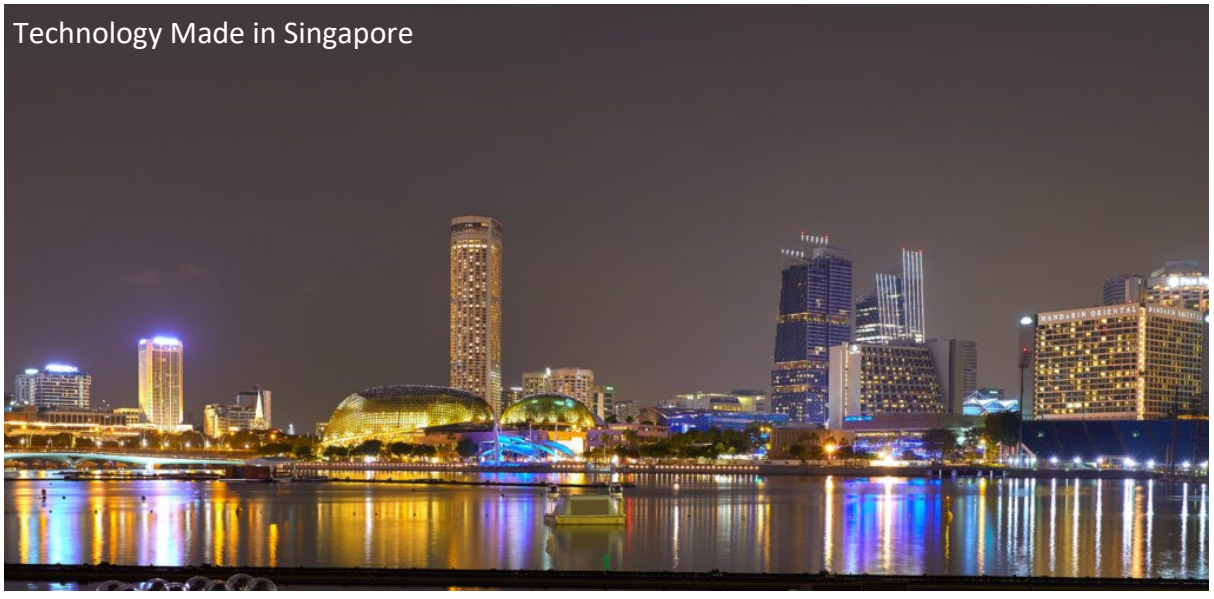
Encryption Technology

CRYPTOR 300

The Cryptor 300 can be used either in Layer-2 or in Layer-3 mode. In Layer-3 mode the Cryptor 300 encapsulates the original IP packet and adds a new IP header to the packet. The original IP header information is hidden. This mode provides the highest security for connections to remote locations and for roaming users. In Layer-2 mode the Cryptor 300 works as a bump-in-the-wire (BITW) concept and can be easily deployed into existing networks. Only the payload is encrypted and the original IP header remains unchanged.

Key Benefits

- User Definable Algorithm (CDA)
- Concurrent operation of 5000 subnets
- Throughput of 150 Mbps full duplex
- Packet latency < 12 µsec
- Real time encryption without tunnel setup time



Encryption Technology

TECHNICAL SPECIFICATIONS

Cryptographic

- Common Criteria EAL 4 comply
- AES 256 as default algorithm
- Supports Non-AES, Customer Definable Algorithm (CDA)
- Algorithm Generator based on algorithmic procedure
- Algorithm Generator based on evolution algorithm
- Encryption / Decryption and session key generation implemented in high speed Field Programmable Gate Array (FPGA) chips
- Key generation by hardware at GlobalAdmin Management Station
- Field upgradable to double encryption with 2 different algorithms and 2 different keys
- Anti-Tampering Device (ATD) to protect the hardware

Operational Features

- Control, update and monitoring via encrypted protocol using Multi Algorithm Technology
- Fragments and defragments encrypted packets in networks with short MTU
- DHCP proxy with encrypted tunnelling for client computers
- Encrypted Radius support for client computers
- Encrypted tunnel for client booting from boot server
- QoS for real time (voice & video) over satellite
- Differentiated Service QoS support
- Dynamic and static ARP cache
- Port Forwarding and Source network address translations
- Emergency erase token. Erases all secrets on the dedicated machine
- Protected emergency erase button
- Event creation using SNMP, Syslog and additional proprietary protocol
- Optional UDP tunnelling of encrypted packets
- Optional user defined MAC addresses
- Optional static routing table

Performance

- Concurrent operation of max. 5000 subnets
- Throughput of 150 Mbps full duplex and 300 Mbps half duplex
- Packet latency < 12 µsec for single packet
- Real time encryption without tunnel setup time. No key exchange latency

Key Management

- On the fly session key calculation
- Key change for every packet
- Use only long keys with 256 or 512 bit key length
- Initial configuration using special USB security token

