Wireless Broadband Firewall Gateway

Quick Start Guide

Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: To assure continued compliance, (example - use only shielded interface cables when connecting to computer or peripheral devices) any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.
This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

IMPORTANT NOTE:
FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.
This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

About the Product

This Wireless Broadband Firewall Gateway provides SOHO and residential users the ideal solution for sharing a high-speed broadband Internet connection among a 11Mbps wireless network and a 10/100Mbps Fast Ethernet backbone. It integrates robust firewall and routing functions with advanced 802.11b wireless technology, maximizing your network security and efficiency while minimizing the network complexity and maintenance costs.

The product provides the following features:

Wireless Ethernet 802.11b Access Point: Provides a wireless Ethernet 802.11b access point for extending the communication media to WLAN.

Fast Ethernet Switch: A 4-port 10/100Mbps fast Ethernet switch is supported in the LAN site and automatic switching between MDI and MDIX for 10Base-T and 100Base-TX ports is supported. An Ethernet straight or cross-over cable can be used directly, this fast Ethernet switch will detect it automatically.

Network Address Translation (NAT): Allows multi-users to access outside resource such as Internet simultaneously with one IP address/one Internet access account. Besides, many application layer gateway (ALG) are supported such as web browser, ICQ, FTP, Telnet, E-mail, News, Net2phone, Ping, NetMeeting, MS Messenger, QUAKE and others.

Firewall: Supports SOHO firewall with NAT technology. Automatically detects and blocks the Denial of Service (DoS) attack. The hacker's attack will be recorded associated with timestamp in security logging area. An URL blocking feature is also provided. More firewall function will be always implemented, visit our web site for more information. A real time altering email will be sent to your account for your future action.

Domain Name System (DNS) relay: Provides an easy way to map the domain name (a friendly name for user such as www.yahoo.com) and IP address. When local machine sets its DNS server with this router's IP address. Then every DNS conversion request packet from the PC to this router will be forwarded to the real DNS in outside network. After the router gets the reply, then forwards it back to the PC.

Dynamic Domain Name System (DDNS): The Dynamic DNS service allows you to alias a dynamic IP address to a static hostname. This dynamic IP address is the WAN IP address. To use the service, you must first apply an account from this free Web server http://www.dyndns.org/.

Virtual Private Network (VPN): Allows user to make a tunnel with remote site directly to secure the data transmission among the connection. User can use embedded PPTP client supported by this router to make a VPN connection. Or user can run the PPTP client in PC and the router already provides IPSec and PPTP pass through function to establish a VPN connection if user likes to run the PPTP client in his local computer.

PPP over Ethernet (PPPoE): Provides embedded PPPoE client function to establish a connection. Users can get greater access speed without changing the operation concept, sharing the same ISP account and paying for one access account. No PPPoE client software is required for local computer. The "Dial-on-Demand" and Idle timer are implemented for better connection usage management.

Virtual Server: User can specify some services to be visible from outside users. The router can detect incoming service request and forward it to the specific local computer to handle it. For example, user can assign a PC in LAN acting as WEB server inside and expose it to the outside network. Outside user can browse inside web server directly while it is protected by NAT. A **DMZ** host setting is also provided to a local computer exposed to the outside network, Internet.

Rich Packet Filtering: Not only filter the packet based on IP address, but also based on Port numbers. It will increase the performance in LAN and WAN, also provide a higher-level security control.

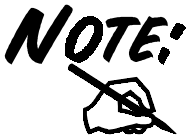
Static and RIP1/2 Routing: Supports an easy static routing table or RIP1/2 routing protocol to support routing capability.

Dynamic Host Control Protocol (DHCP) Client and Server: In the WAN site, the DHCP client can get an IP address from the Internet Server Provider (ISP) automatically. In the LAN site, the DHCP server can allocate up to 253 client IP addresses and distribute them including IP address, subnet mask as well as DNS IP address to local computers. It provides an easy way to manage the local IP network.

SNTP: An easy way to get the network real time information from SNTP server.

Web based GUI and Remote Management: Supports web based GUI for configuration and management. It is a user-friendly with on-line help, providing necessary information and assist user timing. It also supports remote management capability for remote user to configure and manage this product.

