Gateway to the Digital Home

2Wire Intelligent Gateways

Provide all of your subscribers with a superior customer experience while dramatically reducing operating costs with advanced, future-proof customer premise equipment.

Visit us on the Web at 2Wire.com for a complete catalog of our products, applications, and services.

Built to Suit Your Business Needs

2Wire gateways are available in a variety of broadband interfaces, and offer flexible wired and wireless networking options. While all of your customers will enjoy a high performance router, professional grade firewall, and simple browser based user interface, you can customize models with a variety of networking interfaces, and choose whether to include an integrated ADSL 1/2/2+ modem. All subscribers get the same high performance, easy to use broadband experience, enhanced by your ability to remotely diagnose issues, offer new services, and upgrade software.

Advanced Modem Technology
Enhanced bridge tap, long loop, and disturber performance raise the bar on TR-067 certified modems.

Unsurpassed Usability and Diagnostics
Greenlight™ CD-less install and auto-diagnostics engine assist users and technicians during installation and for a lifetime.

True Triple-Play Services Platform
Integrated data applications, built in VoIP optimized for DSL, support for wireless-wireline convergence, and industry first multicast IGMP proxy and snooping for video QoS.

Future Proof Quality of Service Platform
WAN and LAN side quality of service with extended policy management.

Integrated Churn Reducing Applications
Access Controls, Firewall Monitor, Web Remote Access and others provide more reasons to become and remain loyal subscribers.

The Modem Replacement

Models with an ADSL1/2/2+ broadband interface include advanced modem technology unique to 2Wire, raising the bar on modem performance. The 2Wire designed modem technology takes advantage of an extremely low noise, high linearity ADSL Analog Front End (AFE) and digital echo canceller, providing excellent long loop and bridge tap performance. Translation: The 2Wire design provides superior modem training capabilities; particularly important to subscribers at the edge of the DSL coverage area, or for whom you want to provide increased speed.

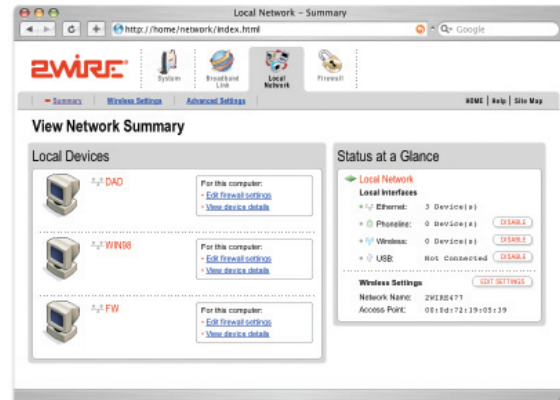## Wireless Has Never Been Easier or More Secure

2Wire's HyperG™ wireless technology virtually eliminates wireless 'coldspots' in the home, performing at higher rates, for further distances, with enough power to reach through cement walls. HyperG gateways have a unique third antenna used only for transmitting packets, providing a boost in performance and avoiding the power loss associated with switching the antenna use from transmit to receive. A set of receive-only antennas provides greater access point sensitivity, increasing wireless throughput and range. 2Wire gateways increase wireless bandwidth by using a high-powered transmitter that can be configured at levels from 100 to 400mW of power.

2Wire's next generation gateways automate wireless connectivity with the simple press of a button. Our exclusive FullPass™ instant connection technology enables any PC or service provider supported device to automatically connect to the correct wireless network with the highest level of Wi-Fi security available. And with 2Wire's wireless GuestPass™ feature, subscribers can now easily connect guests on their network, eliminating the need to divulge their wireless security key, or risk virus infection from the guest's computer.

Make Voice over IP a Wireless Reality

Ever wished your home phone and your mobile phone worked interchangeably? 2Wire gateways provide built-in VoIP port capabilities to support today's wireline voice needs, but are also the convergence point for telcos and their mobility partners to offer wireline-wireless service convergence.

2Wire's 802.11g-enabled gateways surpass traditional Voice over Wi-Fi features with extended handset battery life, automated wireless security, and integrated mobile handset functions with fixed VoIP lines. VoIP capabilities include full SIP ALG and back-to-back SIP user agent (proxy) to support additional ATA adapters, GSM-UMA (3GPP).

