Vigor2920F Series
Fiber Router

DrayTek

www.draytek.com

- Dual WAN ports (1Gbps and SFP) for ADSL/Cable/Satellite and ready for FTTx
- Extra USB port for 3.5G mobile WAN and FTP/printer servers
- WAN/USB 3.5G ports enable user-defined WAN redundancy and Load Balance policy
- LAN switch with 4xGbps ports for large company networks
- Firewall with SPI based IP filters, Dos/DDoS prevention, and Object Based policy for easy settings
- CSM Content Filter powered by **comtouch**
- VPN with 32 hardware-based tunnels on comprehensive VPN protocols; up to 40Mbps IPSec throughput
- WLAN with WEP/WPA/WPA2 security, MAC Access Control, 4xSSID, WLAN Isolation, WLAN Rate Control, 802.1x authentication, WMM (Wi-Fi Multimedia); up to 300 Mbps throughput
- Network management features including CLI/Telnet/SSH, Diagnostic tables, SNMP, 2-level Access Control, TR-069, TR-104 management, etc
- Network features including call scheduling, RADIUS support, UP&P, VLAN, QoS, Packet Forward Acceleration, etc.

RPD by **comtouch**

Features of the Vigor2920F series Dual-WAN routers will satisfy the network requirements of medium to large business networks.

Dual-WAN with Bandwidth Management

Both WAN1 (100Mbps, SFP interface for direct connection to Fiber) and WAN2 (1Gbps) support current xDSL/Cable/Satellite broadband, while WAN2 is also future proof for new technologies such as VDSL2 or FTTx (up to 150Mbps). In addition to the two WAN ports, the USB port also allows connection to the 3.5G Mobile Broadband.

The WAN ports can be configured to increase data throughput, backup each other (Failover mode), or share the traffic (Load Balance). In addition, the 4xGbps LAN port switch will support large data transfer in medium to large LAN networks.

Businesses that face global competition will benefit from the reliability of Internet accesses through redundancy of dual WANs, the future proof specifications on the WAN and the 3.5G USB ports, and the flexibility in setting up for the sharing of traffic through dual WANs.

USB Port for 3.5G FTP and Printer Server

The capability of the USB port to connect to 3.5G mobile broadband means that the router can be used in anywhere with 3.5G coverage, such as moving vehicles, temporary events, offices where xDSL or Cable are not available, etc.

Apart from supporting printer servers, the USB port also allows the connection of a USB disk or hard drive for FTP file transfer through the Internet or local networks. The network administrator can set username/password and directory/file access privilege for individual users.

Security Firewall

The Firewall is based on SPI (Stateful Packet Inspection) with Flow Track technology. Packets are inspected at the deeper network layers than traditional firewalls. DoS/DDoS (Denial of Services/Dynamic Denial of Services) attacks have been classified and listed in a table for the administrator to select for avoidance in the firewall configuration menu.

The CSM (Content Security Management) covers three areas in the management and control of web access:

- Web Content Filter –it controls access to web pages based on the on-going classification of all web pages by CommTouch™. The category for which web access is to be controlled is enabled by selecting the appropriate category within the Web Content Filter configuration. E.g., Gambling, Violence, etc.
- IM/P2P applications control – common IM/P2P programs, such as MSN, BT, eMule, etc., are selected by ticking boxes for blocking /unblocking.
- URL Filter – Keywords can be entered to form a white or a black list. E.g., the keyword "facebook" in the black list will stop all web pages with "facebook" in the URL address.

With CSM, businesses can control accesses to web sites or applications thereby protecting company data and minimizing unproductive network activities.

The Firewall has been designed with Object Based concept, allowing users to design their own policies for reuse or combining. The Time Scheduler function enforces firewall rules at the required time of day making the Firewall set up easy and flexible.

Comprehensive VPN

Up to 32 simultaneous hardware based VPN tunnels are supported providing a throughput up to 40Mbps. Each of these can be configured to use any of the common VPN protocols: PPTP, IPSec, L2TP, L2TP over IPSec, etc., and with any of the most up-to-date encryption (MPPE, AES/DES/3DES), Authentication (MD5, SHA-1), Pre-shared Key, Digital Signature (X.509). These tunnels can be used for LAN-to-LAN or remote dial-in.

Advanced WLAN

The Vigor2920n model includes a built-in 802.11n Wireless Access Point (WAP) delivering wireless network speed up to 300Mbps. For upmost security, it supports WEP/WPA/WPA2 (64bit/128bit), MAC Address Access Control, 4 x SSID, 802.1x Authentication and WLAN Isolation. Other enhanced features include: WDS (Wireless Distribution System) to extend the coverage range, Wireless Rate Control to manage bandwidth allocation to wireless devices, and WMM (Wi-Fi Multimedia) to prioritize voice, video and data within the WLAN network.

Easy Network Management

Configuring Vigor2920 router is easy with the web based configuration pages, plus the CLI/Telnet/SSH methods. Tools allowing network administrators to manage and maintain the networks with ease include:
- Diagnostic Tables that show network connection status
- SNMP for network traffic monitoring
- Two levels of Access Control to prevent unauthorized access to the router
- TR-069 and TR-104 for service providers to manage user devices remotely

More features are available to support business networks' operations, such as Call Scheduling, RADIUS support, UP&P, VLAN, QoS, Packet Forward Acceleration, etc.

