

## The GW7600V Series Multi-service Router



- Multi-path DSL, dual LTE, 3G, HSPA+ wireless
- Optional 802.11ac
- Optional WiFi
- Optional ISDN, sync and async serial
- Secondary (PSTN) interface
- 1U model for optional standard NEMA rack mounting

### Overview

Based on the very latest VDSL/ADSL and LTE and 3G technology, Virtual Access GW7600V Series routers address the needs of Point of Sale (PoS), retail branch office, security monitoring and other key business applications demanding managed connectivity that is cost-effective, high performance and resilient to network outage or last mile circuit failure.

Designed for managed network providers, GW7600V Series routers provide secure WAN connectivity for internet and private networking environments over both DSL, 3G and LTE broadband paths.

### Automatic Failover

The GW7600V provides optional automatic failover from fixed to wireless circuits ensuring business connectivity through network or last mile circuit outages, whilst email alerting and auto-failback confirm primary circuit restoration.

### PCI DSS Compliance for Retail

Businesses that process, store or transmit credit card data, these days, must increasingly meet security requirements known as the Payment Card Industry Data Security Standard (PCI DSS). Designed to meet these standards, the GW7600V offers an extensive range of security, filtering and configuring functions enabling businesses to easily lock down computer and payment networks.

### Four Port GigE Managed Switch

The four port GigE managed switch enables multiple devices to be connected with the ability to segment into separate LANs. Tagged 802.1q VLANs are also supported.

### Fibre Ethernet SFP Socket

The GW7600V optionally supports a fibre SFP socket for Gigabit Ethernet. Various SFP types are available for short or long haul fibres.

### Optional 802.11ac WiFi

The GW7600V optionally incorporates WiFi connectivity. It can be configured to operate in either access point or client mode.

### Dual Radio Support

The GW7600V has two radio sockets that can be populated with WiFi or 3G/LTE modules. Options include single WAN and single WiFi, dual WAN, LTE, 3G modules or dual WiFi interfaces. Dual WiFi modules support concurrent 2.4GHz and 5GHz bands. Dual SIM sockets are supported.

### ISDN BRI Interface

An optional ISDN BRI interface can be used in NT or TE mode. The interface can also be used to convert ISDN to SIP VoIP protocols.

### Dial Modem Interface

An optional internal PSTN dial modem provides out-of-band access, which can avoid costly truck-rolls.

### SMS Messaging

Inbound and outbound SMS messages enhance the management capability of the device. For example, if all other WAN services are unavailable, commands can be sent to the router to perform diagnostics or even reset the unit.

### Automated Router Provisioning

As with all Virtual Access routers, GW7600V Series routers offer 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 process offers service providers considerable business benefits in large scale router deployments.

### Centralised Router Monitoring

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.

Another feature offered is SLA reporting functionality. The GW7600V can be configured to monitor certain traffic types and stores local statistical information based on this traffic. Monitor can then periodically pull this information from the router and present a range of statistics including latency, packet loss and wireless signal strength.

## Software Features

### Management

- Automatic configuration using Activator server
- HTTP/HTTPS
- Command Line Interface via Telnet or SSH
- TFTP client download/upload
- SNMP agent
- SMS management support

### Fault Investigation and Reporting

- Event logging
- Packet tracing
- Syslog support

### VDSL/ADSL Standards Supported

- ETSI TS 101-270 VDSL
- ITU-T 993.1 VDSL foundation
- ITU-T 993.2 VDSL2
- ANSI T1.424 VDSL
- ITU-T G.998.4 retransmission
- ITU-T G.993 vectoring
- ITU-T G.992.1/3/5 ADSL1/2/2+ Annex A, B, I, J, M and L

### Routing Features

- IPv4 and IPv6
- DHCP server/client
- DynDNS
- NAT
- NAT Traversal
- NTP Client
- VLAN support
- Packet filtering
- Firewall
- Port forwarding
- BGPv4, OSPF
- RIP (v1 and v2)
- IPSec/L2TP/GRE
- 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 (ECC)
- SHA2\_512 support
- AES\_CBC (256), 3DES and DES
- PFS
- SCEP
- DH\_8192