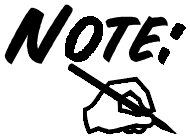
Firmware Upgradeable: The device can be upgraded to be the latest firmware through the WEB based GUI.



The radio range per cell is approximately 35 meters indoors and up to 100 meters outdoors. Any object blocked between the Gateway and the client PC will decrease the efficiency of data transmission.

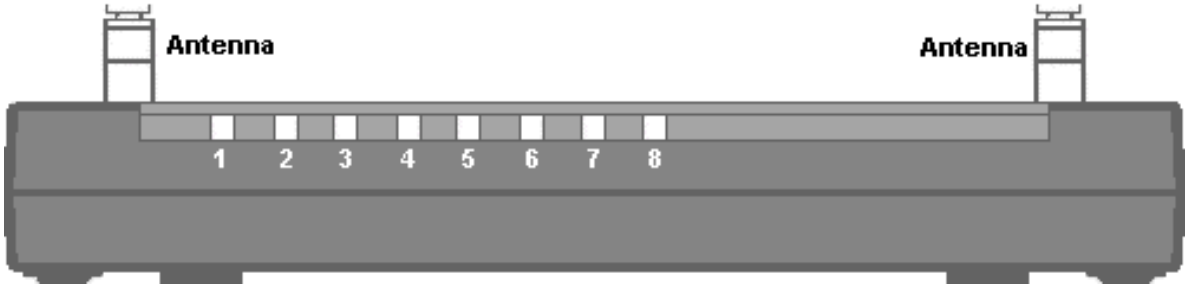
Package Contents

1. Wireless Broadband Firewall Gateway
2. One CD containing the on-line manual
3. One straight-through CAT5 Ethernet cable
4. One power adapter
5. This Quick Start Guide



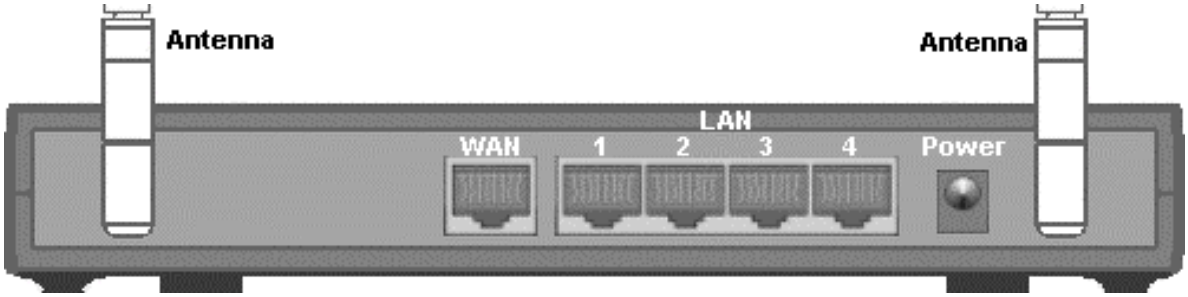
For more detailed instructions on configuring and using the Wireless Broadband Firewall Gateway, please refer to the on-line manual.

The Front Panel LEDs



LED		Meaning
1	**PWR**	Lit green when power adapter is connected.
2	**LAN 1**	Lit green when connected at 100 Mbps. Lit orange when connected at 10 Mbps. Flashes when sending/receiving data.
3	**LAN 2**	
4	**LAN 3**	
5	**LAN 4**	
6	**WAN**	Lit when connected to a WAN device. Flashes when sending/receiving data.
7	**PPP/SYS**	Lit orange when system ready. Lit green when the PPPoE or PPTP connection is established. Flashes orange when upgrading firmware.
8	**WLAN**	Lit green when wireless connection is established. Flashes when sending/receiving data.

