

### ADSL2+/VDSL2

- ITU-T G.993.2 (VDSL2)
- ITU-T G.992.1/3/5 (ADSL1/2/2+) Annex A & Annex B
- DSL Forum Performance Specification: ADSL TR-048/67, TR-100; VDSL: WT-114
- Erasure Decoding, Increased Interleaver Depth and Re-transmission
- EFM (IEEE 802.3 ah)
- VDSL2 Profile: up to 30a

### WAN Protocol

- VDSL2/ADSL2 WAN
  - DHCP Client
  - Static IP
  - PPPoE
  - PPPoA (ADSL2 only)
  - PPTP / L2TP (VDSL2 only)
  - 802.1q Multi-VLAN Tagging
- Giga Ethernet WAN
  - DHCP Client
  - Static IP
  - PPPoE / PPTP / L2TP
  - 802.1q Multi-VLAN Tagging\*
- USB (WAN-3)
  - PPP
- IPv6
  - Tunnel Mode: TSPC, AICCU
  - Dual Stack: PPP, DHCPv6 Client, Static IPv6

### Switch

- Port-based VLAN
- Triple-Play Application
  - IGMP Snooping
  - Tag-based (802.1q) VLAN
  - Layer-2 (802.1p) QoS

### USB

- 3.5G (HSDPA) as WAN
- Printer Sharing
- File System :
  - Support FAT32 File System
  - Support FTP Function for File Sharing
  - Support Samba for File Sharing
- LTE USB mobile Support List Please Contact support@draytek.com

### VPN

- Up to 32 VPN Tunnels
- Protocol : PPTP, IPsec, L2TP, L2TP over IPsec
- Encryption : MPPE and Hardware-based AES/DES/3DES
- Authentication : MD5, SHA-1
- IKE Authentication : Pre-shared Key and Digital Signature (X.509)
- LAN-to-LAN, Teleworker-to-LAN
- DHCP over IPsec
- IPsec NAT-traversal (NAT-T)
- Dead Peer Detection (DPD)
- VPN Pass-through
- VPN Wizard
- mOTP
- SSL VPN: 16 Tunnels\*
- Open VPN: 16 Tunnels
- VPN Trunk (Load Balance/Backup)

### Multi-WAN

- Outbound Policy-based Load-balance
- WAN Connection Failover

### CSM (Content Security Management)

- IM/P2P Application
- GlobalView Web Content Filter (Powered by **com@touch**)
- URL Content Filter :
  - URL Keyword Blocking (Whitelist and Blacklist)
  - Java Applet, Cookies, Active X, Compressed, Executable, Multimedia File Blocking
  - Excepting Subnets

### Bandwidth Management

- QoS :
  - Guarantee Bandwidth for VoIP
  - Class-based Bandwidth Guarantee by User-defined Traffic Categories
  - DiffServ Code Point Classifying
  - 4-level Priority for Each Direction (Inbound /Outbound)
    - Bandwidth Borrowed
- Bandwidth/Session Limitation
- Layer-2 (802.1p) and Layer-3 (TOS/DSCP) QoS Mapping

### Network Feature

- Packet Forwarding Acceleration\*
- DHCP Client/Relay/Server
- IGMP Version 2 and Version 3
- Dynamic DNS
- NTP Client
- Call Scheduling
- RADIUS Client
- DNS Cache/Proxy
- UPnP 30 sessions
- Multiple Subnets
- VLAN Tagging (802.1q) on LAN
- Routing Protocol:
  - Static Routing
  - RIP V2

### Network Management

- Web-based User Interface (HTTP/HTTPS)
- Quick Start Wizard
- CLI (Command Line Interface, Telnet/SSH)
- Administration Access Control
- Configuration Backup/Restore
- Built-in Diagnostic Function
- Firmware Upgrade via TFTP/FTP/HTTP/TR-069
- Logging via Syslog
- SNMP Management MIB-II
- Management Session Time Out
- 2-level Management (Admin/User Mode)
- TR-069
- TR-104
- LAN Port Monitoring
- Support Smart Monitor (30)
- AP Management
  - Designed for Deployment of VigorAP 800 WLAN Access Point

