



# User Manual

## Xtreme N<sup>®</sup> Dual Band Gigabit Router

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# 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   |
|----------|-------------------|---|
| 3.0      | November 30, 2011 | • Initial release for Revision C1                         |
| 3.01     | June 15, 2012     | 1. Added QRS Mobile app<br>2. Added SharePoint Mobile app |

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# Package Contents



DIR-825 Xtreme N® Dual Band Gigabit Router



Ethernet Cable



Two Detachable Antennas



Power Adapter



CD-ROM with Manual and Setup Wizard

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

**Note:** Using a power supply with a different voltage rating than the one included with the DIR-825 will cause damage and void the warranty for this product.

# System Requirements

|   |   |
|---|---|
| <b>Network Requirements</b>                         | <ul style="list-style-type: none"><li>• An Ethernet-based Cable or DSL modem</li><li>• IEEE 802.11n or 802.11g wireless clients</li><li>• IEEE 802.11a wireless clients</li><li>• 10/100/1000 Ethernet</li></ul>  |
| <b>Web-based Configuration Utility Requirements</b> | <p><b>Computer with the following:</b></p> <ul style="list-style-type: none"><li>• Windows®, Macintosh, or Linux-based operating system</li><li>• An installed Ethernet adapter</li></ul> <p><b>Browser Requirements:</b></p> <ul style="list-style-type: none"><li>• Internet Explorer 6 or higher</li><li>• Firefox 3.0 or higher</li><li>• Safari 3.0 or higher</li><li>• Chrome 2.0 or higher</li></ul> <p><b>Windows® Users:</b> Make sure you have the latest version of Java installed. Visit <a href="http://www.java.com">www.java.com</a> to download the latest version.</p> |
| <b>CD Installation Wizard Requirements</b>          | <p><b>Computer with the following:</b></p> <ul style="list-style-type: none"><li>• Windows® 7, Vista®, or XP (Service Pack 2 or higher)</li><li>• An installed Ethernet adapter</li><li>• CD-ROM drive</li></ul>  |

# Introduction

## **TOTAL PERFORMANCE**

Combines award winning router features and IEEE 802.11a/g/n wireless technology to provide the best wireless performance.

## **TOTAL SECURITY**

The most complete set of security features including Active Firewall and WPA/WPA2 to protect your network against outside intruders.

## **TOTAL COVERAGE**

Provides greater wireless signal rates even at farther distances for best-in-class Whole Home Coverage.

## **ULTIMATE PERFORMANCE**

The D-Link Xtreme N® Dual Band Gigabit Router (DIR-825) is a 802.11n/802.11a compliant device that delivers real world performance of up to 14x faster than an 802.11g wireless connection (also faster than a 100Mbps wired Ethernet connection). Create a secure wireless network to share photos, files, music, video, printers, and network storage throughout your home. Connect the DIR-825 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.

## **EXTENDED WHOLE HOME COVERAGE**

Powered by Wireless N technology, this high performance router provides superior Whole Home Coverage while reducing dead spots. The router is designed for use in bigger homes and for users who demand higher performance networking. Add a Wireless N notebook or desktop adapter and stay connected to your network from virtually anywhere in your home.

## **TOTAL NETWORK SECURITY**

The Wireless N 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 802.11a, 802.11g and 802.11n 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 DIR-825 provides up to 300Mbps\* 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. The performance of this 802.11n wireless router gives you the freedom of wireless networking at speeds 14x faster than 802.11g.
- **Compatible with 802.11a/g Devices** - The DIR-825 is still fully compatible with the IEEE 802.11g and 802.11a standards, so it can connect with existing 802.11g and 802.11a PCI, USB, and Cardbus adapters.
- **Advanced Firewall Features** - The Web-based user interface displays a number of advanced network management features including:
  - **Content Filtering** - Easily applied content filtering based on MAC Address, URL, and/or Domain Name.
  - **Filter Scheduling** - These filters can be scheduled to be active on certain days or for a duration of hours or minutes.
  - **Secure Multiple/Concurrent Sessions** - The DIR-825 can pass through VPN sessions. It supports multiple and concurrent IPSec and PPTP sessions, so users behind the DIR-825 can securely access corporate networks.
- **User-friendly Setup Wizard** - Through its easy-to-use Web-based user interface, the DIR-825 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 802.11g, 802.11a, and 802.11n 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

