



Managed IP Encryption for Network Gateway VPNs

Government departments and agencies, contractors, public health, public safety and criminal justice organizations, as well as enterprise organizations, need to protect sensitive data across networks. Encryption products used to protect data should provide centralized management across mixed environments, as well as have assurance and accreditation from relevant authorities that the solution will perform to its specifications.

AEP Net encryptors provide both data confidentiality and source authentication for network traffic enabling high confidence Virtual Private Network (VPN) communications.

Approved by the UK Government's CESG Assisted Products Scheme (CAPS) to Enhanced Grade level and the Ministry of Defense Infosec Products Co-Operation Group, AEP Net products meet the highest standards for a Commercial Off-the-Shelf (COTS) encryptor.

AEP Net products come complete with a sophisticated central management platform that minimizes key handling and eliminates the need for any local encryptor management. AEP Net products are designed to integrate into existing networks seamlessly, complementing other network products - including AEP Net Remote, a remote access module designed specifically for organizations that require mobile and home workers to access Classified applications and data over the Internet.

Key Features

- Enhanced Grade IPSec-based IP security gateway for the government market
- VPN operation – separates private and public networks
- Digitally signed certificate requests (smart card based initialization)
- Automatic traffic key management using ISAKMP
- Sophisticated tamper protection and compromise control
- Enhanced Grade IP traffic protection
- Continuous output monitor for cryptographic integrity assurance
- Continuous random number generation checks
- Self-test health check on power-up



Management

- Minimal key handling – only at the network center once every 3 years
- PKI Infrastructure – using common criteria EAL4 assured CA and AEP Net Keyper HSM
- UniCERT and AEP Net Keyper HSM
- Central control of X.509V3 certificates
- Certificate suspension and revocation giving instant "Stun" and "Kill" capability

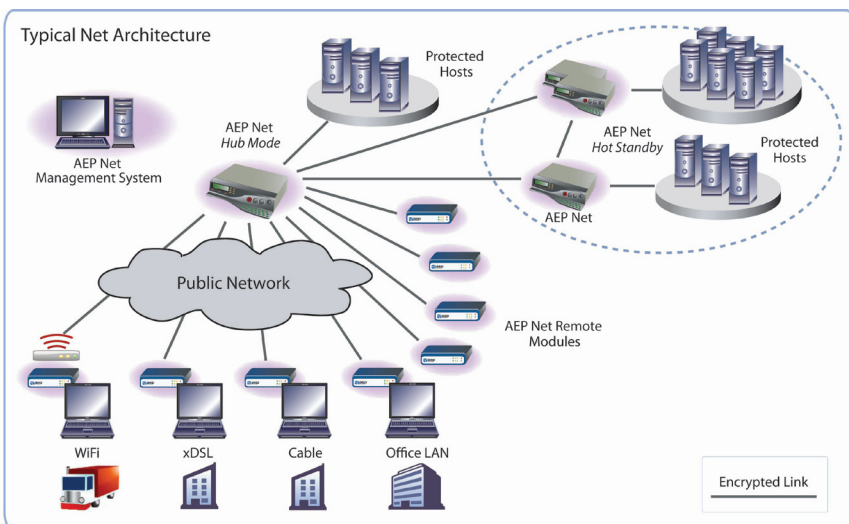
Network Integration

- Both certificate and address-based Community of Interest (COI) management
- Public and private interface routing
- SNMP in an enhanced grade environment
- Acts as a router to the private network and a host on the public network
- Supports up to 1000 secure connections
- 10 Base-T public and 10/100 Base-T private Ethernet interfaces – true Ethernet wire rate performance
 - Secure audit and accounting
 - Resilience protocol implementation
 - NAT and DHCP support
 - Encryptor management cryptographically isolated from network traffic
 - Rack mount or desktop options

Suitable for Various Industries and Organizations

Available in different models for applications in:

- UK Government
- EU Government
- US Government
- High Value Financial
- Pharmaceutical & Life Science
- Other Commercial Applications





AEP Net Encryptors in Action

AEP Net products encrypt and decrypt IP datagrams. The whole of the original packet is encrypted and wrapped in a new packet, using the IP address of the destination encryptor (ESP tunnelling). The encryptors generate all transport keys and securely exchange them using the Diffie-Hellman key exchange algorithm.

AEP Net generates its own DSA signing keys to provide source authentication. A Certification Authority is used to certify the public signing key and to issue certificate revocation lists. IP address lists are created and maintained by the AEP Net Policy Manager.

Cryptographic Functions and Services

- ▶ Enables government business over the Internet and other open networks by protecting sensitive data to an assured standard
- ▶ Can be operated and managed by the customer organisation or by a managed service provider
- ▶ Fully automated key management eliminates administration costs of routine re-keying
- ▶ Encryption at the IP level is independent of the WAN enabling organizations to choose or change the WAN to meet their needs
- ▶ Seamless integration into existing networks
- ▶ Protection of investment as the securely programmable cryptographic kernel means that new algorithms can be loaded if required without changing the hardware
- ▶ Comprehensive GUI-based central management software suite
- ▶ Highly scalable and flexible configuration options to match the network architecture
- ▶ Designed, developed, manufactured and supported by AEP Networks, the only company to have an IPsec encryptor fully integrated with a supporting PKI that is capable of meeting stringent government security standards

Technical Specifications

		20M	100M
Performance	Sustained encrypted traffic throughput †	18 Mbps	160 Mbps
	Simultaneous security associations	1,000	2,000
Physical Interfaces	WAN	10 Base-T	10/100 Base-T Ethernet autonegotiation (N-way)
	LAN	10/100 Base-T Ethernet autonegotiation (N-way)	
	Serial Port	v24	
Environmental	Temperature	Operating: 5°C (41°F) to 40°C (104°F) Storage: -15°C (5°F) to 65°C (149°F)	
	Humidity	25% - 90% non-condensing	
Physical Dimensions	Height	51mm (2 in)	
	Width	223mm (8.78 in)	
	Depth	244mm (9.6 in)	
	Weight	< 4 Kg (8.82 lbs) including power supply	
Power	100V to 240V, 47 - 63 Hz auto-sensing external inline mains AC to DC converter, 40VA maximum		
Electrical Safety	EN 60950: 199/A2, 1993		
EMC	EN 50082-1, EN 55022 Class B		
MTBF	50,000 hrs based on British Telecom HRD5 standard		

Accreditation



About AEP Networks

AEP Networks offers an integrated portfolio of secure, high performance network and communications access solutions for enterprise and private sector organizations. Our secure networking products include identity-based and policy-based access control solutions, SSL VPNs, IPsec-based VPN encryptors and hardware security modules (HSMs) for key management. Our enhanced-grade communications products address the needs of organizations requiring specially designed voice and data solutions that support a wide range of communications protocols and network topologies.

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