DrayTek

Vigor2860 series

DrayTek

Vigor2860 Series
VDSL2 Security Firewall

IPv6 Ready

ACSS

working

TAIWAN EXCELLENCE 2013

- 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 (Vn-plus)
- Support Smart Monitor Traffic Analyzer (30-nodes)
- Flexible Network Management

The Vigor2860 Combo WAN series Routers provide multi WAN ports, ADSL2+/VDSL2/Gb Ethernet and 3G/4G LTE USB configurable WAN to allow simultaneous convergent tenant connections, especially for FTTx+MDU, mobile broadband operators involved in rural broadband deployments. Its fail over and load balance over different WANs with in-depth bandwidth management are ideal for broadband connectivity of SMBs. 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. Vigor2860Vn-plus has twin analogue phone ports and one line port (life line). It supports multiple SIP Registers with high flexible configuration and call handling options.

Built-in VDSL2 and ADSL2+ 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.

Comprehensive VPN
For remote teleworkers and inter-office links, Vigor2860 series provide up to 32 simultaneous VPN tunnels (such as IPSec/PPTP/L2TP protocols) for secure data exchange and communication. With a dedicated VPN co-processor, the hardware encryption of AES/DES/3DES and hardware key hash of SHA-1/MD5 are seamlessly handled, thus maintaining maximum router performance. Teleworkers can be authenticated directly with your LDAP server if preferred. The Vigor2860 series are equipped physical DSL port and Gigabit Ethernet port for WAN load-balancing and backup. The VPN trunking (VPN load-balancing and VPN backup) are hence implemented on Vigor2860 series. With VPN trunking, you can create multiple WAN connections to a remote site in order to increase bandwidth. The VPN trunking also can allow you to have failover (backup) of VPN route through a secondary WAN connection.

With SSL VPN, Vigor2860 series let teleworkers have convenient and simple remote access to central site VPN. The teleworkers do not need to install any VPN software manually. From regular web browser, you can establish VPN connection back to your main office even in a guest network or web cafe. The SSL technology is same as the encryption that you use for secure web sites such as your online bank. The SSL VPNs can be operated in either full tunnel mode or Proxy mode. After F/W 3.7.3, the Vigor2860 series allows up to 16 simultaneous incoming users.

There are up to 16 simultaneous Open VPN tunnels on Vigor2860 series for host-to-LAN (remote dial-in) application.

VDSL2/ADSL2/2+
- 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 Retransmission
- EFM (IEEE 802.3 ah)
- VDSL2 Profile: up to 30a

WAN Protocol
- DSL (WAN-1)/Giga Ethernet (WAN-2)
- DHCP Client
- Static IP
- PPPoE
- PPTP/L2TP (WAN-2 only)
- PPPoA (ADSL2 only)
- 802.1q Multi-VLAN Tagging
- USB (WAN-3)
- IPv6
- PPP/DHCP
- Tunnel Mode: TSPC, AICCU, 6rd, Static 6in4
- Dual Stack: PPP, DHCPv6 Client, Static IPv6

Multi-WAN
- Load-Balance/Route Policy (The VDSL2/ADSL2+ interface, Gigabit Ethernet interface and USB mobile can be used either for WAN-backup or load balancing.)
- WAN Connection Failover

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
- IPsec NATtraversal (NAT-T)
- Dead Peer Detection (DPD)
- DHCP over IPsec
- VPN Pass-through
- VPN Wizard
- mOTP
- SSL VPN : 16 Tunnels
- Open VPN : 16 Tunnels
- VPN Trunk (Load Balancing/Backup)

Network Feature
- Packet Forwarding Acceleration*
- DHCP Client/Relay/Server
- IGMP Snooping/Proxy V2 and V3
- TriplePlay Application
- Dynamic DNS
- NTP Client
- Call Scheduling
- RADIUS Client
- DNS Cache/Proxy and LAN DNS
- UPnP 30 sessions
- Multiple Subnets
- Port-based/Tag-based VLAN (802.1q)
- Routing Protocol:
  - Static Routing   - RIP V2

