

DrayTek

Vigor 2910VG Series Router Firewall



- Broadband Router & Firewall
- 3G (Cellular) Modem support (Firmware Upgradable)
- Content Filtering (by matched keyword or data type)
- SurfControl Web Site Category Filtering
- Ethernet Virtual LAN segmentation (common/distinct)
- Configurable QoS Features (For traffic prioritisation)
- VPN Dial-in/dial-out (up to 16 tunnels)
- 802.11g Wireless LAN ('G' Model only)
- Selectable Secondary WAN Port for backup
- Twin Voice-over-IP Phone Ports ('V' model only)
- USB Port for Printer sharing or 3G Modem connection
- Highly configurable but easy to install and monitor

Overview

Vigor 2910VG Router Firewall

The Vigor 2910VG is a router firewall which provides a great balance of security, VPN, routing and optional VoIP/Wireless facilities. Content filtering helps protect against inappropriate web usage or time wasting using either keyword matching or Surfcontrol web site categorisation (Subject to subscription).

Optional 3G Cellular data increases the product's flexibility too, allowing you to make use of cellular networks for broadband-like HSDPA networks without needing a fixed line. This can be used for backup or your primary Internet feed. Alternatively, a switchable Ethernet port can be used as a secondary WAN port to a second broadband connection, for example.

The Vigor 2910VG model provides 802.11g connectivity for your laptops or other wirelessly connected PCs. The Vigor 2910 supports several independent levels of wireless security to protect your data. In addition, WDS mode can be used to provide repeating or bridging to a secondary router to increase wireless coverage or set up a secondary remote site (within range) where cables cannot be practically run.

The Vigor 2910's VPN facilities provide up to 16 simultaneous tunnels. These tunnels can be encrypted and authenticated with industry standard methods, making your data secure as it passes over the public Internet. VPNs are ideal for both remote office linking and teleworker connections to access branch or head office resources.

3G

3G Cellular Data Features

The Vigor 2910's USB port can host a compatible 3G modem or cellphone for access to the cellular network for full Internet Access. Most UK networks now provide high speed HSDPA data connections at up to 3.6Mb/s download speed. The 3G connection can be used as your primary/only Internet access, or as backup to your main ADSL line connection. This is not only ideal for homes or offices which don't want to pay fixed line + broadband rental, but also for temporary locations, or those to where fixed lines aren't available.

With the Wireless LAN of the Vigor 2910VG your local users can be connected wirelessly to the router, so instant free 'hotspots' can be deployed quickly and easily. Mains power is required for the router's PSU, but this could be from a mobile generator or equivalent so you need to plan for this.

Supported Modems / Phones

- Huawei E220 (As used by Vodafone, T-Mobile, 3)
- Huawei E270
- Huawei E172
- Option Globesurfer iCon 7.2 (not '225' or '7.2s)
- Nokia N70
- Nokia N95
- Nokia 6233
- Nokia N95
- Telstra HSDPA USB Modem
- 4G System XSPlug P3
- Zapp Telemodem Z020
- Option Globesurfer iCON
- 4G System XSPlug P3
- ZTE AC8700 3G
- Benq EF91
- LG U8380
- Telstra Next G 3G USB
- ZTE AC8700
- Additional Modem Support is added continuously or you can request specific models.



A USB connection cable is required for your phone (not supplied).

The Vigor 2910 and 3G cellular modem setup is ideal for:

- Backup to your primary Internet feed (ADSL, cable etc.)
- Providing lower cost broadband than a fixed line solution
- Areas without fixed line broadband access
- Compatible with a wide range of 3G modems/phones
- Temporary Locations
- Mobile Homes
- Locations on the move - coaches, trains
- Fairgrounds & temporary exhibitions
- Outdoor locations (the router and modem itself must be indoors!)
- Disaster Planning & High Availability