The Rear Ports

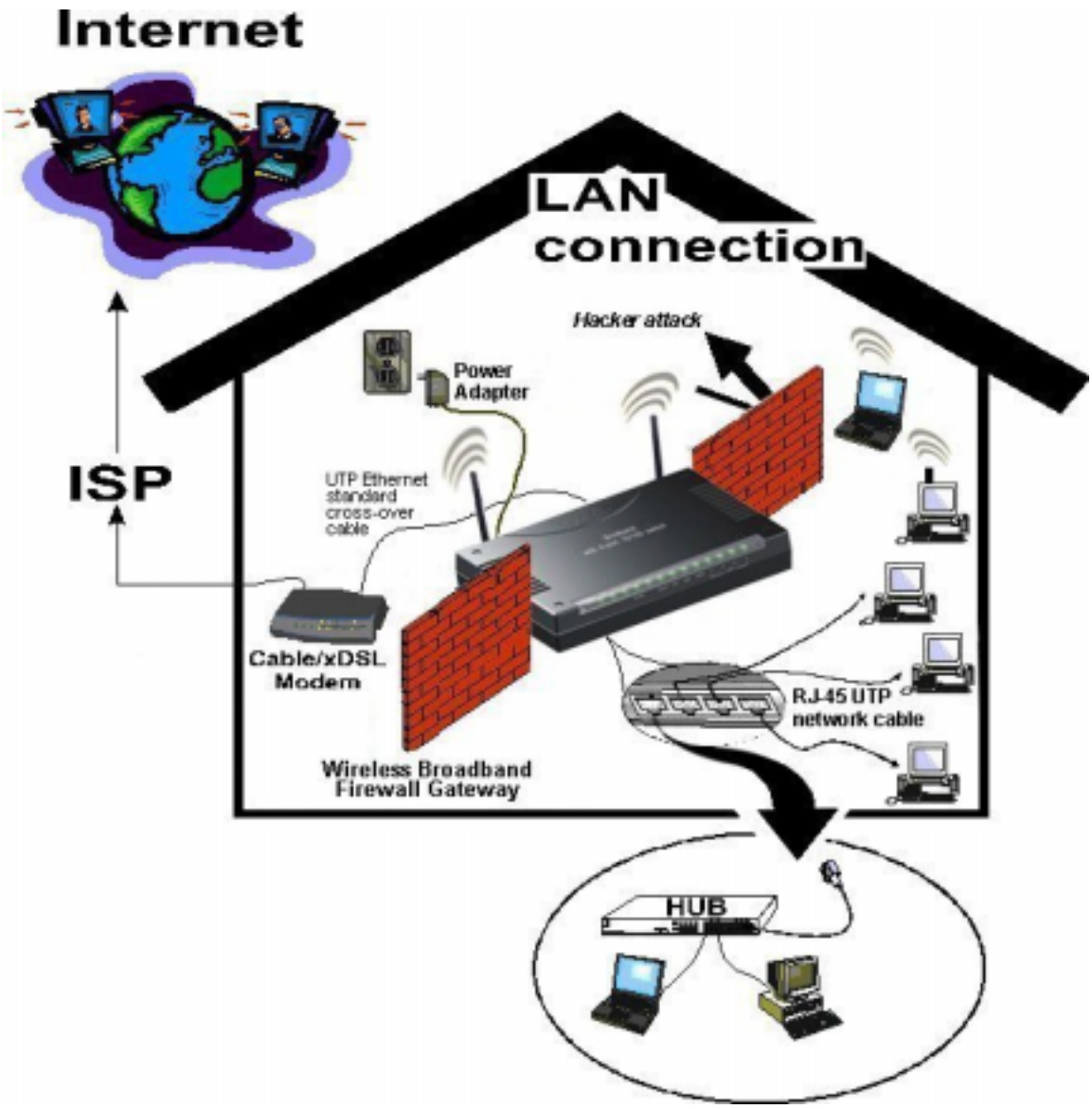


Port	Connecting Instruction
Power (jack)	Connect the supplied power adapter to this jack.
LAN 1-4 (RJ-45 connector)	Connect a straight-through or crossover Ethernet cable to these four ports when connecting to a LAN of 10Mbps or 100Mbps such as an office or home network.
WAN (RJ-45 connector)	Connect a straight-through Ethernet cable to this port when connecting to a hub. Connect a crossover cable to this port when connecting to a DSL/Cable bridge or modem for establishing WAN connections.

Connecting the Product

Refer to the following steps to connect the Wireless Broadband Firewall Gateway to a WAN (Wide Area Network) and a LAN (Local Area Network):

1. Connect the Wireless Broadband Firewall Gateway as shown below.
2. Power on the device.
3. Ensure the Power, LAN, and WAN LEDs are lit.

