



REDEFINING SECURITY

# ARCIS

THE BEST OF MULTI-LAYER ENCRYPTION

## MPLS ENCRYPTION

ID Quantique's multi-layer Arcis encryptors are bandwidth adjustable encryption appliances which provide tunnel-less data protection, including IP packet encryption for Layer 3 networks, and Layer 4 data payload encryption for IP and MPLS networks and Voice- and Video-over-IP. Arcis encryptors offer full-duplex encryption at rates ranging from 3Mbps to 10Gbps using the leading AES 256 algorithm. In addition, the integrity of the data is guaranteed through use of leading authentication protocols.

The Arcis solution enables organisations to standardise on a single platform capable of encrypting at different layers and at various throughputs. This allows companies to purchase software licenses for their existing encryption hardware as their bandwidth needs increase, providing both flexibility and investment protection. Arcis encryptors operate transparently to the network infrastructure, allowing easy integration without the requirement to upgrade or change the network architecture. The solution is also compatible with load balancing, highly available network designs, QoS and network monitoring tools.

### IP PACKET ENCRYPTION

Using the IP Security (IPsec) protocol, Arcis encryptors provide full data encryption for Layer 3 IP networks. The Arcis family uses an Encapsulating Security Payload protocol to encrypt the IP packet, while preserving the original IP header. This unique functionality maintains network transparency, while providing maximum data protection. By preserving the original header and encrypting only the payload, the encryptors can protect data over any IP infrastructure including multi-carrier, load-balanced, and high availability networks.

### PAYLOAD ONLY ENCRYPTION

In addition to standard IPsec encryption, (which encrypts the Layer 4 header), Arcis encryptors offer a Layer 4 compatible "payload only" encryption option. This unique capability allows network services, such as Netflow/Jflow, and Class of Service (CoS) based traffic shaping, to be maintained through the service provider network while the payload itself is encrypted.



ARCIS

### FEATURES & BENEFITS

- Multi-layer encryption: Layer 3 IP packet and Layer 4 payload protection
- Transparent to networks and applications
- Seamless scalability
- Easy installation and management
- Centralised policy management and enforcement
- Creation and management of secure network groups through group encryption keys
- Separation of roles for security control and network management



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### TECHNICAL SPECIFICATIONS

#### Encrypted Throughput

- **ARC-10:** 3, 6, 10, 25, or 50Mbps
- **ARC-100:** 25, 50, 75, 100, 155, or 250Mbps
- **ARC-1000:** 100, 155, 250, 500, 650Mbps and 1Gbps
- **ARC-10G:** 500, 650Mbps and 1, 2.5, 5 and 10Gbps

#### Encryption Support

- AES: (256 bit keys) CBC mode
- 3DES (TDEA)

#### Authentication and Integrity

- HMAC-SHA-1-96

#### Network Support

- Ethernet
- VLAN tag preservation
- MPLS tag preservation
- IPv4
- IPv6 (Layer 2 Ethernet encryption mode)
- NTP

#### Policy Selector Options

- Source or destination IP address
- Source or destination port number
- Protocol ID (L3 and L4 options)
- VLAN ID (L2 option)
- Multicast address

#### Transforms

- ESP Tunnel Mode (header preservation option)
- ESP Transport Mode (L4 option)
- Ethernet ESP Mode

#### Device Management

- TrustManager
- Command Line Interface
- Out-of-band management
- Alarm condition detection and reporting
- Syslog support
- SNMPv2c and SNMPv3 managed object support
- Audit Log

#### Management Communication Security Options

- X.509 v3 digital certificates
- TLS (full authentication)
- SSH
- IKE/IPsec

#### Environmental

- Operating temperature: 0° to 40° C (32° to 104° F)
- EU WEEE & EU RoHS-5

#### Regulatory

- Safety: UL 60950-1
- Emissions for ARC-10, ARC-1000, ARC-10G: FCC part 15 subpart B class A
- Emissions for ARC-100: FCC part 15 subpart B class B

#### Indicators

- Power
- Alarm
- LED Status
- Link Status, Encrypting and 2x8 segment display (ARC-10G)
- Encrypting (ARC-10G)

#### Physical

##### ARC-10:

- 1U tamper evident chassis
- Dimensions: 4.0 x 20.3 x 14.7cm (HxWxD)
- Rack mountable in standard 19" rack or desktop option
- External Power Adapter: 100-240V A/C @ 1.5A, 50/60Hz, output 12V D/C, 5A max (60W max)
- Thermal: In-rush 102 BTU/hr, Steady-state 102 BTU/hr
- Nominal input current: 0.25A
- Weight: 1.4 kg as rackmount; 0.8 kg as desktop
- MTBF: 388,999 hours
- Data Interface: 2x10/100/1000 RJ45 Ethernet ports
- Management: 1x10/100 RJ45 Ethernet & 1x RS232 serial port
- Aux1 RJ45 port for future use

##### ARC-100:

- 1U tamper evident chassis
- Dimensions: 4.4 x 43.0 x 25.4cm (HxWxD)
- Rack mountable in standard 19" rack or desktop option
- Power: 100-240V A/C @ 4A, 50/60Hz, auto-sensing
- Thermal: In-rush 380 BTU/hr, Steady-state 140 BTU/hr
- Nominal input current: 1.0A
- Weight: 2.7 kg
- MTBF: 59,794 hours
- Data Interface: 2x 10/100/1000 Mbps RJ45 Ethernet ports
- Management: 1x 10/100 RJ45 Ethernet & 1xRS232 serial port

##### ARC-1000:

- 1U tamper evident chassis
- Dimensions: 4.4 x 43.0 x 25.4cm (HxWxD)
- Rack mountable in standard 19" rack
- Power: Dual A/C hot swappable 100V@3.A - 240V@1.5A 47-63Hz, auto-sensing
- Thermal: In-rush 380 BTU/hr, Steady-state 140 BTU/hr
- Nominal input current: .65A@110V
- Weight: 4 kg
- MTBF: 158,520 hours
- Data Interface: 2x full-duplex Gigabit Ethernet ports with SFP interfaces (single mode, multimode or copper)
- Management: 1x 10/100 RJ45 Ethernet & 1xRS232 serial port
- Management SFP port and Aux1 SFP port for future use

##### ARC-10G:

- 2U tamper resistant chassis
- Dimensions: 8.9 x 43.0 x 38.0cm (HxWxD)
- Rack mountable in standard 19" rack
- Power: 100-240V A/C @ 4A, 50/60Hz, auto-sensing
- Dual hot-swappable internal power supplies- AC or DC (-48V)
- Customer replaceable fan assemblies
- Data Interface: 2x full-duplex 10 Gigabit Ethernet ports with SFP+ interfaces (single mode, multimode or copper)
- Management: 1x 10/100/1000 Ethernet RJ45, 1x Gigabit Ethernet (SFP) & 1x RJ45 serial port
- 3x full-duplex Gigabit Ethernet ports with SFP interfaces (single mode, multimode or copper) or 3x full-duplex 10/100/1000 Ethernet ports with RJ45 interfaces (for future use)
- Two USB ports (reserved for future use)

#### Disclaimer

The information and specifications set forth in this document are subject to change at any time by ID Quantique without prior notice.  
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