

AccessGuard 1000

Transport information to multiple locations over many networks with the highest level of security and efficiency

Highly Secure

Uses private, embedded TLS processing engine that is not subject to common vulnerabilities of Open SSL-based solutions

Fast "Time-to-Market"

Install in hours, not days. Capacity expandable via feature key enable procedure and releases delivered via software upgrades

Lower Cost of Ownership

Standards-based system delivers high call density in 2U rack space

Investment Protection

Minimal to no modifications required to existing hosts. Fully compatibility to existing host application protocols and can be used with existing POS terminals

Industry Protocol Support

Supports latest standards such as Visa I, Visa II; security with TLS 1.3/1.2/1.1

Highly Versatile

Integrates SSL processing, protocol-based routing, transaction processing, IP network routing, redundancy, management and reporting on a single solution while reducing the number of network elements.

Mobile/Broadband Secure Transaction Routing

The AccessGuard 1000 (AG1000) Solution from NewNet is designed to securely route millions of mobile, broadband IP based POS transactions.



The AG1000 terminates TLS/SSL sessions that originate from mobile, broadband and IP supported POS, ATMs and smart phone based payment terminals. Transaction protocols including VISA I, VISA II, ISO 8583, TPDU (Transport Protocol Data Unit), and Custom Protocols are utilized with hardware optimized efficiency. This allows AG1000 to seamlessly interoperate with next generation and legacy systems for faster, reliable and more secure transactions.

AG1000 integrates Security (TLS,SSL etc.) Transaction Protocol Processing (VISA, ISO8583, ISO 20022, HTTPS (HTTP with SSL) transaction routing, etc.) and IP Routing (RIP, OSPF etc.). An industry first and unique solution is consolidation of internet security, payment protocol handling and network routing for secure transaction routing within a single system.

Scalability

The AG1000 solution is designed to scale from supporting hundreds of mobile, broadband IP payment terminals to supporting then of thousands of terminals. This means transaction processing support for a million IP POS terminals can be achieved by distributing AG1000 nodes throughout the network.

Security

The AG1000 is compliant with PCI DSS standard specifications and offers enhanced transaction data security with support for the DUKPT standards used for encrypting transaction data from IP payment terminal and mobile payment devices. The AG1000 can securely interconnect new or legacy acquiring/banking host servers with next generation mobile broadband IP POS or payment terminals, while safeguarding the sensitive data during its transit over the public internet or private network.

Key Features

Encryption Offloading

The AG1000 uses a hardware acceleration encryption engine to achieve the performance required for the financial market. This means that as an TLS/SSL offloader, the host system is not responsible for processing any portion of the TLS/SSL traffic. By processing the entire TLS/SSL transaction, AG1000 follows a model of encrypted-data-in from POS to decrypted-data-out towards host system.

Encryption Aggregation

AG1000 can aggregate thousands of simultaneous TLS/SSL and non-TLS/SSL connections and transactions. It can also support session re-use. Session reuse reduces the burden of establishing a new SSL session by reusing previously established TLS/SSL Session ID's. The AG1000 can support thousands of persistent socket connections which support session reuse.

Redundancy & Load Sharing

AG1000 System design supports query and download of resolved IP addresses, which are stored and utilized for redundancy routing and load sharing. It also provides a higher availability default path without requiring configuration of dynamic routing or router discovery protocol on every IP POS device.

Technical Specifications

Power Requirements

- AC 90~264V @47~63 Hz

IP Protocols

- NTP
- TCP/IP
- DNS
- LDAP
- RIPv2
- HTTP

Physical Interfaces

- 4/8/16/24 1xGE or 6x10GE SFP
- 1 RJ-45 Console port

Management

- SNMP
- SSH
- GUI
- Alarms/Traps
- Syslog

MACS

- SHA256
- SHA384
- MD5
- SHA1

Dimensions & Weight

- WxHxD : 442x88x660 mm
- 19" rack mount
- 22 Kg/48.5 lbs. in weight

Operating Environment

- Operating Temperature
0°C to +40°C
- Storage Temperature
20°C to +70°C
- Operating humidity
5% RH to 95% RH (non -condensing)
- Storage humidity
5% RH to 90% RH (non-condensing)

Regulatory/Agency Approvals

- EIA-310-D
- FCC Part 15 Class B testing
- UL 60950-1 and EN 60950-1 HiPot
- RoHS compliant & lead free

Call Detail Record

- RADIUS

Encryption Engine

- Embedded Encryption co- processor

Key Exchange

- RSA
- Diffie-Hellman

Certificate Key Length

- RSA 2048 bits
- RSA 4096 bits

Transaction Protocol Support

- Transparent
- VISA /III (EIS)
- ISO 8583
- ISO 20022(XML)
- TDPU

Security

- TLS v1.2, 1.3
- TLS v1.0,1.1/SSL v3.0
- PCI security requirements
- Digital Certification
- DUKPT

Encryption

- AES (192,256)
- 3DES (168)
- RC4 (128)

