

The Vanguard 3410 Access Services Gateway provides a high performance, cost-effective WAN CPE solution for leased line, Broadband, IPVPN, MPLS, or Frame Relay transport networks. The 3410 ASG boasts extensive support of transactional applications using protocols like Bisync, SNA, IP or other serial transaction devices (ATMs, bank controllers, POS devices, etc.). The 3410 supports enterprise-level IP routing and security, including integral firewall, IPSec and 3DES encryption. The 3410 architecture is modular and flexible, allowing customers to run existing application on today's networks while, enabling seamless migration to IP carrier services without "ripping and replacing" non-IP applications or peripheral devices.



Features

- Flexible, modular high performance gateway integrates networks functions and a complete set of interfaces.
- Enterprise security services offers embedded firewall, IPSec 3DES and AES encryption.
- Bandwidth management services protect critical applications and optimize bandwidth utilization.
- Application Protocol Conversion enables support of existing serial transactional applications in an IP network.
- Outstanding field reliability backed up by world class 24 x 7 support.

3410 ASG Technical Specifications

Software Features

WAN Connectivity

Async and Sync PPP
Multi-Link PPP
PPPoE (RFC 2516), PPPoA (RFC 1483)
Frame Relay Annex A, Annex D, Annex G
Frame Relay DTE and DCE (Switching)
Frame Relay RFC 1490, FRF.8
T1/E1 (data), Fractional T1/E1
Permanent B, D Channel Packet
X25 RFC 877/1356 (IP), CUG, NUI,
Translation, D Channel Support

LAN Connectivity

VLAN 802.1Q & 802.1P
Inter-VLAN routing (802.1Q)

Routing and IP address services

IPv4, RIP1/RIP2, OSPF, BGP4, BGP Communities (RFC 1997 & 1998)
BGP Multipath
Policy Based Routing
Classless Inter-domain Routing (CIDR)
Network Address Translation (NAT)
Port Address Translation (PAT)
Real-Time Transport Protocol (RTP)
Header Compression (RFC 2508)
Multiple IP Addresses per Physical Interface
DHCP Client, DHCP Server

Other Bridging/Routing Protocols

IPX/Novell IPX WAN, AppleTalk
Transparent Bridging (Spanning Tree
802.1d), SLIP, SoTCP

Multicast

DVMRP, PIM-SM (Sparse Multicast), ICMP
Router Discovery (RFC 1256)

High Availability

Virtual Router Redundancy Protocol (VRRP)
OnNet Proxy (Router Standby Protocol)
Bandwidth on Demand (BOD)
Dial on Demand (DOD), Link Backup
(V.25bis)
Data Connection Protection
(X.25, SDLC, LLC2)

Advanced QoS and Bandwidth Management

IP Type of Service (TOS)
Differentiated Services (DiffServ)
Priority Queuing (PQ), Class Based Queuing
(CBQ), Weighted Fair Queuing (WFQ),
Weighted Random Early Discard (WRED)
Packet Classification
Policy Based Routing
Generic Traffic Shaping (GTS)
Frame Relay Traffic Shaping (FRTS)

VoIP aware QoS

Fast Path Switching for Voice
Compressed Real-Time Protocol (cRTP)
MLPPP Link Fragmentation and Inter-leaving
Segmentation (RFC 1990 & 2686),
FRF.12

Firewall

SPI Firewall

VPN

IPSec (IP traffic), GRE (non-IP traffic)
IPSec Authentication Header (AH) and IPSec
Encapsulating Security Payload (ESP)
IPSec Encryption: IPSec DES (56 bit), 3DES
(128 bit) and 3DES (168 bit)
Dead Peer Detection
Authentication (MD5/SHA-1)
Dynamic IP Address (Dynamic VPN Tunnels)

Optional Encryption Accelerator Card

Advanced Encryption Standard (AES): 128,
192, and 256 bit key lengths
Device Authentication and Key Management:
Public Key Infrastructure (PKI) and X.509v3
Digital Certificates

