D-Link®

Version 1.0 | October 02, 2013

User Manual

Wireless N300 Easy Wall-Plug Router

GO-RTW-N300

Preface

D-Link reserves the right to revise this publication and to make changes in the content hereof without obligation to notify any person or organization of such revisions or changes.

Manual Revisions

Revision	Date	Description
1.0	October 02, 2013	• Initial release

Trademarks

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This purpose of this product is to create a constant network connection for your devices. As such, it does not have a standby mode or use a power management mode. If you wish to power down this product, please simply unplug it from the power outlet.

Table of Contents

Product Overview

Package Contents

GO-RTW-N300 Wireless N300 Easy Wall-Plug Router

Quick Installation Guide

Ethernet Cable

If any of the above items are missing from your package, please contact your reseller.

System Requirements

Network Requirements	• An Ethernet-based Cable or DSL modem • IEEE 802.11n or 802.11g wireless clients • 10/100 Ethernet
Web-based Configuration Utility Requirements	**Computer with the following:** • Windows®, Macintosh, or Linux-based operating system • An installed Ethernet adapter **Browser Requirements:** • Internet Explorer 8 or higher • Firefox 8.0 or higher • Safari 4.0 or higher • Google Chrome (16.0.9.12.75) **Windows® Users:** Make sure you have the latest version of Java installed. Visit www.java.com to download the latest version.

Introduction

TOTAL COVERAGE

Provides greater wireless signal rates even at farther distances for incredible wireless coverage.

ULTIMATE PERFORMANCE

The D-Link Wireless N300 Easy Wall-Plug Router (GO-RTW-N300) lets you create a secure wireless network to share photos, files, music, video, printers, and network storage throughout your home. Connect the GO-RTW-N300 router to a cable or DSL modem and share your high-speed Internet access with everyone on the network. In addition, this router includes a Quality of Service (QoS) engine that keeps digital phone calls (VoIP) and online gaming smooth and responsive, providing a better Internet experience.

TOTAL NETWORK SECURITY

The GO-RTW-N300 router supports all of the latest wireless security features to prevent unauthorized access, be it from over the wireless network or from the Internet. Support for WPA/WPA2 standards ensure that you'll be able to use the best possible encryption method, regardless of your client devices. In addition, this router utilizes dual active firewalls (SPI and NAT) to prevent potential attacks from across the Internet.

* Maximum wireless signal rate derived from IEEE Standard 802.11n and 802.11g specifications. Actual data throughput will vary. Network conditions and environmental factors, including volume of network traffic, building materials and construction, and network overhead, lower actual data throughput rate. Environmental conditions will adversely affect wireless signal range.

Features

- **Faster Wireless Networking** - The GO-RTW-N300 provides an up to 300 Mbps* wireless connection with other 802.11n wireless clients. This capability allows users to participate in real-time activities online, such as video streaming, online gaming, and real-time audio.

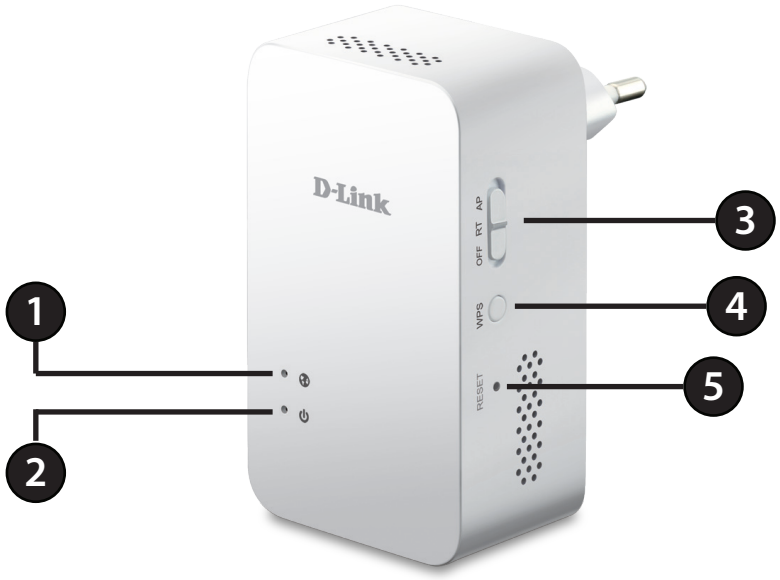
- **Portable and Easy to Use** - Simply plug the GO-RTW-N300 into a power outlet at home or abroad to create an instant wireless network wherever you are.

- **Compatible with 802.11g/b Devices** - The GO-RTW-N300 is still fully compatible with the IEEE 802.11g/b standards, so it can connect with existing 802.11g/b devices.

- **User-friendly Setup Wizard** - Through its easy-to-use web-based user interface, the GO-RTW-N300 lets you control what information is accessible to those on the wireless network, whether from the Internet or from your company's server. Configure your router to your specific settings within minutes.

* Maximum wireless signal rate derived from IEEE Standard 802.11n and 802.11g specifications. Actual data throughput will vary. Network conditions and environmental factors, including volume of network traffic, building materials and construction, and network overhead, lower actual data throughput rate. Environmental conditions will adversely affect wireless signal range.

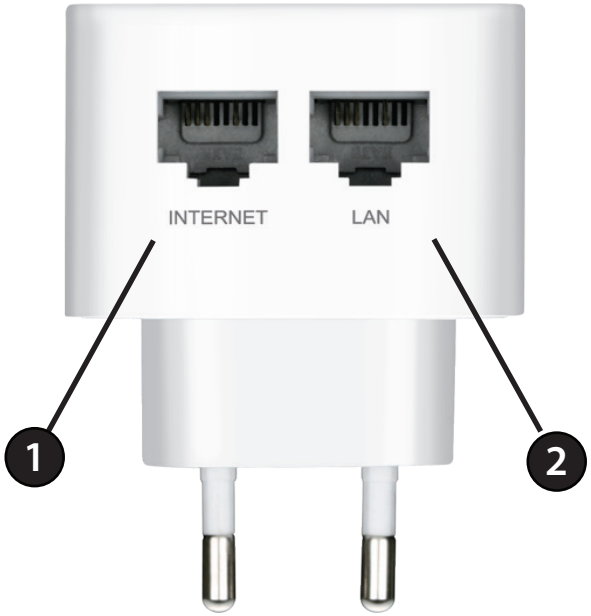
Hardware Overview
Front/Side



1	Power LED	This indicates the current power status of the GO-RTW-N300, as detailed in the table below.
2	Internet LED	This indicates the current Internet link status of the GO-RTW-N300, as detailed in the table below.
3	Mode Selector Switch	Slide this switch to select between Router Mode and Access Point Mode
4	WPS Button	Press this to activate Wi-Fi Protected Setup(WPS) to connect other wireless devices automatically.
5	Reset Button	Pressing the Reset button for 6 seconds restores the router to its original factory default settings.

LED Indicator	Color	Status	Description
Power	Blue	Solid	The device is powered on and operating properly
		Blinking	The device is connecting to a device through WPS
		Light off	The device is powered off
Internet	Blue	Solid	The device is successfully connected to the Internet
		Light off	The Internet connection is not established

Hardware Overview
Bottom



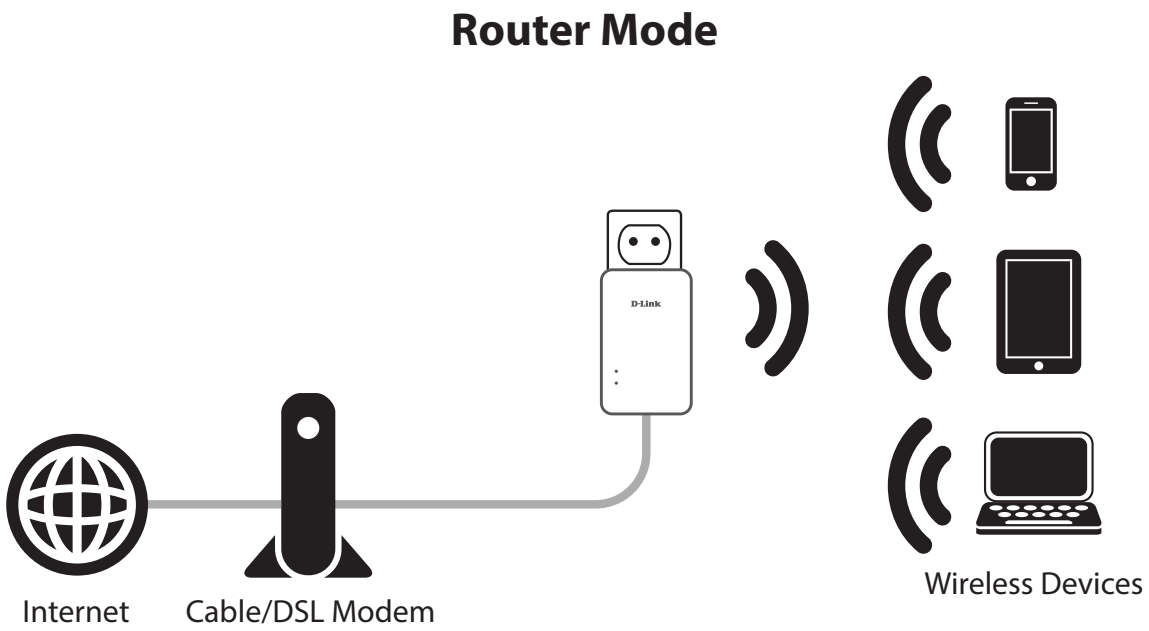
1	Internet Port	Connects to your broadband modem through an Ethernet cable.
2	LAN Port	Connects 10/100 Ethernet devices such as laptop computers.

Operation Modes

Depending on how you want to use your GO-RTW-N300 will determine which mode you use. The following pages describe each mode to help you figure out which one to use.

Router Mode

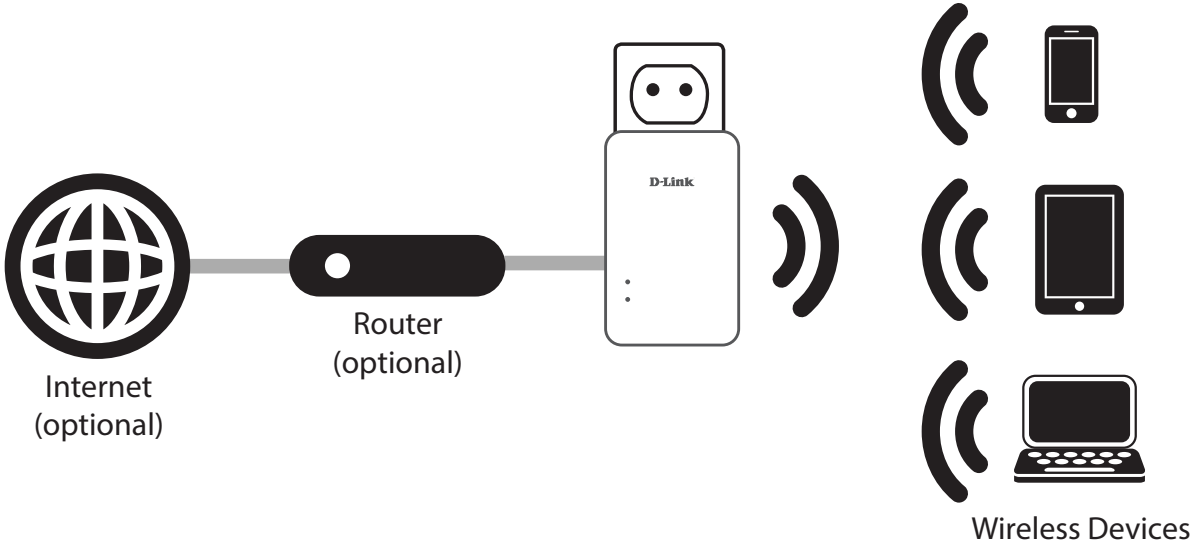
In Router Mode, the GO-RTW-N300 connects to your cable modem, DSL modem, or other Internet source and shares your Internet connection with your devices wirelessly, providing Internet access for an entire home or office.



Access Point Mode

In Access Point Mode, the GO-RTW-N300 connects your wireless devices together, but does not provide routing functionality. It also allows a connected wired device to connect to your other devices wirelessly. This can be useful if you already have an existing Internet router that does not have built-in wireless capabilities. You can also use this to create a private wireless network without Internet access so that your devices can securely connect to one another without being exposed to the Internet or other computers.

Access Point Mode



Wireless Installation Considerations

The D-Link wireless router lets you access your network using a wireless connection from virtually anywhere within the operating range of your wireless network. Keep in mind, however, that the number, thickness and location of walls, ceilings, or other objects that the wireless signals must pass through, may limit the range. Typical ranges vary depending on the types of materials and background RF (radio frequency) noise in your home or business. The key to maximizing wireless range is to follow these basic guidelines:

1. Keep the number of walls and ceilings between the D-Link router and other network devices to a minimum - each wall or ceiling can reduce your adapter's range from 3-90 feet (1-30 meters.) Position your devices so that the number of walls or ceilings is minimized.

2. Be aware of the direct line between network devices. A wall that is 1.5 feet thick (.5 meters), at a 45-degree angle appears to be almost 3 feet (1 meter) thick. At a 2-degree angle it looks over 42 feet (14 meters) thick! Position devices so that the signal will travel straight through a wall or ceiling (instead of at an angle) for better reception.

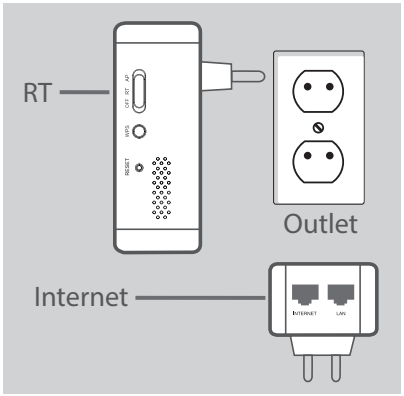
3. Building materials make a difference. A solid metal door or aluminum studs may have a negative effect on range. Try to position access points, wireless routers, and computers so that the signal passes through drywall or open doorways. Materials and objects such as glass, steel, metal, walls with insulation, water (fish tanks), mirrors, file cabinets, brick, and concrete will degrade your wireless signal.

4. Keep your product away (at least 3-6 feet or 1-2 meters) from electrical devices or appliances that generate RF noise.

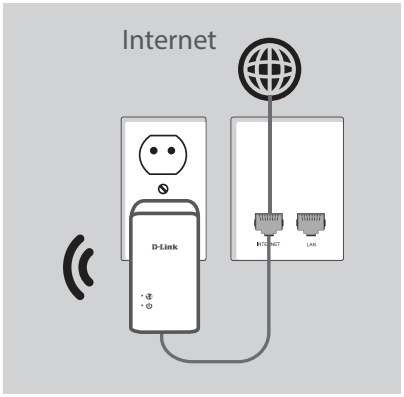
5. If you are using 2.4 GHz cordless phones or X-10 (wireless products such as ceiling fans, lights, and home security systems), your wireless connection may degrade dramatically or drop completely. Make sure your 2.4 GHz phone base is as far away from your wireless devices as possible. The base transmits a signal even if the phone in not in use.

Setting Up With a Web Browser

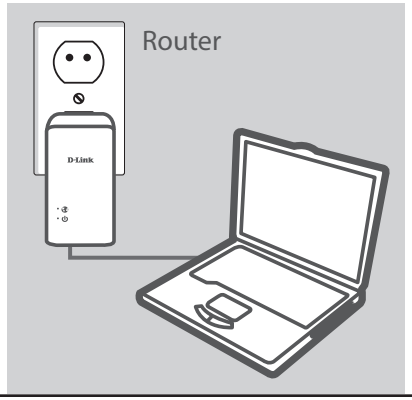
1. Move the switch on the top of the GO-RTW-N300 to the desired mode, then plug it into a wall outlet near your cable/ DSL modem or router. Verify that the power LED is lit before continuing.



2. Connect one end of your existing Ethernet cable into the Ethernet port of your cable/DSL modem or router and then plug the other end of the cable into the Internet port of the GO-RTW-N300. Verify that the Internet LED is lit before continuing.



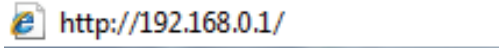
3. Plug one end of the included Ethernet cable into the GO-RTW-N300 LAN port. Plug the other end of the cable into your laptop's Ethernet port.



4. Open a web browser. In Router Mode, first time users will automatically be directed to the setup wizard. For more details about this wizard, refer to page 13.

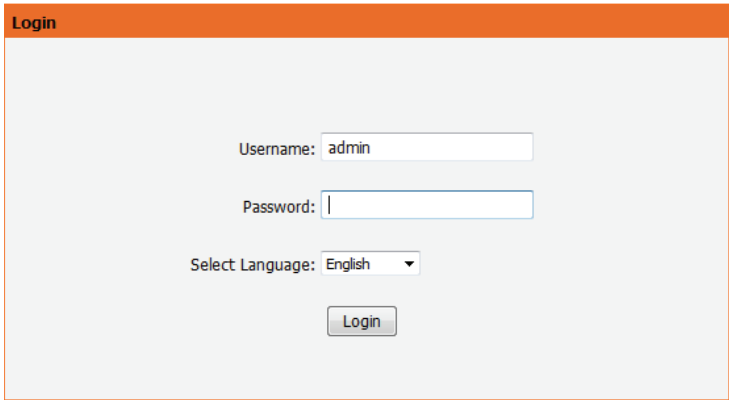
If the setup wizard does not appear, or the GO-RTW-N300 is in Access Point Mode, enter the IP address of the device in Router Mode (default **http://192.168.0.1**) or Access Point Mode (default **http://192.168.0.50**) in the address bar.

Router Mode



Access Point Mode

5. If you have set up the GO-RTW-N300 before, you will see a login screen. Type "admin" as your user name, and enter the password for the GO-RTW-N300. By default, the password should be left blank. The configuration interface will open, and you can configure the different settings of the GO-RTW-N300.



For detailed information on configuring your device, refer to the following sections of the manual:

- "Router Mode" on page 13.
- "Access Point Mode" on page 52.

Router Mode
Initial Setup Wizard

If this is your first time setting up the GO-RTW-N300, open your web browser. You will automatically be directed to the **Wizard Setup Screen**.

This wizard is designed to guide you through a step-by-step process to configure your new D-Link router and connect to the Internet.

The network map at the top of the page shows your current network connections. A green tick represents a successful connection between two devices. The IP address of each device will also be displayed.

Select your WAN network type, then enter your wireless SSID and key.

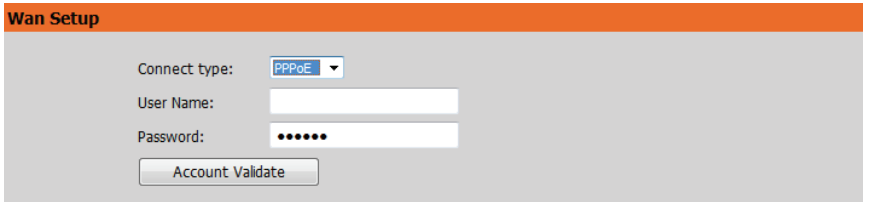
DHCP: Select this if you use a cable modem, or if you are not sure what connection type you use.

PPPoE: Select this if you use a DSL modem, or if you have to enter a username and password for your Internet connection.

Static: Select this only if instructed to by your Internet service provider.

Note: *It is recommended to write down the SSID and security key, followed by the login password.*

If you selected **PPPoE**, you will need to enter user name and password provided to you by your Internet service provider.



Select **Static** if your Internet Service Provider has supplied you with a specific IP address for your connection.

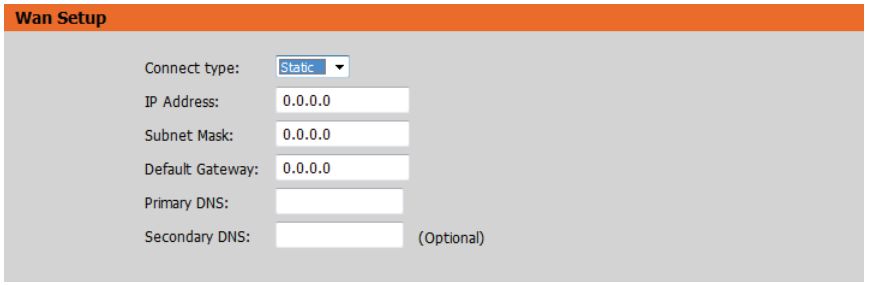
Connect Type: Select **Static** from the drop-down menu.

IP Address: Enter the static IP address supplied by your ISP.

Subnet Mask: Enter the subnet mask supplied by your ISP.

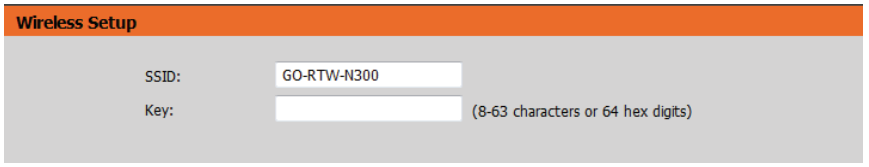
Default Gateway: Enter the default gateway supplied by your ISP.

Primary/ Secondary DNS: Enter the primary DNS server supplied by you ISP. You can also enter secondary address for backup purposes.



Enter the SSID (name) to identify your wireless network, and a key (password).

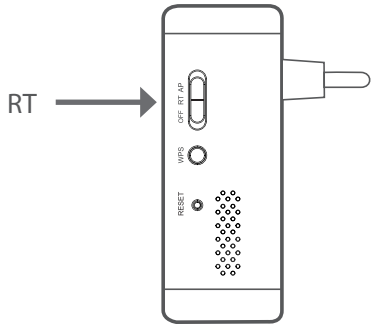
Click **Save and Connect** to save the current settings and complete the setup wizard.



Manual Configuration

This section will show you how to configure your new D-Link wireless router using the web-based configuration utility.

