

# The Virtual Access GW1400 Series Router

## 5G-ready Cellular & WiFi Router for Automotive & Fixed-site Applications



### Applications:

- M2M fixed-site connectivity
- SCADA utility resource management
- Fixed line backup over cellular data network

### Features:

- Concurrent 2.4 & 5GHz WiFi
- Dual Ethernet
- Built-in GPS receiver option
- Dual SIM
- Micro SD reader for extensible content storage
- Secure Boot validates signed firmware
- Trusted Platform Module 2.0

### Overview

The Virtual Access GW1400 Series router is a compact 4G/LTE router with WiFi, designed in a rugged extruded aluminium case with a mounting bracket for use in vehicles and fixed-site applications.

The GW1400 Series router enables 4G/LTE connectivity in vehicles such as buses, taxis and fleet vehicles for applications such as passenger WiFi internet access, telemetry and WiFi access to corporate network services. The product is equally at home in fixed-site locations offering primary WAN or 4G/LTE failover to fixed line connections. Its small size is ideal for M2M applications such as remote monitoring and control.

The product line offers a new entry point for 4G/LTE data applications and supports the following radio access technologies: LTE, HSPA+, HSPA, UMTS, EDGE, GPRS and GSM.

### 5G-ready

The GW1400 Series router has a very high performance 4-core processor to support future 5G throughput speeds. It has an internal M.2 socket with USB-3 interface to the cellular module, which will support the 5G modules expected on the market soon. In addition, the 5G modules will have 4 cellular antenna sockets.

### WiFi

The GW1400 Series router has integrated dual radio (2.4 and 5GHz) WiFi support. It is capable of supporting both Access Point mode and Station mode concurrently if required.

### Dual Ethernet Ports

The two gigabit Ethernet interfaces can be configured as a single interface with Ethernet switching between them or as separate router interfaces.

### Dual SIM

Dual SIM sockets ensure that a backup 4G/LTE network can take over should the primary network fail. The router detects a network problem and fails over to a standby SIM/APN.

### Secure Boot

Secure Boot feature ensures the authenticity of the firmware in the system. This protects against the loading of rogue software.

### Trusted Platform Module

A TPM 2.0 IC embedded in the device is used to keep private keys private.

### GPS Receiver

The GW1400 Series router includes a GPS receiver that can be used for vehicle positioning. The vehicle's coordinates, direction and speed can be reported to a central application tracking server periodically.

### SMS Management

The GW1400 Series router also supports SMS, so if the packet switched side of the network

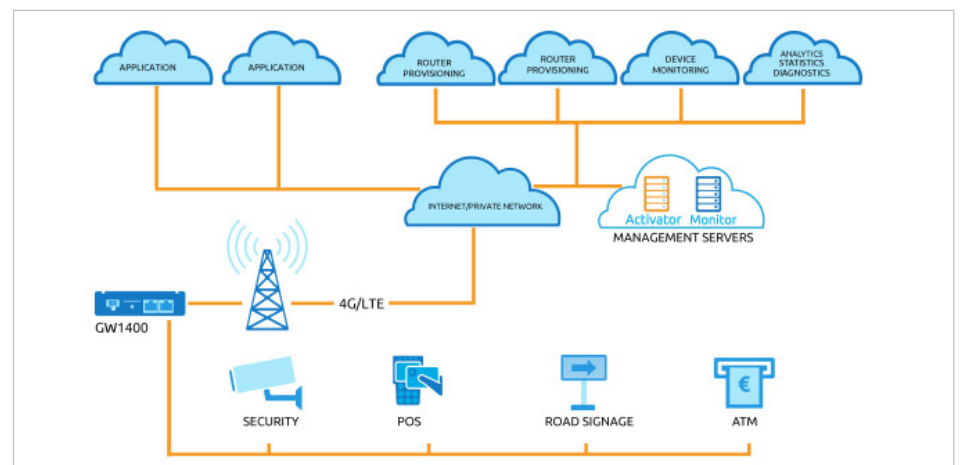
is down, you can send commands to the router to perform diagnostics or even a reload.