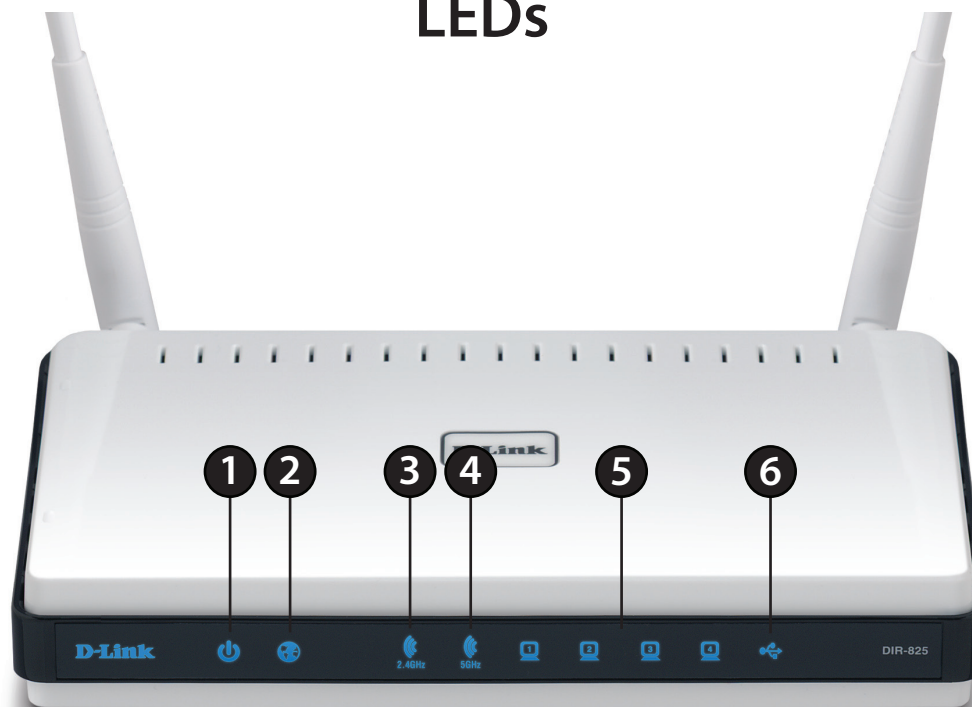
## Connections



|          |                 |   |
|----------|-----------------|---|
| <b>1</b> | LAN Ports (1-4) | Connect 10/100/1000 Ethernet devices such as computers, switches, and NAS.  |
| <b>2</b> | Internet Port   | The auto MDI/MDIX Internet port is the connection for the Ethernet cable to the cable or DSL modem.   |
| <b>3</b> | USB Port        | Connect a USB 1.1 or 2.0 flash drive to configure the wireless settings using WCN and SharePort. SharePort allows you to share a printer or storage device with your local network. |
| <b>4</b> | Power Button    | Press the power button to power on and off.   |
| <b>5</b> | Reset Button    | Pressing the Reset button restores the router to its original factory default settings.   |
| <b>6</b> | Power Receptor  | Receptor for the supplied power adapter.  |

# Hardware Overview

## LEDs



|          |                   |   |
|----------|-------------------|---|
| <b>1</b> | Power LED         | A solid light indicates a proper connection to the power supply.  |
| <b>2</b> | Internet LED      | A solid light indicates connection on the Internet port. This LED blinks during data transmission.  |
| <b>3</b> | WLAN LED (2.4GHz) | A solid light indicates that the 2.4GHz wireless segment is ready. This LED blinks during wireless data transmission.   |
| <b>4</b> | WLAN LED (5GHz)   | A solid light indicates that the 5GHz wireless segment is ready. This LED blinks during wireless data transmission.   |
| <b>5</b> | LAN LEDs (1-4)    | A solid light indicates a connection to an Ethernet-enabled computer on ports 1-4. This LED blinks during data transmission.                                    |
| <b>6</b> | WCN/USB LED       | Insert a USB flash drive with WCN information. The LED will blink 3 times when it successfully transfers the wireless settings. This LED is also for SharePort. |

# Installation

This section will walk you through the installation process. Placement of the router is very important. Do not place the router in an enclosed area such as a closet, cabinet, or in the attic or garage.

## Before you Begin

- Please configure the router with the computer that was last connected directly to your modem.
- You can only use the Ethernet port on your modem. If you were using the USB connection before using the router, then you must turn off your modem, disconnect the USB cable and connect an Ethernet cable to the Internet port on the router, and then turn the modem back on. In some cases, you may need to call your ISP to change connection types (USB to Ethernet).
- If you have DSL and are connecting via PPPoE, make sure you disable or uninstall any PPPoE software such as WinPoet, Broadjump, or Enternet 300 from your computer or you will not be able to connect to the Internet.
- When running the Setup Wizard from the D-Link CD, make sure the computer you are running the CD from is connected to the Internet and online or the wizard will not work. If you have disconnected any hardware, re-connect your computer back to the modem and make sure you are online.

# Wireless Installation Considerations

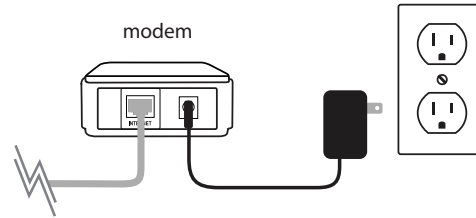
The D-Link wireless router lets you access your network using a wireless connection from virtually anywhere within the operating range of your wireless network. Keep in mind, however, that the number, thickness and location of walls, ceilings, or other objects that the wireless signals must pass through, 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 2.4GHz 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 2.4GHz phone base is as far away from your wireless devices as possible. The base transmits a signal even if the phone is not in use.

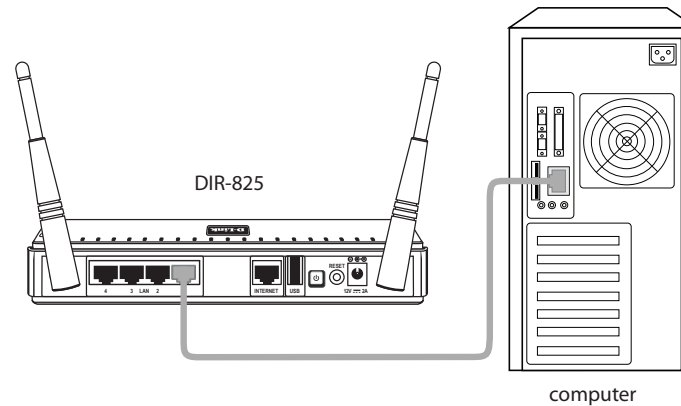
# Manual Setup

**Important:** for best results, insert the Installation CD and follow the on-screen instructions. If you are unable to use the CD or are using Mac or Linux, please use the following installation steps:

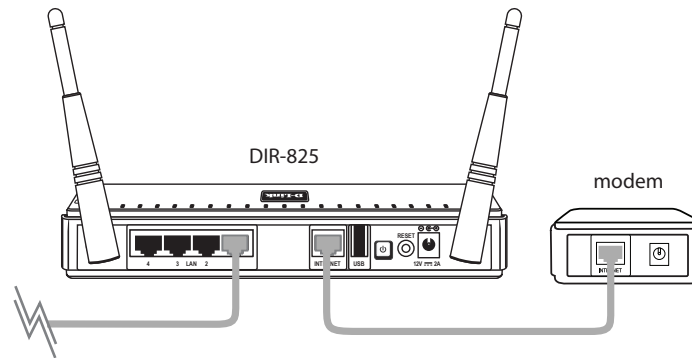
1. Turn off and unplug your cable or DSL broadband modem. This is required.



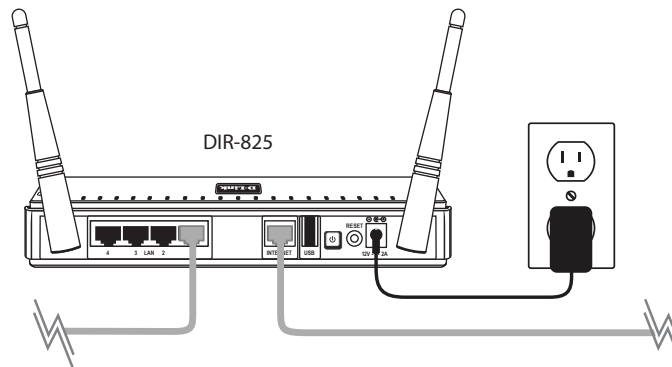
2. Position your router close to your modem and a computer. Place the router in an open area of your intended work area for better wireless coverage.
3. Unplug the Ethernet cable from your modem (or existing router if upgrading) that is connected to your computer. Plug it into the blue port labeled 1 on the back of your router. The router is now connected to your computer.



4. Plug one end of the included blue Ethernet cable that came with your router into the yellow port labeled INTERNET on the back of the router. Plug the other end of this cable into the Ethernet port on your modem.



5. Reconnect the power adapter to your cable or DSL broadband modem and wait for two minutes.
6. Connect the supplied power adapter into the power port on the back of the router and then plug it into a power outlet or surge protector. Press the power button and verify that the power LED is lit. Allow 1 minute for the router to boot up.



7. If you are connecting to a Broadband service that uses a dynamic connection (not PPPoE), you may be online already. Try opening a web browser and enter a web site. If you connect, you are finished with your Internet setup. Please skip to page 13 to configure your router and use the manual setup procedure to configure your network and wireless settings. If you did not connect to the Internet, use the D-Link Setup Wizard (refer to page 15).

# Connect to an Existing Router

**Note:** *It is strongly recommended to replace your existing router with the DIR-825 instead of using both. If your modem is a combo router, you may want to contact your ISP or manufacturer's user guide to put the router into Bridge mode, which will 'turn off' the router (NAT) functions.*

If you are connecting the DIR-825 router to an existing router to use as a wireless access point and/or switch, you will have to do the following to the DIR-825 before connecting it to your network:

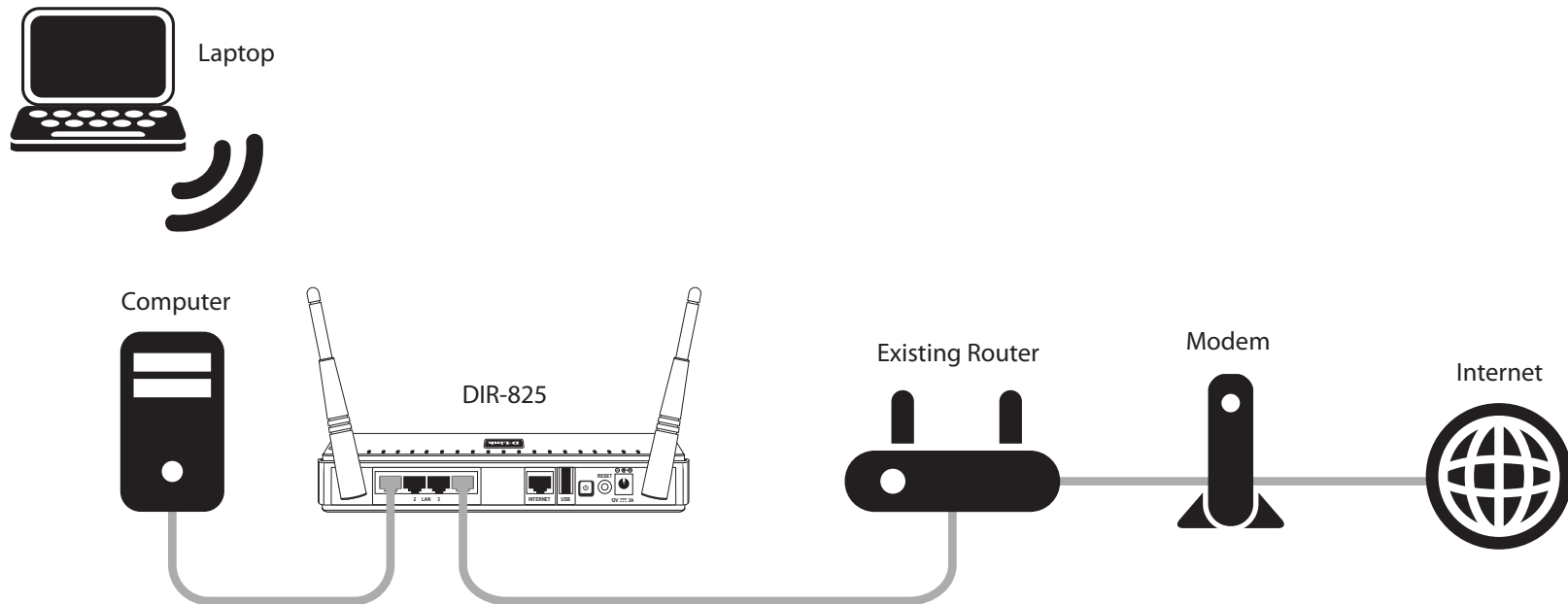
- Disable UPnP™
- Disable DHCP
- Change the LAN IP address to an available address on your network. The LAN ports on the router cannot accept a DHCP address from your other router.