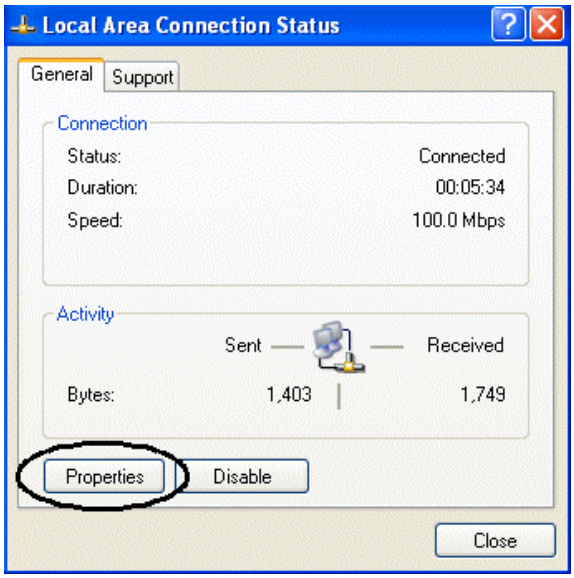


Configuring PC in Windows XP

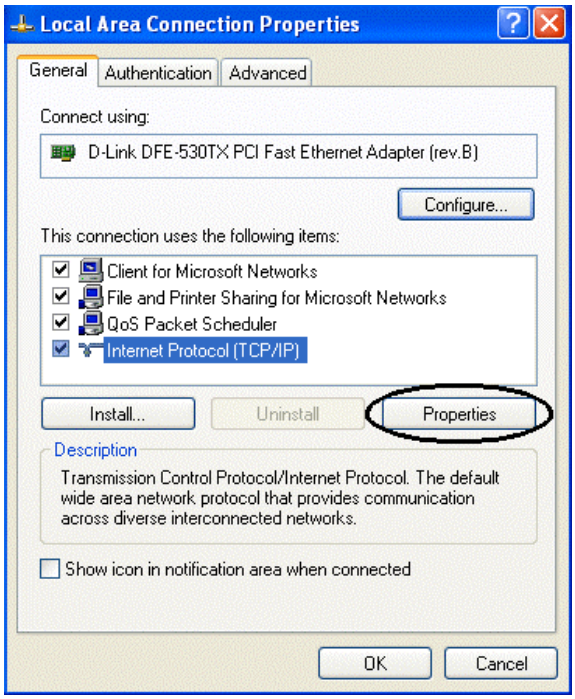
1. Go to **Start / Control Panel (in Classic View)**. In the Control Panel, double-click on **Network Connections.**

