- LED's for interface, security, temperature, alarms, power.
- 20 char LCD display Keypad (0–9, and data entry/edit)
- RJ45 Ethernet port for management
- 9-pin D-Sub RS232 port for serial console

Rear panel

- SFP connector cages
- RJ45 connectors
- IEC C14 Power Inlet

Installation

- Size: 482mm (19"), 42mm 1U),
- 380mm (WxHxD)
- Weight: 5kg
- 0° to 40°C operating temperature
- 0 to 80% RH at 40°C operating humidity

Physical security

- Tamper proof key and user password storage
- Tamper resistant/evident metal case
- Anti- probing barriers

Shipping/storage

- Two units shipped in one box
- Size 570mm, 440m, 280m (WxHxD)
- Weight: 14kg
- Max temperature: 40°C, 95% RH at 40°C
- Units are shipped un-configured and do not require secure transport

Power requirements

- 90-240 VAC / 47-63 Hertz
- 60 Watts

Certification

CAPS Baseline Grade

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
- EN 55022 Class A (CE)
- AS/NZS CISPR 22 Class A
- EN 61000-3-2 (CE)
- EN 61000-3-3 (CE)
- EN 61000-6-1 (CE)

Environmental

RoHS Compliant

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