Access Control and User Authentication

RADIUS, PAP/CHAP

Protocol Conversion

SDLC to Frame Relay (RFC1490)
SDLC to LLC2
BSC3270 to SNA (LU Type 0) LLC2/Ethernet
BSC2780/3780 to SNA (LU Type 0)
LLC2/Ethernet
BSC3270 to TCP/IP (VBIP)
TPDU (Async to IP)

Serial Protocol Support

APAD
Transparent COP (TCOP)
Transparent BOP (TBOP)
ATPAD, SLIP
X.42 Lottery Protocol
SNA/SDLC for Serial Connections
BSC 2780, 3780, 3270 (HPAD, TPAD)
QLLC X.25 (IBM NPSI)
AS/400 5494 Communication Server
TN 3270 Remote Server

Service Provisioning

SNMP Management
Telnet
TFTP
CLI
Embedded Web HTTPD
SSH2 Server
OS Image Management
Configuration Management

Hardware Features

Space saving desktop base unit with one expansion slot for a daughter card and 2 internal slots.

- 1 CTP Management Port (up to 115.2 kbps)
- 1 RS-232 High Speed Serial Port
- 2 Auto-sensing 10/100BaseT Ethernet Ports
- MPC8270 PowerPC Processor
- 64 MB SDRAM
- 16MB of non-volatile flash
- High MTBF universal external power supply
- No cooling fan or other moving parts.

Optional Interfaces & cards

- 56K DSU Daughter Card Module
- Fractional T1/E1, T1/E1, (fully channelized data-only) Daughter Card Module
- 3DES/AES Encryption card

Physical Dimensions

- Height: 2.6 in (6.6 cm)
- Width: 8.4 in. (21.3 cm)
- Depth: 12.3 in (31.2 cm)
- Weight: 7.4 lb (3.36kg) unloaded, 8 lb (3.63kg) fully loaded

Power Requirements

100 - 240 VAC, 60/50 Hz, 1.1 - 0.6 Amps, 30 watts external

Environmental

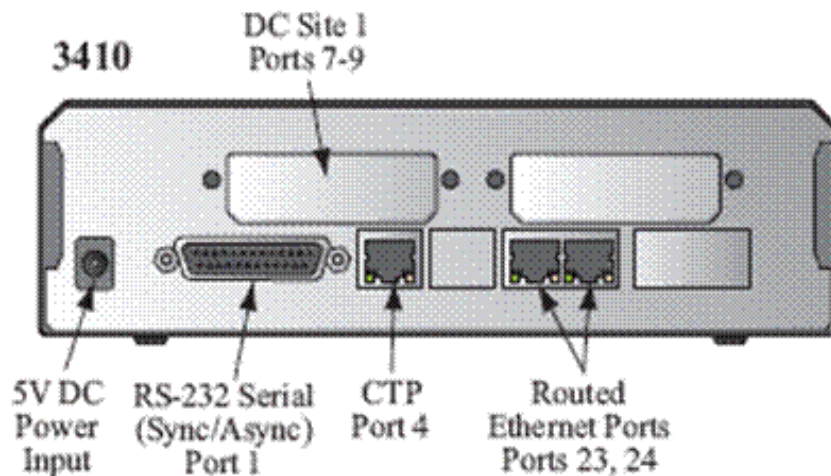
- Operating Temperature: 32 ° to 104°F (0° to 40 °C)
- Storage Temperature: -40 to 158 °F (-40 °to 70 °C)
- Relative Humidity: 5% to 90%, non-condensing

Regulatory Compliance

Safety Certifications: UL1950 3rd Edition, CUL/CSA No.950-95 3rd Edition, IEC 950 2nd Edition Amendment 1, 2, 3, & 4 (CB Scheme), EN60950 Amendment 1, 2 & 3

EMC Certifications: FCC Part 15 Class A, Canadian IC Class A, CISPR 22 Class A, EN55022: 1997 Class A, EN50082-1 (EN55024)

Telecom Certifications: FCC Part 68, Industry Canada CS-03, CTR-2, CTR-4, CTR-12, CTR-13, Country Specific (contact your local sales representative)



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