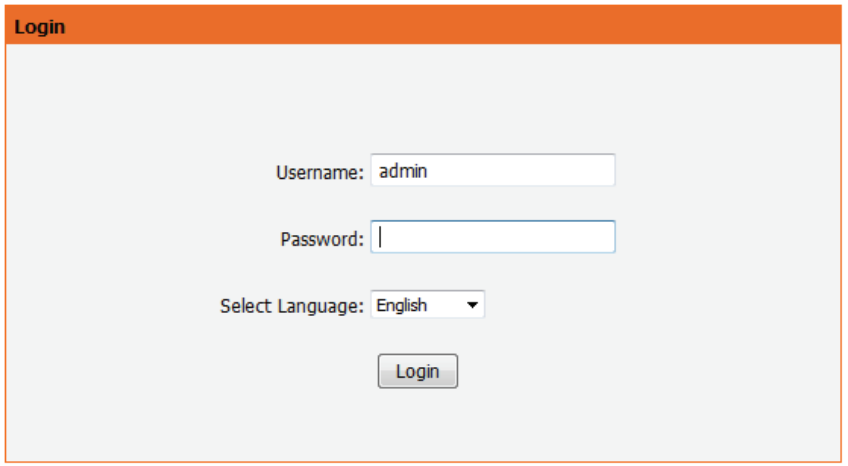
This section describes the configuration interface for Router Mode. Make sure that the mode selector switch is in the Router position (RT) on your GO-RTW-N300.



To access the configuration utility, open a web-browser such as Internet Explorer and enter the IP address of the router (**192.168.0.1**).

Enter **admin** in the User Name field. By default, the password should be left blank.

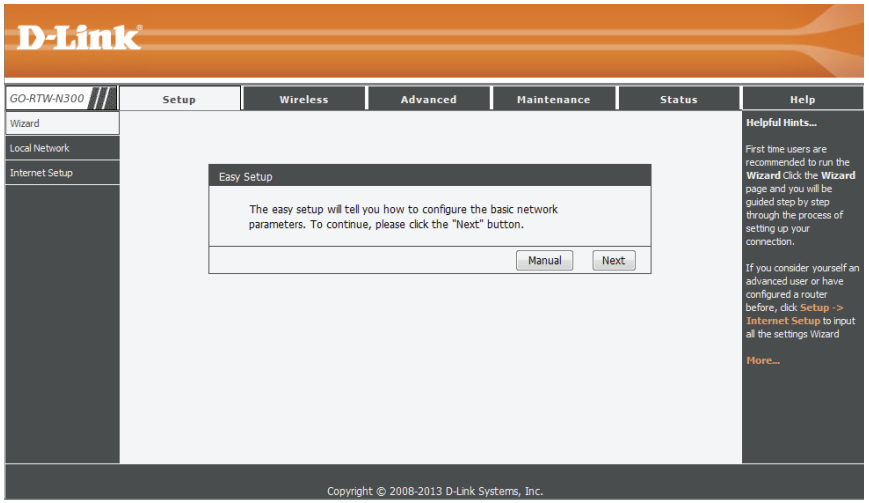
If you get a **Page Cannot be Displayed** error, please refer to the **Troubleshooting** section for assistance.



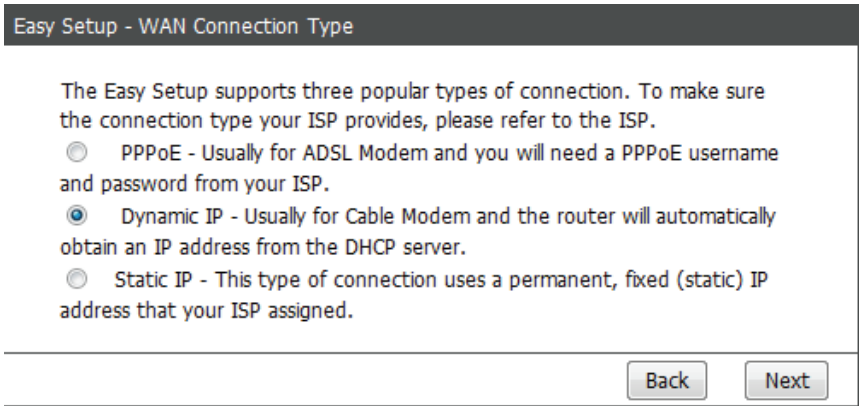
Setup

Wizard

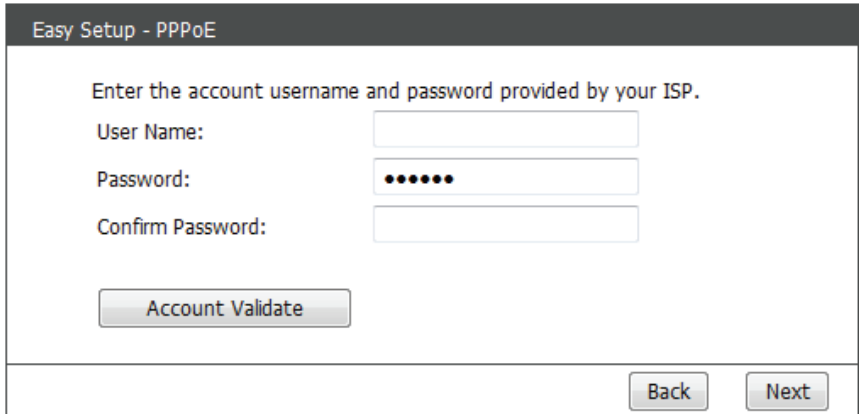
You can configure your WAN (Internet) connection using a wizard or manually**.** Click **Next** to use the Setup Wizard, or click **Manual** to configure the WAN connection manually, which will take you to the **Setup** > **Internet Setup** page. The Setup Wizard will be explained on the next pages and Internet Setup will be explained in the **Internet Setup** section.



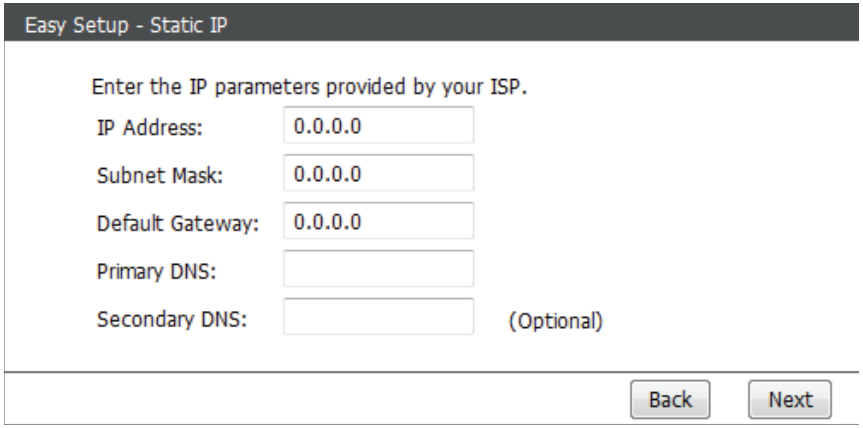
After you click **Next**, the wizard will appear. Select the connection type for your WAN and click **Next** to continue.



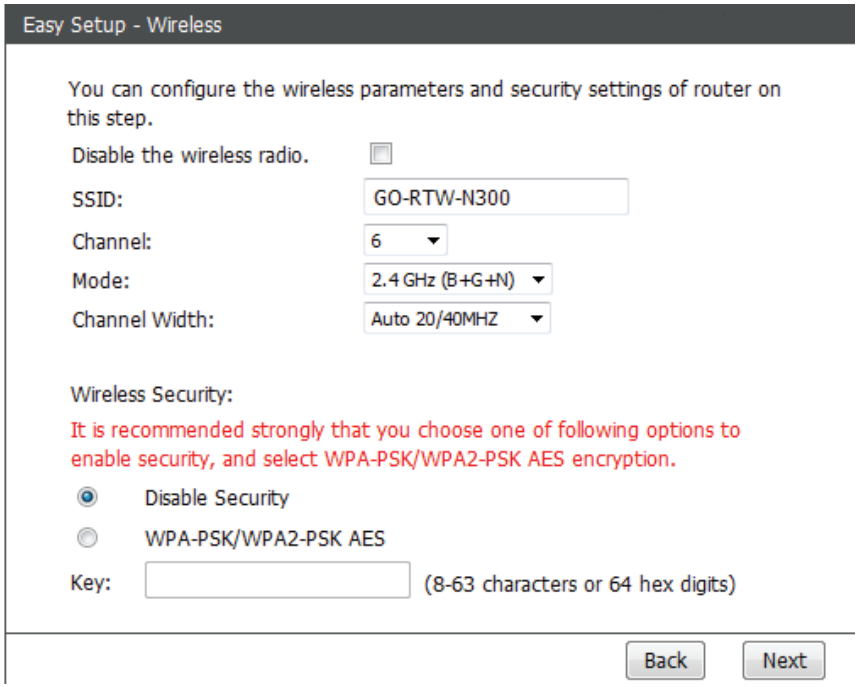
If you selected PPPoE, enter your PPPoE username and password twice and click **Next** to continue. Click the **Account Validate** button to validate your information and make sure it is correct.



If you selected Static IP, enter your IP address, subnet mask, default gateway, primary DNS, and secondary DNS, and click **Next** to continue.



You can also configure the wireless network and security settings. If you prefer not to, click **Disable the wireless radio**.
Click **Next** to continue.



SSID: Enter the SSID name.

Channel: Use the dropdown menu to select the wireless channel.

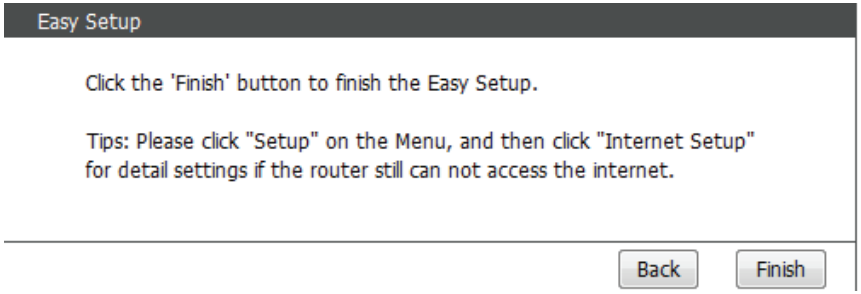
Mode: Use the dropdown menu to specify the wireless mode.

Channel Width: Use the dropdown menu to select the channel bandwidth. If you selected the 802.11n, *802.11 b/g,* or *802.11 b/g/n* wireless modes, the available options are *20 MHz* and *20/40MHz*. For the others, 20MHz is the only option.

Disable Security: You can also choose to not use wireless security by selecting this, but this is not recommended.

WPA/WPA2-Personal: If you select this, enter a passkey in the box that appears.

Click **Finish** to complete the setup process. When the router has finished saving, the **Status** > **Device Info** window will open.



Local Network

This section will allow you to change the local network settings of the router and to configure the DHCP settings.

LAN Interface: Use this section to configure the router's local network settings.

DHCP Server Settings: Use this section to configure the GO-RTW-N300's built-in DHCP server settings.

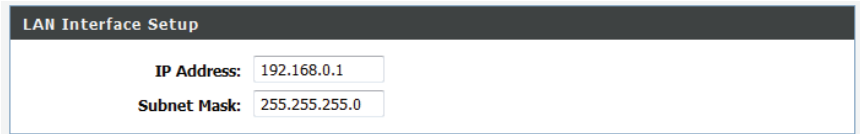
DHCP Static IP Configuration: Use this section to add a new DHCP Static IP configuration.

DHCP Static IP Table: Displays information about the devices that have a static DHCP assigned from the GO-RTW-N300. The information includes the *IP Address* and *MAC Address*. You can delete or edit an existing static IP configuration in the table.

IP Address: Enter the IP address of the router. The default IP address is 192.168.0.1.

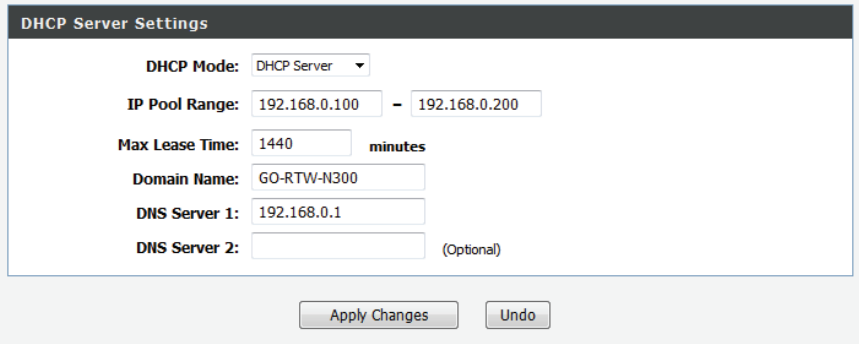
If you change the IP address, once you click **Apply**, you will need to enter the new IP address in your browser to get back into the configuration utility.

Subnet Mask: Enter the subnet mask. The default subnet mask is 255.255.255.0.



Click the **Apply Changes** button to save any changes made.

DHCP stands for Dynamic Host Control Protocol. The GO-RTW-N300 has a built-in DHCP server. The DHCP Server will automatically assign an IP address to the computers on the LAN/private network. Be sure to set your computers to be DHCP clients by setting their TCP/IP settings to "Obtain an IP Address Automatically." When you turn your computers on, they will automatically load the proper TCP/IP settings provided by the GO-RTW-N300. The DHCP Server will automatically allocate an unused IP address from the IP address pool to the requesting computer. You must specify the starting and ending address of the IP address pool.



DHCP Mode: Choose the **DHCP Server** option in the pulldown menu to enable the DHCP server on your router. Choose **None** to disable this function.

IP Pool Range: Enter the starting and ending IP addresses for the DHCP server's IP assignment.

Note: *If you statically (manually) assign IP addresses to your computers or devices, make sure the IP addresses are outside of this range or you may have an IP conflict.*

Max Lease Time: The maximum length of time for the IP address lease. Enter the Lease time in minutes.

Domain Name: Enter the domain name.

DNS Server 1: Enter the IP address of the first DNS Server.

DNS Server 2: Enter the IP address of the second DNS Server, if there is one.

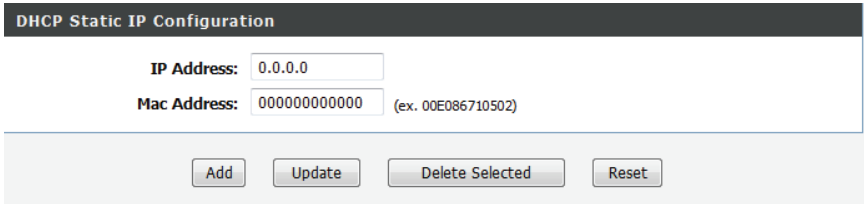
When you have finished configuring the new DHCP Server Settings, click the **Apply Changes** button.

If you want a computer or device to always have the same IP address assigned, you can create a DHCP reservation. The router will assign the IP address only to that computer or device.

Note: *This IP address must be within the DHCP IP address range.*

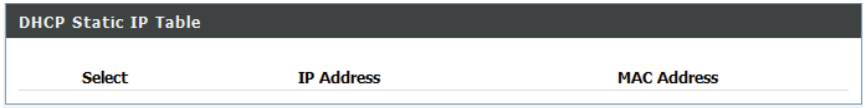
IP Address: Enter the IP address you want to assign to the computer or device. This IP address must be within the DHCP IP address range.

MAC Address: Enter the MAC address of the computer or device.



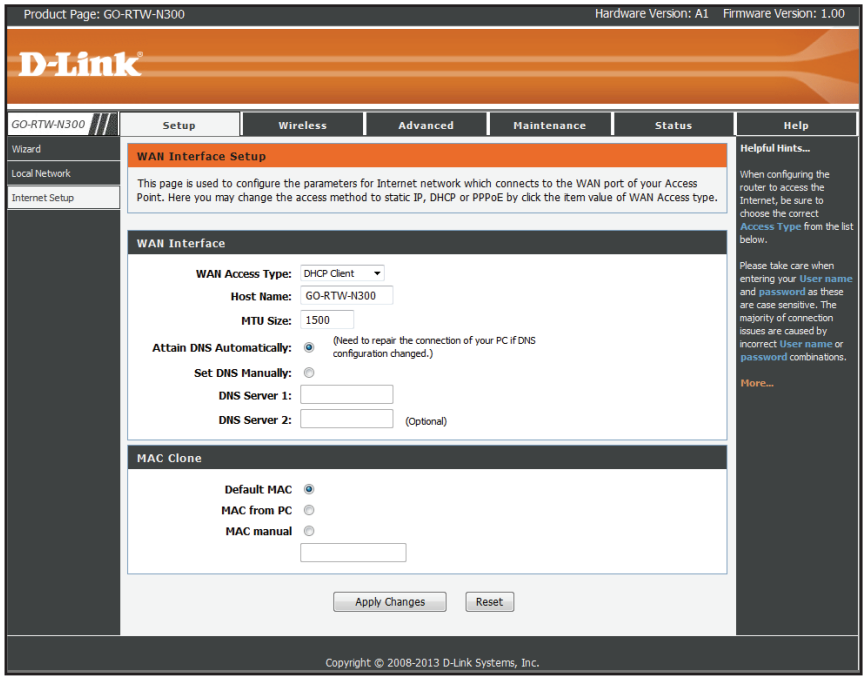
When you have finished configuring the new DHCP reservation, click the **Add** button to activate your reservation. It will then be displayed in the DHCP Static IP Table below.

The DHCP Static IP Table displays the IP reservations that have been created. To make any changes, select a reservation in the table by clicking the circle next to it and click **Update**. To delete a reservation, select a reservation and click **Delete Selected**.



Internet Setup

This section allows you to manually configure your router's Internet WAN settings.



WAN Access Type: Select the WAN interface type.

If you choose DHCP Client, please configure the following fields:

Host Name: Enter the host name of the router.

MTU Size: Enter the MTU size.

Attain DNS Automatically: Click this if the DNS is to be obtained automatically.

Set DNS Manually: Click this to specify a DNS server. You can enter up to two DNS servers.

MAC Clone Select the MAC address to be used for the connection. Select **Default MAC** to use the router's MAC address. Select **MAC from PC** to copy your PC's MAC address, or select **MAC Manual** to manually enter a MAC address in the field provided.

When you have finished configuring the WAN settings, click the **Apply Changes** button.

If you choose Static IP, please configure the following fields;

WAN Access Type: Select **Static IP** from the drop-down menu.

IP Address: Enter the static IP address which was provided to you by your Internet Service Provider (ISP).

Subnet Mask: Enter the subnet provided by your ISP.

Default Gateway: Enter the default gateway provided by your ISP.

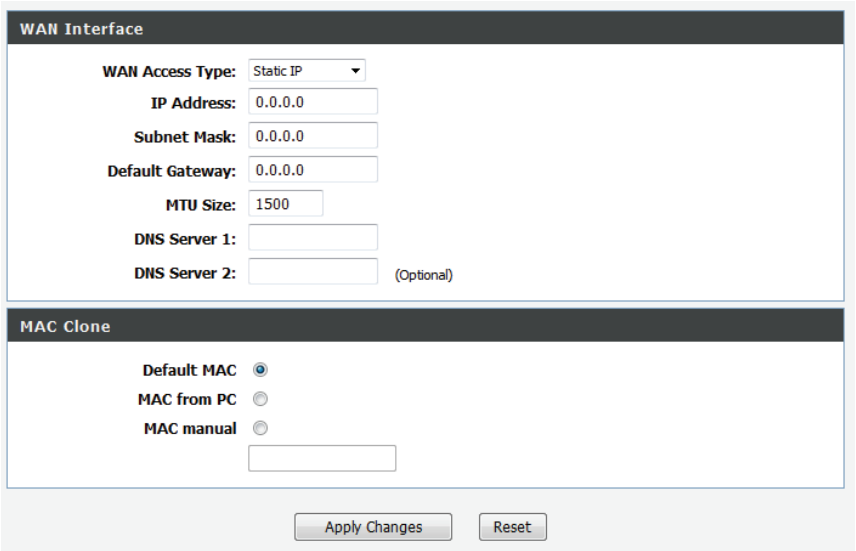
MTU Size: Enter the Maximum Transmission Unit size. The default value is 1500.

DNS Server 1: Enter the primary DNS server address provided by your ISP.

DNS Server 2: Enter the secondary DNS server address provided by your ISP.

MAC Clone: Select the MAC address to be used for the connection. Select **Default MAC** to use the router's MAC address. Select **MAC from PC** to copy your PC's MAC address, or select **MAC Manual** to manually enter a MAC address in the field provided.

Click **Apply Changes** to save the current configuration, or click **Reset** to discard.



If you choose PPPoE, please configure the following fields:

WAN Access Type: Select **PPPoE** from the drop-down menu.

User Name: Enter the user name provided to you by your ISP.

Password: Enter the password provided to you by your ISP.

Service Name: Enter the service name if your ISP provided you with one, otherwise leave this field empty.

MTU Size: Enter the Maximum Transmission Unit size. The default value is 1492.

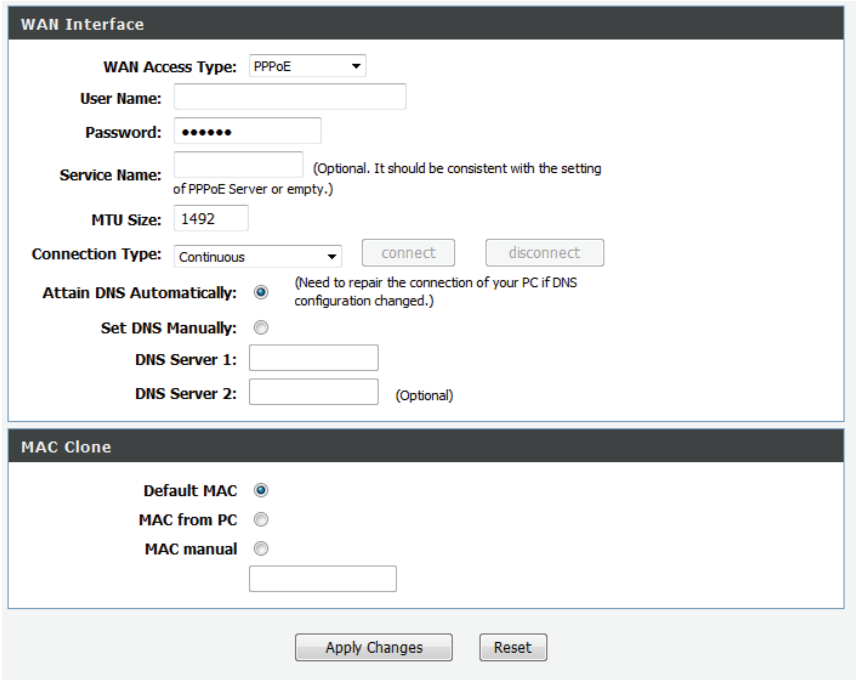
Static IP Address: If your ISP or network administrator requires you to have a static IP address for your connection, enter it here.