Browser Interface

We take the work out of managing a local network. Users see important information about the DSL connection, devices on the network, firewall logs, and more. Optional notification features let users know if there is a problem and guides them to a fix.

Ready, Set, Surf.

Greenlight CD-less DSL installation is the revolutionary answer to eliminating costs and calls. Subscribers order DSL, plug in their gateway, and are instantly ready to surf the Internet. Greenlight takes the work out of manual provisioning and reduces installation support calls.

Carrier Class QoS, Performance, & Manageability

Increasing your competitive offerings by introducing IP-enabled triple-play services through FTTN and FTTP networks also increases your need for a high-performance managed customer premises platform. 2Wire's software-enabled, custom system-on-a-chip delivers the processing, voice DSP, and software programming flexibility necessary to manage future applications. High performance DSL, line-speed routing throughput, stateful packet inspection (SPI) firewall, differentiated QoS and VoIP processing functions are manageable virtually without limitation. When combined with 2Wire's full management and upgrade capabilities via the TR-069* enabled Component Management System (CMS), you can rest assured that whether Fiber/Ethernet or ADSL, the 2Wire gateway is today's triple-play, future-proof platform.

·CMS is TR-69 based and includes both pre-WT-098 QoS provisioning and pre-WT-104 voice provisioning features.

Hardware Expansion

With an ever-evolving industry, the need may arise to add-on new hardware interfaces, to support new LAN interfaces, or new hardware enabled applications like attached storage. The 2Wire gateway supports a high-speed USB 2.0 host port capable of accommodating newly supported devices via a simple software upgrade.

Expand Your Offering

Attract more customers and retain the ones you have by offering broadband services and applications that enhance their broadband and networking experience. 2Wire gateways are VoIP ready and include churn-reducing data applications that you can offer customers for fees or as valuable features of your offer. Gateway based applications deliver whole-home support so there is no need to load software on every computer or buy multiple licenses.

Home Networking: Share files, printers, and a broadband connection with every computer and network ready device in the home.

Access Controls: Content Screening protects viewers from Websites with questionable content. Block or allow categories and control access to specific URLs. Internet Access Controls gives parents or employers the power to decide when users can access the Internet or use Internet applications such as chat and instant messaging, online gaming or all Internet access.

Firewall Monitor: Threats to the local network are continuously identified and logged for users to review. Firewall software is automatically updated with the latest available rule set. Subscribers determine when to receive notification of attacks and view detailed logs through the gateway user interface.

Web Remote Access: Fast, secure access to the home network remotely using any standard Web browser. Download files from home computers securely while away from home using a unique domain name and network password. Share the domain with family and friends who can then access specially marked folders, while private folders stay safe.

HomePortal® and OfficePortal™ Intelligent Gateway Models

Model Number	Broadband Interface	Ethernet Ports	Wireless Enabled	USB PC	USB Device	Voice Over IP	Form Factor
2070	ADSL2+	1	No	Yes	Yes	No	A
2700SG	ADSL2+	4	802.11g	Yes	Yes	No	B
2700HG	ADSL2+	4	HyperG	Yes	Yes	No	B
2700SGV	ADSL2+	4	802.11g	Yes	Yes	2 lines	B
2700HGV	ADSL2+	4	HyperG	Yes	Yes	2 lines	B
270	Ethernet	4	No	Yes	Yes	No	B
270HG	Ethernet	4	HyperG	Yes	Yes	No	B
270HGV	Ethernet	4	HyperG	Yes	Yes	2 lines	B

Technical Specifications

Local Network Interfaces*
· Ethernet 10/100 with Auto-crossover (1 or 4-port RJ-45)
· USB 1.1 slave, series-B port for PC and Mac connectivity
· USB 2.0 host, for additional devices
· Wireless 802.11g or high powered HyperG access point

ADSL Modem
· ADSL1, ADSL2, ADSL2+
· DSLAM interoperability: Alcatel, Lucent AnyMedia, Lucent Stinger, Cisco, AFC, Adtran, Catena, ECI, Copper Mountain, Nokia
· ANSI and ETSI loops

*Interfaces vary by model

Technical Specifications (continued)

VoIP Functionality
- Two (2) derived voice lines via an embedded RJ-11 jack
- SIP user agent interoperability with Broadsoft Broadworks v11.1, Nortel MCS 5200, and Sylantro servers.
- Audio codec: G711, software upgradeable to support G.726 and G.729a
- Software upgradable to support back-to-back SIP user agent (proxy function)
- Voice over Wi-Fi support for UMA and SCCAN wireless mobile phones

