GW7000 Series ADSL Router

Multiple WAN Business Grade Routers for Mission-Critical Applications

- Dual ADSL option
- Bonded ADSL supported
- 3G wireless interface option
- E1/T1 or X.21 interface options
- Effective WAN redundancy and resilience for VoIP and mission-critical data applications

The Virtual Access GW7000 Series router is a versatile cost-effective platform for secure service delivery of VoIP, data, and converged services over a selection of WAN interfaces.

SME companies are becoming more dependent on their broadband access links. This is being driven by VoIP, video conferencing and the migration of data applications into the cloud. Loss of connectivity, for even short periods of time, can stop businesses in their tracks. For businesses needing high availability network access, the Virtual Access GW7000 Series offers effective resilience for both VoIP and critical data applications.

Using ADSL backup to fixed line application services, critical business operations can continue transparently on a secondary ADSL line if the primary line is down. Optionally, a 3G wireless path can be selected as the alternate route.

All GW7000 Series models, in addition to 4 10/100 ports with CDP and VLAN segmentation, include a 100 Mbit duplex Ethernet WAN interface as a standard feature.

The GW7000 Series benefits from Virtual Access' centralised configuration management and monitoring utilities and is a versatile component of a managed network architecture.

Single and dual Annex A or Annex M ADSL2+ WAN interface variants are available on the GW7000 Series. ADSL bonding is possible as the GW7000 supports Multilink PPP.

The GW7000 Series routers are rack-mountable and incorporate integral AC power supplies for data centre environments.

High Availability Services

The GW7000 Series is a multi-WAN router and therefore can offer high redundancy and resiliency to end-users. By delivering a fully integrated backup solution, users can be confident that their corporate applications will remain online at all times. This is particularly important to service providers in facilitating the adoption of DSL for mission-critical services.

High availability can be provided through two separate ADSL links employing load sharing or standby routing.

Alternatively, the two links can be bonded together using Multilink PPP. Bonding can provide full utilisation of the bandwidth of both links, simplify network routing, and it can recover from a link failure within a few seconds.

Security

The GW7000 family offers stateful inspection firewall for multi-layered security with centralised intrusion reporting and management facilities.

IPSec tunnelling with up to 50 3DES tunnels offers the necessary data privacy for Internet access applications.

A hardware security engine is employed for high performance encryption and authentication.

Quality of Service

The GW7000 Series router supports DiffServ classification, including marking queuing, and policing functions. It supports a range of selection criteria for identifying and prioritising packets across local and remote interfaces.

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

Centralised Router Monitoring

The GW7000 Series router monitors connection speeds and produces historical service utilisation reports.

Using a range of statistical methods, the appliance locally monitors a broad range of service attributes such as data throughput, MOS and WAN utilisation.

Multilink PPP Bonded ADSL
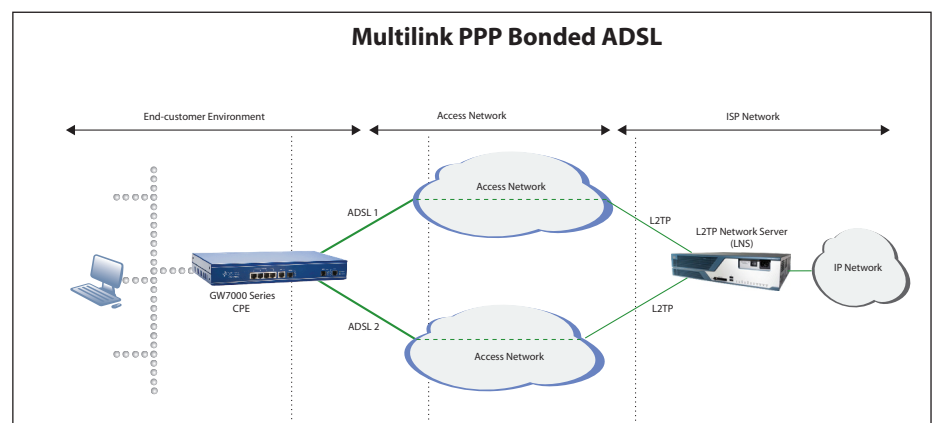
Software Features