### Firewall

- Multi-NAT, DMZ Host, Port-redirection and Open Port
- Object-based Firewall, Object IPv6, Group IPv6
- MAC Address Filter
- SPI (Stateful Packet Inspection) (Flow Track)
- DoS/DDoS Prevention
- IP Address Anti-spoofing
- E-mail Alert and Logging via Syslog
- Bind IP to MAC Address
- Time Schedule Control
- User Management

### Wireless AP (n model)

- IEEE802.11n Compliant (2.4GHz)
- Wireless Client List
- Wireless LAN Isolation
- 64/128-bit WEP
- WPA/WPA2
- Hidden SSID
- WPS
- MAC Address Access Control
- Access Point Discovery
- WDS (Wireless Distribution System)
- 802.1x Authentication
- Multiple SSID
- Wireless Rate-control
- IEEE802.11e: WMM (Wi-Fi Multimedia)
- SSID VLAN Grouping with LAN Port

### VoIP (V model)

- Protocol: SIP, RTP/RTCP
- 12 SIP Registrars
- G.168 Line Echo-cancellation
- Automatic Gain Control
- Jitter Buffer (180ms)
- Voice codec:
  - G.711 • G.723.1 • G.726
  - G.729 A/B • VAD/CNG • iLBC
- DTMF Tone :
  - Inband • Outband (RFC-2833) • SIP Info
- FAX/Modem Support :
  - Tone Detection • G.711 Pass-through
- Supplemental Services :
  - Internal Call (only for Debug Usage)
  - Call Hold/Retrieve/Waiting
  - Call Waiting with Caller ID\*
  - Call Transfer
  - Call Forwarding (Always, Busy and No Answer)
  - Call Barring (Incoming/Outgoing)
  - DND (Do Not Disturb)
  - MWI (Message Waiting Indicator) (RFC-3842)
  - Hotline
  - ZRTP
- PSTN Loopthrough When Power Failure
- Dial Plan :
  - Phone Book • Digit Map • Call Barring
  - Regional

### Hardware Interface

- 1 x ADSL2/VDSL2, RJ-11 (WAN1)
- 1 x 10/100/1000Base-Tx, RJ-45 (WAN2)
- 6 x 10/100/1000Base-Tx LAN Switch, RJ-45
- 2 x Detachable Antennas (n Model)
- 2 x FXS Port, RJ11 (V Model)
- 1 x Life Line Port, RJ11 (V Model)
- 2 x USB Host 2.0
- 1 x Factory Reset Button
- 1 x Wireless On/ Off/ WPS Button

\* Firmware Upgradeable

	VoIP	WLAN
Vigor2860 Vn	•	•
Vigor2860 n		•
Vigor2860		

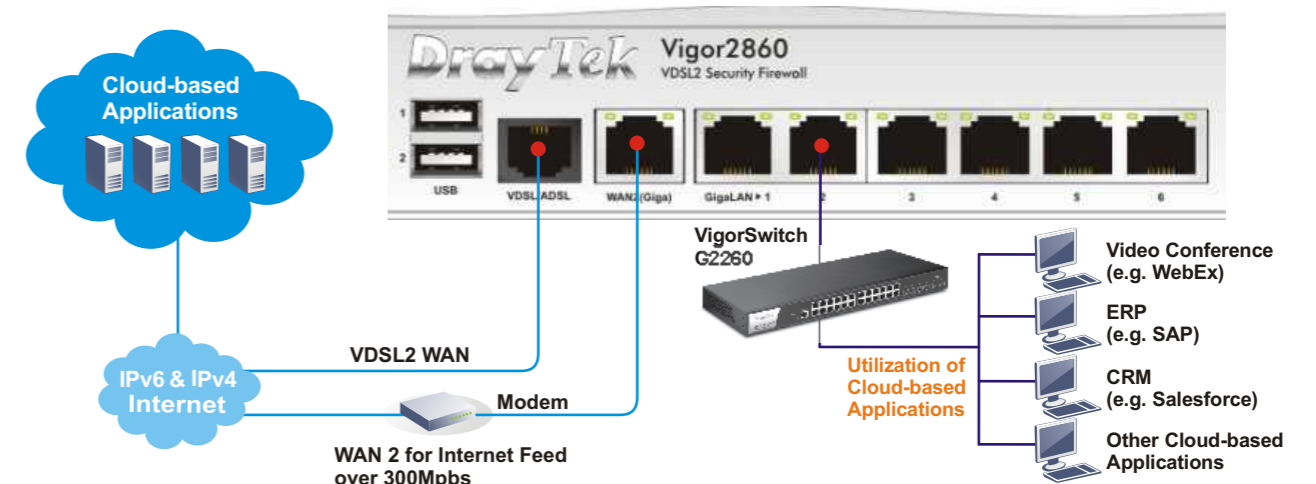
## Vigor2860 Series VDSL2 Security Firewall