HyperG Wireless Functionality
- 802.11g wireless access point, backwards compatible with 802.11b
- 10 power settings available through gateway user interface, up to 400mW, for both 802.11b and 802.11g, configurable via CMS remote management
- WEP64, 128, WPA, 802.1x
- Multi SSID

Broadband Network Interfaces
- Integrated 2Wire ADSL modem ADSL 1, ADSL2, ADSL2 RE, ADSL2+ (1 RJ-11)
- Ethernet 10/100 with Auto-crossover (1 RJ-45)

Web Server
- Supports most popular ALGs: HTTP, FTP, H.323, FTP, AIM, MSGAMES, DIABLO, IPSEC-IKE/ESP, IRC, MSN, PPTP, RTP, RTSP and SIP

Software Tools and Diagnostics
- CD-based Windows and MacOS based install wizard (for non Greenlight installations)
- Greenlight provisioning available via factory-preloaded configuration files
- Bulletin Messaging system integrated with 2Wire CMS for subscriber messaging
- Network Support Tool monitors and fixes email and browser application settings

Configuration
- Simple Web-based user interface for easy configuration and diagnostics
- Quick summary page with shortcuts to most commonly used features

Network Protocol Support
- ATM UNI, UBR, VBRnrt, VBRrt, CBR
- Support up to 8 ATM PVCs in any configuration
- IPv4, IPv6 capable, TCP, UDP, ARP, ICMP
- DHCP client/server, DNS client/server, HTTP client and server
- Single IP and multi-IP support
- Multicast IGMP Proxy, IGMP Snooping
- PPPoE, PPPoA, PAP, CHAP, RFC 2684/1483 Ethernet
- Support up to 8 PPP links and up to 8 PVCs
- 802.1x broadband network authentication

Diagnostics and Management
- Remote management and provisioning via SSL connection from 2Wire's Component Management System (CMS) (DSL Forum TR-069)
- Supports TR-069 extensions WT-104 (VoIP provisioning) and WT-098 (QoS provisioning)
- Integrated gateway-based diagnostics automatically intervene during error conditions and intercept subscriber Web requests and provide self-guided resolutions
- ATM Ping, DNS Ping, ICMP Ping, Traceroute
- Web-based remote gateway technician view and remote management
- Multi-color indicator lights that monitor your connection and assist with troubleshooting

Security
- Integrated firewall includes stateful packet inspection (Layer 4) and local IP spoofing verification
- Supports stealth mode operation
- Unique signed security certificate manufactured into each gateway for TR-069 management authentication

NAT/PAT Support
- Standard NAT/PAT between LAN and WAN
- Automated NAT Pass-Thru for LAN client-initiated VPN tunnels (IPSec, PPTP, L2TP), SIP, H.323, RTP
- Easy to configure NAT pass-through (pinholes) for common applications (games, servers, etc.)
- DMZplus for automatic WAN IP assignment to a local PC

Software Upgrade
- Secure TR-069 upgrade procedure via 2Wire CMS

Standard Hardware Features
- TR-068 compliant industrial design and LED indicators
- Horizontal desktop placement, or vertical standing via provided stand
- Built-in wall mounting keyholes for subscriber mounting capability
- External power supply

Physical Specifications
- Form Factor A:
  6in x 7in x 2.25in (15.2cm x 17.8cm x 5.7cm); .8lbs (.36Kg)
- Form Factor B:
  10in x 8in x 2in (25.5cm x 20.4cm x 5.1cm); 1.4lbs (.64Kg)

Operating Environment
- Temperature: 0° to 40° C
- Humidity: 15% to 80%, non-condensing
- Altitude: 0' – 8,000' MSL

Minimum Requirements
- CD Setup Wizard supports Windows 98, 98 SE, 2000, ME, XP, Mac OSX (10.1) and higher (for non Greenlight installations)
- Gateway manual configuration and Greenlight installations require a standard Web browser (HTTP VX or higher)
- All computers and devices to be connected to the gateway must have an Ethernet network interface card or available USB port (Windows 98, 2000, ME or XP only. Mac OS 8.6 to 9.x, and 10.2 or higher)