2. Double-click **Local Area Connection**.

3. In the **Local Area Connection Status** window, click **Properties**.

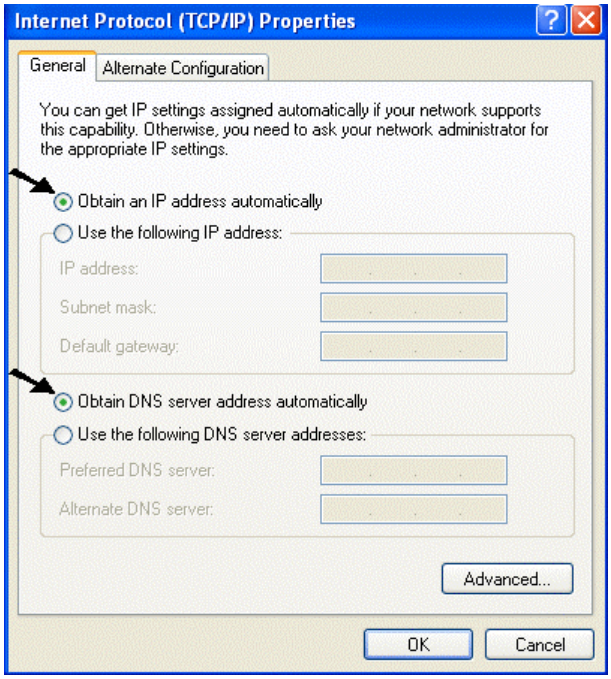


4. Select **Internet Protocol (TCP/IP)** and click **Properties**.



5. Select the **Obtain an IP address automatically** and the **Obtain DNS server address automatically** radio buttons.

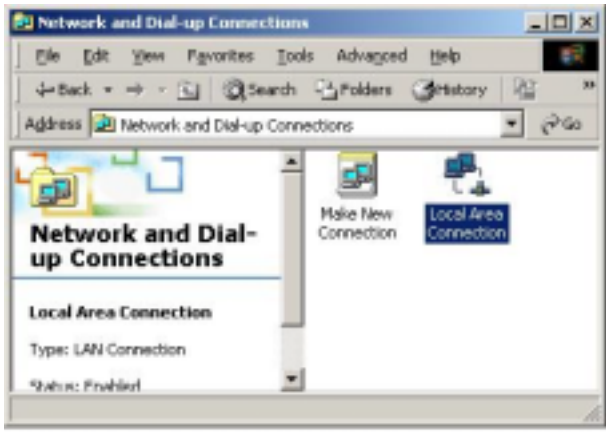
6. Click **OK** to finish the configuration.



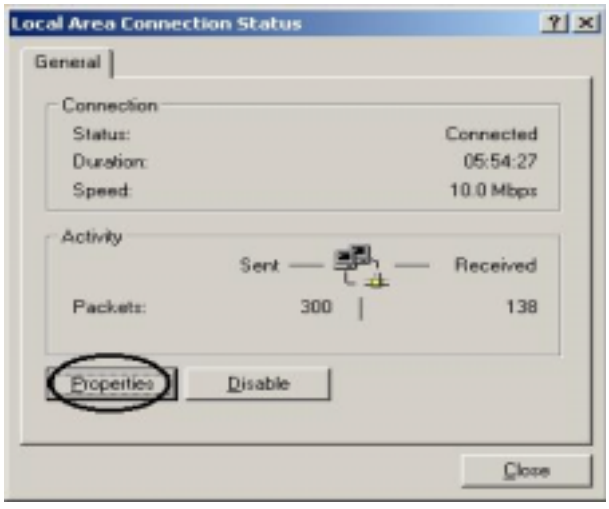
Configuring PC in Windows 2000

1. Go to **Start / Settings / Control Panel**. In the Control Panel, double-click on **Network and Dial-up Connections**.

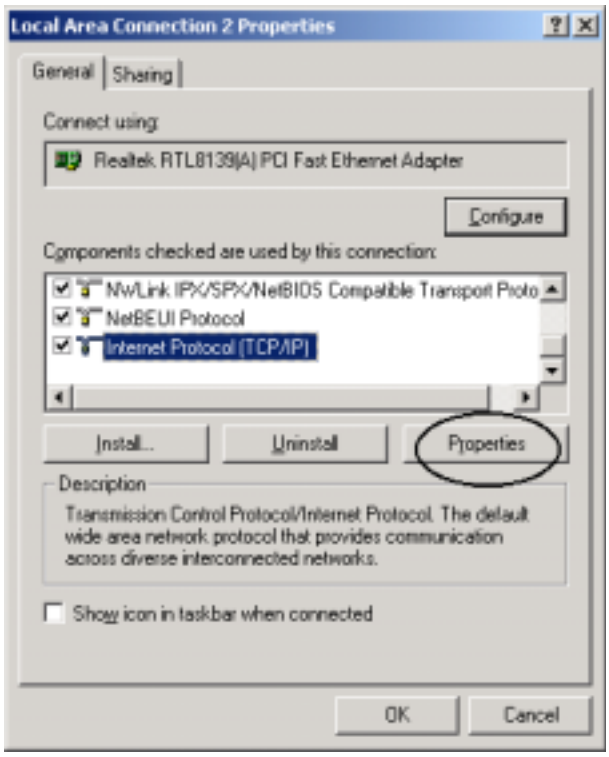
2. Double-click **Local Area Connection**.