To connect to another router, please follow the steps below:

1. Plug the power into the router. Connect one of your computers to the router (LAN port) using an Ethernet cable. Make sure your IP address on the computer is 192.168.0.xxx (where xxx is between 2 and 254). Please see the **Networking Basics** section for more information. If you need to change the settings, write down your existing settings before making any changes. In most cases, your computer should be set to receive an IP address automatically in which case you will not have to do anything to your computer.
2. Open a web browser, enter **http://192.168.0.1** and press **Enter**. When the login window appears, set the user name to **Admin** and leave the password box empty. Click **Log In** to continue.
3. Click on **Advanced** and then click **Advanced Network**. Uncheck the **Enable UPnP** checkbox. Click **Save Settings** to continue.
4. Click **Setup** and then click **Network Settings**. Uncheck the **Enable DHCP Server** checkbox. Click **Save Settings** to continue.



5. Under Router Settings, enter an available IP address and the subnet mask of your network. Click **Save Settings** to save your settings. Use this new IP address to access the configuration utility of the router in the future. Close the browser and change your computer's IP settings back to the original values as in Step 1.
6. Disconnect the Ethernet cable from the router and reconnect your computer to your network.
7. Connect an Ethernet cable in one of the **LAN** ports of the router and connect it to your other router. Do not plug anything into the Internet (WAN) port of the D-Link router.
8. You may now use the other 3 LAN ports to connect other Ethernet devices and computers. To configure your wireless network, open a web browser and enter the IP address you assigned to the router. Refer to the **Configuration** and **Wireless Security** sections for more information on setting up your wireless network.



# Configuration

There are several different ways you can configure your router to connect to the Internet and connect to your clients:

- **Quick Router Setup Wizard** - Insert the supplied CD and launch the setup wizard (see below).
- **D-Link Setup Wizard** - This wizard will launch if you do not run the CD wizard and log into the router for the first time. Refer to page 15.
- **Manual Setup** - Log into the router and manually configure your router (advanced users only). Refer to page 21.

## Quick Router Setup Wizard (CD)

To run the **Quick Router Setup Wizard**, insert the CD in the CD-ROM drive. When the autorun screen appears, click **English** (or **French**), and then click the **Install** button.

**Note:** If the CD Autorun function does not automatically start on your computer, go to **Start > Run**. In the run box type **D:\autorun.exe** (where D: represents the drive letter of your CD-ROM drive).



When the Wizard appears, select your language from the drop-down menu and then click **Next** to continue. Follow the on-screen instructions to configure your router.



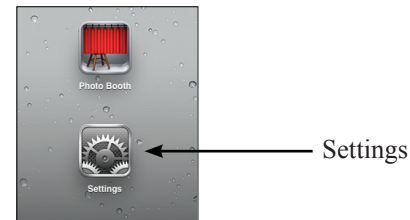
Once you are finished, you may skip to page 21 and will be able to log into the web-based configuration utility and configure more advanced features.

## Quick Router Setup for Mobile Device

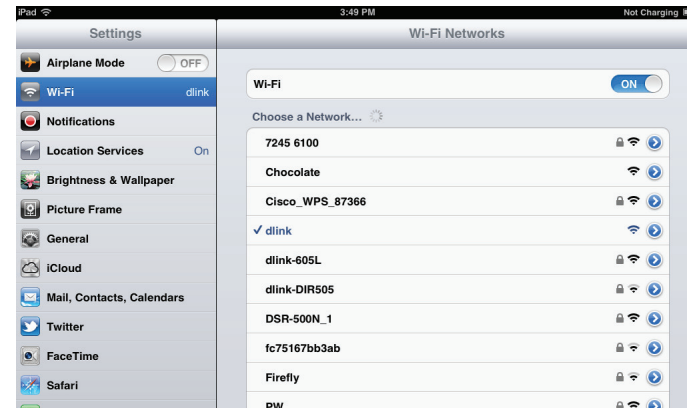
1. Scan the bar code to download “QRS Mobile” app from the app store to your iPhone or iPad.