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

Wireless AP (n model)
- 802.11n WLAN with Concurrent 2.4/5 GHz Frequency (n-plus model)
- 802.11n WLAN with Single Band 2.4 GHz Frequency (n model)
- Wireless Client List
- Wireless LAN Isolation
- 64/128-bit WEP
- WPA/WPA2
- Wireless Wizard
- 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 (Port-based VLAN)

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/TR069
- Logging via Syslog
- SNMP Management MIB-II
- Management Session Time Out
- 2-level Management (Admin/User Mode)
- TR069
- TR-104
- LAN Port Monitoring
- Support Smart Monitor (30)
- Central AP Management
- Central VPN Management (Up to 8 Remote Routers)

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 Antispoofing
- E-mail Alert and Logging via Syslog
- Bind IP to MAC Address
- Time Schedule Control
- User Management

USB
- 3.5G (HSDPA) and 4G (LTE) 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

VoIP (Vn-plus model)
- Protocol: SIP, RTP/RTCP
- 12 SIP Registrars
- G.168 Line Echo-cancellation
- Jitter Buffer
- Voice codec:
  - G.711   - G.723.1   - G.726
  - G.729 A/B   - VAD/CNG
- DTMF Tone :
  - Inband   - Outband (RFC-2833)   - SIP info
- FAX/Modem Support :
  - Tone Detection   - G.711 Pass-through   - T.38
- Supplemental Services :
  - 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
  - Secure Phone (ZRTP + SRTP)
  - PSTN Loop-through When Power Failure
- Dial Plan :
  - Phone Book   - Digit Map   - Call Barring
  - Regional

Hardware Interface
- 1 x VDSL2/ADSL2/2+ WAN Port (WAN1), RJ-11 for Annex A/RJ-45 for Annex B
- 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)
- 3 x Detachable Antennas (n-plus Model)
- 2 x FXS and 1 x Life Line Port, RJ11 (Vn-plus Model)
- 2 x USB Host 2.0
- 1 x Factory Reset Button
- 1 x Wireless On/ Off/ WPS Button

CE FC

*Firmware Upgradeable

Centralized Management

With F/W 3.7.3, the embedded Central VPN Management (CVM) will let network administrator register up to 16 remote routers but run concurrent remote management over 8 remote routers.

AP Management

APM provides the 3-step installation, plug-plug-press, and then wireless clients are able to enjoy surfing internet. Moreover, through the unified user interface of Draytek routers, the status of APs is clear at the first sight.

Multi-subnets

With the 6-port Gigabit switch on the LAN side provides extremely high speed connectivity for the highest speed local data transfer of any server or local PCs. The tagged VLANs (802.1q) can mark data with a VLAN identifier. This identifier can be carried through an onward Ethernet switch to specific ports. The specific VLAN clients can also pick up this identifier as it is just passed to the LAN. You can set the priorities for LAN-side QoS. You can assign each of VLANs to each of the different IP subnets that the router may also be operating, to provide even more isolation. The said functionality is tag-based Multi-subnet.

On the Wireless-equipped models (Vigor2860n/Vigor2860n plus/Vigor2860Vn plus) each of the wireless SSIDs can also be grouped within one of the VLANs.

Multi-task USB functionalities

Through mobility, brought by cellular networks, you can connect 3.5G/4G USB mobile to 2.0 version USB port on Vigor2860 series. This can be a backup broadband connection if the primary fixed line drops. You can connect USB disk or hard-drive to USB port for memory storage and file sharing. The Vigor2860 series provide you with FTP access file uploading/downloading, which can be used from the local LAN or from anywhere on the Internet. The access can be using "username and password" or 'public'. Each of them can have their own directories and/or file access rights. The VDSL2/ADSL2+ interface, Gigabit Ethernet interface and USB mobile can be used either for WAN-backup or load balancing.