Connection Type: Select **Continuous, Connect on Demand,** or **Manual** as the connection type from the drop-down menu. If you select Manual, the connect and disconnect buttons will be available.

Attain DNS Automatically: Click this if the DNS is to be obtained automatically.

Set DNS Manually: Click this to specify a DNS server. You can enter up to two DNS servers.

MAC Clone: Select the MAC address to be used for the connection. Select **Default MAC** to use the router's MAC address. Select **MAC from PC** to copy your PC's MAC address, or select **MAC Manual** to manually enter a MAC address in the field provided.



When you have finished configuring the WAN settings, click the **Apply Changes** button.

Wireless

Wireless Basics

This page allows you to configure the wireless LAN settings. You can also configure the wireless encryption and wireless network parameters.

Enable SSID Broadcast: Enable SSID broadcast if you want the router to transmit its SSID publicly so other wireless devices can discover it.

Enable Wireless Isolation: Enable wireless isolation to prevent connected wireless devices from connecting to other wireless devices that are also connected to the router.

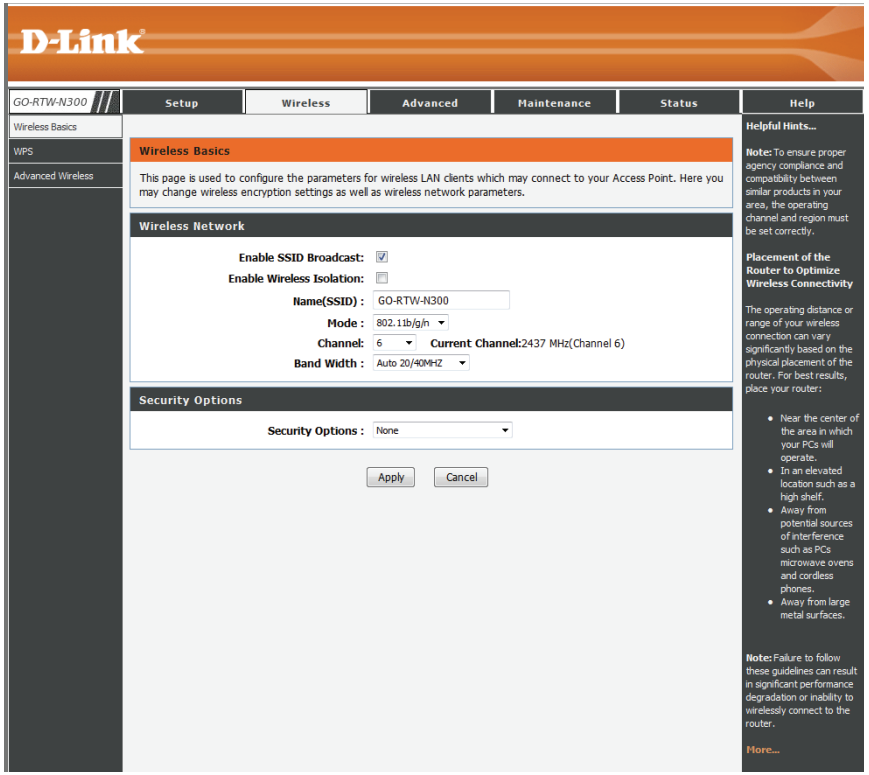
Name (SSID): Enter the SSID name you want to use for your wireless network.

Mode: Use the dropdown menu to specify the wireless mode.

Channel: Use the dropdown menu to select the wireless channel.

Band Width: Use the dropdown menu to select the channel bandwidth. If you selected the 802.11n, 802.11 b/g, or 802.11 b/g/n wireless modes, the available options are 20 MHz and 20/40 MHz. For the others, 20 MHz is the only option.

Security Options: Select a wireless security encryption option. You can also choose to not use one by selecting **None**, but this is not recommended.



Wireless security helps to prevent unauthorized users from accessing your wireless network, or seeing data being passed between the router and wireless clients. The GO-RTW-N300 supports two popular wireless security protocols, you should select a protocol based on the wireless clients which will be accessing your network.

Wired Equivalent Privacy (WEP)

This is an older form of wireless security and should only be used if your wireless clients do not support the newer WPA or WPA2 protocols.

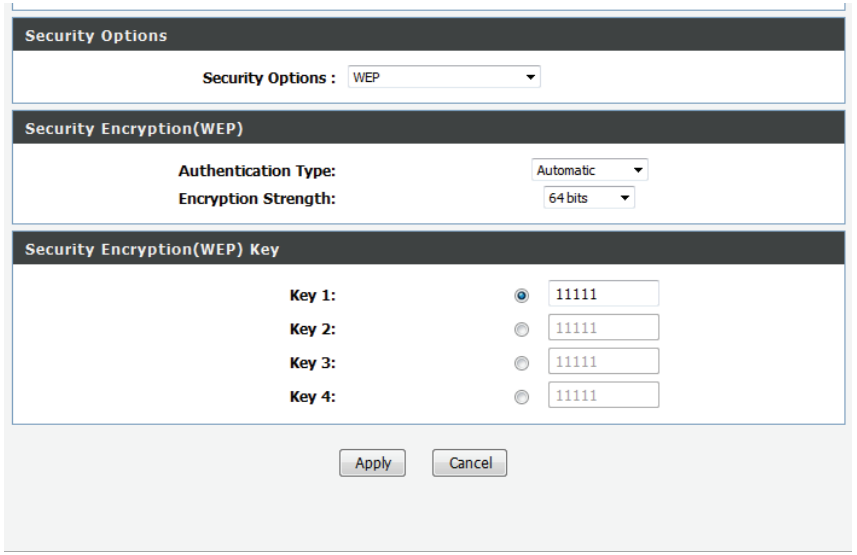
Security Options: Select **WEP** from the drop-down menu.

Authentication Type: Select either **Automatic** or **Shared Key** as the authentication type.

Encryption Strength: Select the encryption strength from the drop-down menu. **64-bit** - A 64-bit key comprises a string of 10 hexadecimal characters, or 5 ASCII characters. **128-bit -** A 128-bit key comprises a string of 26 hexadecimal characters, or 13 ASCII characters.

Key 1-4: You can predetermine up to 4 WEP keys. Select the WEP key you wish to use by clicking on the radio buttons next to the keys. Select whether you wish to use **HEX** or **ASCII** characters in your key using the drop-down menu. Enter the desired key in the field provided.

Click **Apply** to save the current settings.



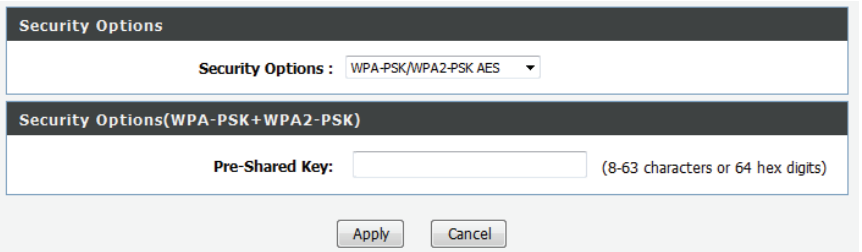
Wi-Fi Protected Access (WPA/WPA2)

This is a newer and more secure protocol for wireless security. It uses a cipher combined with a pre-shared key (password) to encrypt data being sent over the wireless network. It is recommended that you use this security method if it is supported by your wireless clients.

Security Options: Select **WPA-PSK/WPA2-PSK AES** from the drop-down menu.

Pre-Shared Key: Enter a pre-shared key (password) to secure your wireless network. Wireless clients will require this password in order to connect to your network. It is recommended that you make a record of this password for future reference.

Click **Apply** to save the current settings.

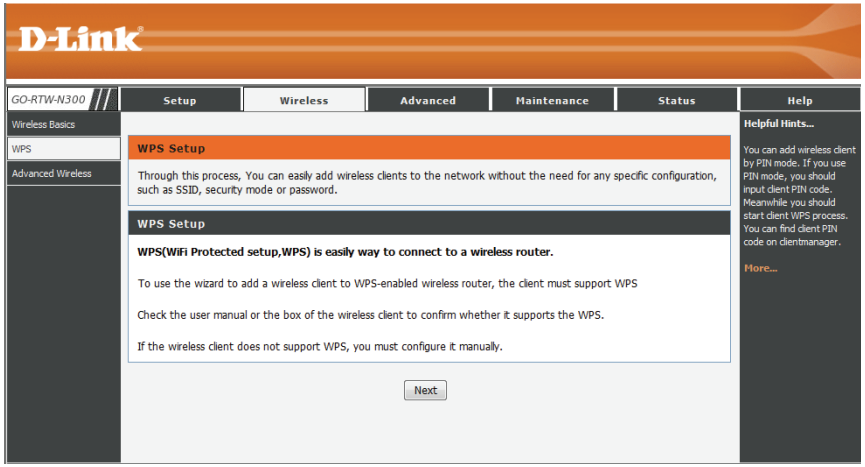


Wi-Fi Protected (WPS) Setup

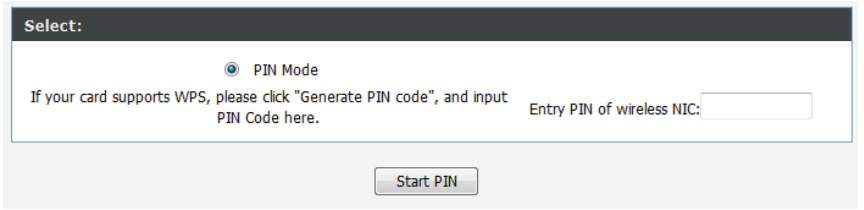
Wi-Fi Protected Setup (WPS) System is a simplified method for securely connecting new devices to your network. The process as easy as pressing a button (the Push-Button Connection method) or correctly entering the 8-digit code (the PIN method).

If you wish to use the Push-Button Connection (PBC) method, simply press the WPS button on the side of the router. The power LED will begin to flash. Within 120 seconds, press the WPS button on the device that you wish to connect. The power LED will turn solid green if the connection is successful.

To connect using the PIN method, click **Next** to begin the WPS setup process.



Enter the PIN for the wireless NIC and click **Start PIN**. If successful, you will then be taken to another screen and a message will tell you to run WPS in the client device within 2 minutes.



Advanced Wireless

Enable Wireless: Enable wireless on your network.

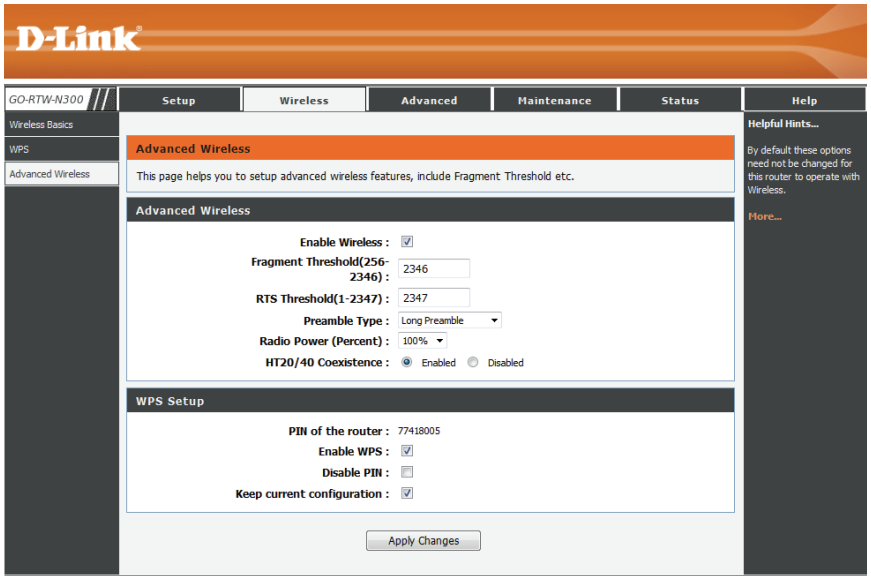
Fragment Threshold (256-2346): The fragmentation threshold, which is specified in bytes, determines whether packets will be fragmented. Packets exceeding the 2346 byte setting will be fragmented before transmission. 2346 is the default setting.

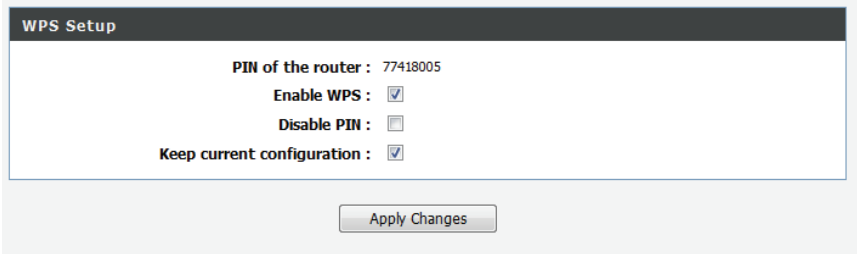
RTS Threshold (1-2347): This value should remain at its default setting of 2346. If inconsistent data flow is a problem, only a minor modification should be made.

Preamble Type: Use the dropdown menu to specify whether the router should use the Short Preamble or Long Preamble type. The preamble type defines the length of the CRC (Cyclic Redundancy Check) block for communication between the router and roaming wireless adapters.

Radio Power: Set the transmit power of the antennas as a percentage.

HT20/40 Coexistence: Enable this feature to force the use of the 40 MHz band even in heavily congested areas. Enabling this feature may reduce transmission speeds when there are a number of other wireless N devices operating within the same vicinity. When disabled, the GO-RTW-N300 will drop back to the slower 20 MHz when heavy congestion is detected on the 40 MHz band.





PIN of the Router: Displays the current PIN for the router's WPS connection. Wireless clients connecting to the router using the PIN method should enter this PIN in order to connect.

Enable WPS: Check the box to enable devices to connect to the router using WPS.

Disable PIN: Check the box to disable the PIN connection method. If this option is disabled, clients can only use the PBC method to connect.

Keep Current Configuration: Check this box to lock the current configuration. If this option is disabled, wireless clients will not be able to automatically adjust the router's WPS settings when connecting.

Click **Apply Changes** to save the current configuration.

Advanced

Access Control List

This page allows you to set up an Access Control List to restrict the types of data packets that can enter the network from the Internet.

WAN Setting: Use the drop-down menu to select either WAN or IP address.

IP Address: This option will only be seen if you have selected IP address above. Enter the IP address range for this rule.

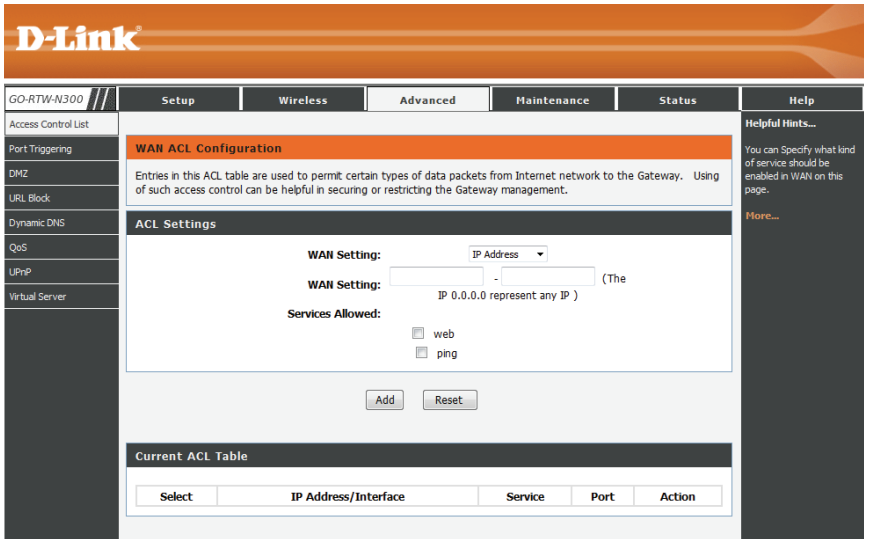
Services Allowed: Select the type of Internet service of which packets will be allowed into the network:

Web - Allows web services from the specified IP address into the network. You will also be required to enter a port number for the IP address range.

Ping - Allows your network to receive 'ping' requests from the specified IP address range.

The Current ACL Table will show a summary of current access control rules.

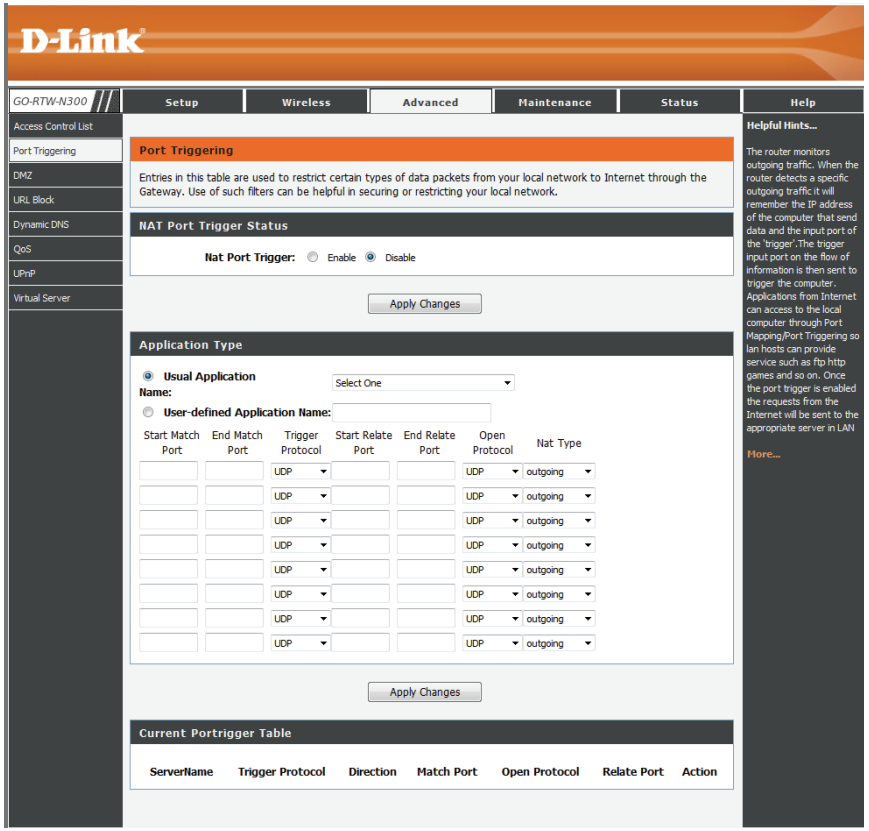
Click Delete to remove a rule from the list.



Click the **Add** button to save and add these settings to the Current ACL table.

Port Triggering

This page allows you to enable port triggering to specify inbound traffic to be sent to specific ports while other ports are in use for outbound traffic.



NAT Port Trigger: Enable or disable the Nat Port Trigger.

Click the **Apply Changes** button to save any changes made.

Usual Application Name: Select an application from the pulldown list. This will automatically fill out the recommended settings for that application.

User-defined Application Name: Enter the name of an application.

Start Match Port: Enter a start match port.

End Match Port: Enter a end match port.

Trigger Protocol: Select a protocol from the pulldown menu.

Start Relate Port: Enter a start relate port.

End Relate Port: Enter an end relate port.

Open Protocol: Select a protocol from the pulldown menu.

Nat Type: Select whether it will be outgoing or incoming.

Click the **Apply Changes** button to save any changes made.
The application will then be added to the Current Portrigger Table.
Click the **Delete** button in the Action field for an application type if you wish to delete it.

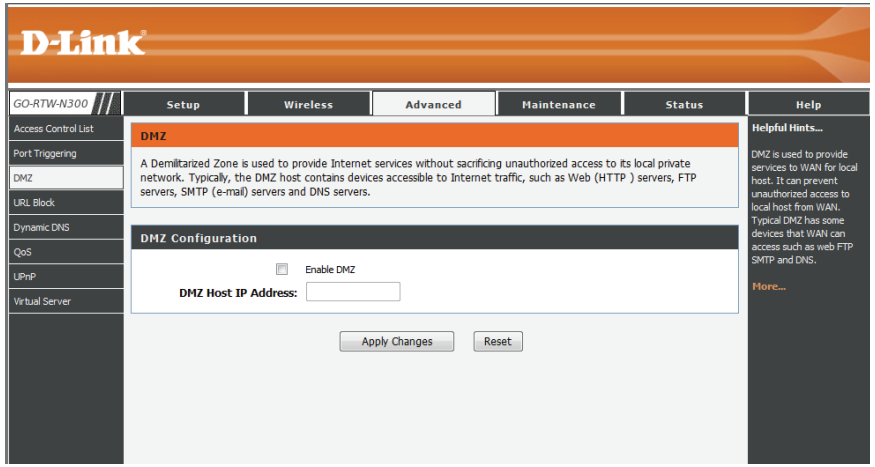
DMZ

Sometimes you may want a computer exposed to the outside world for certain types of applications. If you choose to expose a computer, you can enable the Demilitarized Zone (DMZ). This option will expose the chosen computer completely to the outside world. This is not recommended for novice users.

Enable DMZ: Check the box to enable the DMZ function.

DMZ Host IP Address: Enter the IP address of the machine that you wish to place in the DMZ. If the machine receives an IP address from the DHCP server, you should create a static DHCP reservation to ensure that the machine always receives the same address from the DHCP server.

Click **Apply Changes** to save the current configuration.



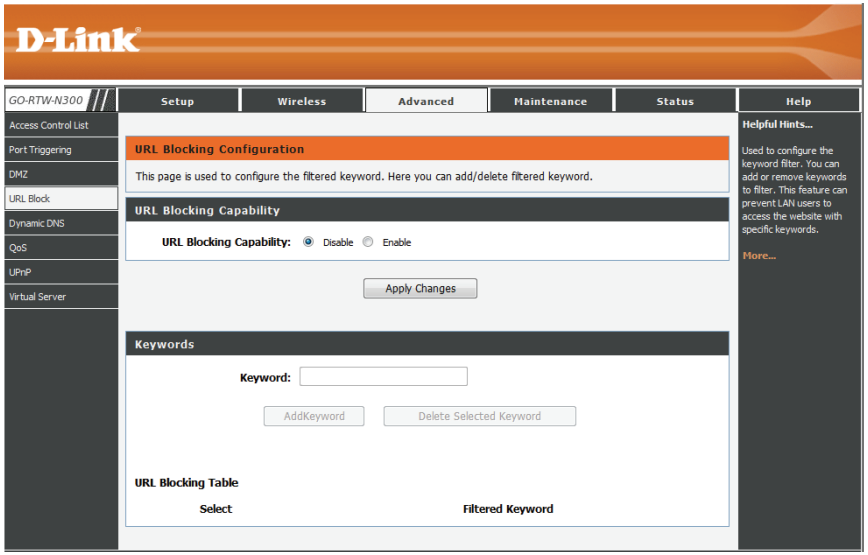
URL Block

This page allows you to block specific websites or keywords in order to prevent devices from accessing them.

