

ANIS GigaCryptor

Self-Defending Gigabit Network Encryption Device



The Advanced Network Infrastructure Security (ANIS) GigaCryptor is a compact IP network encryption device, offering gigabit throughput and high reliability. Armed with a full set of self-defending mechanisms, the ANIS GigaCryptor is able to detect various forms of attacks. Under any circumstance the privacy of the key is maintained.

The ANIS GigaCryptor can actively defend itself, even the power supply is removed. The size and performance of the ANIS GigaCryptors makes it an ideal solution for a wide range of network security applications, especially in non-trusted environments, such as the encryption of the IP traffic in data centers.

Self Defending Mechanisms

The ANIS GigaCryptor feature a full complement of self-defending mechanisms that can detect even the most sophisticated attacks. The self-defending mechanisms are combined with various alarm actions to form a product that is able to fully protect the device and the keys stored in it. Each of the alarms can be configured in GlobalAdmin, and can be dynamically turned-on or turned-off for easy administration.

Performance Overview

ANIS GigaCryptor

- **1000 Mbit throughput in half duplex**
- **1000 Mbit throughput in full duplex**
- **Encryption Algorithms supported**
 - 256/128-bits AES
 - 168-bits Triple DES
 - 112-bits Extended DES
 - Proprietary Algorithms
- **40,000 clients/subnets supported**
- **Optimized for small packets for real-time traffic**
- **High reliability - No moving parts**

Some of the different self-defending mechanisms and alarm actions are:

Touch Sensors	Detects physical opening of the device and probing of the PCB
Motion Sensors	Detects when the ANIS GigaCryptor is being moved
Electronic Sensors	Defects various types of attacks
Secondary Power	Self-defending mechanism can work even when power is removed
Hidden Alarms	Silently sends an encrypted alarm to the GlobalAdmin station

Modes of Operation

The ANIS GigaCryptor is available in either a **bridge** mode or **gateway** mode. The bridge-mode GigaCryptor works as a bump-in-the-wire concept and can be easily deployed into existing networks, or MPLS networks. Gateway-mode ANIS GigaCryptor encapsulate the original IP packet with new headers, allowing the original IP headers to be concealed, as well as secure remote access from client machines using IPCrypt Client.

Enhanced IPsec

The ANIS GigaCryptor provide an alternative key management protocol called *Enhanced IPsec* developed by CE-Infosys. Using Enhanced IPsec, faster connections can be made as there is no need for lengthy session key negotiations using IKE to establish a tunnel. In addition, each IP packet is implicitly authenticated with any modified or malicious packets automatically discarded. In addition, the session keys used for encryption can be changed as rapidly as every 1, 5, 10, or 20 packets to defeat any attempts at statistical analysis of the encrypted packets.

Central Management

The ANIS GigaCryptor can be easily managed using GlobalAdmin. This central management station provides an intuitive Graphical User Interface for simple administration of the ANIS GigaCryptor. Using GlobalAdmin, keys and policies used by the ANIS GigaCryptor can be pushed down remotely. In addition, firmware upgrades can be sent remotely to the ANIS GigaCryptor.

Highest Reliability

As a high end product for the most demanding customers reliability is a key asset. ANIS GigaCryptor are designed for reliability. No mechanical moving parts are found in ANIS GigaCryptors. No high power components are used in the products. ANIS GigaCryptors have an outstanding MTBF rate and are resistant against dust, sand and humidity. They are designed to be useable in cars, trucks and other vehicles.

Miscellaneous

Size	<ul style="list-style-type: none"> • 230 mm X 147 mm X 45 mm • 2 ANIS GigaCryptors can be placed in a 1U slot in a standard 19-inch rack
Interfaces	<ul style="list-style-type: none"> • 2 x 10/1000 MBit auto-sensing Copper Ethernet Interface • Optional Fibre-optic Interface • RS232 Diagnostic Port • USB slot for USB token
Power Specification	<ul style="list-style-type: none"> • 12V/1A DC input • An external power adapter for 110/230V 50-60 Hz AC is provided with each product
Logging and Reporting	<ul style="list-style-type: none"> • Syslog and Syslog-Mail • SNMP • GlobalAdmin
Additional Features	<ul style="list-style-type: none"> • UDP Tunneling • Source and Destination NAT • Configurable Routes • Configurable Bypass Rules • IP Address Pools • High Availability and Load-sharing



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