## Hardware Features

### GigE Interface

- Four 10/100/1000 Mbps Base-T Ethernet ports
- Ports can be divided into separate LANs using port-based VLAN feature
- Auto-detects a regular or crossover cable for easy connection to a switch or hub

### WAN Interface

- Wireless WAN with 3G or LTE options
- Ethernet ports can optionally be configured for WAN use

### Fibre Ethernet Interface (Optional)

- SFP fibre socket for 1 Gigabit Ethernet interface

### USB Interface

- USB hi-speed type A socket

### Dial Modem Interface (Optional)

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

### E1/T1 Interface

- 1 x E1/T1 interface
- 120 ohm balanced
- 75 ohm available with optional balun
- E1: output and tolerance according to G.823, transfer according to G.705
- T1: according to AT&T TR-62411

### Quad Async Serial Interface (Optional)

- 4 x RJ45 async serial ports
- RS232 and RS485 to 115.2Kbps

### Sync/Async Serial Interface (Optional)

- Single sync/async serial port
- RS-232E, RS-422A, RS-449, RS-485, RS-530, V.24, V.35, V.36 and on a 44-way D-type female connector
- Sync serial speeds up to 2Mbps
- Sync clock recovery support
- Async serial speeds up to 115.2Kbps

### Leased Line Interface (Optional)

- Supports Leased Line interfaces
- 2 wire ETSI EN 300 448, 4 wire V1.2.1, ETSI
- EN 300 451, 4 wire input and output ports
- 2 & 4 wire ITU-T M.1040 and ITU-TM.1020/1025
- 1 RJ11 socket
- Impedance: 600 ohms
- Clock recovery eliminates data loss due to clock slippage

### WiFi

- 802.11ac/b/g/n
- WPA/WPA2
- Dual-band (2.4 or 5GHz) two modules can be fitted for concurrent dual band support
- 64/128/152-bit WEP encryption, IEEE 802.1x authentication, AES and TKIP encryption

### ISDN

- ISDN BRI, S TE/NT
- Includes adaptive clock recovery capability
- ISDN Q.931 to SIP conversion

### SCADA Support

- IEC 60870-5-104 to IEC 60870-5-101 gateway
- DNP3 TCP/IP to serial conversion

### X.25 Support

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

### Pseudowire Support

- CESoPSN: IETF RFC 5086
- SAToP: IETF RFC 4553

### VLAN Support

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

### Antenna Options

- 2 x SMA female antenna sockets are provided for each radio (WAN or WiFi)
- Many antenna options are available

### Approvals and CE Certificates

- EN 60950 safety approval
- EN 55022 and EN 55024 EMC

### Operating Power

- AC:
  - IEC mains connector
  - 100V-240V AC, 10 Watts
- DC:
  - Dual DC inputs
  - 9-36 or 18-75V DC isolated

### Physical and Environment

- Unit size: 310W 172D 43Hmm
- Unit weight: 2.4kg
- 1U model for optional NEMA rack standard mounting
- Conformal coating option

### Operating Temperature

- Standard temperature range: 0°C to +50°C
- With optional industrial PSU: -20°C to +65°C
- With DC input cable: -20°C to +65°C

GW7600V Back Detail



### GW7600V Series Models

Model	VDSL2/ ADSL2+	GigE	3G HSPA+	LTE	CDMA 450MHz	USB	Quad Serial	Sync Serial	SFP Fibre	Dial Modem	ISDN BRI	Quad BRI	Leased Line	WiFi	
														Single	Dual Concurrent
GW7610V	1	4				1	●	●	●	●	●	●	●	●	●
GW7630V	1	4	1			1	●	●	●	●	●	●	●	●	
GW7640V	1	4		1		1	●	●	●	●	●	●	●	●	
GW7643V	1	4	1	1		1	●	●	●	●	●	●	●		
GW7644V	1	4		2		1	●	●	●	●	●	●	●		
GW7645V	1	4		1	1	1	●	●	●	●	●	●	●		
GW7650V	1	4			1	1	●	●	●	●	●	●	●	●	
Order Code								-S	-SFP	-DM	-BRI	-QBRI	-LL	-W	-W2