URL Blocking Capability: Enable or disable URL Blocking.
Click the **Apply Changes** button to save any changes made.

Keyword: Type a keyword or a URL site that you want to prevent network users from accessing.

Click the **Add Keyword** button to save any changes made. The keyword will then be added to the URL Blocking Table below. To delete a keyword, select the keyword in the table and click the **Delete Selected Keyword** button.



Dynamic DNS

The DDNS (Dynamic Domain Name System) feature allows you to host a server (web, FTP, game server) using a domain name that you have purchased (www.whateveryournameis.com) with your dynamically assigned IP address. Most broadband Internet Service Providers assign dynamic (changing) IP addresses. Using a DDNS service provider, your friends can enter your domain name to connect to your server no matter what your IP address is.

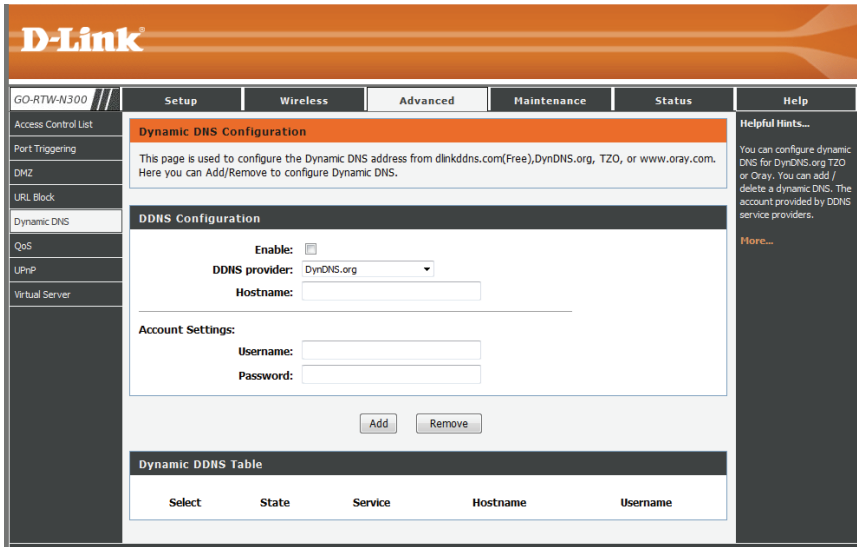
Enable: Check the box to enable DDNS.

DDNS Provider: Choose your DDNS provider from the dropdown menu.

Hostname: Enter the host name that you registered with your DDNS service provider.

Username: Enter the Username for your DDNS account.

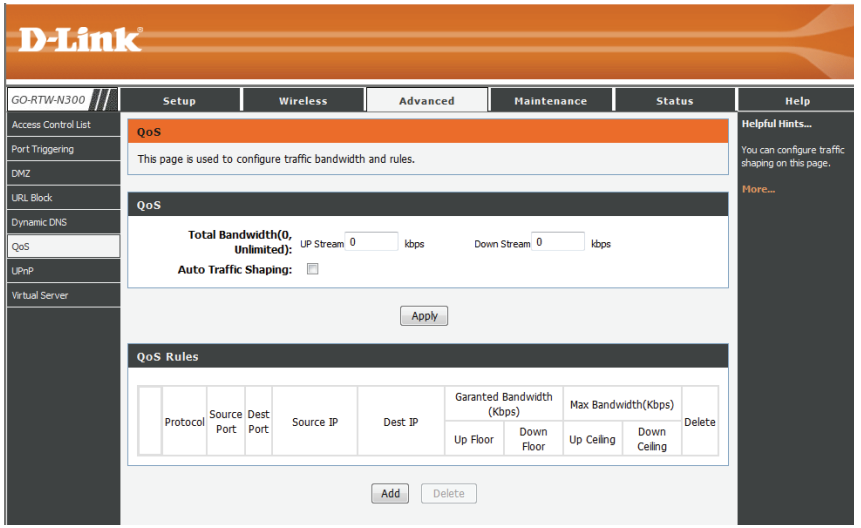
Password: Enter the Password for your DDNS account.



Click the **Add** button to save any changes made. The DDNS Configuration will then be added to the Dynamic DDNS Table below. To delete an existing DDNS configuration, select a configuration in the table and click the **Remove** button.

QoS

This page allows you to configure traffic bandwidth and Quality of Service (QoS) rules for network traffic.



Total Bandwidth (0, Unlimited): Enter the total bandwidth.

Auto Traffic Shaping: Click to enable auto traffic shaping.

Click the **Add** button once to view the QoS Rules settings.

Protocol: Select the data protocol which you want to set a QoS rule for.

Source IP: Enter the source IP.

Dest IP: Enter the destination IP.

Source Port: Enter the source port number if applicable. This box will be greyed out for certain protocols.

Up Floor: Enter the minimum upload speed.

Down Floor: Enter the minimum download speed.

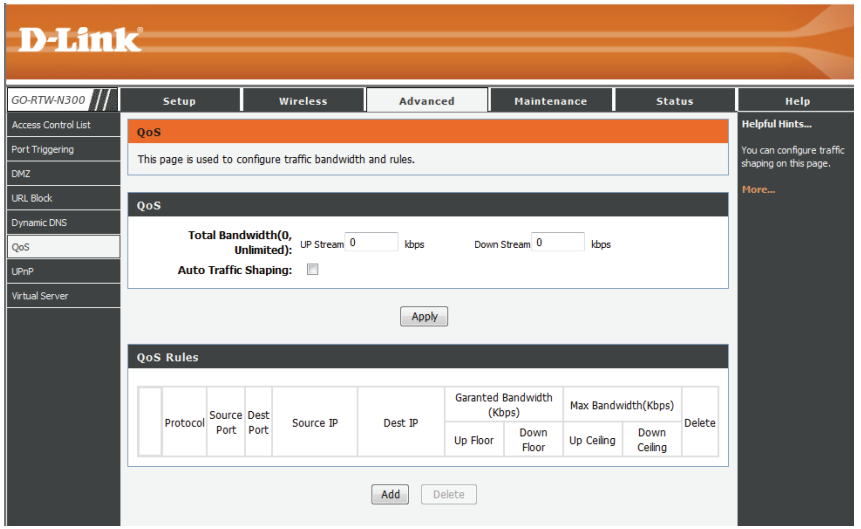
Source Netmask: Enter the source netmask.

Dest Netmask: Enter the destination netmask.

Dest Port: Enter the destination port.

Up Ceiling: Enter the maximum upload speed.

Down Ceiling: Enter maximum download speed.

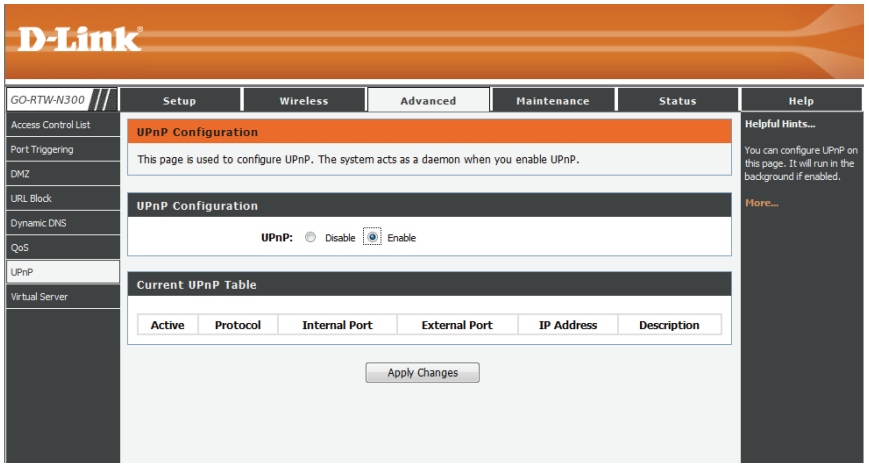


Click the **Add** button to save any changes made. The QoS Rule will then be added to the QoS Rules Table. To delete an existing QoS Rule, select it in the QoS rules Table and click the **Delete** button.

UPnP

This page allows you to enable the Universal Plug and Play (UPnP) feature.

UPnP: Click **Enable** to use the UPnP feature. UPNP provides compatibility with networking equipment, software and peripherals.



Click the **Apply Changes** button to save any changes made.

Virtual Server

The GO-RTW-N300 can be configured as a virtual server so that remote users accessing web or FTP services via the public IP address can be automatically redirected to local servers in the LAN (Local Area Network).

The GO-RTW-N300 firewall feature filters out unrecognized packets to protect your LAN network so all computers networked with the GO-RTW-N300 are invisible to the outside world. If you wish, you can make some of the LAN computers accessible from the Internet by enabling Virtual Server. Depending on the requested service, the GO-RTW-N300 redirects the external service request to the appropriate server within the LAN network.

The GO-RTW-N300 is also capable of port-redirection, meaning that incoming traffic to a particular port may be redirected to a different port on the server computer.

For a list of ports for common applications, please visit **http://support.dlink.com/faq/view.asp?prod_id=1191**.

The Virtual Server page allows you to open a single port.

Usual Service Name: Select an application from the drop-down menu or type a name in the next field.

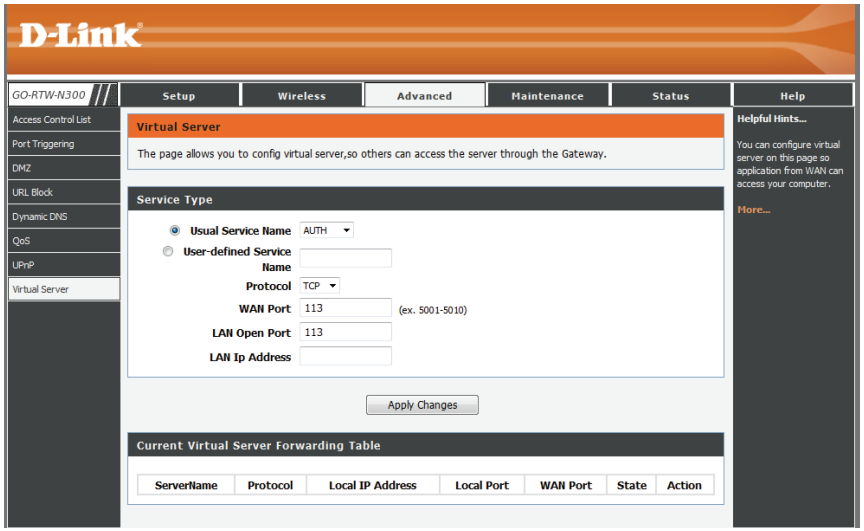
User-defined Service Name: Enter a service name.

Protocol: Select **TCP** or **UDP** from the **Protocol** drop-down menu.

WAN Port: Enter the WAN port number.

LAN Open Port: Enter the LAN Open port number.

LAN IP Address: Enter the IP address of the computer on your local network that you want to allow the incoming service to.



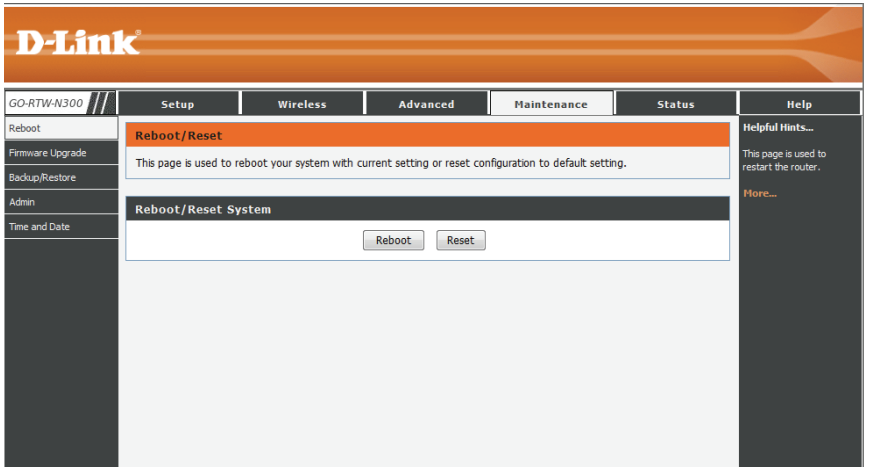
Click the **Apply Changes** button to save any changes made. The virtual server will then be added to the Current Virtual Server Forwarding Table below. To delete or disable a virtual server, click the **Delete** or **Disable** buttons in the Action field of the virtual server in the table.

Maintenance

Reboot

This page allows you to reboot your router or reset it to the factory default settings.

Click the **Reboot** button to reboot the system. To reset the system to the factory default setting, click the **Reset** button. This will erase the current settings.

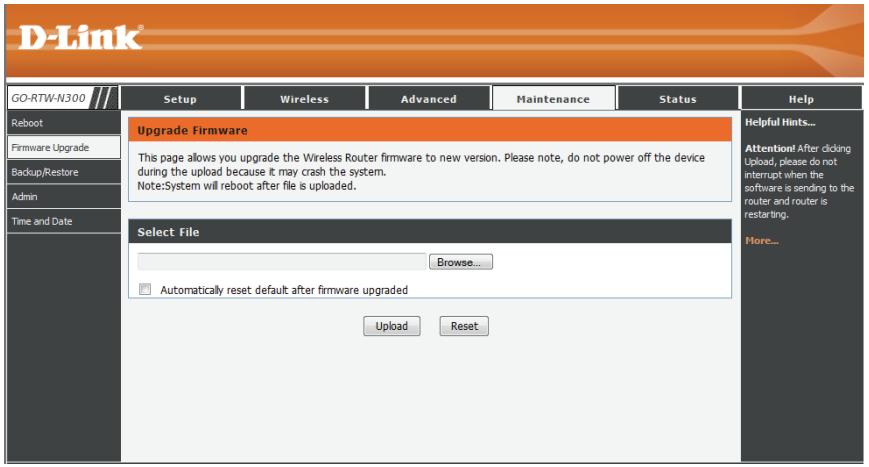


Firmware Upgrade

This page allows you to upgrade the firmware of the router. If you plan to install new firmware, make sure the firmware you want to use is on the local hard drive of the computer. Please check the D-Link support site for firmware updates at **http://support.dlink.com**. You can download firmware upgrades to your hard drive from the D-Link support site.

Select File: After you have downloaded the new firmware, click **Browse** to locate the firmware update on your hard drive.

If you want to reset the router's settings to their default values, then check the **Automatically reset default after firmware upgraded** box.



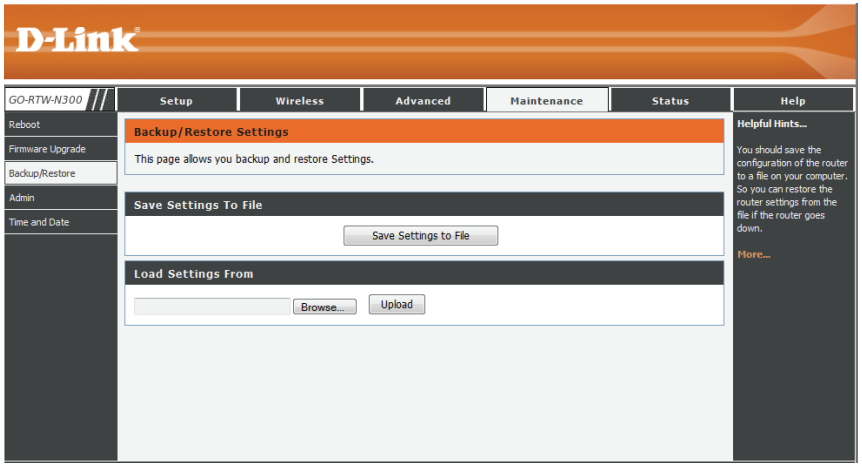
Click the **Upload** button to upload a file to the router after you have selected it, or click the **Reset** button to cancel the selection.

Backup/Restore

This page allows you to save the router's current configuration file onto your computer's hard drive or load a saved file from your hard drive.

Click the **Save Settings to File** button to download the current configuration settings as a file onto your hard drive.

To load a previously saved settings file, click the **Browse** button to locate the file on your hard drive, then click the **Upload** button.



Admin

This page allows you to add a user account to the router's web server. You can also delete or modify existing accounts.

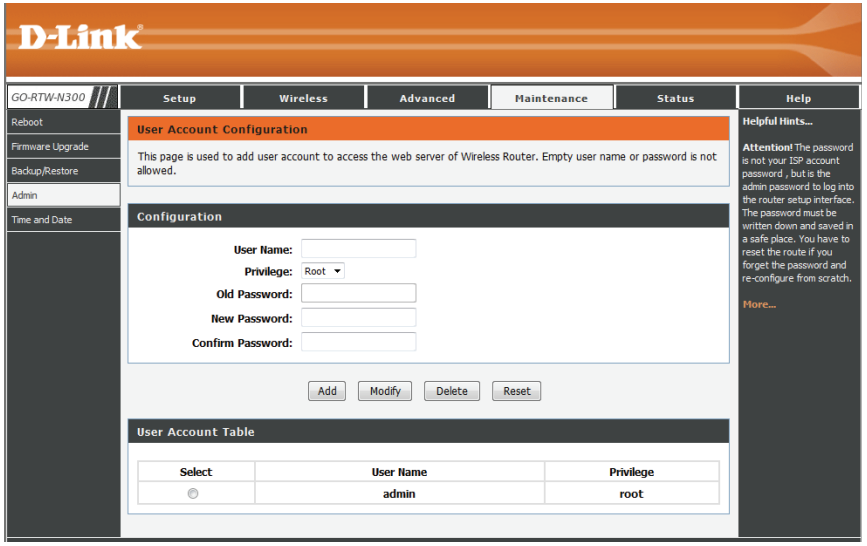
User Name: Enter a username.

Privilege: The user has root privilege.

Old Password: Enter the current password of the account.

New Password: Enter the new password for the account.

Confirm Password: Retype the new password.

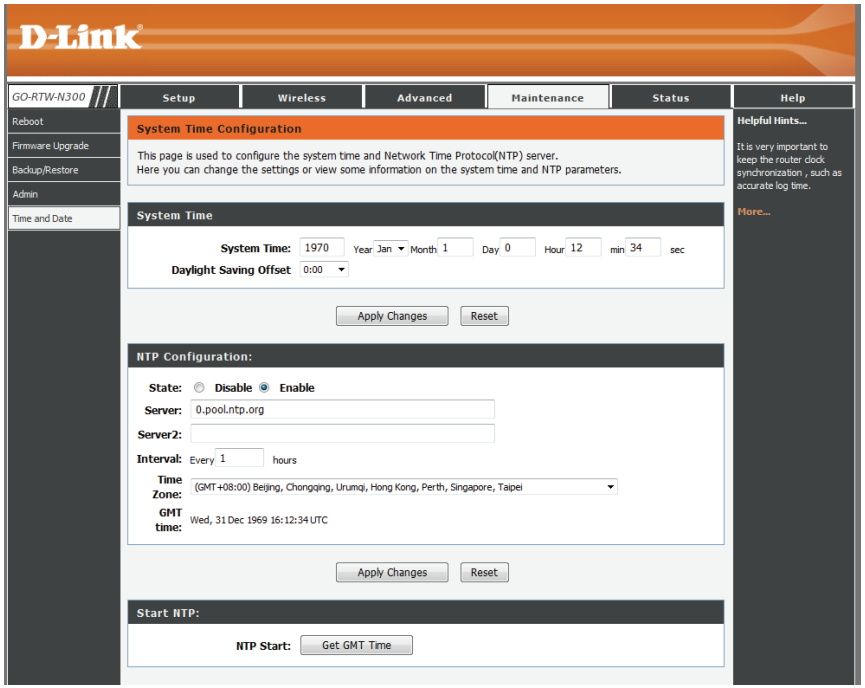


Click the **Add** button to save any changes made. The user account will also be added to the User Account Table below. To modify an existing user account, click the **Select** tab next to the user account in the table, edit the user settings you wish to change, and then click the **Modify** button.

To delete an existing account, click the **Select** tab next to the user account in the table and then click the **Delete** button.

Time and Date

This page allows you to edit the system time and Network Time Protocol (NTP). You can configure, update, and maintain the correct time on the system clock, and configure daylight saving.



System Time: Enter the year, month, day, and time.

Daylight Saving Offset: Enter the year, month, day, and time.

Select the daylight saving offset from the drop-down menu to have the router adjust the time to reflect the starting or finishing of daylight saving in your region. This adjustment should be made manually each time daylight saving time begins or ends.

Click the **Apply Changes** button to save the current configuration.

Network Time Protocol (NTP) automatically synchronizes your router's time and date settings with an Internet-based time server.

State: Select **Enable** to enable the NTP server.

Server: Enter the name of the NTP server.

Server2: Enter the name of the second NTP server.

Interval: Enter the time period that you want the NTP server to synchronize time with the devices on the network. The default value is one hour.

Time Zone: Select the time zone you are in from the pulldown menu.

GMT Time: This shows the current GMT (Greenwich Mean Time) time.

Click **Apply Changes** to save any changes made. To start the NTP, click **Get GMT Time** to obtain the GMT time.

Status

Device Info

This page displays the current status and basic settings of the router.