3. In the **Local Area Connection Status** window, click **Properties**.

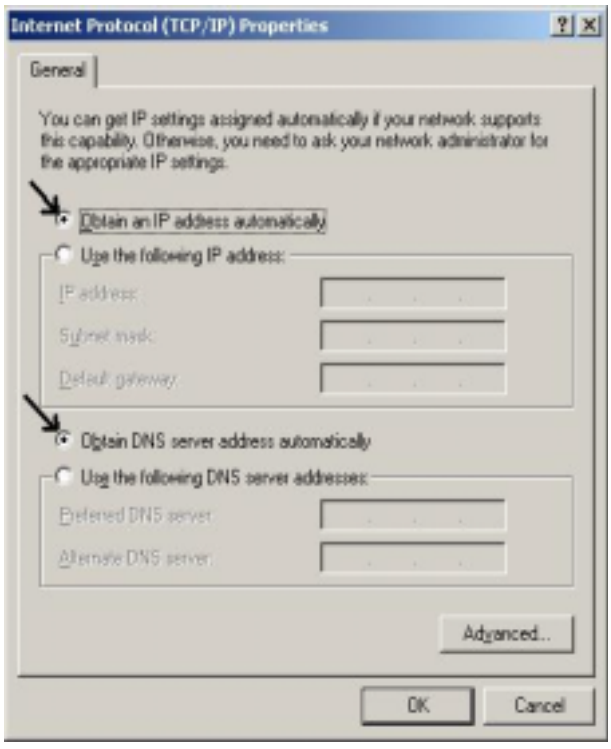


4. Select **Internet Protocol (TCP/IP)** and click **Properties**.



5. Select the **Obtain an IP address automatically** and the **Obtain DNS server address automatically** radio buttons.

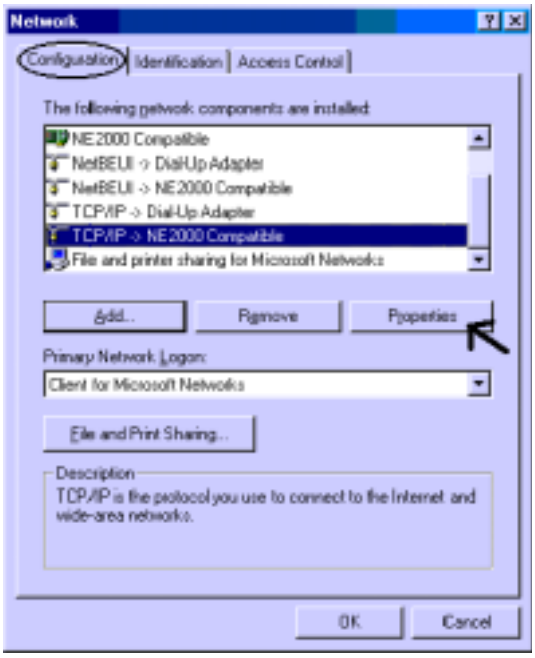
6. Click **OK** to finish the configuration.



Configuring PC in Windows 95/98/Me

1. Go to **Start / Settings / Control Panel**. In the Control Panel, double-click on **Network** and choose the **Configuration** tab.

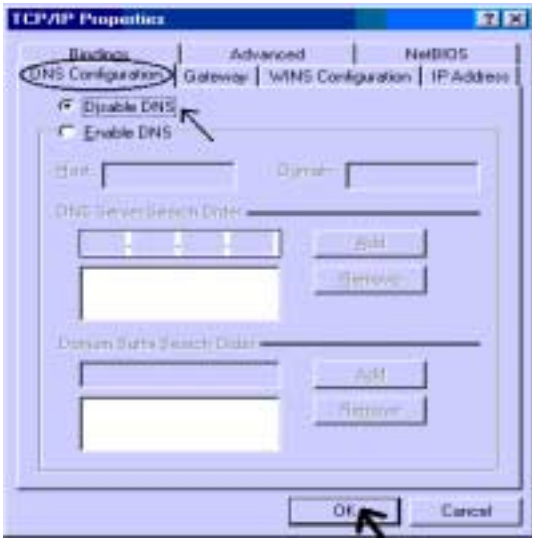
2. Select **TCP/IP -> NE2000 Compatible**, or any Network Interface Card (NIC) in your PC.



3. Select the **Obtain an IP address automatically** radio button.

4. Then select the **DNS Configuration** tab.

5. Select the **Disable DNS** radio button and click **OK** to finish the configuration.



Configuring PC in Windows NT4.0

1. Go to **Start / Settings / Control Panel**. In the Control Panel, double-click on **Network** and choose the **Protocols** tab.