2. From your mobile device, click Settings. Then, click Wi-Fi.



3. Select the default network “dlink”.



4. Once it connected, click on the **QRS Mobile** icon.



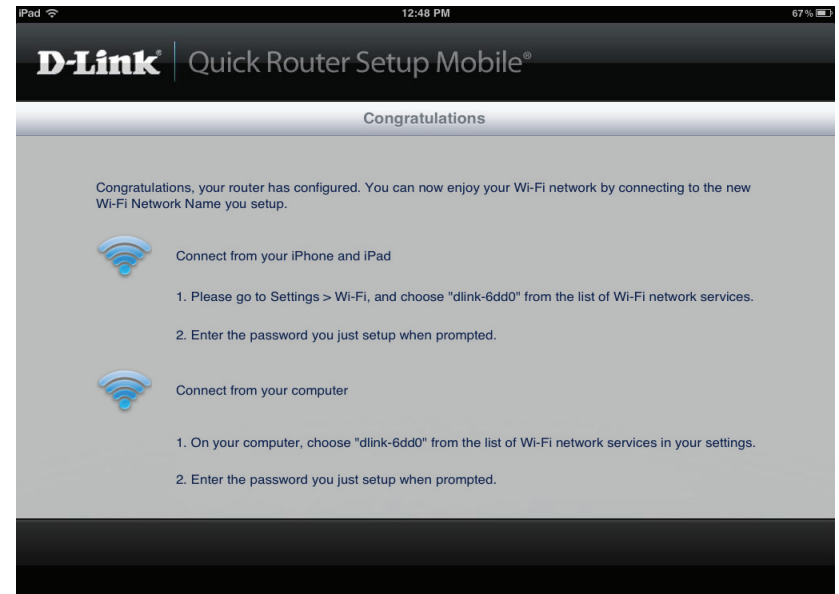
5. Click **Start** to continue.



6. Follow the instruction and click **Next** to continue.



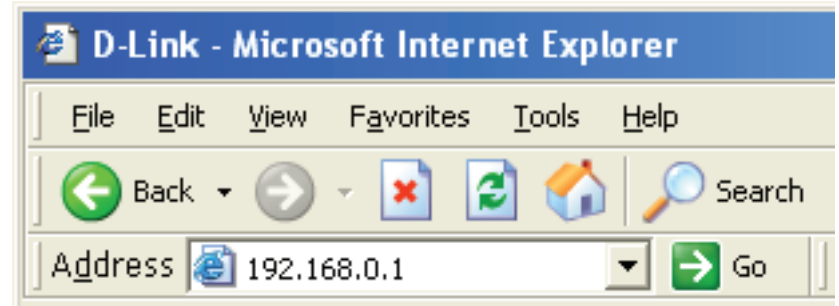
7. Once the Setup is complete, the following screen will show up. Then, select your new Wi-Fi Name and enter the password you just setup from your laptop or mobile device.



# Quick Setup Wizard

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

Windows and Mac users may also connect by typing: **http://dlinkrouter** or **http://dlinkrouter.local** in the address bar.

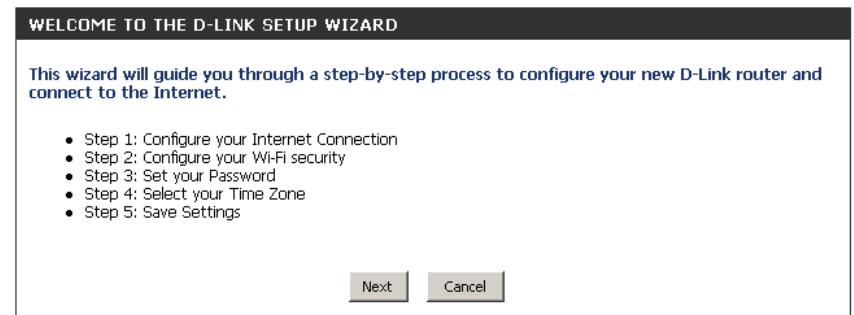


If you are logging in after the router has been configured, skip to page 21.

If you did not run the setup wizard from the CD and this is the first time logging into the router, this wizard will start automatically.

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.

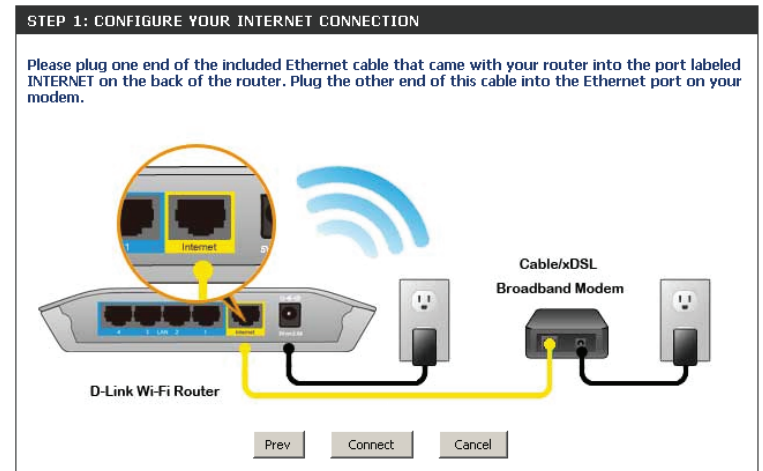
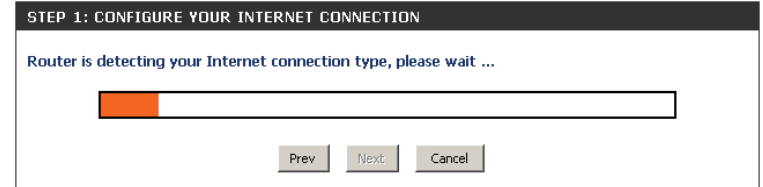
Click **Next** to continue.