- Built-in VDSL2 and ADSL2+ modems
- Fail-over and Load Balancing with a second WAN through a Gigabit Ethernet WAN port
- Object-based SPI Firewall and CSM (Content Security Management) for network security
- 2 USB ports for 3G/4G mobile, FTP server and network printers
- 32 VPN tunnels with comprehensive secure protocols
- VLAN for secure and efficient workgroup management
- 6 x Gigabit LAN ports
- Enterprise class IEEE 802.11n WLAN AP
- VoIP for cost-effective communication
- Support Smart Monitor Traffic Analyzer (30-nodes)
- Flexible Network Management



Vigor2860 series security firewall routers have built-in VDSL2 and ADSL2+ modems, plus a second Ethernet WAN port for Cable or Satellite broadband, and 2 USB ports for 3G/4G mobile broadband access. With the multi-WAN accesses, Vigor2860 routers support bandwidth management functions such as Fail-over and Load Balancing, making them ideal solutions for reliable and flexible broadband connectivity for small to large enterprises. The specifications cover many functions that are required by modern day businesses, including secure but easy to apply firewall, comprehensive VPN capability, Gigabit LAN ports, USB ports for 3G/4G mobile dongles, FTP servers and network printers, VLAN for flexible workgroup management, and much more.

### Cloud-based Business Applications Utilization



### Built-in VDSL2 and ADSL2+ modems

With two built-in modems, you have the flexibility of migrating to VDSL2 when your ISP/Telco upgrades from current ADSL2+ technology. Besides, in case you move to a new location where VDSL2 is not available, your router can fall back to ADSL2+.

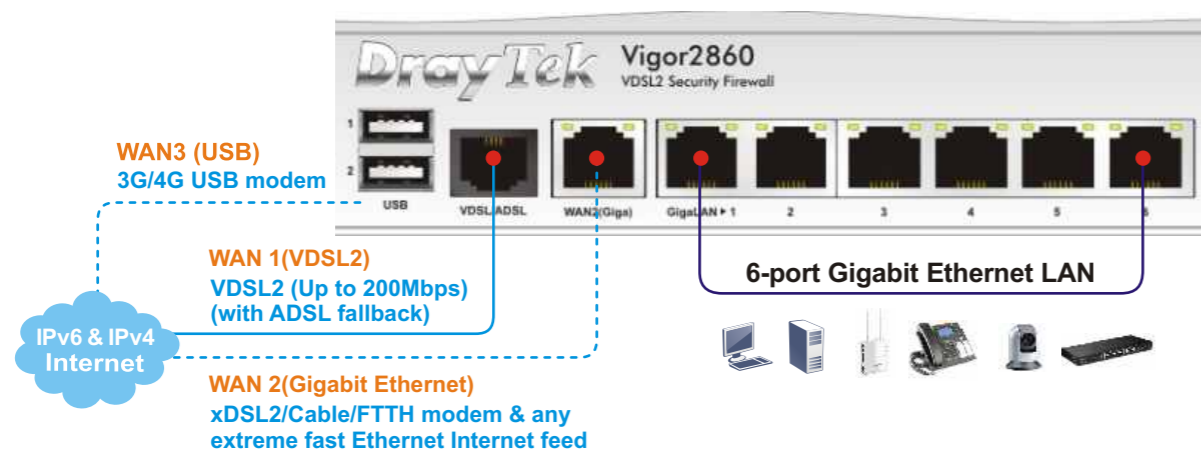
### Fail-over and Load Balancing with a second Gigabit Ethernet WAN