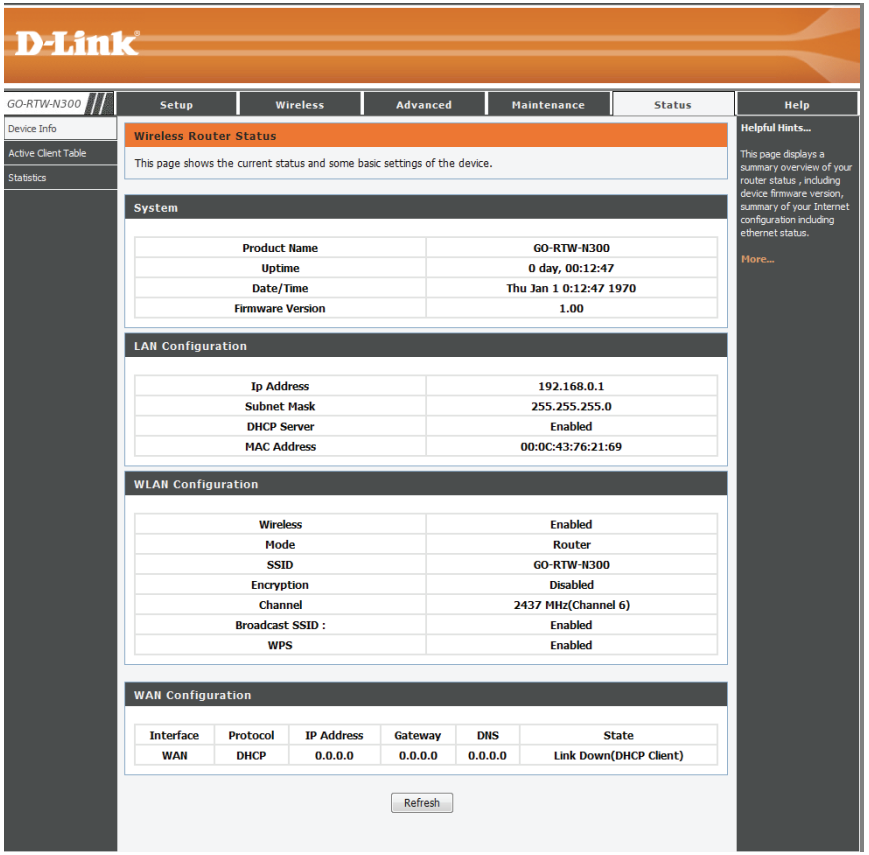
System: Displays the router's time and firmware version.

LAN Configuration: Displays the MAC address and the private (local) IP settings for the router.

WLAN Configuration: Displays the wireless MAC address and your wireless settings such as SSID and Channel.

WAN Configuration: Displays the MAC address and the public IP settings for the router.

Click the **Refresh** button to view the most current information.

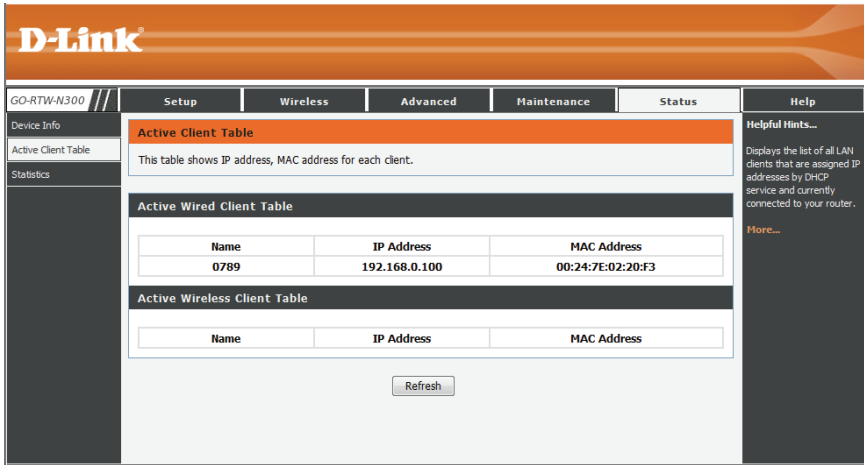


Active Client Table

This page displays lists of all wired and wireless clients. The IP address and MAC address of each client is displayed in the tables.

Active Wired Client Table: This table displays all active wired clients.

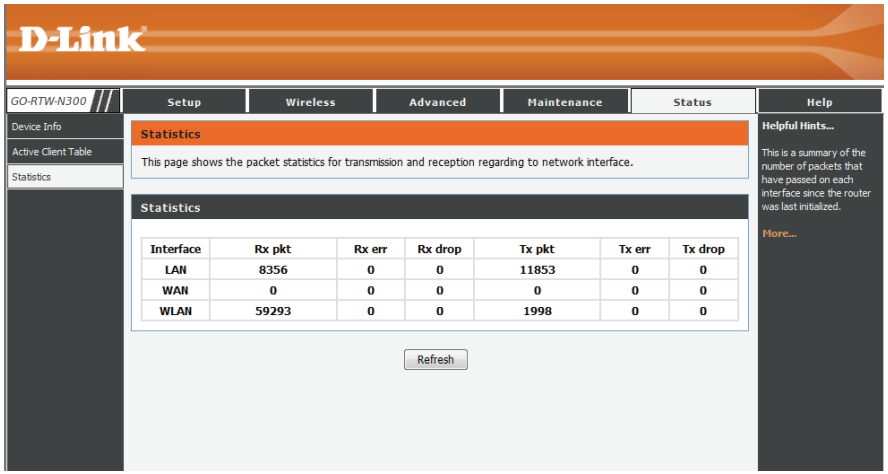
Active Wireless Client Table: This table displays all active wireless clients.



Click the **Save Settings** button to save any changes made.

Statistics

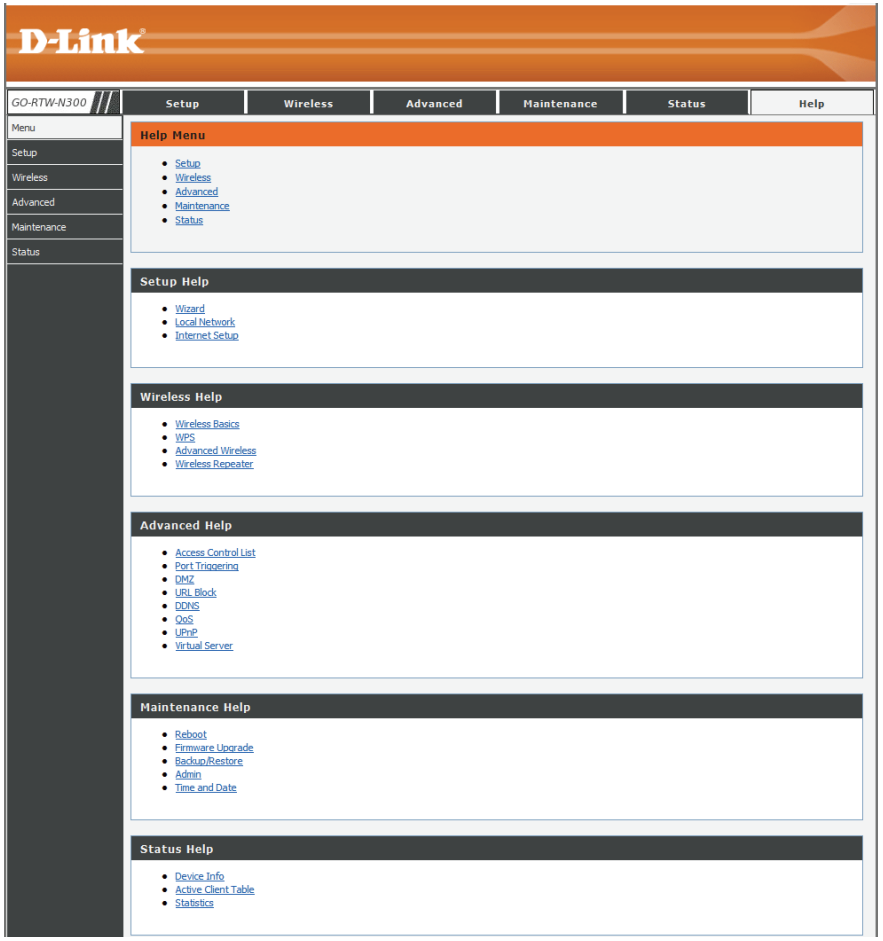
This page displays the statistics for packets that have been transmitted and received on the network on the router's WAN and LAN ports, and wireless bands.



Click the **Refresh** button to refresh the router's traffic statistics.

Help

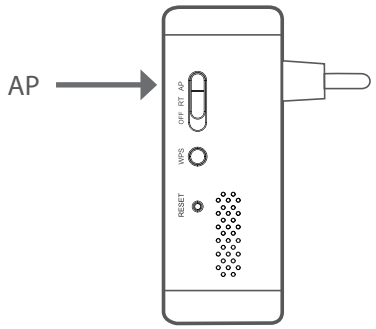
This section provides an explanation of each configuration or setting for the GO-RTW-N300. Click on the links to be taken to the help text for that particular section of router's setup.



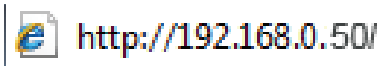
Access Point Mode
Manual Configuration

This section will show you how to configure your new D-Link wireless router using the web-based configuration utility.

This section describes the configuration interface for Access Point Mode. Make sure that the mode selector switch is in the "AP" position on your GO-RTW-N300.

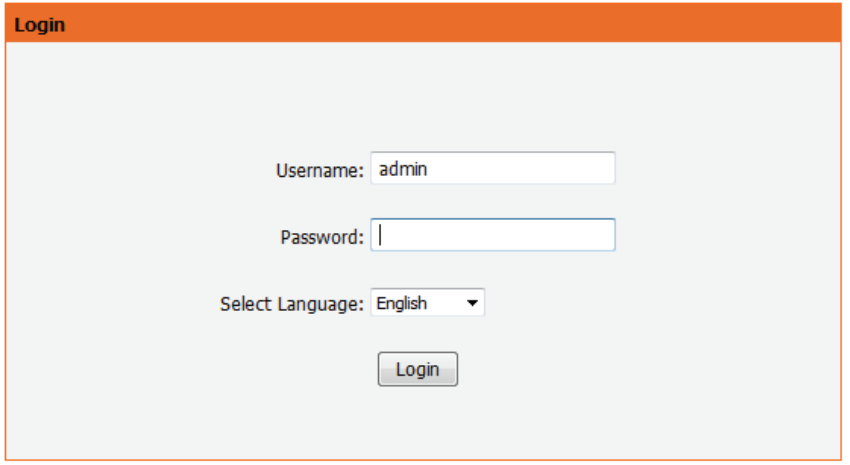


To access the configuration utility, open a web-browser such as Internet Explorer and enter the IP address of the router (**192.168.0.50**).



Enter **admin** in the User Name field. Leave the password blank as the default password.

If you get a **Page Cannot be Displayed** error, please refer to the **Troubleshooting** section for assistance.

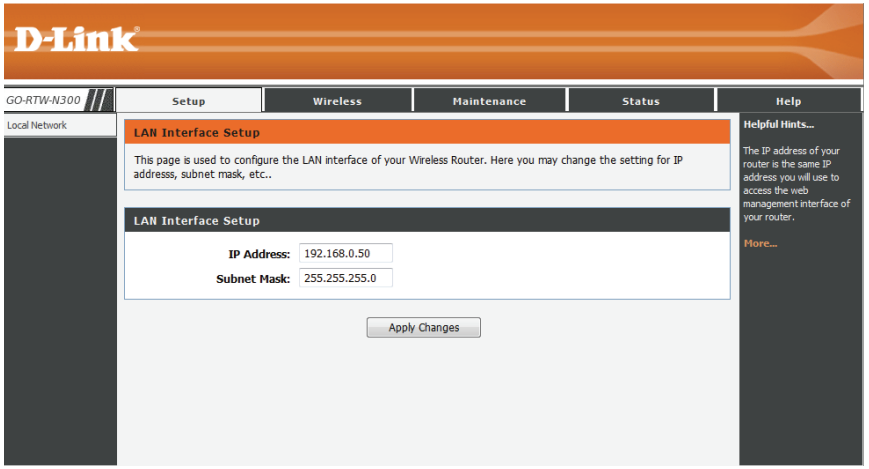


Setup
Local Network

This section will allow you to change the local network settings of the access point.

IP Address: Enter the IP address of the access point.

Subnet Mask: Enter the subnet mask of the access point.



Wireless

Wireless Basics

This page allows you to configure the wireless LAN settings. You can also configure the wireless encryption and wireless network parameters.

Enable SSID Broadcast: Enable SSID broadcast if you want the router to transmit its SSID publicly so other wireless devices can discover it.

Enable Wireless Isolation: Enable wireless isolation to prevent connected wireless devices from connecting to other wireless devices that are also connected to the router.

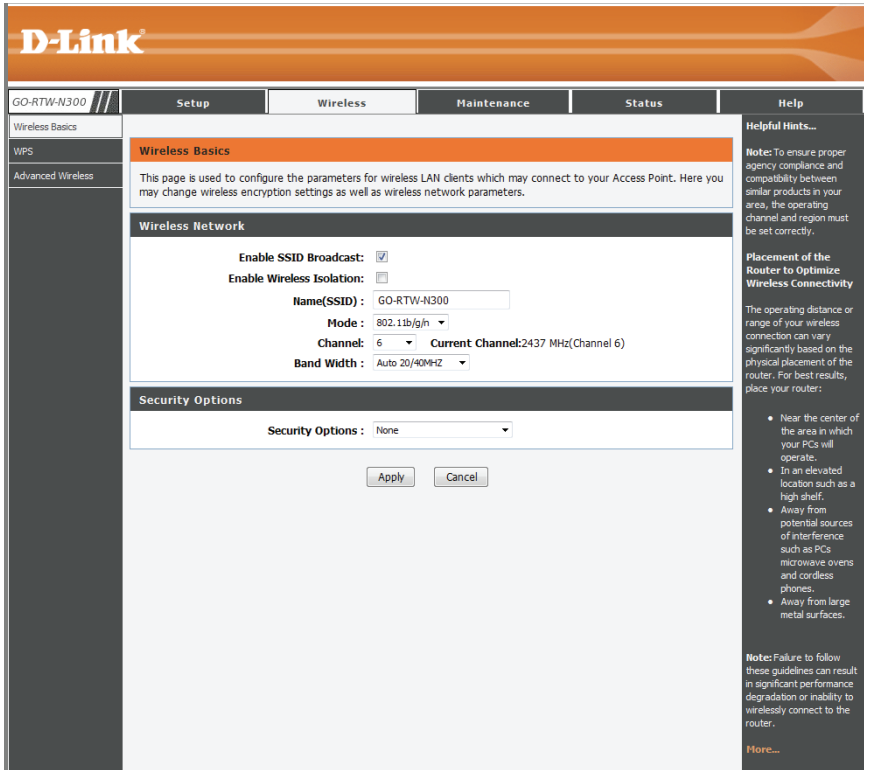
Name (SSID): Enter the SSID name you want to use for the wireless network.

Mode: Use the dropdown menu to specify the wireless mode.

Channel: Use the dropdown menu to select the wireless channel.

Band Width: Use the dropdown menu to select the channel bandwidth. If you selected the 802.11n, 802.11 b/g, or 802.11 b/g/n wireless modes, the available options are 20 MHz and 20/40 MHz. For the others, 20 MHz is the only option.

Security Options: Select a wireless security encryption option. You can also choose to not use one by selecting **None**, but this is not recommended.



Wireless security helps to prevent unauthorized users from accessing your wireless network, or seeing data being passed between the router and wireless clients. The GO-RTW-N300 supports two popular wireless security protocols, you should select a protocol based on the wireless clients which will be accessing your network.

Wired Equivalent Privacy (WEP)

This is an older form of wireless security and should only be used if your wireless clients do not support the newer WPA or WPA2 protocols.

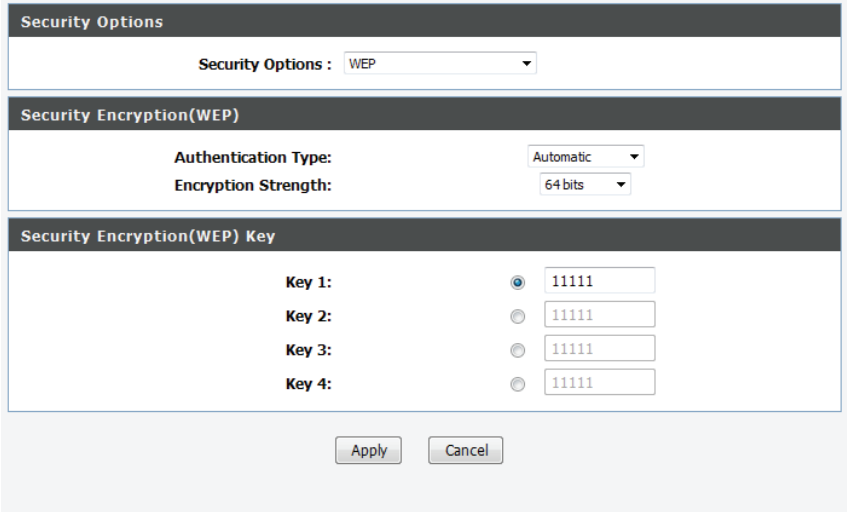
Security Options: Select **WEP** from the drop-down menu.

Authentication Type: Select either **Automatic** or **Shared Key** as the authentication type.

Encryption Strength: Select the encryption strength from the drop-down menu. **64-bit** - A 64-bit key comprises a string of 10 hexadecimal characters, or 5 ASCII characters. **128-bit -** A 128-bit key comprises a string of 26 hexadecimal characters, or 13 ASCII characters.

Key 1-4: You can predetermine up to 4 WEP keys. Select the WEP key you wish to use by clicking on the radio buttons next to the keys. Select whether you wish to use **HEX** or **ASCII** characters in your key using the drop-down menu. Enter the desired key in the field provided.

Click **Apply** to save the current settings.



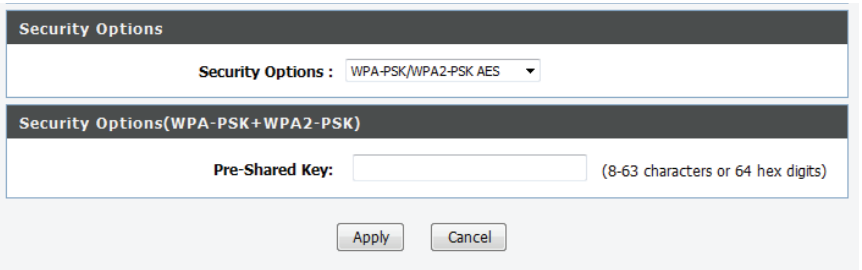
Wi-Fi Protected Access (WPA/WPA2)

This is a newer and more secure protocol for wireless security. It uses a cipher combined with a pre-shared key (password) to encrypt data being sent over the wireless network. It is recommended that you use this security method if it is supported by your wireless clients.

Security Options: Select **WPA-PSK/WPA2-PSK AES** from the drop-down menu.

Pre-Shared Key: Enter a pre-shared key (password) to secure your wireless network. Wireless clients will require this password in order to connect to your network. It is recommended that you make a record of this password for future reference.

Click **Apply** to save the current settings.

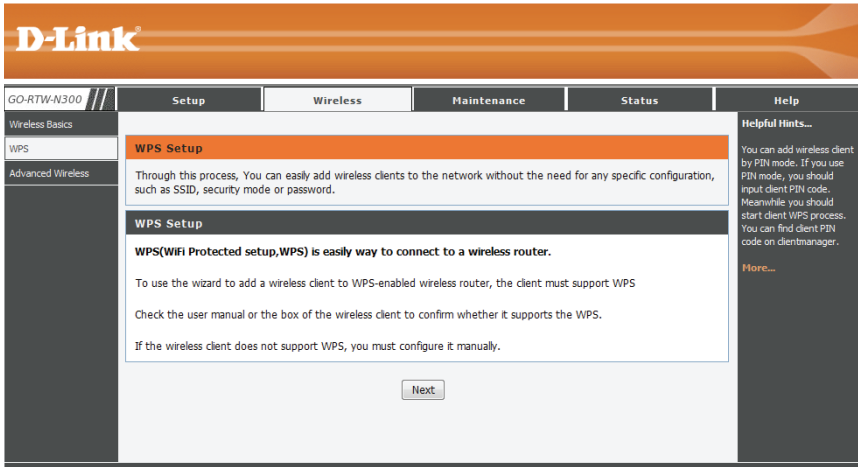


Wi-Fi Protected (WPS) Setup

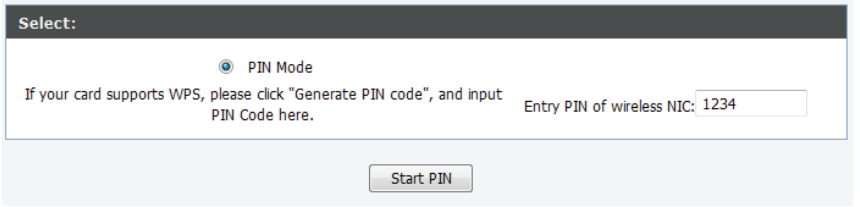
Wi-Fi Protected Setup (WPS) System is a simplified method for securely connecting new devices to your network. The process as easy as pressing a button (the Push-Button Connection method) or correctly entering the 8-digit code (the PIN method).

If you wish to use the Push-Button Connection (PBC) method, simply press the WPS button on the side of the router. The power LED will begin to flash. Within 120 seconds, press the WPS button on the device that you wish to connect. The power LED will turn solid green if the connection is successful.

To connect using the PIN method, click **Next** to begin the WPS setup process.



Enter the PIN for the wireless NIC and click **Start PIN**. If successful, you will then be taken to another screen and a message will tell you to run WPS in the client device within 2 minutes.



Advanced Wireless

Enable Wireless: Enable wireless on your network.

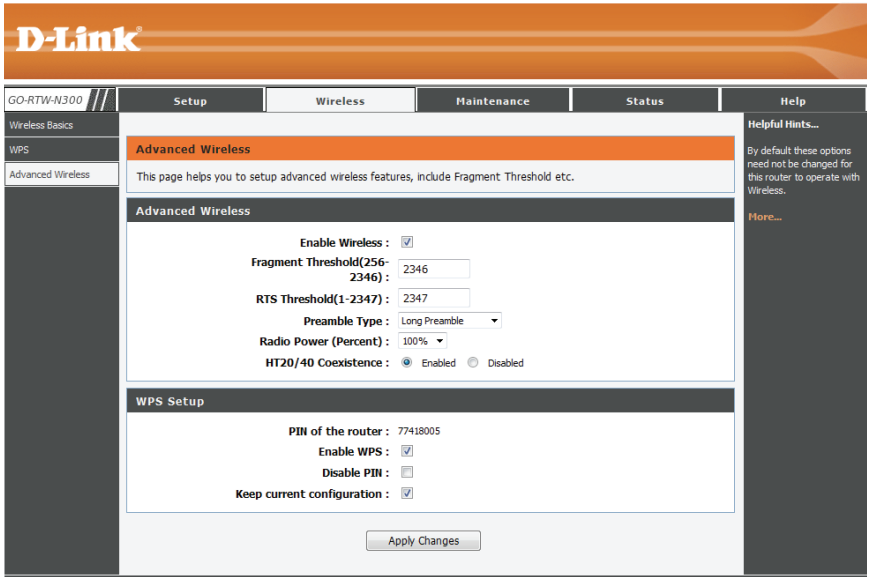
Fragment Threshold (256-2346): The fragmentation threshold, which is specified in bytes, determines whether packets will be fragmented. Packets exceeding the 2346 byte setting will be fragmented before transmission. 2346 is the default setting.

