



# GigaCryptor

Gigabit Encryption for Networks



The GigaCryptor is a compact high-speed IP network encryption device designed for excellent performance and reliability. The throughput and size of the GigaCryptor makes it ideal for use in an array of network security applications, especially in networks requiring high bandwidth, such as:

- Encrypting High Speed IP Networks
- High Speed Encryption of IP Video Streaming
- Encryption of IP Traffic in Data Centers
- Encryption of Large Company Locations or HQs
- Encryption in Mobile Command Vehicles
- Encryption of High Speed Local Area Networks

The GigaCryptor are able to work seamlessly with other GigaCryptors, MicroCryptors, PowerCryptors, IPCrypt Clients, and CompuSec® HSMs and can be centrally managed using GlobalAdmin management station.

## Performance Overview

### 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**

## Modes of Operation

The GigaCryptor is available in either a **bridge** mode or **gateway** mode. Each of these modes caters for different implementations in the organization. The bridge-mode GigaCryptor encrypt the payload of the IP packet, and works as a bump-in-the-wire concept. As such, the bridge-mode GigaCryptor can be easily deployed into existing networks, or MPLS networks. Gateway-mode GigaCryptor encapsulate the original IP packet with new headers, allowing the original IP headers to be concealed. The gateway-mode GigaCryptor allow secure remote access from client machines using IPCrypt Client.

## Enhanced IPsec

GigaCryptor provides 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.



Enhanced IPsec enables the session keys used for encryption to be changed with unprecedented speed. The lifetime of each session key can range from 1, 5, 10 or 20 packets. These rapidly changing session keys protect the networks from passive attacks such as statistical analysis of the encrypted packets.

If required, the GigaCryptor can also be configured to use standard IPsec/IKE protocols in Gateway mode.

## Central Management

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

## Highest Reliability

As a high end product for the most demanding customers reliability is a key asset. GigaCryptor are designed for reliability. No mechanical moving parts are found in GigaCryptors. No high voltage components are used in the products. 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"> <li>• 230 mm X 147 mm X 45 mm</li> <li>• 2 GigaCryptors can be placed in a 1U slot in a standard 19-inch rack</li> </ul>
Interfaces	<ul style="list-style-type: none"> <li>• 2 x 10/100/1000 MBit auto-sensing Copper Ethernet Interface</li> <li>• Optional Fibre-optic Interface</li> <li>• RS232 Diagnostic Port</li> <li>• USB slot for USB token</li> </ul>
Power Specification	<ul style="list-style-type: none"> <li>• 12V/1A DC input</li> <li>• An external power adapter for 110/230V 50-60 Hz AC is provided with each product</li> </ul>
Logging and Reporting	<ul style="list-style-type: none"> <li>• Syslog and Syslog-Mail</li> <li>• SNMP</li> <li>• GlobalAdmin</li> </ul>
Additional Features	<ul style="list-style-type: none"> <li>• UDP Tunneling</li> <li>• Source and Destination NAT</li> <li>• Configurable Routes</li> <li>• Configurable Bypass Rules</li> <li>• IP Address Pools</li> <li>• High Availability and Load-sharing</li> </ul>



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