2. Select **TCP/IP Protocol** and click **Properties**.

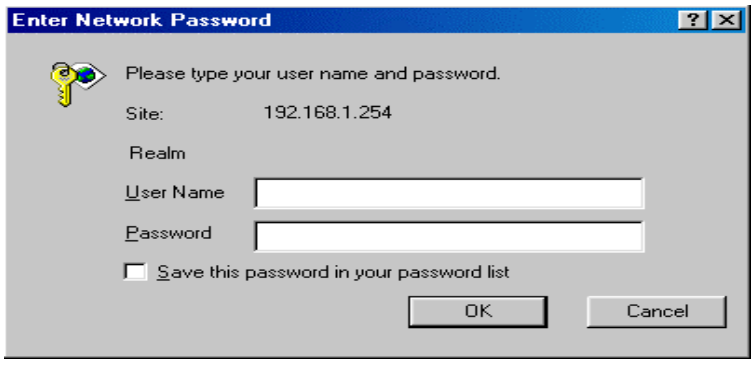
3. Select the **Obtain an IP address from a DHCP server** radio button and click **OK**.

Configuring the Product

To configure this device, you must have IE 5.0 or above installed in PC.

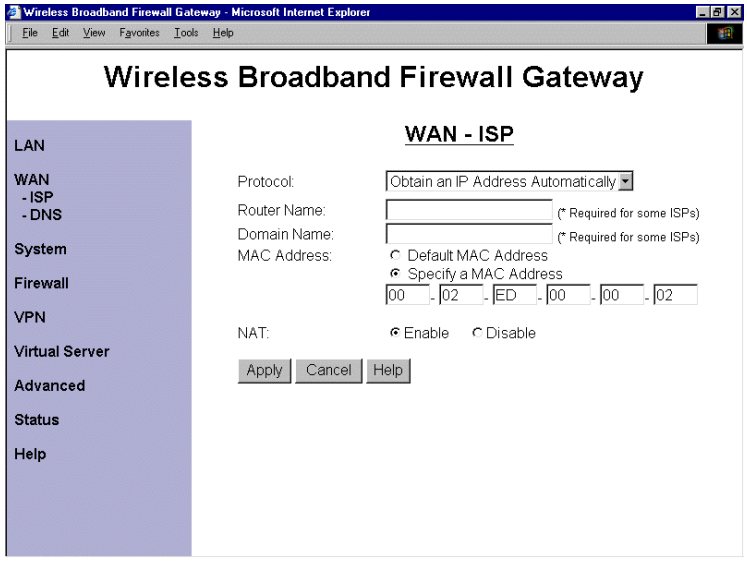
1. Open web browser and type http://192.168.1.254 in the browser's address box. This number is the default IP address for this device. Press **Enter**.

2. A user name and password prompt will appear. Just click **OK**. There is no password protection in default.

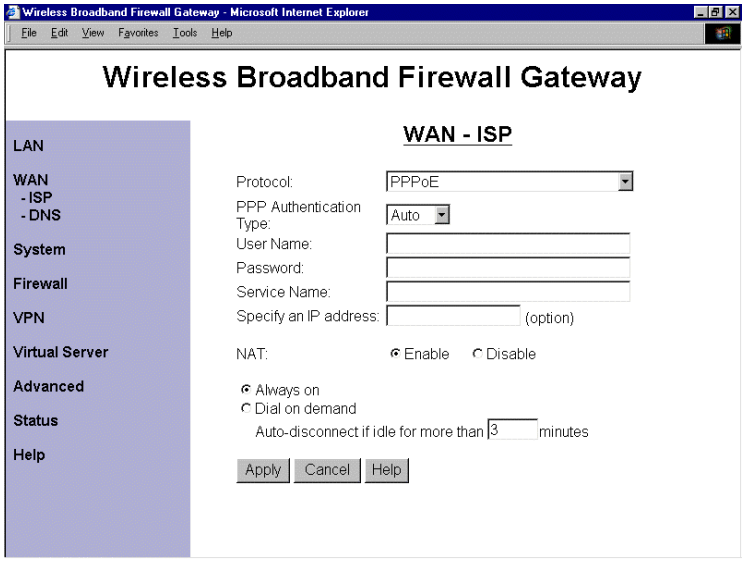


3. Click WAN -> ISP in left pane and select one of the protocols for connecting with remote site such as ISP from the following:

