GW6500 Series ADSL2+ Routers with 3G Backup
High Performance Routers for Resilient Business Connectivity

Cost-effective business grade routers for:

- Retail/Point of Sale applications
- Surveillance
- Lottery and gaming
- Critical business applications

Overview

Based on the very latest ADSL2+ and 3G HSPA technology, the Virtual Access GW6500 Series router addresses the needs of today's businesses for resilient broadband connectivity.

Point of Sale (PoS), retail back office, surveillance and other key business applications demand managed connectivity that is cost-effective, high performance and resilient to network outage or last mile circuit failure.

Designed for managed network providers, GW6500 Series routers provide secure WAN connectivity for Internet and private networking environments over both ADSL2+ and 3G broadband paths.

Automatic Failover

Automatic failover from fixed to wireless circuits ensures business connectivity through network or last mile circuit outages, whilst email alerting and auto-failback confirm primary circuit restoration.

Simple Deployment

Ease of deployment, configuration management and remote support are key features of the GW6500 Series, which enable service providers to deliver competitively priced managed network services to businesses.

Advanced Security

GW6500 Series routers deliver business grade security services including:

- Stateful Inspection Firewall
- Intrusion Reporting
- High Speed IP Security (IPSec 3DES) encryption for data privacy over the Internet

Four Port 10/100 Managed Switch

The four port 10/100 managed switch enables multiple devices to be connected in retail and branch office environments with the ability to segment into individually filtered subnets or DMZs. Tagged VLAN (802.1q) segmentation offers further versatility for diverse network applications.

Secondary (PSTN) Interface

An internal PSTN dial modem incorporated with GW6500 Series models offering 'out of the box' automated router configuration and out-of-band router access for managed ADSL service applications.

Quality of Service

GW6500 Series routers support DiffServ classification, including marking, queuing, and policing functions. They support a range of selection criteria for identifying and prioritising packets across local and remote interfaces.

The DiffServ capabilities enable the router to be compatible with managed MPLS network applications providing end-to-end quality of service.

Automated Router Provisioning

As with all Virtual Access routers, the GW6500 Series offers simplicity when it comes to service provisioning. Using the centralised service management models from Virtual Access, the task of physical router configuration is minimised.

Router profiles are configured centrally enabling rapid services deployment to the end-customer sites. This 'Zero Touch' process offers service providers considerable business benefits in large scale router deployments.

Centralised Router Monitoring

The GW6500 Series router monitors connection status and produces historical service utilisation reports.

Using a range of statistical methods, the router locally monitors a broad range of service attributes such as 3G signal quality, ADSL line history, and WAN utilisation.

The Virtual Access Monitor is a secure portal that works in conjunction with each router installed at the edge of a customer's network. Monitor provides centralised access to device diagnostics and network availability status.

Access to Monitor is provided to Virtual Access IP-Touch and IP-Select service partners and can be extended to their end-customers. Monitor allows a service provider's support team to proactively monitor their customer's network.

Software Features

Management

- Local and remote advanced configuration through embedded web server and Java applets
- TFTP client download/upload
- Configuration change log
- Dial modem for out-of-band management
- SNMP agent
- Non-volatile battery-backed RAM log storage
- Telnet server
- RADIUS management user authentication

ADSL Encapsulation Modes

- G.992.1 & G.992.2 Annex A and M
- G.992.2 G.lite
- G.992.3 ADSL2
- G.992.5 ADSL2+ Annex A and M
- PPP over ATM routing (RFC2364)
- PPPoE over ATM routing (RFC1483)
- MAC-level bridging (RFC1483)
- LLC encapsulation
- VC multiplexing

Quality of Service

- QoS support of classification and marking
- Full DiffServ support

Fault Investigation and Reporting

- Graphical ADSL status monitor
- Graphical DSL connection monitor
- Graphical DSL connection history applet
- Event logging
- Full web-based protocol-level trace and debug
- Syslog support
- Email event alerting
- Trace route
- Ping (single/continuous)

Service Features

- Configurable host traffic monitoring applet
- DHCP server/client
- DHCP relay
- DNS proxy
- Cisco Discovery Protocol (CDP) auto-VLAN support
- Port forwarding
- Packet filtering and firewalling
- Performance Monitor

Routing Features

- Support for IP, TCP, UDP, ICMP, ESP, AH
- Static and dynamic IP routing algorithms
- BGPv4
- OSPF
- RIP and RIPv2
- PPP
- Virtual Router Redundancy Protocol (VRRP)
- PAP/CHAP security
- Loopback interfaces
- Network time protocol
- Async Over TCP/IP
- SNMP MIB II

VoIP Support

- SIP Proxy
- Call admission control
- MOS VoIP call quality measurement

IPSec

- Hardware security engine for high performance encryption and authentication
- Manual and automatic key management
- HMAC-MD5-96 and HMAC-SHA-1-96
- DES, 3DES, AES encryption

IKE-related VPN Specification

- Main mode, aggressive mode and quick mode
- Authentication using RSA signatures, DSS signatures and pre-shared keys interworking

Hardware Features

ADSL Interface

- RJ11 socket

LAN Interfaces

- Four 10/100 base-T Ethernet ports
- Auto detects full- or half-duplex operation
- Auto detects a regular or crossover cable for easy connection to a switch or hub

VLAN Support

- Tag-based 802.1Q VLAN or port-based VLAN on 4 ports

Dial Modem Interface (Optional)

- V.92 support up to 56Kbps
- Caller ID can answer calls from known diallers only

3G Wireless Interface

- 900/2100 MHz
- Power Class 3 (+24 dBm)
- HSUPA mode: 5.76Mbps: category 6

HSDPA modes:

- HSDPA 7.2: Categories 7 and 8
- HSDPA 3.6: Categories 5 and 6
- HSDPA 1.8: Categories 1-4, 11 and 12
- Equalisation and Rx diversity at the same time
- UMTS: 384Kbps operation in up- and downlink
- Support UL and DL compressed modes
- Power Class 1 (1W) for 1800/1900 bands
- EDGE class E2 (+27 dBm in 850/900 bands +26 dBm in 1800/1900 bands)
- GPRS/EDGE Multislot Class 12 (4 slots Rx, 4 slots Tx)
- GPRS/EDGE Class B Type 1 MT
- GPRS CS1-CS4; EDGE MCS1-MCS9
- SMA female antenna connector

Antenna Options

- Stubby Right Angle (Supplied as standard)
- Internal T Bar
- External Wall Mount
- External Blade
- External Through Hole
- External Magnetic Mount

Approvals and Certificates

- EN60950 safety approval
- EN55022 and EN55024 EMC
- Conforms to BT Access Network Frequency Plan for both ADSL Annex A and Annex M

Power

- 100V-240V AC, 5 Watts
- 5V DC PSU
- DC power input option

Physical and Environment

- Unit size: 224W 158D 34H mm
- Unit weight: 916g
- Packaging size: 335W 215D 100H mm
- Operating temperature 0°C to 40°C
- Industrial operating temperature range -20°C to +70°C option available
- Optional conformal PCB coating for harsh environments

6500 Series Models					
Model Number	Quad Ethernet	ADSL ANNEX	3G HSDPA	3G HSUPA	Dial Modem
GW6510A	●	A	●	●	
GW6510AM	●	A or M	●	●	
GW6525A	●	A	●	●	●
GW6525AM	●	A or M	●	●	●

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