Please wait while your router detects your internet connection type. If the router detects your Internet connection, you may need to enter your ISP information such as username and password.

If the router does not detect a valid Ethernet connection from the Internet port, this screen will appear. Connect your broadband modem to the Internet port and then click **Try Again**.

If the router detects an Ethernet connection but does not detect the type of Internet connection you have, this screen will appear. Click **Guide me through the Internet Connection Settings** to display a list of connection types to choose from.





Select your Internet connection type and click **Next** to continue.

**STEP 1: CONFIGURE YOUR INTERNET CONNECTION**

Please select your Internet connection type below:

- DHCP Connection (Dynamic IP Address)**  
Choose this if your Internet connection automatically provides you with an IP Address. Most Cable Modems use this type of connection.
- Username / Password Connection (PPPoE)**  
Choose this option if your Internet connection requires a username and password to get online. Most DSL modems use this connection type of connection.
- Username / Password Connection (PPTP)**  
PPTP client.
- Username / Password Connection (L2TP)**  
L2TP client.
- Static IP Address Connection**  
Choose this option if your Internet Setup Provider provided you with IP Address information that has to be manually configured.

If the router detected or you selected **PPPoE**, enter your PPPoE username and password and click **Next** to continue.

**Note:** Make sure to remove your PPPoE software from your computer. The software is no longer needed and will not work through a router.

**SET USERNAME AND PASSWORD CONNECTION (PPPoE)**

To set up this connection you will need to have a Username and Password from your Internet Service Provider. If you do not have this information, please contact your ISP.

User Name :

Password :

If the router detected or you selected **PPTP**, enter your PPTP username, password, and other information supplied by your ISP. Click **Next** to continue.

**SET USERNAME AND PASSWORD CONNECTION (PPTP)**

To set up this connection you will need to have a Username and Password from your Internet Service Provider. You also need PPTP IP address. If you do not have this information, please contact your ISP.

Address Mode :  Dynamic IP  Static IP

PPTP IP Address :

PPTP Subnet Mask :

PPTP Gateway IP Address :

PPTP Server IP Address (may be same as gateway) :

User Name :

Password :

Verify Password :

---

**DNS SETTINGS**

Primary DNS Address :

Secondary DNS Address :

If the router detected or you selected **L2TP**, enter your L2TP username, password, and other information supplied by your ISP. Click **Next** to continue.

**SET USERNAME AND PASSWORD CONNECTION (L2TP)**

To set up this connection you will need to have a Username and Password from your Internet Service Provider. You also need L2TP IP address. If you do not have this information, please contact your ISP.

Address Mode :  Dynamic IP  Static IP

L2TP IP Address :

L2TP Subnet Mask :

L2TP Gateway IP Address :

L2TP Server IP Address (may be same as gateway) :

User Name :

Password :

Verify Password :

**DNS SETTINGS**

Primary DNS Address :

Secondary DNS Address :

If the router detected or you selected **Static**, enter the IP and DNS settings supplied by your ISP. Click **Next** to continue.

**SET STATIC IP ADDRESS CONNECTION**

To set up this connection you will need to have a complete list of IP information provided by your Internet Service Provider. If you have a Static IP connection and do not have this information, please contact your ISP.

IP Address :

Subnet Mask :

Gateway Address :

**DNS SETTINGS**

Primary DNS Address :

Secondary DNS Address :

For both the 2.4GHz and 5GHz segments, create a wireless network a name (SSID) using up to 32 characters.

Create a wireless security passphrase or key (between 8-63 characters). Your wireless clients will need to have this passphrase or key entered to be able to connect to your wireless network.

Click **Next** to continue.

**STEP 2: CONFIGURE YOUR WI-FI SECURITY**

Give your Wi-Fi network a name and a password. (2.4GHz Band)  
Wi-Fi Network Name (SSID) :  (Using up to 32 characters)  
Wi-Fi Password :  (Between 8 and 63 characters)

Give your Wi-Fi network a name and a password. (5GHz Band)  
Wi-Fi Network Name (SSID) :  (Using up to 32 characters)  
Wi-Fi Password :  (Between 8 and 63 characters)

In order to secure your router, please enter a new password. Check the Enable Graphical Authentication box to enable CAPTCHA authentication for added security. Click **Next** to continue.

**STEP 3: SET YOUR PASSWORD**

By default, your new D-Link Router does not have a password configured for administrator access to the Web-based configuration pages. To secure your new networking device, please set and verify a password below, and enabling CAPTCHA Graphical Authentication provides added security protection to prevent unauthorized online users and hacker software from accessing your network settings.

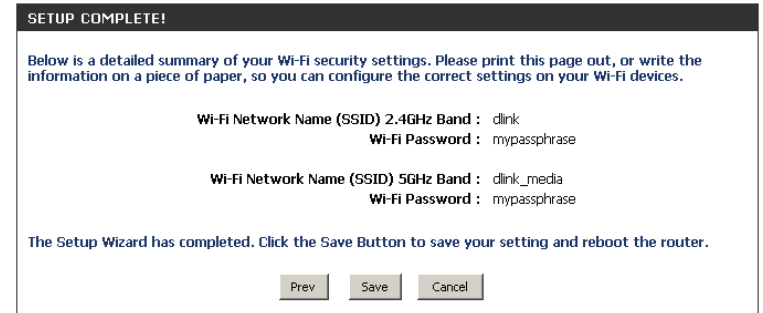
Password :   
Verify Password :   
Enable Graphical Authentication :

Select your time zone from the drop-down menu and click **Next** to continue.