Diagnostics and Self-Test

- Automated self-test upon start-up
- Cryptor Tool USB for local diagnostic report
- Remote monitoring and diagnostic from GlobalAdmin Management program
- Built-in packet capture logic, packet generator and ping generator

Temperature & Relative Humidity

- Operating 0°C to 65°C
- 0% to 90% non-condensing

Power

- Dual-redundant 12Vdc @ 600 mA (nominal)
- External 110/220Vac to 12 Vdc power adaptors provided

Physical Dimensions

- 145 mm x 125 mm x 35 mm (W x D x H)
- Din rail mount adaptor available (optional)

Interfaces

- 1 x 10/100/1000 Mbps Auto-sensing port (Encrypted)
- 1 x 10/100/1000 Mbps Auto-sensing port (Plaintext)
- 1 x USB 2.0 Client port
- 1 x USB 2.0 Host port

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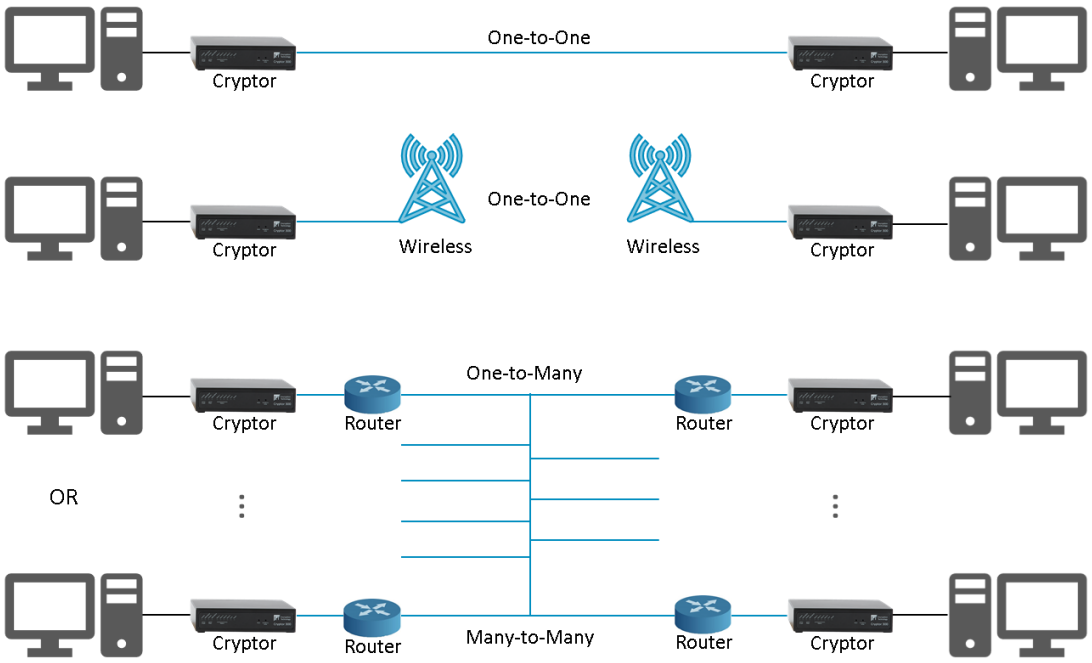
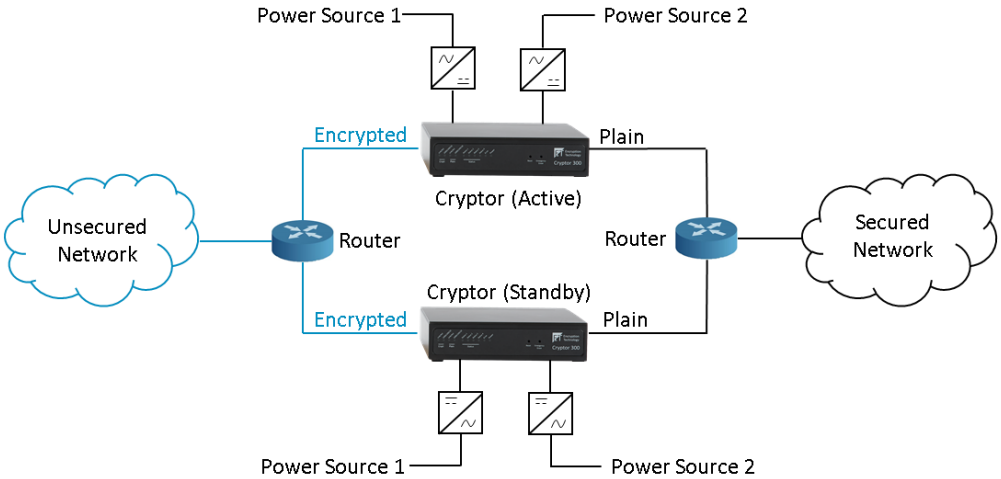
Cryptors Configuration



Redundant Cryptors and Power Source Configuration



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