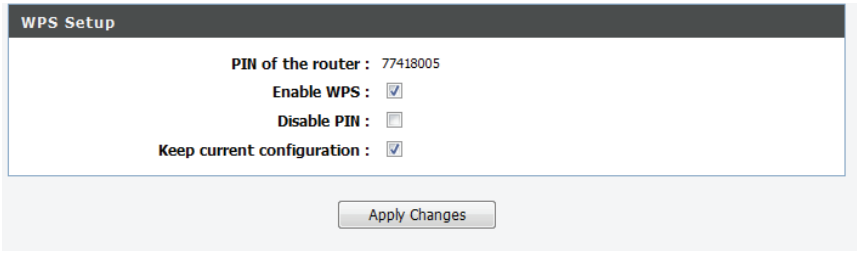
RTS Threshold (1-2347): This value should remain at its default setting of 2346. If inconsistent data flow is a problem, only a minor modification should be made.

Preamble Type: Use the dropdown menu to specify whether the Router should use the Short Preamble or Long Preamble type. The preamble type defines the length of the CRC (Cyclic Redundancy Check) block for communication between the Router and roaming wireless adapters.

Radio Power: Set the transmit power of the antennas as a percentage.

HT20/40 Coexistence: Enable this feature to force the use of the 40 MHz band even in heavily congested areas. Enabling this feature may reduce transmission speeds when there are a number of other wireless N devices operating within the same vicinity. When disabled, the GO-RTW-N300 will drop back to the slower 20 MHz when heavy congestion is detected on the 40 MHz band.





PIN of the Router: Displays the current PIN for the router's WPS connection. Wireless clients connecting to the router using the PIN method should enter this PIN in order to connect.

Enable WPS: Check the box to enable devices to connect to the router using WPS.

Disable PIN: Check the box to disable the PIN connection method. If this option is disabled, clients can only use the PBC method to connect.

Keep Current Configuration: Check this box to lock the current configuration. If this option is disabled, wireless clients will not be able to automatically adjust the router's WPS settings when connecting.

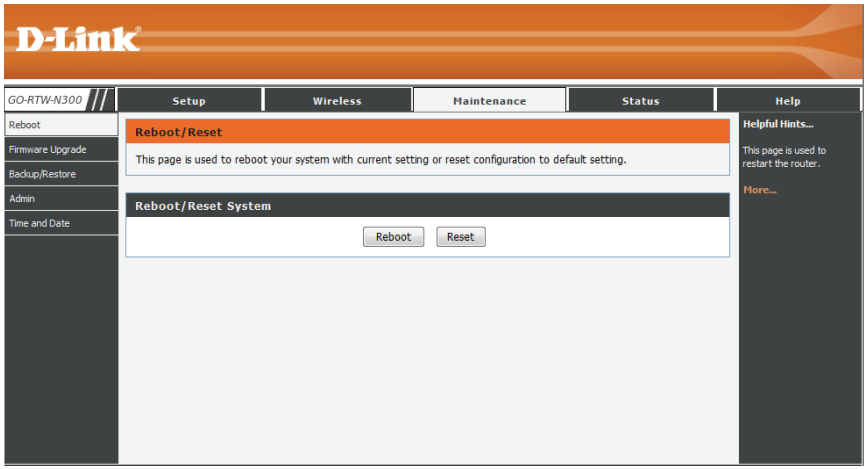
Click **Apply Changes** to save the current configuration.

Maintenance

Reboot

This page allows you to reboot your router or reset it to the factory default settings.

Click the **Reboot** button to reboot the system. To reset the system to the factory default setting, click the **Reset** button. This will erase the current settings.

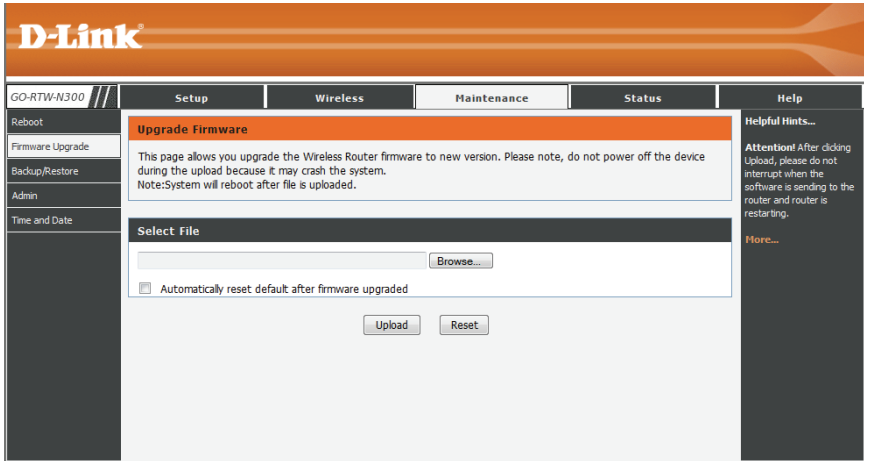


Firmware Upgrade

This page allows you to upgrade the firmware of the router. If you plan to install new firmware, make sure the firmware you want to use is on the local hard drive of the computer. Please check the D-Link support site for firmware updates at **http://support.dlink.com**. You can download firmware upgrades to your hard drive from the D-Link support site.

Choose File: After you have downloaded the new firmware, click **Browse** to locate the firmware update on your hard drive.

Click the **Upload** button to upload a file to the router after you have selected it, or click the **Reset** button to cancel the selection.

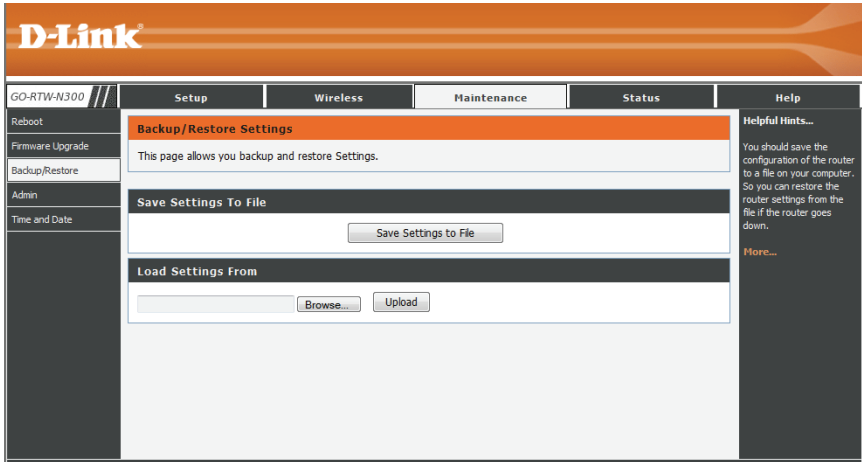


Backup/Restore

This page allows you to save the router's current configuration file onto your computer's hard drive or load a saved file from your hard drive.

Click the **Save** button to download the current configuration settings as a file onto your hard drive.

To load a previously saved settings file, click the **Browse** button to locate the file on your hard drive, then click the **Upload** button.



Admin

This page allows you to add a user account to the router's web server. You can also delete or modify existing accounts.

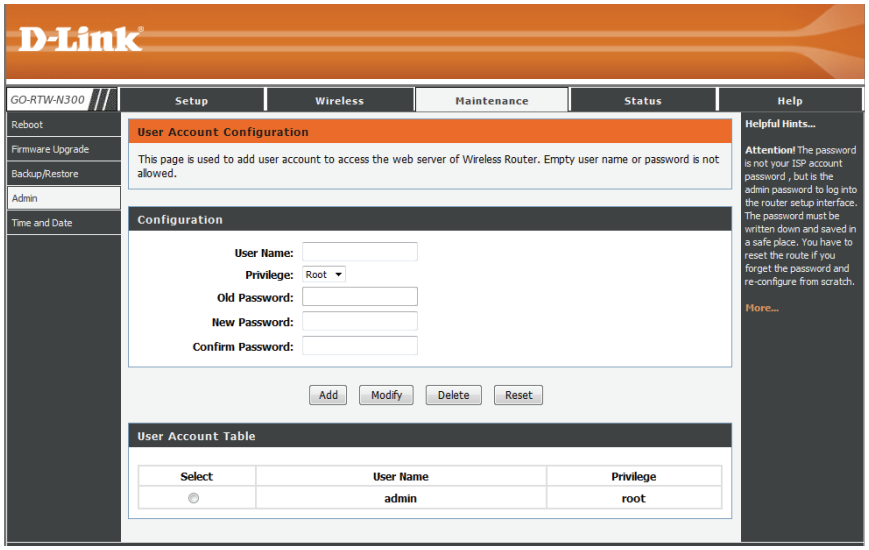
User Name: Enter a username.

Privilege: The user has root privilege.

Old Password: Enter the current password of the account.

New Password: Enter the new password for the account.

Confirm Password: Retype the new password.

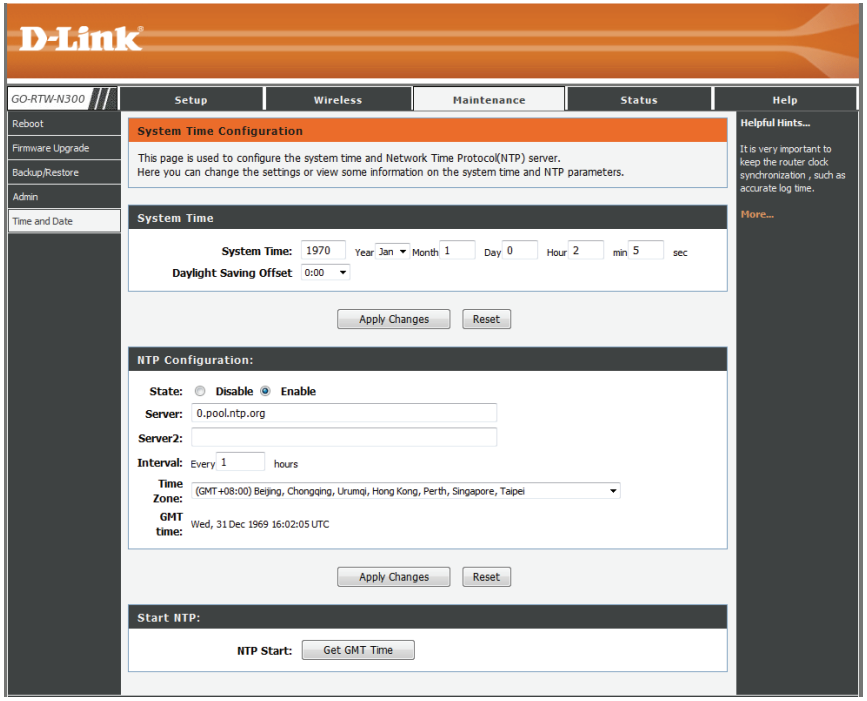


Click the **Add** button to save any changes made. The user account will also be added to the User Account Table below. To modify an existing user account, click the **Select** tab next to the user account in the table, edit the user settings you wish to change, and then click the **Modify** button.

To delete an existing account, click the **Select** tab next to the user account in the table and then click the **Delete** button.

Time and Date

This page allows you to edit the system time and Network Time Protocol (NTP). You can configure, update, and maintain the correct time on the system clock, and configure daylight saving.



System Time: Enter the year, month, day, and time.

Daylight Saving Offset: Enter the year, month, day, and time.

Select the daylight saving offset from the drop-down menu to have the router adjust the time to reflect the starting or finishing of daylight saving in your region. This adjustment should be made manually each time daylight saving time begins or ends.

Click the **Apply Changes** button to save the current configuration.

Network Time Protocol (NTP) automatically synchronizes your router's time and date settings with an Internet-based time server.

State: Select Enable to enable the NTP server.

Server: Enter the name of the NTP server.

Server2: Enter the name of the second NTP server.

Interval: Enter the time period that you want the NTP server to synchronize time with the devices on the network. The default value is one hour.

Time Zone: Select the time zone you are in from the pulldown menu.

GMT Time: This shows the current GMT (Greenwich Mean Time) time.

Click **Apply Changes** to save any changes made. To start the NTP, click **Get GMT Time** to obtain the GMT time.

Status

Device Info

This page displays the current status and basic settings of the router.

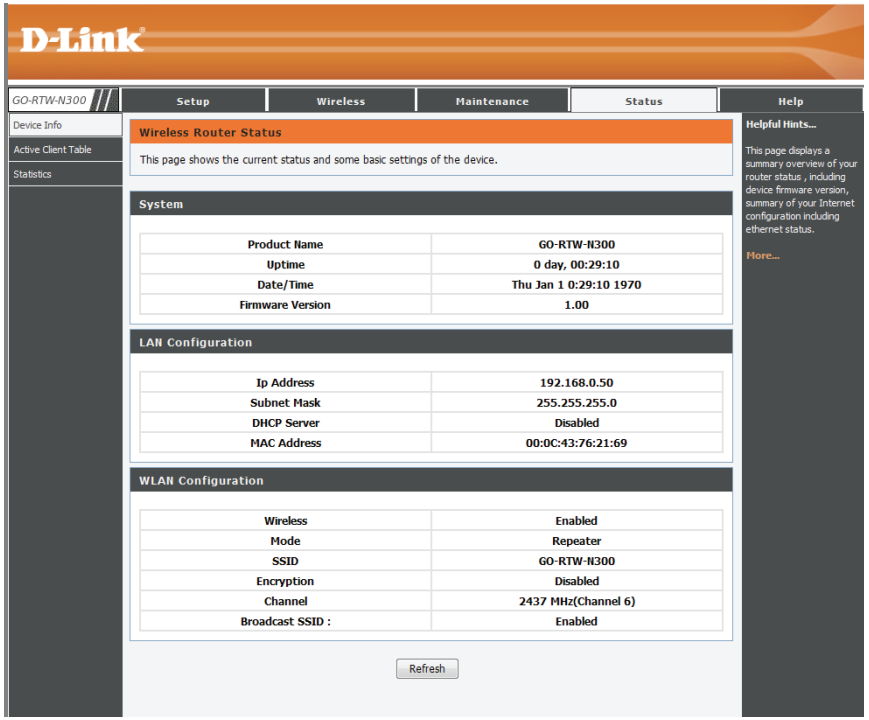
System: Displays the router's time and firmware version.

LAN Configuration: Displays the MAC address and the private (local) IP settings for the router.

WLAN Configuration: Displays the wireless MAC address and your wireless settings such as SSID and Channel.

WAN Configuration: Displays the MAC address and the public IP settings for the router.

Click the **Refresh** button to view the most current information.



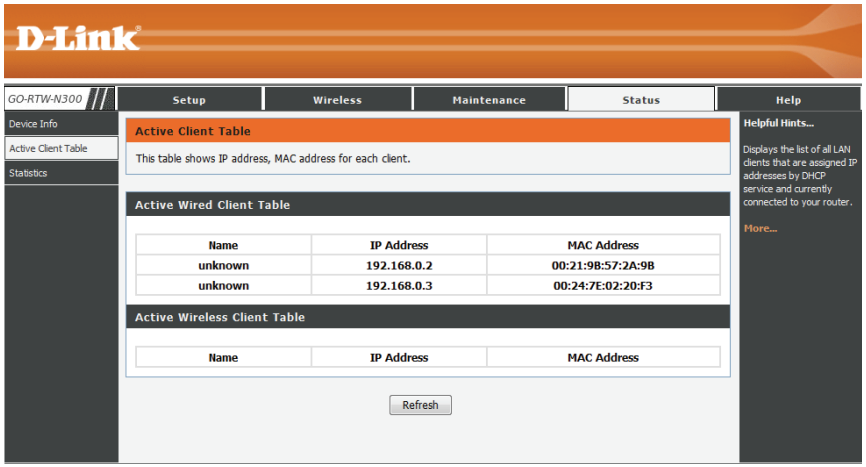
Active Client Table

This page displays lists of all wired and wireless clients. The IP address and MAC address of each client is displayed in the tables.

Active Wired Client Table: This table displays all active wired clients.

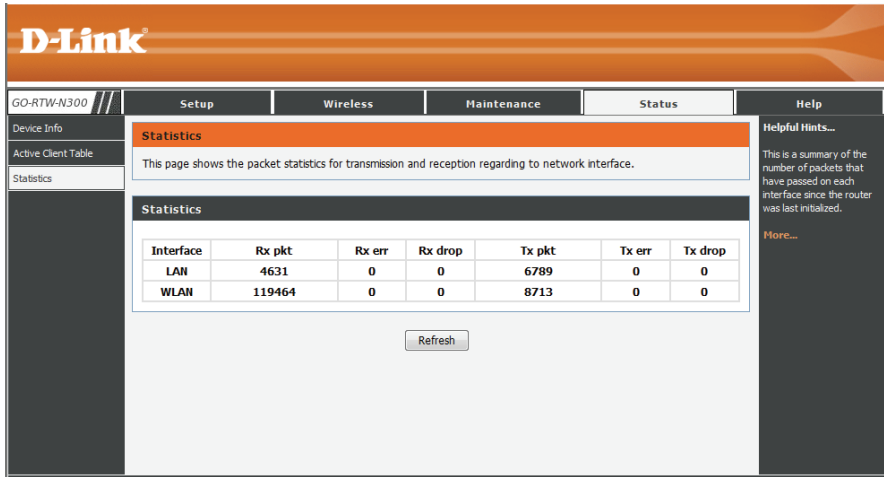
Active Wireless Client Table: This table displays all active wireless clients.

Click the **Save Settings** button to save any changes made.



Statistics

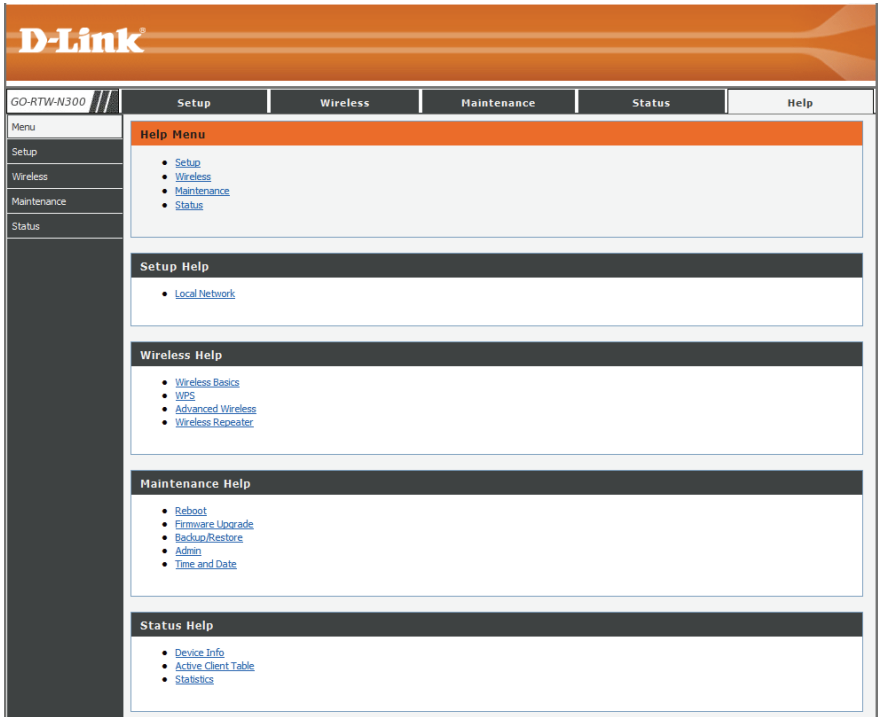
This page displays the statistics for packets that have been transmitted and received on the network on the router's WAN and LAN ports, and wireless bands.



Click the **Refresh** button to refresh the router's traffic statistics.

Help

This section provides an explanation of each configuration or setting for the GO-RTW-N300. Click on the links to be taken to the help text for that particular section of router's setup.



Connecting a Wireless Client

WPS Button

The easiest and most secure way to connect your wireless devices to the router is WPS (Wi-Fi Protected Setup). Many wireless devices will have a WPS button (or a software utility with WPS) that you can press to connect to the GO-RTW-N300 router. Please refer to your user manual for the wireless device you want to connect to make sure you understand how to enable WPS on it.

Step 1 - Press the WPS button on the GO-RTW-N300 for about 1 second. The WPS button will start to blink.

Step 2 - Within 2 minutes, press the WPS button on your wireless client (or launch the software utility and start the WPS process).

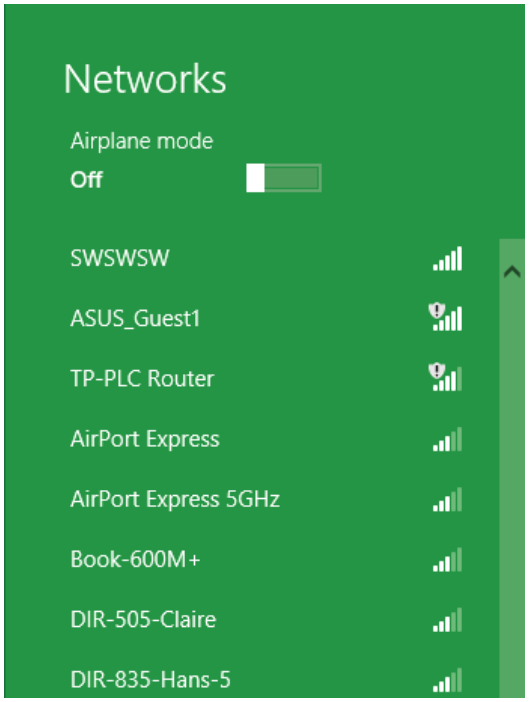
Step 3 - Allow up to 1 minute for the devices to configure your connection. Once the WPS light stops blinking, you will be connected and your wireless connection will be secure with WPA2.