The Gigabit Ethernet WAN port caters for any type of Internet access, including ADSL, Cable or Satellite broadband. You can then use both WAN 1 and WAN 2 for Fail-over, ensuring that you will always have an access to the Internet even if one of the WAN fails, or for Load Balancing so the 2 WANs share Internet traffic requirements of your organization.

### 2 USB ports for 3G/4G mobile, FTP drive and network printers

The two USB ports can be used for the connection of 3G/4G mobile broadband dongle, FTP drive and network printers. A 3G/4G mobile broadband connected to one of the 2 USB ports can be used as a second WAN for bandwidth management. \*If your area does not have VDSL or ADSL access, you can have 2 USB 3G/4G dongles connected to the USB ports, and assign one of these (WAN 3) to be the primary access and the other (WAN 4) as the fail-over back-up. And, you have the flexibility to convert back to DSL services when these become available.

### Vigor2860 Series WAN/LAN interface



### Object-based SPI Firewall for network security

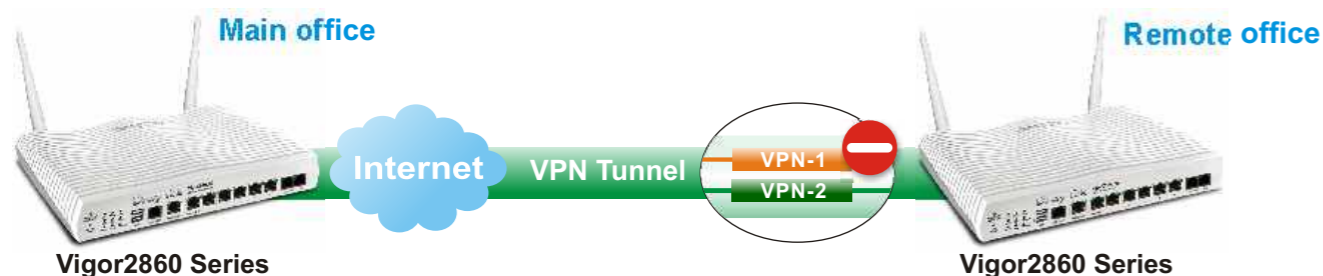
Like all DrayTek routers, Vigor2860 supports Object-based SPI firewall and CSM (Content Security Management). The firewall allows setting of Call/Data Filters and DoS/DDoS prevention, whereas the CSM covers IM/P2P/Protocol filter, URL Content Filter and Web Content Filter.

With Objects settings, you can pre-define objects or groups for IP, service type, keyword, file extension, etc., and mix these with the Time Scheduler or the VLAN groups as required. Altogether this gives you peace of mind whether you are guarding a complicated network or a small office.