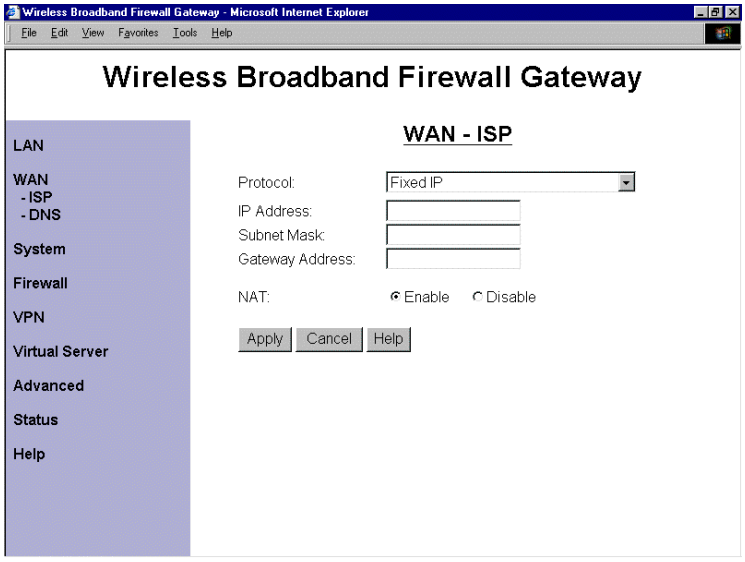
. **Obtain an IP Address Automatically**



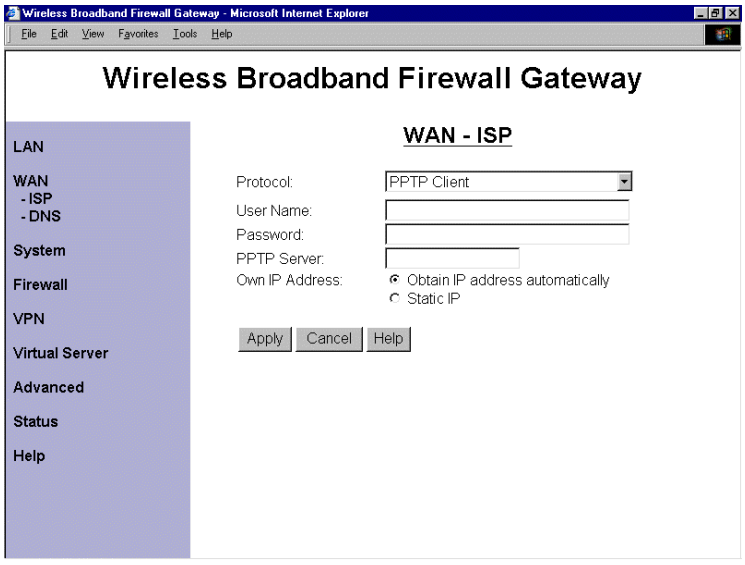
. **PPPoE**



. **Fixed IP**



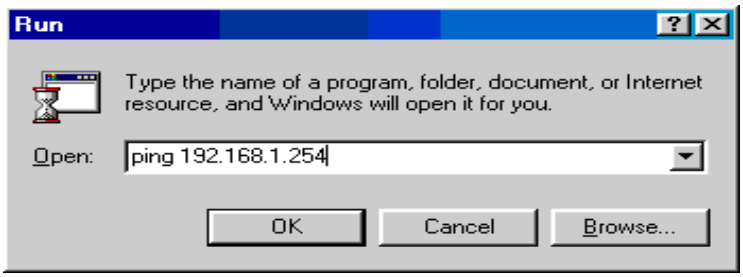
. **PPTP Client**



4. Click **Apply** to store all configurations. The Wireless Broadband Firewall Gateway will reboot automatically.

Connecting to the Internet

To see if this Wireless Broadband Firewall Gateway is visible on the local network, go to **Start** / **Run**. In the Run dialog box, type **"Ping 192.168.1.254"** and press **OK**.



Open your Web browser to begin surfing the Internet.