Windows® 8
WPA/WPA2

It is recommended to enable wireless security (WPA/WPA2) on your wireless router or access point before configuring your wireless adapter. If you are joining an existing network, you will need to know the security key (Wi-Fi password) being used.

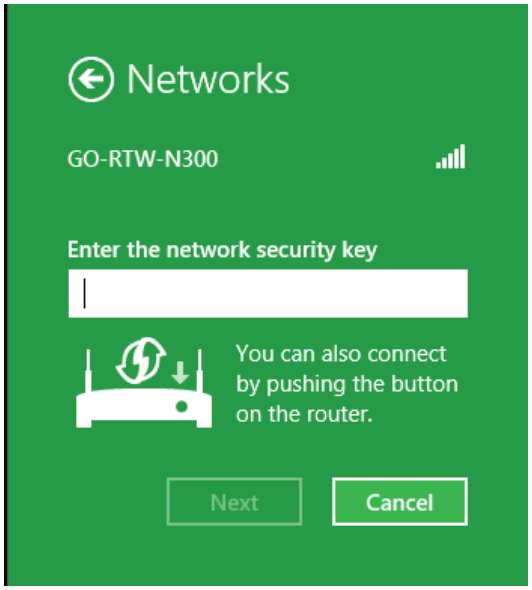
To join an existing network, locate the wireless network icon in the taskbar, next to the time display.

Clicking on this icon will display a list of wireless networks which are within connecting proximity of your computer. Select the desired network by clicking on the network name.

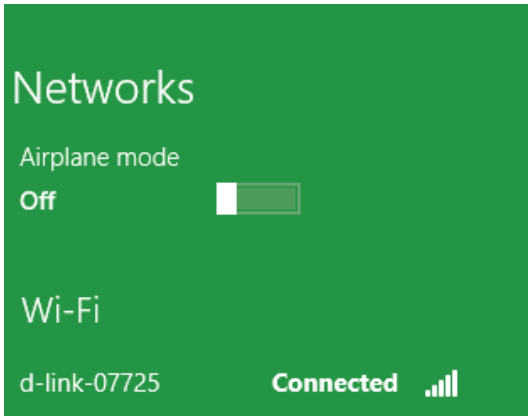


You will then be prompted to enter the network security key (Wi-Fi password) for the wireless network. Enter the password into the box and click **Next**.

If you wish to use Wi-Fi Protected Setup (WPS) to connect to the router, you can also press the WPS button on your router at the point to enable the WPS function.



When you have established a successful connection a wireless network, the word **Connected** will appear next to the name of the network to which you are connected.



Windows® 7
WPA/WPA2

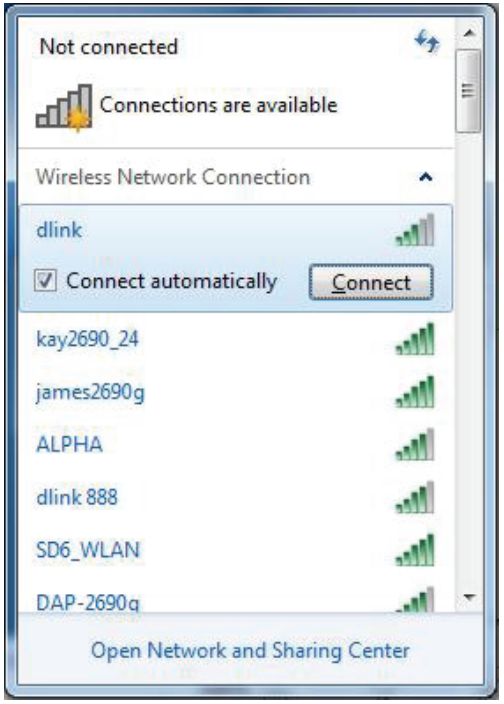
It is recommended to enable wireless security (WPA/WPA2) on your wireless router or access point before configuring your wireless adapter. If you are joining an existing network, you will need to know the security key or passphrase being used.

1. Click on the wireless icon in your system tray (lower-right corner).

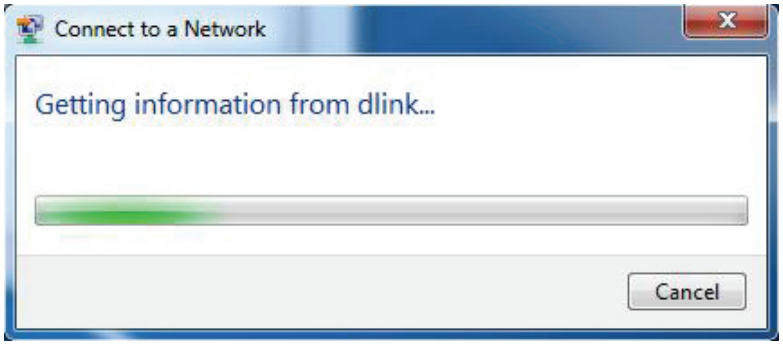
2. The utility will display any available wireless networks in your area.

3. Highlight the wireless network (SSID) you would like to connect to and click the **Connect** button.

   If you get a good signal but cannot access the Internet, check your TCP/IP settings for your wireless adapter. Refer to the Networking Basics section in this manual for more information.



4. The following window appears while your computer tries to connect to the router.



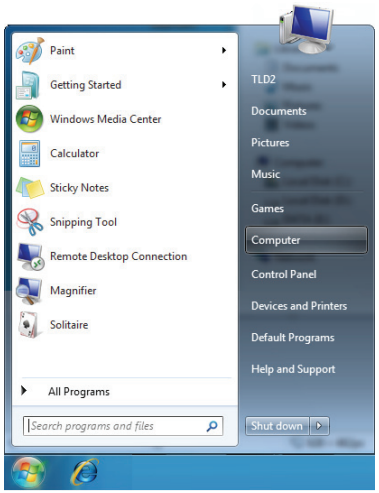
5. Enter the same security key or passphrase that is on your router and click **Connect**. You can also connect by pushing the WPS button on the router.

It may take 20-30 seconds to connect to the wireless network. If the connection fails, please verify that the security settings are correct. The key or passphrase must be exactly the same as on the wireless router.

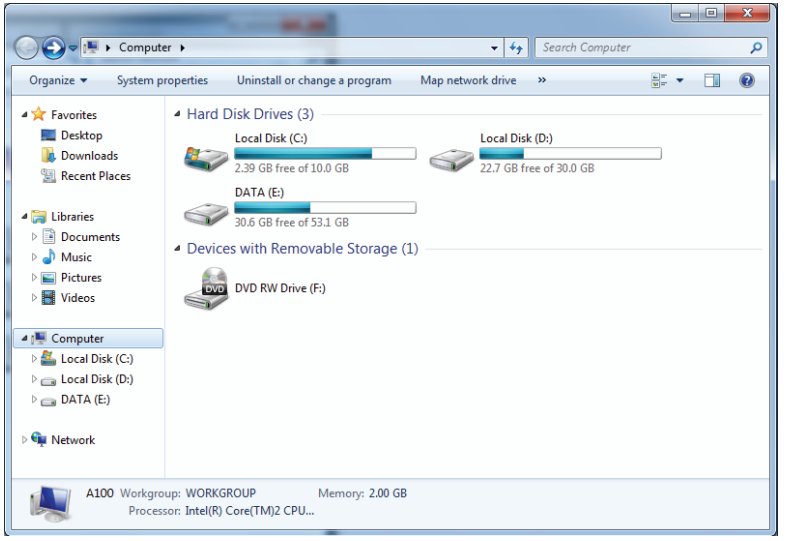
WPS

The WPS feature of the GO-RTW-N300 can be configured using Windows® 7. Carry out the following steps to use Windows® 7 to configure the WPS feature:

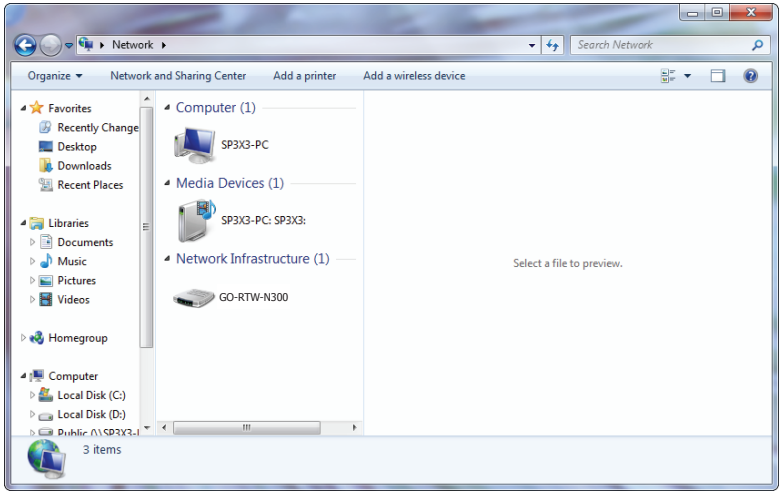
1. Click the **Start** button and select **Computer** from the Start menu.



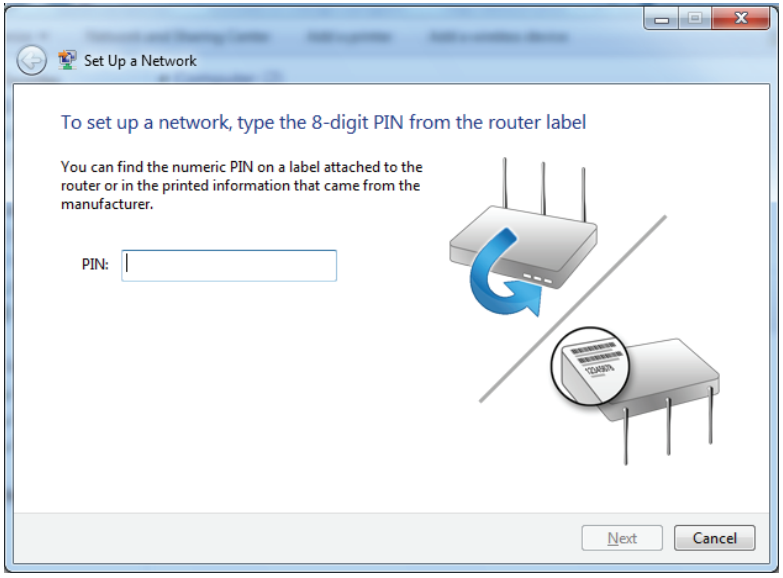
2. Click **Network** on the left side.



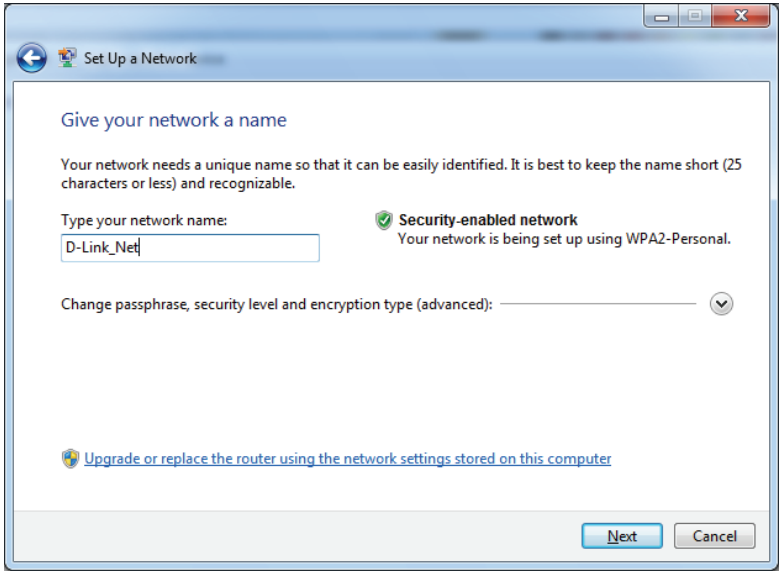
3. Double-click the GO-RTW-N300.



4. Input the WPS PIN number (displayed in the WPS window on the Router's LCD screen or in the **Setup** > **Wireless Setup** menu in the Router's Web UI) and click **Next**.

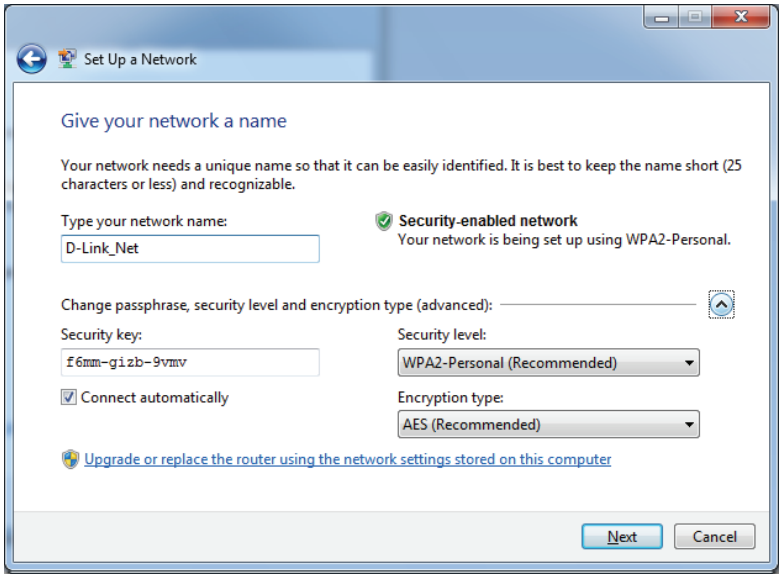


5. Type a name to identify the network.



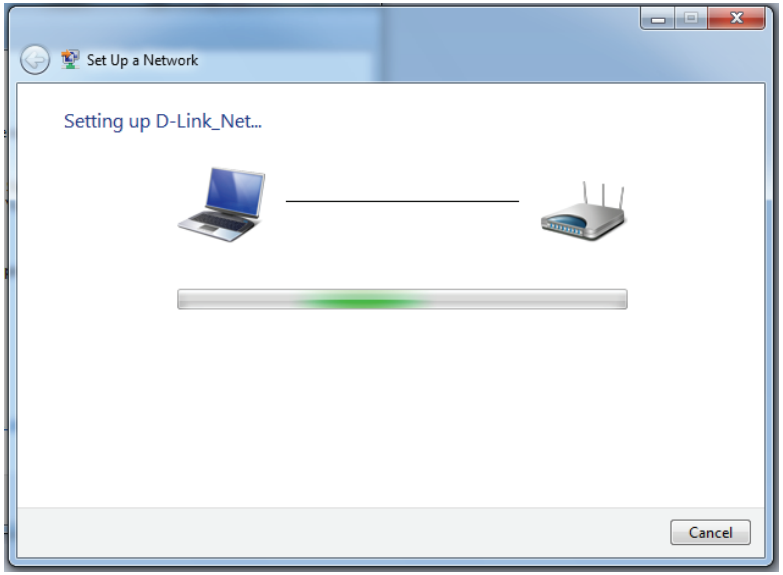
6. To configure advanced settings, click the icon.

Click **Next** to continue.



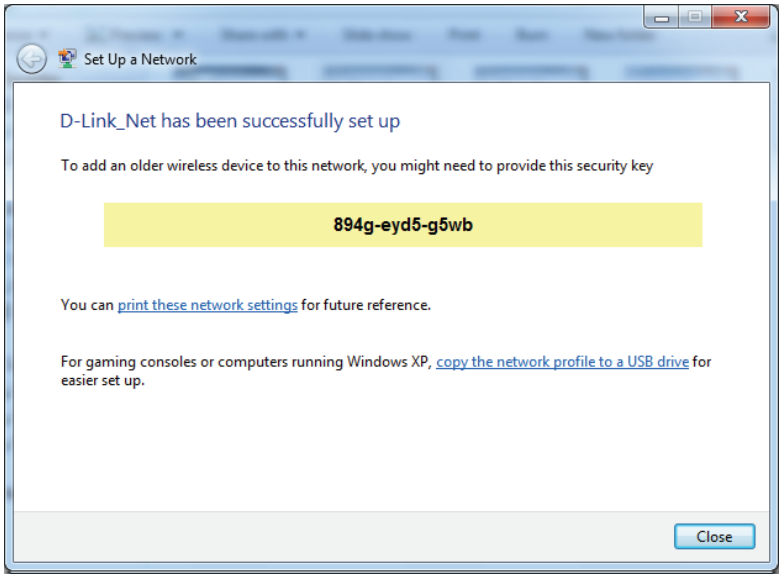
7. The following window appears while the Router is being configured.

   Wait for the configuration to complete.



8. The following window informs you that WPS on the router has been setup successfully.

   Make a note of the security key as you may need to provide this security key if adding an older wireless device to the network in the future.



9. Click **Close** to complete WPS setup.

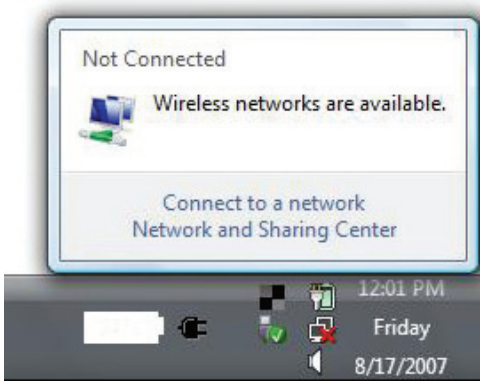
Windows Vista®

Windows Vista® users may use the built-in wireless utility. If you are using another company's utility or Windows® 2000, please refer to the user manual of your wireless adapter for help with connecting to a wireless network. Most utilities will have a "site survey" option similar to the Windows Vista® utility as seen below.

If you receive the **Wireless Networks Detected** bubble, click on the center of the bubble to access the utility.

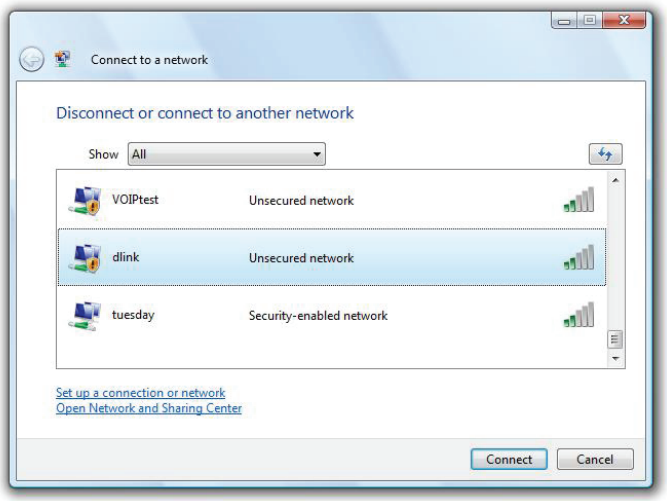
or

Right-click on the wireless computer icon in your system tray (lower-right corner next to the time). Select **Connect to a network**.



The utility will display any available wireless networks in your area. Click on a network (displayed using the SSID) and click the **Connect** button.

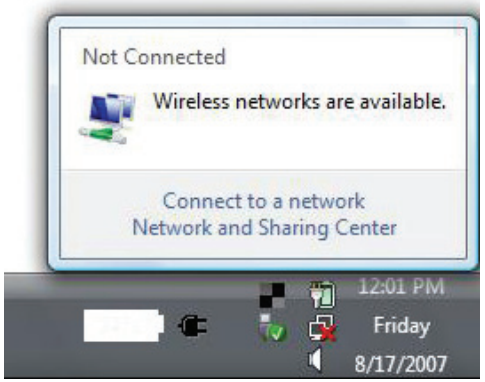
If you get a good signal but cannot access the Internet, check you TCP/IP settings for your wireless adapter. Refer to the **Networking Basics** section in this manual for more information.



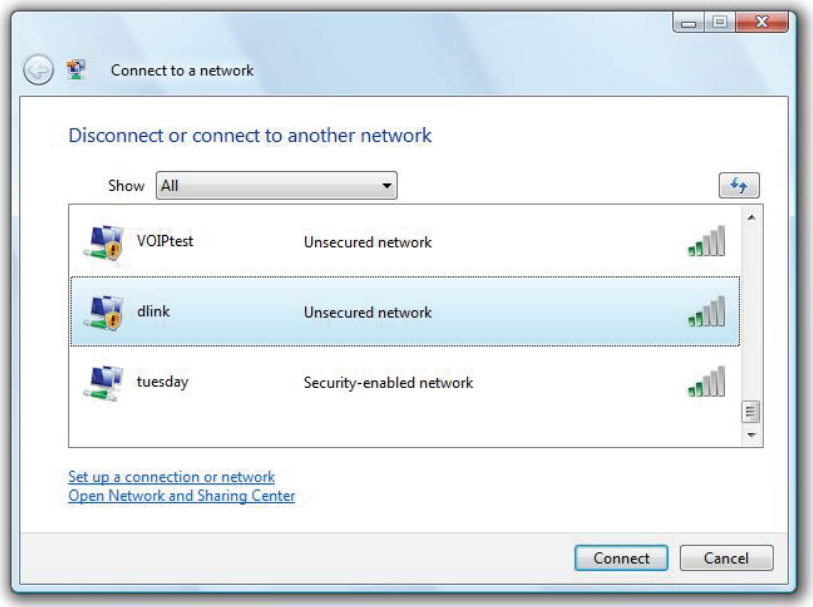
WPA/WPA2

It is recommended to enable wireless security (WPA/WPA2) on your wireless router or access point before configuring your wireless adapter. If you are joining an existing network, you will need to know the security key or passphrase being used.

1. Open the Windows Vista® Wireless Utility by right-clicking on the wireless computer icon in your system tray (lower right corner of screen). Select **Connect to a network**.



2. Highlight the wireless network (SSID) you would like to connect to and click **Connect**.



3. Enter the same security key or passphrase that is on your router and click **Connect**.

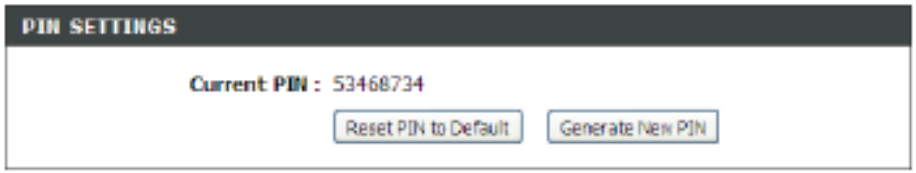
It may take 20-30 seconds to connect to the wireless network. If the connection fails, please verify that the security settings are correct. The key or passphrase must be exactly the same as on the wireless router.