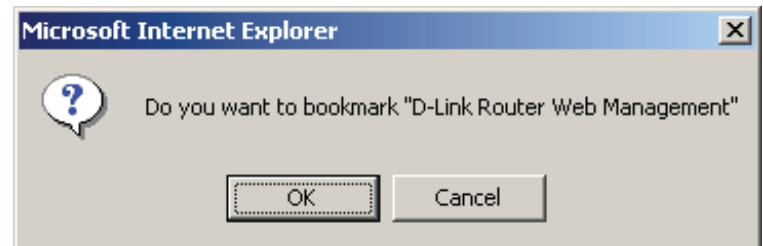
**STEP 4: SELECT YOUR TIME ZONE**

Select the appropriate time zone for your location. This information is required to configure the time-based options for the router.

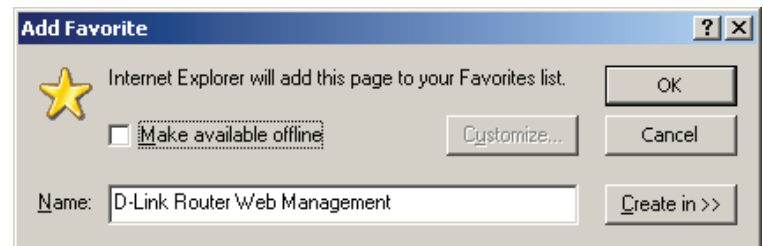
The Setup Complete window will display your wireless settings. Click **Save and Connect** to continue.



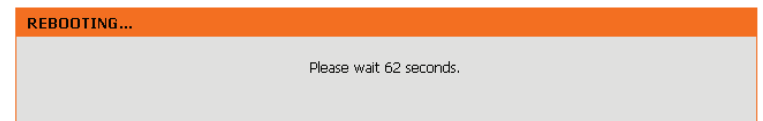
If you want to create a bookmark to the router, click **OK**. Click **Cancel** if you do not want to create a bookmark.



If you clicked **Yes**, a window may appear (depending on what web browser you are using) to create a bookmark.



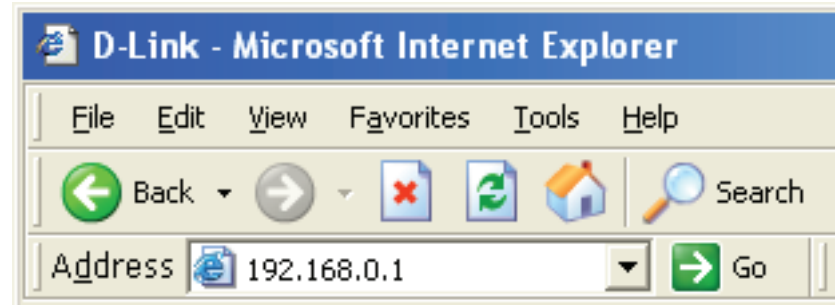
The router will now reboot. Please allow a minute or two. Click the **Continue** button once it is active.



# Web-based Configuration Utility

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

Windows and Mac users may also connect by typing: **http://dlinkrouter** or **http://dlinkrouter.local** in the address bar.



Select **Admin** from the drop-down menu and then enter your password. Leave the password blank by default.

A screenshot of the "LOGIN" page for the router configuration utility. The page has an orange header with the word "LOGIN" in white. Below the header, the text "Log in to the router" is displayed. There are two input fields: "User Name" with a dropdown menu showing "Admin" selected, and "Password" with an empty text box. A "Login" button is located to the right of the password field.

# Internet Connection Setup

Click **Manual Internet Connection Setup** to configure your connection manually and continue to the next page.

If you want to configure your router to connect to the Internet using the wizard, click **Internet Connection Setup Wizard**. You will be directed to the Quick Setup Wizard. Please skip to page 15.

The screenshot displays the D-Link DIR-825 web interface. At the top, the D-Link logo is visible. Below it, a navigation bar includes tabs for SETUP, ADVANCED, TOOLS, STATUS, and SUPPORT. The left sidebar shows menu items: INTERNET, WIRELESS SETTINGS, NETWORK SETTINGS, MEDIA SERVER, and IPV6. The main content area is titled 'INTERNET' and contains the following sections:

- INTERNET CONNECTION SETUP WIZARD**: A section with a button labeled 'Internet Connection Setup Wizard'. Below it, a note states: 'Note : Before launching these wizards, please make sure you have followed all steps outlined in the Quick Installation Guide included in the package.'
- MANUAL INTERNET CONNECTION OPTIONS**: A section with a button labeled 'Manual Internet Connection Setup'.

On the right side, there is a 'Helpful Hints...' section with text: 'If you are new to networking and have never configured a router before, click on **Internet Connection Setup Wizard** and the router will guide you through a few simple steps to get your network up and running.' Below this, another hint says: 'If you consider yourself an advanced user and have configured a router before, click **Manual Internet Connection Setup** to input all the settings manually.' A 'More...' link is also present.

At the bottom of the interface, the word 'WIRELESS' is displayed.