### Automotive Power Conditioning

Vehicle battery voltages often experience transients and there can be substantial voltage dip during engine starting. The GW1400 Series router supports 9-36V DC input providing direct compatibility to vehicles with either 12V or 24V batteries. It incorporates an active power conditioner that is designed to accommodate the voltage dips, surges and transients commonly found in vehicle power systems.

### Centralised Management and Monitoring

The GW1400 Series router benefits from Activator, Virtual Access' centralised configuration management and monitoring system. Activator simplifies and automates deployment, management and support tasks in managed network environments.



## Software Features

### Management

- Automatic configuration using Activator server

### HTTPS/HTTP

- Command Line Interface via Telnet or SSH
- TFTP client download/upload

- SNMP agent
- SMS management support

### Fault Investigation and Reporting

- Event logging
- Syslog support

### Routing Features

- IPv4 and IPv6
- DynDNS
- NAT Traversal
- Multiple VRFs
- VLAN support
- BGPv4, OSPF and RIP (v1 and v2)
- NTP Client and Server
- Packet filtering
- Firewall
- Port forwarding
- IPSec/L2TP/GRE
- DMVPN
- SNMP v1/v2/v3
- TLS 1.2
- 802.1x authentication
- IEC 104
- QoS
- VRRP

### IPSec VPN

- IKE version 2
- X.509 certificates
- Elliptic Curve Cryptography (EEC)
- SHA2\_512 support
- AES\_CBC (256), 3DES and DES
- PFS
- SCEP
- DH\_8192

## Hardware Features

### LAN Interfaces

- 2 Gigabit Ethernet ports
- The LAN ports can be configured as a single router interface or as separate router interfaces

### WAN Interfaces

- LTE category 6 supporting 300Mbps downstream and 50 Mbps upstream
- Multiple concurrent APN support
- Ethernet ports can optionally be configured for WAN use

### WiFi

- 2.4GHz and 5GHz concurrent WiFi
- 2 x 2 MiMo, 802.11ac, 802.11n, 802.11p
- Concurrent Access Point and Station mode
- Range of optional external WiFi antennas available

### SIM

- 2 xSIM card sockets with optional slot cover

### Micro SD Card Reader

- Optional Micro SD memory card slot

### Trusted Platform Module

- Security module for key storage and random number generation

### Secure Boot

- ensures the authenticity of the firmware in the system

### LEDs

- Power indicator
- Ethernet activity
- Active SIM
- WiFi

### External I/O

Digital input for 'taxi-meter' status

### Antennas

- 2 x LTE SMA female antenna connectors for MiMo LTE support (4 x SMA connectors for 5G support)
- 1 x GPS SMA female connector with power feed for active antenna
- 2 x RP\_SMA female connectors for 2x2 MiMo WiFi (Diplexed 2.4 & 5 GHz channels)

### Approvals and Certificates

- EN60950 safety approval
- EN55022 and EN55024 EMC
- EN 300 328 V1.9.1
- EN 301 893 V2.0.7
- E-Mark

### Power

- DC 9-36V
- Power lead is supplied with 3 connectors for ignition, +DC and Ground
- Automotive pulse immunity
- Optional AC adapter available (100-240V)
- 0.5A @ 12V DC = 6 Watts

### Physical and Environment

- Unit size: 115W 111D 38H mm
- Unit size with mounting bracket: 120W 120D 45H mm
- Unit weight: 420g
- Mounting bracket included for wall mounting or DIN mounting

### Operating temperature

- -20°C to +70°C

## GW1400 Series Router



Front view showing dual SIM



Rear view showing dual Ethernet with 4G/LTE configuration

## GW1400 Series Models

Model	LTE Category	Ethernet	WiFi	Dual SIM	GPS	Region (carrier)	3G Bands	LTE Bands	Fallback
GW1400-QFH	6	2	✓	✓	✓	EMEA/Australia/Brazil	B1/B3/B5/B8	B1/B3/B5/B7/B8/B20/B28/B32/B38/B40/B41	3G
GW1400-QFH-X	6	2	-	✓	✓	EMEA/Australia/Brazil	B1/B3/B5/B8	B1/B3/B5/B7/B8/B20/B28/B32/B38/B40/B41	3G