The Virtual Access GW2040 Series Router
Dual SIM 3G Router for Broadband M2M Communications

- Broadband M2M communications
- SIM failover/standby APN
- 3G failover for fixed line broadband connections
- Rapid service deployment applications
- SMS support

The Virtual Access GW2040 Series router is a versatile, rugged and compact 3G wireless router suitable for a variety of business and industrial applications.

Broadband M2M Communications

The product line provides a cost-effective broadband Machine-to-Machine (M2M) solution and supports the following radio access technologies: HSPA, UMTS, EDGE, GPRS and GSM.

The compact and rugged structure makes it a suitable product for deployments in M2M applications such as CCTV, ATM, telemetry, SCADA, retail (POS), digital signage, and intelligent traffic systems.

Fixed Line Broadband Backup Services

GW2040 Series routers incorporate Virtual Router Redundancy Protocol (VRRP). VRRP can facilitate 3G WAN backup services to existing ADSL routers, providing both WAN and router redundancy to critical business applications.

Dual SIM

Dual SIM architecture ensures that a backup 3G network can take over should the primary network fail. The router detects a network problem and fails over to a standby SIM/APN if necessary, ensuring customer's SLAs are upheld. The GW2040 also supports SMS, so if the packet switched side of the network is down you can still send commands to the router to perform diagnostics or even a reload.

Router Features

The GW2040 offers firewall, VPN and QoS facilities commonly required by today's business applications; making it a practical choice for either static or mobile data communications.

Security and Data Privacy

The GW2040 Series offers business grade security and data privacy facilities including:

- Stateful Inspection Firewall
- NAT Traversal
- IP Security (IPSec) tunelling for data encryption over Internet connections

Four Port 10/100 Mbps Managed Ethernet VLAN Switch

The four port 10/100 Mbps managed VLAN switch offers port-based VLAN segmentation. The four ports can also be configured as separate Ethernet segments with firewalling between them. Both auto-detection and manual selection of speed and duplex are provided.

Quality of Service

The GW2040 supports DiffServ classification, including marking, queuing, and policing functions commonly required in business-grade networks.

It supports a range of selection criteria for identifying and prioritising packets across local and remote interfaces.

Centralised Management and Service Monitoring

As with all Virtual Access routers, the GW2040 benefits from centralised configuration management and monitoring utilities. This enables service providers to simplify and automate service deployment, management and support tasks in managed network environments.

Using a range of statistical methods, the router locally monitors a broad range of service attributes such as 3G signal strength, WAN utilisation appliance availability and diagnostic status. Information captured by each router in the network is presented to the service provider's NOC via a central service monitoring portal.
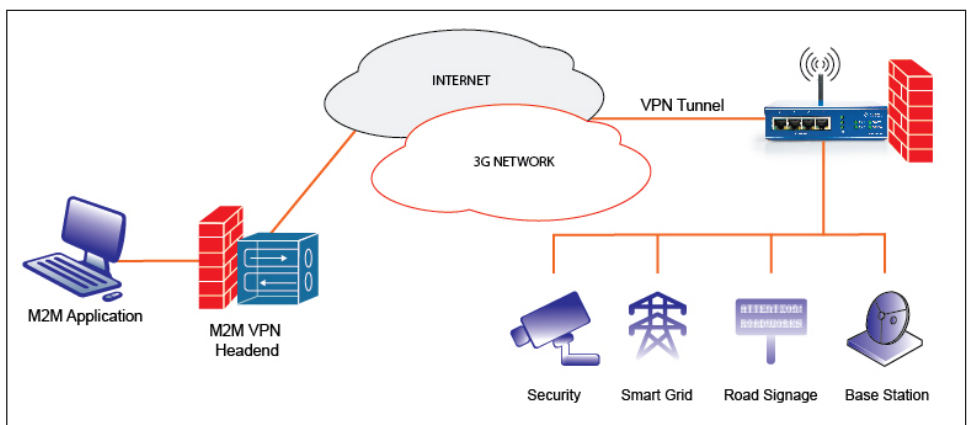
Software Features

Management
- SMS support
- Local and remote advanced configuration through embedded web server and Java applets
- Customisable embedded web interface
- TFTP client download/upload
- Configuration change log
- SNMP agent
- Telnet server
- RADIUS management user authentication
- Performance Monitor

Fault Investigation and Reporting
- Event logging
- Full protocol-level trace and debug
- Syslog support
- Email event alerting
- Trace route
- Ping (single/continuous)

Router Features
- DHCP server/client
- DHCP relay
- DNS Proxy
- Cisco Discovery Protocol (CDP) auto-VLAN support

- NAT
- Packet filtering and firewalling
- Port forwarding
- Support for IP, TCP, UDP, PPP, PPoE, BGPv4, RIP, RIPv2
- OSPF
- Virtual Router Redundancy Protocol (VRRP)
- GRE
- PAP/CHAP security
- Loopback interfaces
- Custom scripting language
- SNMP MIB II

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 Specification
- Support for ESP and AH
- Main mode, aggressive mode and quick mode
- Authentication using RSA signatures, DSS signatures and pre-shared keys interworking

Hardware Features

Wireless Connectivity
- HSUPA/HSDPA/UMTS
- Multi-band variants
- 900/2100MHz
- 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 down-link
- 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

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

Antenna Options
- Supports optional dual antenna configuration for diversity
- 3G rubber antenna (supplied as standard)
- External Blade
- External Through Hole
- External Magnetic Mount
- FDO Penta-band High Gain Omni
- WMO Wall-mount Multi-band Omni
- SMA female antenna connector

Approvals and Certificates
- EN60950 safety approval
- EN55022 and EN55024 EMC

Power
- 100V-240V AC, 5 Watts
- 10V-15V DC PSU

Physical and Environment
- Unit size: 124W 120D 30H mm
- Unit weight: 500g
- Optional lockable SIM cover

Operating temperature
- -20°C to +70°C with DC power lead
- -20°C to +70°C with optional extended temperature AC power supply
- 0 to + 40°C with standard AC power supply

GW2040 Series Models								
Model Number	HSDPA	HSUPA	UMTS	GPRS	Quad Ethernet	High Download Speed	Operating Temperature Range	PSU Options
GW2040	●	●	●	●	●	●	0°C to 40°C	Standard AC PSU
GW2040-ET	●	●	●	●	●	●	-20°C to 70°C	Includes extended temperature PSU
GW2040-DC	●	●	●	●	●	●	-20°C to 70°C	No PSU, includes DC power cable

Antenna Options		
Part Number		Description
4015-000-100		3G Rubber Antenna (Standard supplied antenna)
4015-000-400		External Blade
4015-000-500		External Through Hole 5m Cable
4015-000-600		Magnetic Mount External 5m Cable
4015-000-700		FDO Penta-band High Gain Omni
4015-000-800		WMO Wall-mount Multi-band Omni