Management
- Local and remote advanced configuration through embedded web server and Java applets
- Configuration change log
- V.92 dial modem for out-of-band management
- SNMP agent
- Non-volatile battery-backed RAM log storage
- Telnet server
- RADIUS client for management user authentication

ADSL Encapsulation Modes
- G.992.1 & G.992.2 Annex A, B, M
- G.992.2 G.lite
- G.992.3 ADSL2
- G.992.5 ADSL2+ Annex A, B, M
- PPP over ATM routing (RFC2364)
- PPPoE over ATM routing (RFC1483)
- MAC-level bridging (RFC1483)
- Conforms to the BT Access Network Frequency Plan for both ADSL Annex A and Annex M

Quality of Service
- QoS support of classification and marking
- Full DiffServ support

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
- Static and dynamic IP routing algorithms
- eBGPv4
- OSPF
- RIP and RIPv2
- PPP
- MLPPP (ADSL Bonding)
- Generic Routing Encapsulation (GRE)
- Virtual Router Redundancy Protocol (VRRP)
- Network time protocol
- Async over TCP/IP

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
- 3DES (168bit) and DES (56bit) with explicit IV

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

X.25 Support
- X.75 / International X.25 over IP
- X.25 over TCP/IP (XOT)
- X.25 over X.25 Migration Protocol (XMP)
- X.3, X.28, X.29 PAD

Frame Relay Support
- Frame relay over IP (FRoIP)
- DLCI table (256 entries)
- LMI
- Frame relay QoS

Hardware Features

ADSL Interface
- Dual RJ11 sockets

LAN Interfaces
- Five 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
- Separate 5th Ethernet port with no VLAN tagging

3G Wireless Interface (Optional)
- 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

Dial Modem Interface (Optional)
- V.92 support up to 56Kbps
- Caller ID can answer calls from known dialers only

Sync/Async Serial Interface (Optional)
- Single sync/async serial port
- Supports RS-232E, RS-422A, RS-449, RS-485, RS-530, V.24, V.35, V.36 and X.21 using a single 44-way D-type female connector
- Supports sync serial speeds up to 2Mbps
- Supports async serial speeds up to 115.2Kbps

Quad Async Serial Interface (Optional)
- Four async serial ports
- Supports RS232 and RS485
- Supports speeds up to 115.2Kbps
- 4 RJ45

E1/T1 Interface (Optional)
- RJ45 connector 100ohm/120ohm balanced
- ITU G.703 and G.704 compliant
- Supports full and fractional services

Analogue Leased Line Modem (Optional)
- Provides an analogue leased line interface
- Supports V.21, V22, V.22bis, V23, Bell 103, and Bell 212A
- RJ11 socket on rear of enclosure

General Purpose I/O (Optional)
- Optional general purpose I/O input and output
- Relay contacts output + Opto-isolated input

Approvals and Certificates
- EN60950 safety approval
- EN55022 and EN55024 EMC
- R&TTE, GCF for WCDMA
- R&TTE, GCF, FCC, PTCRB for EDGE

Power
- 100V-240V AC, 10 Watts
- IEC mains connector
- DC power input option

Physical and Environmental
- Unit size 310 W x 172 D x 43 H mm
- Unit weight 2.4 kg
- Packaging size 345 W x 215 D x 110 H mm
- Includes an installation kit for a 19-inch rack
- Operating temperature 0°C to 40°C
- Industrial operating temperature range -20°C to 70°C option available
- Conformal PCB coating for harsh environments option available

GW7000 Series Models				
Model Number	Quad Ethernet	WAN Ethernet	ADSL Ports	V.92 Dial Modem
GW7010	●	●	0	
GW7025	●	●	0	●
GW7110	●	●	1	
GW7125	●	●	1	●
GW7210	●	●	2	
GW7225	●	●	2	●