WLAN

Wireless LAN Features

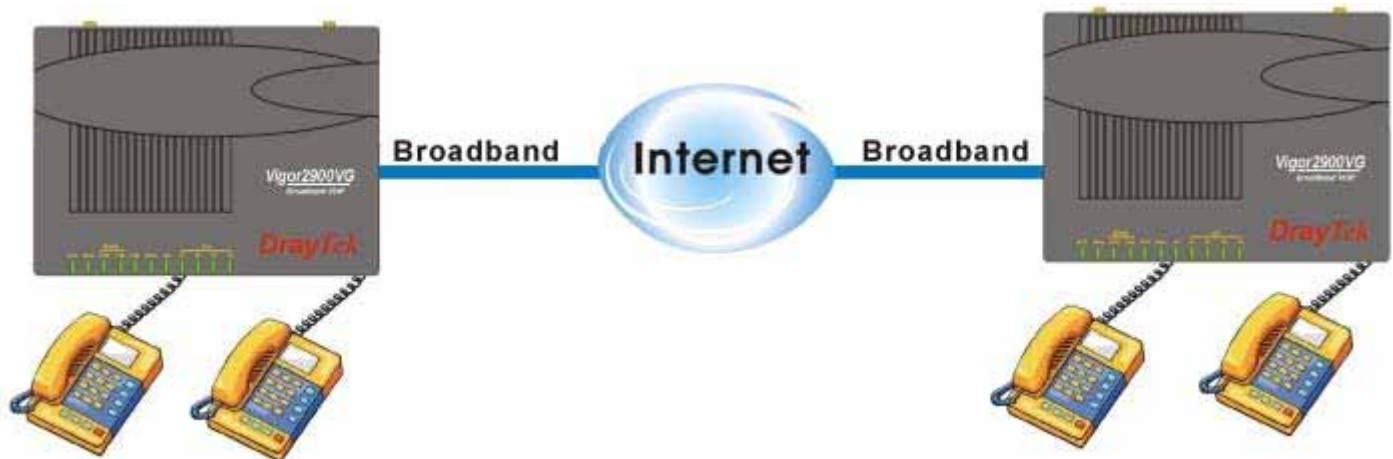
The Vigor 2910VG with built-in Wireless LAN allow you to use your wireless equipped computers or laptops wirelessly, without needing a cable back to the router; this provides convenience and mobility in your home or office. By adding an additional Vigor 2700 wireless model, you can expand the wireless range using WDS (in repeater mode) and for increasing range potential, DrayTek have a range of directional aerials (see 'accessories').

- 802.11b & 802.11g Compatibility
- 802.11g Super-G Wireless LAN (Total bandwidth up to 108Mb/s)
- WEP & WPA Wireless Encryption
- WDS - Wireless Distribution System for expanding wireless networks
- Optional Higher-Gain Aerials
- Wireless Security Features :
 - WEP, WPA and WPA2 Wireless Security & Encryption
 - WLAN Isolation - Isolate WLAN from wired LAN
 - SSID Stealthing
 - Restricted access list for clients (by MAC address)
 - Time Scheduling (WLAN can be disabled at certain times of day)
 - 802.1x User Authentication (via Radius Server, EAP-TLS Mode)

VoIP

Voice over IP

The Vigor2910VG provides twin phone ports for VoIP (Voice-over-IP). VoIP enables you to use your existing broadband capacity to carry regular voice calls to suitably equipped remote sites, for example another Vigor VoIP enabled router or to any other compatible hardware/software products, worldwide. The Vigor2910VG supports the industry standard 'SIP' system for compatibility with other vendors' products.



The calls between the two sites in the example above are, of course, free of charge because they are making use of your existing always-on ADSL connection, but cost isn't the only advantage; using VOIP means that you have additional call capacity in your home or office, without tying up your regular phone line. Using a VoIP-PSTN gateway service, such as [DrayTEL](#) you can also fully integrate with the PSTN, making and receiving calls to and from any regular phone number, worldwide.

2nd WAN

Secondary WAN Port

The primary 'WAN' interface (the connection to the outside world) is 10/100BaseT Ethernet. This can connect to any Ethernet based router IP or Internet feed which might typically be fed via Leased Line, cable modem, ADSL, Satellite system - anything which is then terminated in Ethernet.

In addition, one of the LAN Ethernet ports can be selected as a secondary WAN (Internet) Interface. The second interface can be used as the primary interface, backup failover for the primary WAN port, load balancing or just for increased total bandwidth. This allows you to use two Internet feeds simultaneously to provide higher total capacity, or rule-based routing over two feeds (load balancing). If you do not have a second WAN feed, you can use the 2nd WAN port as a regular LAN port instead.



Specification

Vigor 2910 Router Specification

- **Combination Ethernet router, VPN Device, Firewall and Load-Balancer**
- Primary Ethernet WAN Interface
- Selectable secondary WAN Interface
- Load Balancing across both WAN ports with automatic or user-defined policies
- WAN Backup using secondary WAN in case of primary WAN failure
- Four-Port 10/100BaseT autosensing Ethernet interface with manual speed over-ride (one port switchable to WAN2 port)
- **Printer Port** - built-in USB port compatible with most standard printers and any Windows 98SE, 2000 or XP client PC.
- **Internet Firewall** facilities featuring :
 - Automatic Keep-state facility for tracking packets and denying unsolicited incoming data
 - Selectable DoS/DDoS protection
 - IP Address anti-spoofing
 - User-configurable packet-filtering
 - NAT/PAT for Automatic LAN/WAN Mapping and Security
 - NAT Port Redirection with automatic internal ranging
 - NAT Port Forwarding (Up to 200 IP ports)
- **QoS** (Quality of Service) assurance with 8 selectable levels & *Diffserv* support
- **Internet Content Filtering:**
 - URL Keyword Filtering - Whitelist or Blacklist specific sites or keywords in URLs
 - Surfcontrol Support - Block Web sites by category (subject to subscription)
 - Prevent accessing of web sites by using their direct IP address (thus URLs only)
 - Blocking automatic download of Java applets and ActiveX controls
 - Blocking of web site cookies
 - Block http downloads of file types :
 - Binary Executable : .EXE / .COM / .BAT / .SCR / .PIF
 - Compressed : .ZIP / .SIT / .ARC / .CAB/. ARJ / .RAR
 - Multimedia : .MOV / .MP3 / .MPEG / .MPG / .WMV / .WAV / .RAM / .RA / .RM / .AVI / .AU
 - Time Schedules for enabling/disabling these restrictions
 - Block P2P (Peer-to-Peer) file sharing programs (e.g. Kazza, WinMX etc.)
 - Block Instant Messaging programs (e.g. IRC, MSN/Yahoo Messenger)
- **VPN facilities :**
 - High performance VPN supports up to **32** simultaneous VPN tunnels.
 - Dial-in or dial-out, LAN-to-LAN or Teleworker-to-LAN
 - Protocol support for PPTP, L2TP, IPSec
 - MD-5 & SHA-1 Authentication
 - Encryption : MPPE, DES/3DES & AES
 - Hardware Co-processor for VPN Encryption
 - PFS (Perfect Forward Secrecy) - Adds additional key protection
 - Pre-shared/IKE keying & PKI (X.509) certificate support
 - IKE Phase 1 Aggressive/Standard Modes & Phase 2 Selectable lifetimes
 - Radius Support for dial-in teleworker profiles
 - Compatible with other leading 3rd party vendor VPN devices