Gigabit WAN/LAN · Fiber · 3.5 Support USB Modem · VPN · CSM · MIMO Wireless · VoIP

VoIP

The VoIP model of the Vigor2920F series, Vigor2920FVn supports VOIP functions enabling the users to save telephone costs. Additional supplementary functions allow users to handle calls in the same ways as with traditional PABX, including call transfer, call forward, call holding/retrieving, etc. Digit Map function further allos flexible add/subtract /replace of numbers to simplify numbering in homes or offices.

A line port allows connection to a PSTN line so the user can select either the PSTN or VoIP for the calls, and can access the PSTN line during power black-outs when VoIP are cut-off-a security feature that may save lives.

WAN Interface

- WAN1: SFP Interface for Connection to Fiber, 100Mbps
- WAN2: 10/1000 Base-TX, RJ-45
- Protocol:
  - DHCP Client
  - Static IP
  - PPPoE
  - PPTP
  - L2TP
  - BPA
- Dual WAN Policy (2 out of WAN1/ WAN2/3.5G):
  - Policy-based Load Balance
  - BoD (Bandwidth on Demand)
  - Fail-over

LAN Interface

- LAN1~ 4: 10/1000Base-TX, RJ-45

Other Hardware Interface

- Factory Reset Button
- Wireless on/off/WPS Button (Vigor2920Fn)
- Detachable Antenna x 3 (Vigor2920Fn)
- 2 x FXS, RJ-11 (Vigor2920FVn)
- 1 x Line, RJ-11 (Vigor2920FVn)

USB Port

- USB Host 2.0
- Supports 3.5G Mobile Broadband Modem as 2nd WAN
- Supports Printer Server
- Supports USB Memory Stick/ Hard Disk with File Systems:
  - FAT32/FAT16 File System
  - FTP Functions for File Sharing
  - Samba for Windows File Sharing

Content Security Management

- URL Keyword Filter (White and Black Lists)
- Web Content Filter Powered by commtouch
- IM/P2P Application Blocking

Security Firewall

- SPI (Stateful Packet Inspection; Flow Track)
- Object-based Policy
- DoS/DDoS Prevention
- MAC Address Filter
- Multi-NAT, DMZ Host, Port-redirection and Open Port
- IP Address Anti-spoofing
- E-mail Alert and Logging with Syslog Utility
- Bind IP to MAC Address
- Time Scheduled Control

VPN

- Up to 32 Tunnels Simultaneously
- Protocol: PPTP, IPSec, L2TP, L2TP over IPSec
- Encryption: MPPE and Hardware-based AES/DES/3DES
- Authentication: Hardware-based MD5, SHA-1
- IKE Authentication: Pre-shared Key and Digital Signature (X.509)
- LAN-to-LAN or Remote PC to LAN
- DHCP over IPSec
- NAT-traversal (NAT-T)
- Dead Peer Detection (DPD)
- VPN Pass Through

Bandwidth Management

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

WLAN Access Point

- IEEE 802.11n Compliant
- 64/128-bit WEP/WPA/WPA2 security
- MAC Address Access Control
- 4 x SSID
- 802.1x Authentication
- WPS
- WDS (Wireless Distribution System) to extend coverage range
- WLAN Isolation
- WLAN Rate Control
- IEEE 802.11e: WMM (Wi-Fi Multimedia)

Network Management

- Web-based user interface (HTTP/HTTPS)
- CLI (Command Line Interface): Telnet/SSH
- Quick Start Wizard
- 2-level Administration Access Control
- Configuration Backup/Restore
- Diagnostic Tools
- Firmware upgrade tools: TFTP/FPT/HTTP/TR-069
- Logging through Syslog utility
- SNMP traffic management MIB-II
- Management Session Time Out
- TR-069 and TR-104 Remote Management

Network Features

- DHCP Client/Relay/Server
- Routing Protocol:
  - Static Routing
  - RIP V2 Routing
- Port-based VLAN
- Packet Forward Acceleration
- IGMP Proxy
- Dynamic DNS
- DNS/Cache /Proxy
- NTP Client
- Call Scheduling
- RADIUS Client
- UP&P 30 sessions

VoIP

- Protocol: SIP, RTP/RTCP
- 6 SIP Registrars
- Automatic Gain Control
- Jitter Buffer (180ms)
- Codec Features :
  - G.711 A /u Law
  - G.723.1
  - G.726
  - G.729 A/B
  - iLBC*
  - VAD/CNG
  - G.168 Line Echo-cancellation
- DTMF Relay :
  - In Band
  - Out Band (RFC-2833)
  - SIP Info
- FAX/Modem Support :
  - G. 711 Pass-through
  - T. 38 for FAX*
- Supplemental Services :
  - Call Hold/Retrieve
  - Call Waiting
  - Call Waiting with Caller ID
  - Call Transfer
  - Call Forwarding (Always, Busy and No Answer)
  - DND (Do Not Disturb)
  - Call Barring (Incoming /Outgoing)
  - MWI (Message Waiting Indicator) (RFC-3842)
  - Hotline
  - Three-way Conference Call*

* Firmware Upgradeable

	VoIP	WLAN
Vigor2920 FVn	●	●
Vigor2920 Fn		●
Vigor2920 F		

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