DrayTek IPv6 solutions

We support Dual Stack (PPP, DHCPv6 Client, Static IPv6) and Tunnel Mode (TSPC, AICCU) to let your business operation successfully be migrated to the era of IPv6.
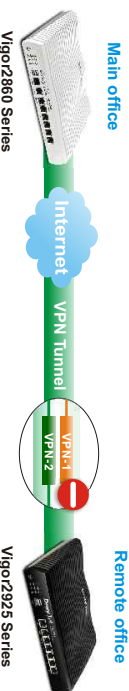
Secured networking

DrayTek Vigor2860 series inherited versatile firewall mechanism from previous Vigor series routers. The object-based design used in SPI (Stateful Packet Inspection) firewall allows users to set firewall policy with ease. Object-based firewall is flexible and allows your network be safe. DoS/DDoS prevention and URL/Web content filter strengthen the security outside and control inside. The enterprise-level CSM (Content Security Management) enables users to control and manage IM(Instant Messenger) and P2P (Peer-to-Peer) applications more efficiently. The CSM hence prevents inappropriate content from distracting employees and impeding productivity. Furthermore, the CSM can keep office networks threat-free and available.
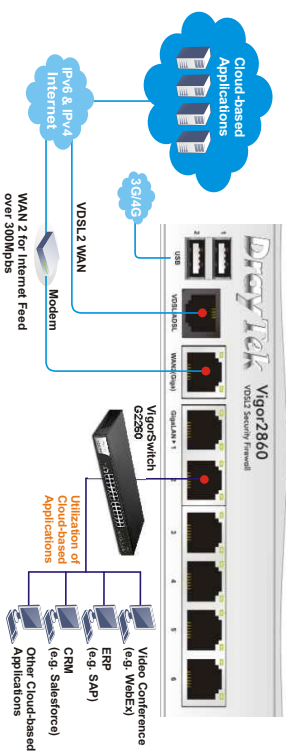
By adoption of the world-leading Commtouch GlobalView Web Content Filtering, you can block whole categories of web sites (e.g. sports, online shopping), subject to an annual subscription to the Commtouch GlobalView WCF, which is timely updated with changed or new site categorizations. A free 30-day trial can be activated via activation wizard of WUI.

The "User Management" implemented on your router firmware can allow you to prevent any computer from accessing your Internet connection without a username or password. You can set scheduler or maximum usage time to your employees within office network. The user accounts can also be restricted by any other aspect of the firewall rule on a user-by-user basis.

Vigor2860 series support DrayTek's SmartMonitor network traffic analyzer (up to 30 users), which captures actual live data of activities in your managed network, such as the content of MSN entering to or out of your network. You can track specified files download/upload or view statistics on data type activities to realize what corporate related information have been released accidentally or on purpose.

Cloud-based Business Applications Utilization

IPv6 & IPv4 Internet

Cloud-based Applications

3G/4G

WAN 2 for Internet Feed over 300Mbps

VDSL2 WAN

Modem

Vigor2860
VDSL2 Security Firewall

VigorSwitch G2260

Utilization of Cloud-based Applications

Video Conference (e.g. WebEx)

ERP (e.g. SAP)

CRM (e.g. Salesforce)

Other Cloud-based Applications

Central AP Management

WLAN Setting

AP Status

Note: Green : Online Red : Offline Gray : Hidden SSID

Vigor2860

VigorAP

Central VPN Management

Vigor2860

Internet

Up to 8 remote site routers

VPN Trunk

Vigor2860 Series

Main office

Internet

VPN Tunnel

VPN-1
VPN-2

Remote office

Vigor2925 Series

	WLAN	
	2.4 GHz	5 GHz	VoIP
Vigor2860Vn-plus	●	●	●
Vigor2860n-plus	●	●	
Vigor2860n	●		
Vigor2860			