- **VoIP Facilities**
 - Voice calls carried over existing ADSL connection
 - Two VOIP ports (RJ11 to BT type sockets)
 - Automatic QoS Assurance for Voice-over-IP Calls - VoIP given highest priority
 - SIP Standard Compliant
 - VoIP Codecs : 8Kb/s-64Kb/s
 - Registration with multiple SIP Registrars at the same time
 - Distinctive Ring for incoming calls on different accounts
 - Automatically select different SIP providers depending on destination called - **New!**
 - Manually select SIP provider for outgoing calls by user-defined prefix - **New!**
 - Hotline Facility - connects to a fixed destination when you lift the handset - **New!**
 - Do Not Disturb - Phones can be set to not ring according to a time schedule (e.g. at night) - **New!**
 - Speed Dial (Phone Book) for quick dialling
 - Caller ID on phone ports (UK Standard Compliant)
 - Integration with the PSTN via ITSP (e.g. DrayTel) enabling you to make/recieve calls from regular phone lines
 - Connect any standard analogue phone into the phone ports
 - UK Standard Call progress Tones (Ring, Busy cadence etc.)
 - Adjustable Gain (volume) for voice tx/rx
 - Log of incoming/outgoing calls & realtime Status reporting
 - DTMF Transmission : In-Band, Out-of-Band (RFC2833), SIP Info
 - Low latency queuing (LLQ), Random Early Detection
 - G.168 Line Electrical Echo cancellation & Jitter Buffer (125 ms)
 - Support for VoIP through VPN tunnels
 - Built-in Call Handling (PBX) Facilities:
 - Intercom (call) between local voice/phone ports - **New!**
 - SIP Compliant Call Diversion (Forwarding) - Always, Busy or No-Answer
 - DND (Do Not Disturb) with automatic time schedule - **New!**
 - Call Waiting - **New!**
 - Call Transfer - **New!**
 - T.38 Fax Facilities
 - Outbound NAT Proxy / STUN Server Support
- **Wireless Features :**
 - 802.11g Super-G Wireless LAN (Total bandwidth up to 108Mb/s)
 - Twin gain aerials provide diversity and optimum coverage
 - Optional Higher-Gain Aerials
 - Backward compatible with 802.11b (11Mb/s) and regular 802.11g (54Mb/s) standards
 - Wireless Security Features :
 - WEP, WPA and WPA2 Wireless Security & Encryption - **New!**
 - WLAN Isolation - Isolate WLAN from wired LAN - **New!**
 - SSID Stealthing
 - Restricted access list for clients (by MAC address)
 - Time Scheduling (WLAN can be disabled at certain times of day)
 - 802.1x User Authentication (via Radius Server, EAP-TLS Mode)
 - Optional Username/Password Required for Wireless Users
 - WDS (Wireless Distribution system) for WLAN Bridging and Repeating
 - Wireless Client Rate control - **New!**
 - Wireless VLAN - Set inclusive/Exclusive wireless groups - **New!**
 - Active Client list in Web Interface
- **Dynamic DNS** Posting, compatible with popular services
- DHCP Server facility with pre-settable allocations and alien lock-out
- Support for non-NAT public subnets (multiple public IP addresses)
- LAN Side IP address range and built-in DHCP server/relay is fully configurable
- **RIP & Static Routing** configurable
- Diagnostic Facilities:
 - **SNMP Reporting/Monitoring** - compatible with industry standard tools
 - Comprehensive Syslog logging/monitoring (DrayTek Syslog tool supplied)
 - Ping & TraceRoute from WUI - **New!**
 - Real Time Data Flow Monitor, with instant block (cut of any user immediately!) - **New!**
- **VPN Passthrough** for VPN client/server running behind the router