### 32 VPN tunnels; hardware based with comprehensive secure protocols

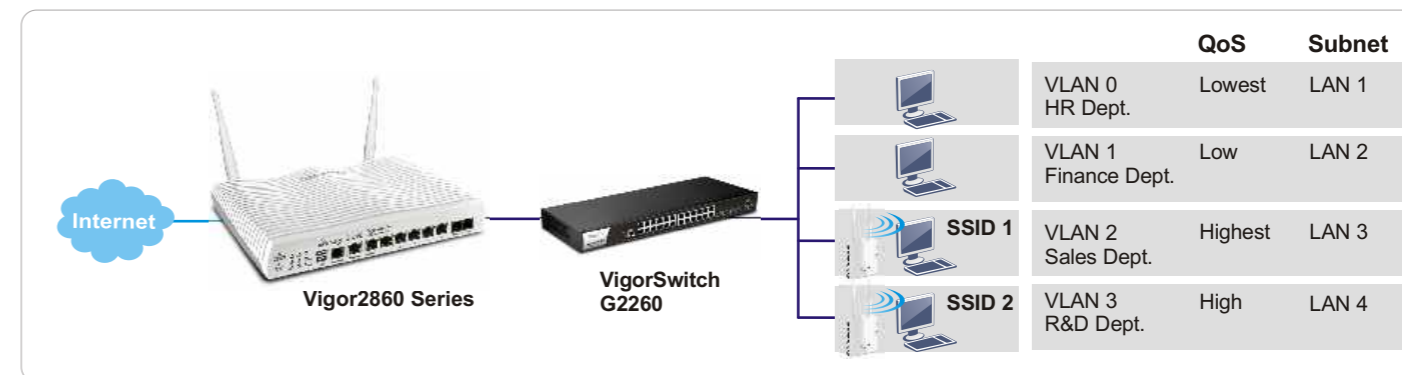
Up to 32 VPN tunnels are supported, each can be set to IPsec/PPTP/L2TP/L2TP over IPsec protocols, with hardware encryption of AES/DES/3DES. This level of VPN capability covers the requirements of most businesses for secure inter-office and remote data accessing.

### Secured networking



### VLAN for secure and efficient workgroup management

The VLAN functions allow multi-subnets to be allocated for multiple workgroups. When combined with the NAT and firewall functions, you can design corporate network groups in terms of traffic, security level, priority settings, etc. Applications such as VoIP, IPTV and Wireless SSID can also be integrated into VLAN tags and firewall objects, giving you the maximum flexibility in designing workgroups for your organization.



### 6 x Gigabit LAN ports

Vigor2860 is equipped with 6 x Gigabit LAN ports, enough to cover high traffic needs of modern day unified communication applications, such as CRM server, FTP server, Mail server, and so on.

### Enterprise class IEEE 802.11n WLAN AP

Vigor2860n and Vigor2860Vn each have a built-in IEEE 802.11n WLAN Access Point with features to support requirements for speed, security and functions of businesses and enterprises. Conforming to high speed of 802.11n specifications, they also cover all major security and encryption protocols, including WEP/WPA/WPA2, MAC Address Control, 4 x SSID, Wireless LAN Isolation, Wireless VLAN\* and 802.1x Authentication. The Wireless Rate Control function allows connection rates for each network device to be individually managed as required. The WMM (Wi-Fi Multi-Media)\* function allows setting of priority levels for various applications: voice, video, data, etc., so time-critical applications can be assigned higher priority levels. Furthermore, WDS (Wireless Distribution System) function allows you to extend the wireless coverage distance easily.

### Cost-effective VoIP feature

In line with the concept of Internet covering all aspect of communication requirements, Vigor2860Vn has 2 FXS ports and a Line port, and supports many supplemental services. You can connect 2 analogue telephones to the 2 FXS ports, and the PSTN line to the Line port. Vigor2860Vn supports 12 SIP (Session Initiation Protocol) registrations through Internet or with the traditional PSTN line (for instance, in case of an electricity blackout and subsequent loss of power to the router itself).

### Supports SmartMonitor traffic report software

Vigor2860 series routers support SmartMonitor, DrayTek's proprietary network traffic reporting software, for up to 30 users. This software monitors all incoming and outgoing network traffic, categorizes these into various activity and data types and provides statistics in various report types, so network administrators can monitor network activities for planning and/or fault locating purposes.

### Working with Smart Monitor Traffic Analyzer



### Flexible Network Management

Like all DrayTek routers, Vigor2860 series routers support comprehensive network management functions. For example, you can set username/password and directory/file access privilege for individual users as required. There are also routing/network tables, system log, debugging utilities, etc., making network administrators' jobs easy. Other management features include SNMP, TR-069 and TR-104. TR-069 can be utilized with DrayTek's VigorACS-SI management software to remotely monitor and manage the Vigor2860. Firmware upgrades are easily carried out using the Vigor2860 web GUI or by using TFTP, FTP or via TR-069 using VigorACS-SI.

\* Firmware Upgradeable