WPS/WCN 2.0

The router supports Wi-Fi protection, referred to as WCN 2.0 in Windows Vista®. The following instructions for setting this up depends on whether you are using Windows Vista® to configure the router or third party software.

When you first set up the router, Wi-Fi protection is disabled and unconfigured. To enjoy the benefits of Wi-Fi protection, the router must be both enabled and configured. There are three basic methods to accomplish this: use Windows Vista's built-in support for WCN 2.0, use software provided by a third party, or manually configure.

If you are running Windows Vista®, log into the router and click the **Enable** checkbox in the **Basic** > **Wireless** section. Use the Current PIN that is displayed on the **Advanced** > **Wi-Fi Protected Setup** section or choose to click the **Generate New PIN** button or **Reset PIN to Default** button.

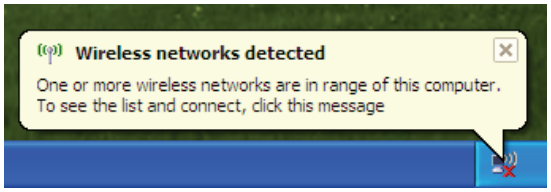


If you are using third party software to set up Wi-Fi Protection, carefully follow the directions. When you are finished, proceed to the next section to set up the newly-configured router.

Windows® XP

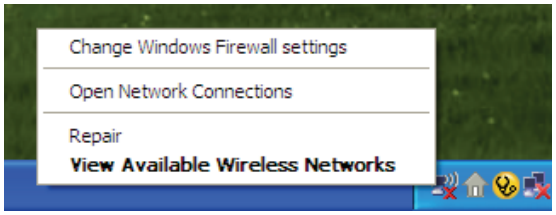
Windows® XP users may use the built-in wireless utility (Zero Configuration Utility). The following instructions are for Service Pack 2 users. If you are using another company's utility, please refer to the user manual of your wireless adapter for help with connecting to a wireless network. Most utilities will have a "site survey" option similar to the Windows® XP utility as seen below.

If you receive the **Wireless Networks Detected** bubble, click on the center of the bubble to access the utility.



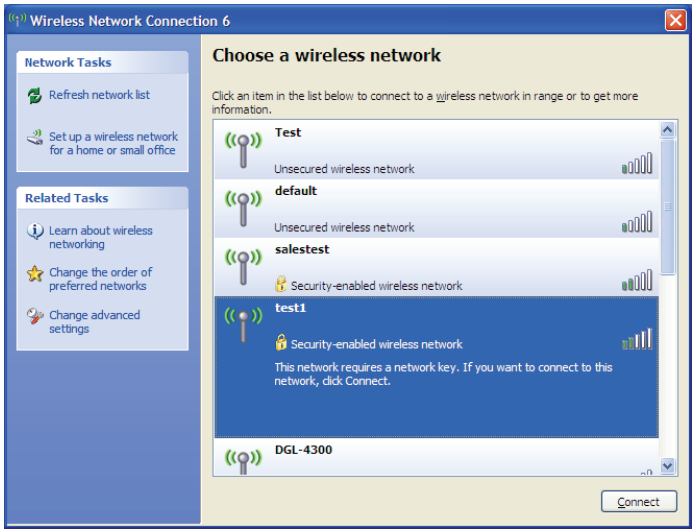
or

Right-click on the wireless computer icon in your system tray (lower-right corner next to the time). Select **View Available Wireless Networks**.



The utility will display any available wireless networks in your area. Click on a network (displayed using the SSID) and click the **Connect** button.

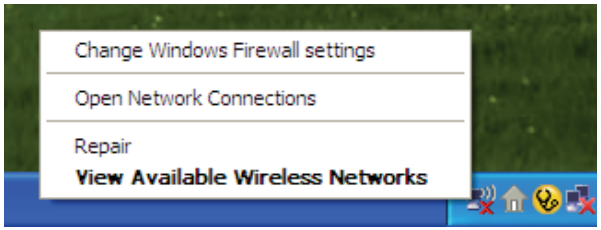
If you get a good signal but cannot access the Internet, check you TCP/IP settings for your wireless adapter. Refer to the **Networking Basics** section in this manual for more information.



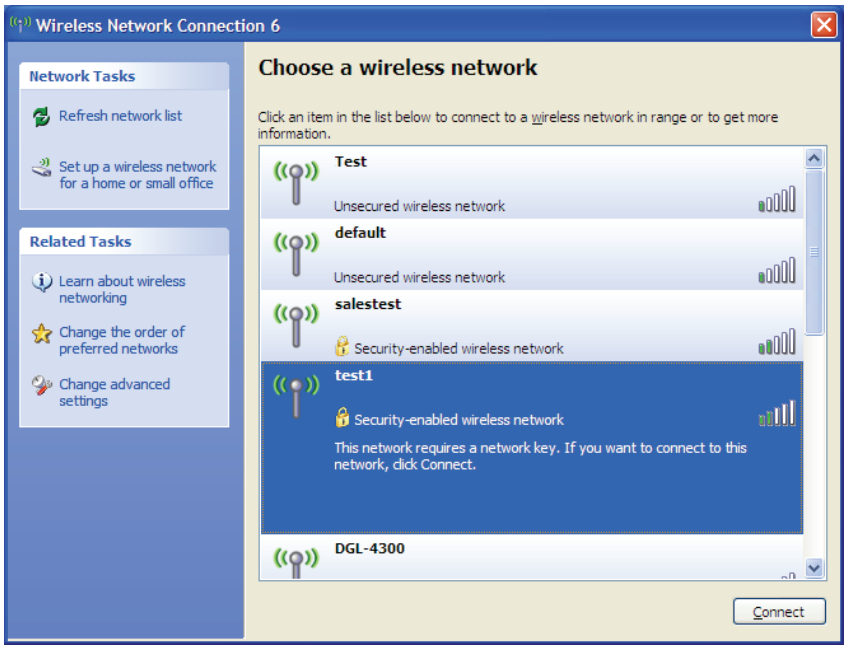
WPA/WPA2

It is recommended to enable WPA on your wireless router or access point before configuring your wireless adapter. If you are joining an existing network, you will need to know the WPA key being used.

1. Open the Windows® XP Wireless Utility by right-clicking on the wireless computer icon in your system tray (lower-right corner of screen). Select **View Available Wireless Networks**.

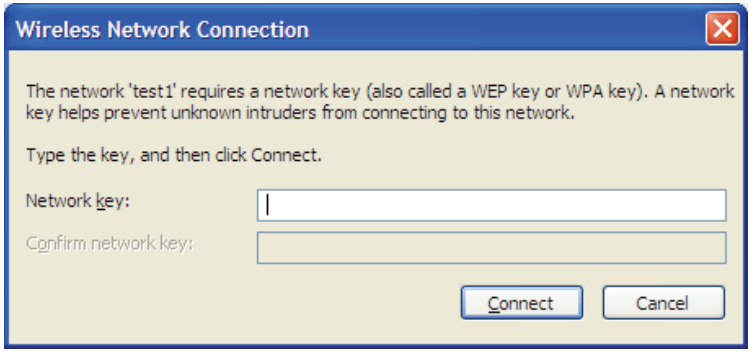


2. Highlight the wireless network (SSID) you would like to connect to and click **Connect**.



3. The **Wireless Network Connection** box will appear. Enter the WPA-PSK passphrase and click **Connect**.

It may take 20-30 seconds to connect to the wireless network. If the connection fails, please verify that the WPA-PSK settings are correct. The WPA-PSK passphrase must be exactly the same as on the wireless router.



Troubleshooting

This chapter provides solutions to problems that can occur during the installation and operation of the GO-RTW-N300. Read the following descriptions if you are having problems. The examples below are illustrated in Windows® XP. If you have a different operating system, the screenshots on your computer will look similar to the following examples.

1. Why can't I access the web-based configuration utility?

When entering the IP address of the D-Link router (192.168.0.1 for example), you are not connecting to a website nor do you have to be connected to the Internet. The device has the utility built-in to a ROM chip in the device itself. Your computer must be on the same IP subnet to connect to the web-based utility.

- Make sure you have an updated Java-enabled web browser. We recommend the following:

  - Microsoft Internet Explorer® 6.0 and higher
  - Mozilla Firefox 3.0 and higher
  - Google™ Chrome 2.0 and higher
  - Apple Safari 3.0 and higher

- Verify physical connectivity by checking for solid link lights on the device. If you do not get a solid link light, try using a different cable or connect to a different port on the device if possible. If the computer is turned off, the link light may not be on.

- Disable any Internet security software running on the computer. Software firewalls such as ZoneAlarm, BlackICE, Sygate, Norton Personal Firewall, and Windows® XP firewall may block access to the configuration pages. Check the help files included with your firewall software for more information on disabling or configuring it.

- Configure your Internet settings:
    - Go to **Start** > **Settings** > **Control Panel**. Double-click the **Internet Options** Icon. From the **Security** tab, click the button to restore the settings to their defaults.
    - Click the **Connection** tab and set the dial-up option to Never Dial a Connection. Click the LAN Settings button. Make sure nothing is checked. Click **OK**.
    - Go to the **Advanced** tab and click the button to restore these settings to their defaults. Click **OK** three times.
    - Close your web browser (if open) and open it.
- Access the web management. Open your web browser and enter the IP address of your D-Link router in the address bar. This should open the login page for your web management.
- If you still cannot access the configuration, unplug the power to the router for 10 seconds and plug back in. Wait about 30 seconds and try accessing the configuration. If you have multiple computers, try connecting using a different computer.

2. What can I do if I forgot my password?

If you forgot your password, you must reset your router. Unfortunately this process will change all your settings back to the factory defaults.

To reset the router, locate the reset button (hole) on the rear panel of the unit. With the router powered on, use a paperclip to hold the button down for 10 seconds. Release the button and the router will go through its reboot process. Wait about 30 seconds to access the router. The default IP address is 192.168.0.1. When logging in, the username is **admin** and leave the password box empty.

3. Why can't I connect to certain sites or send and receive emails when connecting through my router?

If you are having a problem sending or receiving email, or connecting to secure sites such as eBay, banking sites, and Hotmail, we suggest lowering the MTU in increments of ten (Ex. 1492, 1482, 1472, etc).

To find the proper MTU Size, you'll have to do a special ping of the destination you're trying to go to. A destination could be another computer, or a URL.

- Click on **Start** and then click **Run**.
- Windows® 95, 98, and Me users type in **command** (Windows® NT, 2000, XP, Vista®, 7 and 8 users type in **cmd**) and press **Enter** (or click **OK**).
- Once the window opens, you'll need to do a special ping. Use the following syntax:

ping [url] [-f] [-l] [MTU value]

Example: **ping yahoo.com -f -l 1472**

```
C:\>ping yahoo.com -f -l 1482

Pinging yahoo.com [66.94.234.13] with 1482 bytes of data:

Packet needs to be fragmented but DF set.
Packet needs to be fragmented but DF set.
Packet needs to be fragmented but DF set.
Packet needs to be fragmented but DF set.

Ping statistics for 66.94.234.13:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum =  0ms, Average =  0ms

C:\>ping yahoo.com -f -l 1472

Pinging yahoo.com [66.94.234.13] with 1472 bytes of data:

Reply from 66.94.234.13: bytes=1472 time=93ms TTL=52
Reply from 66.94.234.13: bytes=1472 time=109ms TTL=52
Reply from 66.94.234.13: bytes=1472 time=125ms TTL=52
Reply from 66.94.234.13: bytes=1472 time=203ms TTL=52

Ping statistics for 66.94.234.13:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 93ms, Maximum =  203ms, Average =  132ms

C:\>
```

You should start at 1472 and work your way down by 10 each time. Once you get a reply, go up by 2 until you get a fragmented packet. Take that value and add 28 to the value to account for the various TCP/IP headers. For example, lets say that 1452 was the proper value, the actual MTU size would be 1480, which is the optimum for the network we're working with (1452+28=1480).

Once you find your MTU, you can now configure your router with the proper MTU size.

To change the MTU rate on your router follow the steps below:

- Open your browser, enter the IP address of your router (192.168.0.1) and click **OK**.
- Enter your username (admin) and password (blank by default). Click **OK** to enter the web configuration page for the device.
- Click on **Setup** and then click **Manual Configure**.
- To change the MTU enter the number in the MTU field and click **Save Settings** to save your settings.
- Test your email. If changing the MTU does not resolve the problem, continue changing the MTU in increments of ten.

Wireless Basics

D-Link wireless products are based on industry standards to provide easy-to-use and compatible high-speed wireless connectivity within your home, business or public access wireless networks. Strictly adhering to the IEEE standard, the D-Link wireless family of products will allow you to securely access the data you want, when and where you want it. You will be able to enjoy the freedom that wireless networking delivers.

A wireless local area network (WLAN) is a cellular computer network that transmits and receives data with radio signals instead of wires. Wireless LANs are used increasingly in both home and office environments, and public areas such as airports, coffee shops, and universities. Innovative ways to utilize WLAN technology are helping people to work and communicate more efficiently. Increased mobility and the absence of cabling and other fixed infrastructure have proven to be beneficial for many users.

Wireless users can use the same applications they use on a wired network. Wireless adapter cards used on laptop and desktop systems support the same protocols as Ethernet adapter cards.

Under many circumstances, it may be desirable for mobile network devices to link to a conventional Ethernet LAN in order to use servers, printers or an Internet connection supplied through the wired LAN. A wireless router is a device used to provide this link.

What is Wireless?

Wireless or Wi-Fi technology is another way of connecting your computer to the network without using wires. Wi-Fi uses radio frequency to connect wirelessly, so you have the freedom to connect computers anywhere in your home or office network.

Why D-Link Wireless?

D-Link is the worldwide leader and award winning designer, developer, and manufacturer of networking products. D-Link delivers the performance you need at a price you can afford. D-Link has all the products you need to build your network.

How does wireless work?

Wireless works similar to how cordless phone work, through radio signals to transmit data from one point A to point B. But wireless technology has restrictions as to how you can access the network. You must be within the wireless network range area to be able to connect your computer. There are two different types of wireless networks: Wireless Local Area Network (WLAN), and Wireless Personal Area Network (WPAN).

Wireless Local Area Network (WLAN)

In a wireless local area network, a device called an Access Point (AP) connects computers to the network. The access point has a small antenna attached to it, which allows it to transmit data back and forth over radio signals. With an indoor access point as seen in the picture, the signal can travel up to 300 feet. With an outdoor access point the signal can reach out up to 30 miles to serve places like manufacturing plants, industrial locations, college and high school campuses, airports, golf courses, and many other outdoor venues.

Wireless Personal Area Network (WPAN)

Bluetooth is the industry standard wireless technology used for WPAN. Bluetooth devices in WPAN operate in a range up to 30 feet away.

Compared to WLAN the speed and wireless operation range are both less than WLAN, but in return it doesn't use nearly as much power which makes it ideal for personal devices, such as mobile phones, PDAs, headphones, laptops, speakers, and other devices that operate on batteries.

Who uses wireless?

Wireless technology as become so popular in recent years that almost everyone is using it, whether it's for home, office, business, D-Link has a wireless solution for it.

Home

- Gives everyone at home broadband access
- Surf the web, check email, instant message, etc.
- Gets rid of the cables around the house
- Simple and easy to use

Small Office and Home Office

- Stay on top of everything at home as you would at office
- Remotely access your office network from home
- Share Internet connection and printer with multiple computers
- No need to dedicate office space

Where is wireless used?

Wireless technology is expanding everywhere not just at home or office. People like the freedom of mobility and it's becoming so popular that more and more public facilities now provide wireless access to attract people. The wireless connection in public places is usually called "hotspots".

Using a D-Link CardBus Adapter with your laptop, you can access the hotspot to connect to Internet from remote locations such as airports, hotels, coffee shops, libraries, restaurants, and convention centers.

A wireless network is easy to setup, but if you're installing it for the first time it could be quite a task not knowing where to start. That's why we've put together a few setup steps and tips to help you through the process of setting up a wireless network.

Tips

Here are a few things to keep in mind, when you install a wireless network.

Centralize your router or Access Point
Make sure you place the router/access point in a centralized location within your network for the best performance. Try to place the router/access point as high as possible in the room, so the signal gets dispersed throughout your home. If you have a two-story home, you may need a repeater to boost the signal to extend the range.

Eliminate Interference
Place home appliances such as cordless telephones, microwaves, and televisions as far away as possible from the router/access point. This would significantly reduce any interference that the appliances might cause since they operate on same frequency.

Security
Don't let you next-door neighbors or intruders connect to your wireless network. Secure your wireless network by turning on the WPA or WEP security feature on the router. Refer to product manual for detail information on how to set it up.

Networking Basics

Check your IP address

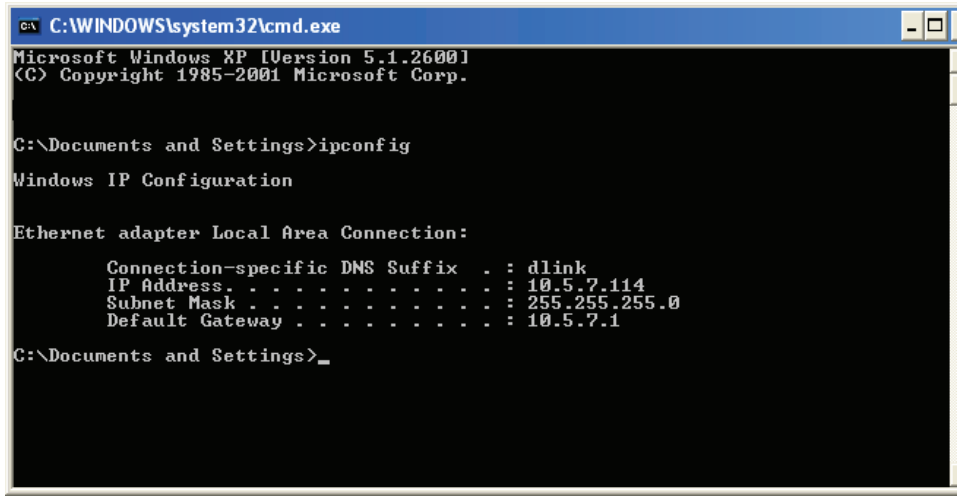
After you install your new D-Link adapter, by default, the TCP/IP settings should be set to obtain an IP address from a DHCP server (i.e. wireless router) automatically. To verify your IP address, please follow the steps below.

Click on **Start** > **Run**. In the run box type ***cmd*** and click **OK.** (Windows® 8/7/Vista® users type *cmd* in the **Start Search** box.)

At the prompt, type ***ipconfig*** and press **Enter**.

This will display the IP address, subnet mask, and the default gateway of your adapter.

If the address is 0.0.0.0, check your adapter installation, security settings, and the settings on your router. Some firewall software programs may block a DHCP request on newly installed adapters.



Statically Assign an IP address

If you are not using a DHCP capable gateway/router, or you need to assign a static IP address, please follow the steps below:

Step 1

Windows® 7 - Click on **Start** > **Control Panel** > **Network and Internet** > **Network and Sharing Center**.

Windows Vista® - Click on **Start** > **Control Panel** > **Network and Internet** > **Network and Sharing Center** > **Manage Network Connections.**

Windows® XP - Click on **Start** > **Control Panel** > **Network Connections**.

Windows® 2000 - From the desktop, right-click **My Network Places** > **Properties**.

Step 2

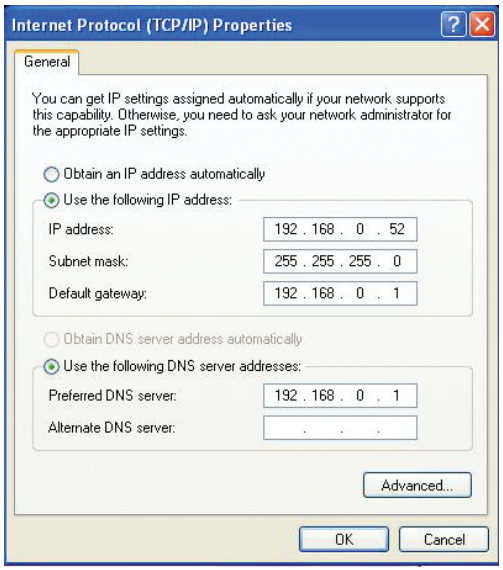
Right-click on the **Local Area Connection** which represents your network adapter and select **Properties**.

Step 3

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

Step 4

Click **Use the following IP address** and enter an IP address that is on the same subnet as your network or the LAN IP address on your router.



Example: If the router´s LAN IP address is 192.168.0.1, make your IP address 192.168.0.X where X is a number between 2 and 99. Make sure that the number you choose is not in use on the network. Set the Default Gateway the same as the LAN IP address of your router (I.E. 192.168.0.1).

Set Primary DNS the same as the LAN IP address of your router (192.168.0.1). The Secondary DNS is not needed or you may enter a DNS server from your ISP.

Step 5

Click **OK** twice to save your settings.

Technical Specifications

Standards
- IEEE 802.11n
- IEEE 802.11g
- IEEE 802.11b
- IEEE 802.3
- IEEE 802.3u

Interfaces
- 802.11n/g/b wireless
- 10/100 WAN (Internet) port
- 10/100 LAN port
- WPS button
- Reset button

Wireless Modes
- Router Mode
- Access Point Mode

Wireless Frequency Range [1]
- 2.4 GHz to 2.4835 GHz

Antennas
- Internal Antenna

Security
- Wi-Fi Protected Access (WPA/WPA2)
- WPS™ (PBC)

Advanced Features
- Web Setup Wizard
- UPnP support
- Active Firewall Network Address Translation (NAT)

[1] Frequency Range varies depending on local regulations.

Diagnostic LEDs
- Power
- Internet

Operating Temperature
- 0 to 40 ˚C (32 to 104 ˚F)

Operating Humidity
- 0% to 90% non-condensing

Power
- Input: 100 to 240VAC, 50/60 Hz 0.2A
- Output: 5 V DC output for main board

Certifications
- CE
- Wi-Fi Certified

Dimensions
- 87.6 x 49 x 33.5 mm (3.45 x 1.93 x 1.32 inches)

Weight
- 80 grams (0.18 lbs)

Safety Statements

CE Mark Warning:
This is a Class B product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.