Notes:

● = purchase option

1. WiFi cannot be fitted if 2 WAN radio modules are fitted.
2. Dual concurrent WiFi is possible when no WAN radio modules are fitted.
3. Only one of the dial modem, ISDN or LL interfaces can be fitted.

### RF Band Options

RF Band	Region	2G Bands	3G Bands	LTE Bands	LTE Category	Operating Temp	Order Code
A	Europe China	850/900/1800 1900	900/2100	-	-	-40°C to 70°C	-RFA
B	Europe Asia	850/900/1800 1900	850/900/1900/2100	-	-	-40°C to 70°C	-RFB
C	Europe Asia	850/900/1800 1900	850/900/1900/2100	B1/B2/B3/B5/B7/B8/B20	-	-30°C to 70°C	-RFC
D	Worldwide	-	-	B3/B7/B20/B31	-	-20°C to 60°C	-RFD
E	Europe	900/1800	900/2100	B1/B3/B7/B8/B20/B38/B40	3	-30°C to 70°C	-RFE
F	Worldwide	-	CDMA TX 452.500 ~ 457.475 RX 462.000 ~ 467.475	-	-	-20°C to 60°C	-RFF
G	Worldwide	850/900/1800 1900	850/900/2100	B1/B3/B5/B7/B20	-	-40°C to 70°C	-RFG
J	Worldwide	450	-	-	-	-40°C to 70°C	-RFJ
L	Europe APAC	900/1800	900/2100	-	-	-40°C to 70°C	-RFL
M	North America	-	850/1900	B2/B4/B5/B17	-	-30°C to 70°C	-RFM
N	Worldwide	-	850/900/1700/1800 1900/2100	B1/B2/B3/B4/B5/B7/B12/B13 B20/B25/B26/B29/B30/B41	-	-40°C to 70°C	-RFN
P	Australia New Zealand Latin America Taiwan	850/900/1800 1900	850/900/1900/2100	B1/B2/B3/B4/B5/B7/B8 B28/B40	4	-40°C to 70°C	-RFP
Q	Mexico/USA Canada	-	850/1900	B1/B2/B4/B5/B12/B13	4	-40°C to 70°C	-RFQ
Q1	Mexico/USA Canada	-	850/1900	B1/B2/B4/B5/B12/B13	1	-40°C to 70°C	-RFQ1
R	EMEA/Korea Thailand Indonesia	900/1800	850/900/2100	B1/B3/B5/B7/B8/B20/B38 B40/B41	4	-40°C to 70°C	-RFR
R1	EMEA/Korea Thailand	900/1800	850/900/2100	B1/B3/B5/B7/B8/B20	1	-40°C to 70°C	-RFR1
S	Europe	900/1800	850/900/2100	B1/B3/B5/B7/B8/B20/B38 B40/B41	4	-40°C to 70°C	-RFS
T	Asia/Pacific	900/1800	800/850/900/1700/2100	B1/B3/B5/B7/B8/B18/B19/B21 B28/B38/B39/B40/	6	-40°C to 70°C	-RFT
U	EMEA/North America/Latin America/APAC/ Japan/Australia	-	800/850/900/ 2100/1900/1800/1700	B1/B2/B3/B5/B7/B8/B18/B19/B21 B25/B26/B38/B39/B40/B41/B66	6	-40°C to 70°C	-RFU
X	Australia	-	850/2100	B1/B3/B5/B7/B28	4	-40°C to 70°C	-RFX
X1	Australia	-	850/2100	B1/B3/B5/B7/B28	1	-40°C to 70°C	-RFX1