

# The Virtual Access GW1450 Series Router

## Compact 5G Cellular & WiFi Router



### Applications:

- Fixed line backup over cellular data network
- In-vehicle WiFi & content streaming services
- M2M fixed-site connectivity
- Digital signage

### Features:

- Enhanced 5G connectivity
- Concurrent 2.4 & 5GHz WiFi
- Dual Ethernet
- Dual SIM

### Overview

The Virtual Access GW1450 Series router is a compact 5G router with WiFi, designed in a rugged extruded aluminium case with a mounting bracket for use in vehicles and site-based applications.

The GW1450 Series router enables 5G connectivity for applications such as passenger WiFi internet access, telemetry and WiFi access to corporate network services. The product is ideal for site-based locations offering primary WAN or cellular failover to fixed line connections. Its small size works for M2M applications such as remote monitoring and control.

### 5G Support

The GW1450 Series router has a very high performance 4-core processor to support 5G throughput speeds. It has an internal M.2 socket with USB-3 interface to the cellular module. Using a cellular wireless communication module with receive diversity to improve reception of RF signals; data connectivity is provided on 5G, LTE-FDD, LTE-TDD, DC-HSDPA, HSPA+, HSDPA, HSUPA and WCDMA networks with a standard PCI Express M.2 interface. In addition, the module has 4 cellular antenna sockets.

### WiFi

The GW1450 Series router has integrated dual radio (2.4 and 5GHz) WiFi support. It can support 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 5G/LTE network can take over should the primary network fail. The router detects a network problem and fails over to a standby SIM/APN.

### SMS Management

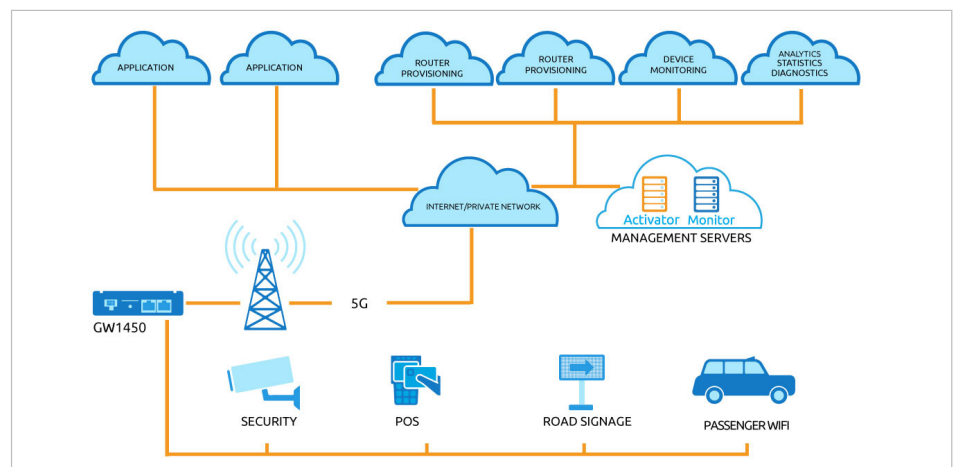
The GW1450 Series router also supports SMS, so if the packet switched side of the network is down, you can send commands to the router to perform diagnostics or even a reload.

### Ignition Sensor

In automotive applications, the ignition sense input can detect when the vehicle's ignition has been enabled. This allows the GW1450 to remain powered on after the vehicle has stopped. The time delay between ignition off and power down is configurable.

### Automotive Power Conditioning

Vehicle battery voltages often experience transients and there can be substantial voltage dip during engine starting. The GW1450 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.



## 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
- Ethernet ports can optionally be configured for WAN use

### Cellular

- 5G SA Sub-6
- 5G NSA Sub-6
- LTE category 6
- 3G UMTS support
- Multiple concurrent APN support

### 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

### Digital Status Input

- Input can be used with custom script to automate action on status change

### LEDs

- Power indicator
- Ethernet activity
- Active SIM
- WiFi

### Antennas

- 4 x cellular SMA female antenna connectors for MiMo LTE support
- 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

### GW1450 Series Models

Model	Ethernet	WiFi	Dual SIM	3G Bands	LTE Bands	5G Bands
GW1450-PFA	2	✓	✓	B1, B2, B3, B4, B5, B6, B8, B9	B1, B3, B5, B7, B8, B20, B28, B18, B19, B26, B34, B38, B39, B40, B41, B42, B43, B46, B48	N1, N2, N3, N5, N7, N8, N12, N20, N25, N28, N38, N40, N41, N48, N66, N71, N77, N78, N79