# Manual Internet Setup

## Static (assigned by ISP)

Select Static IP Address if all the Internet port's IP information is provided to you by your ISP. You will need to enter in the IP address, subnet mask, gateway address, and DNS address(es) provided to you by your ISP. Each IP address entered in the fields must be in the appropriate IP form, which are four octets separated by a dot (x.x.x.x). The Router will not accept the IP address if it is not in this format.

**My Internet Connection:** Select **Static IP** to manually enter the IP settings supplied by your ISP.

**Enable Advanced DNS Service:** Advanced Domain Name System (DNS) services enhances your Internet performance by getting you the information and web pages you are looking for faster and more reliably. In addition, it improves your overall Internet experience by correcting many common typo mistakes automatically, taking you where you intended to go and saving you valuable time.

***Disclaimer:** D-Link makes no warranty as to the availability, reliability, functionality and operation of the Advanced DNS service or its features.*

**Enable True Gigabit Routing Connectivity:** Check to enable true Gigabit routing. This will increase the through-put of the WAN-LAN connectivity of the router.

**IP Address:** Enter the IP address assigned by your ISP.

**Subnet Mask:** Enter the Subnet Mask assigned by your ISP.

**Default Gateway:** Enter the Gateway assigned by your ISP.

**DNS Servers:** The DNS server information will be supplied by your ISP (Internet Service Provider.)

**MTU:** Maximum Transmission Unit - you may need to change the MTU for optimal performance with your specific ISP. 1500 is the default MTU.

**INTERNET CONNECTION TYPE**

Choose the mode to be used by the router to connect to the Internet.

My Internet Connection is :

---

**ADVANCED DNS SERVICE**

Advanced DNS is a free security option that provides Anti-Phishing to protect your Internet connection from fraud and navigation improvements such as auto-correction of common URL typos.

Enable Advanced DNS Service :

---

**TRUE GIGABIT ROUTING CONNECTIVITY SETTING**

Enable True Gigabit Routing Connectivity :

---

**STATIC IP ADDRESS INTERNET CONNECTION TYPE**

Enter the static address information provided by your Internet Service Provider (ISP).

IP Address :

Subnet Mask :

Default Gateway :

Primary DNS Server :

Secondary DNS Server :

MTU :  (bytes) MTU default = 1500

MAC Address :

Copy Your PC's MAC Address

**MAC Address:** The default MAC Address is set to the Internet port's physical interface MAC address on the Broadband Router. It is not recommended that you change the default MAC address unless required by your ISP. You can use the **Copy Your PC's MAC Address** button to replace the Internet port's MAC address with the MAC address of your Ethernet card.



## Dynamic (Cable)

**My Internet Connection:** Select **Dynamic IP (DHCP)** to obtain IP Address information automatically from your ISP. Select this option if your ISP does not give you any IP numbers to use. This option is commonly used for cable modem services.

**Enable Advanced DNS Service:** Advanced Domain Name System (DNS) services enhances your Internet performance by getting you the information and web pages you are looking for faster and more reliably. In addition, it improves your overall Internet experience by correcting many common typo mistakes automatically, taking you where you intended to go and saving you valuable time.

**Disclaimer:** D-Link makes no warranty as to the availability, reliability, functionality and operation of the Advanced DNS service or its features.

**Enable True Gigabit Routing Connectivity:** Check to enable true Gigabit routing. This will increase the through-put of the WAN-LAN connectivity of the router.

**Host Name:** The Host Name is optional but may be required by some ISPs. Leave blank if you are not sure.

**Use Unicasting:** Check the box if you are having problems obtaining an IP address from your ISP.

**Primary/Secondary DNS Server:** Enter the Primary and secondary DNS server IP addresses assigned by your ISP. These addresses are usually obtained automatically from your ISP. Leave at 0.0.0.0 if you did not specifically receive these from your ISP.

**MTU:** Maximum Transmission Unit - you may need to change the MTU for optimal performance with your specific ISP. 1500 is the default MTU.

**MAC Address:** The default MAC Address is set to the Internet port's physical interface MAC address on the Broadband Router. It is not recommended that you change the default MAC address unless required by your ISP. You can use the **Copy Your PC's MAC Address** button to replace the Internet port's MAC address with the MAC address of your Ethernet card.

**INTERNET CONNECTION TYPE**

Choose the mode to be used by the router to connect to the Internet.

My Internet Connection is :

---

**ADVANCED DNS SERVICE**

Advanced DNS is a free security option that provides Anti-Phishing to protect your Internet connection from fraud and navigation improvements such as auto-correction of common URL typos.

Enable Advanced DNS Service :

---

**TRUE GIGABIT ROUTING CONNECTIVITY SETTING**

Enable True Gigabit Routing Connectivity :

---

**DYNAMIC IP (DHCP) INTERNET CONNECTION TYPE**

Use this Internet connection type if your Internet Service Provider (ISP) didn't provide you with IP Address information and/or a username and password.

Host Name :

Use Unicasting :  (compatibility for some DHCP Servers)

Primary DNS Server :

Secondary DNS Server :

MTU :  (bytes)MTU default = 1500

MAC Address :

# Internet Setup

## PPPoE (DSL)

Choose PPPoE (Point to Point Protocol over Ethernet) if your ISP uses a PPPoE connection. Your ISP will provide you with a username and password. This option is typically used for DSL services. Make sure to remove your PPPoE software from your computer. The software is no longer needed and will not work through a router.

**My Internet Connection:** Select **PPPoE (Username/Password)** from the drop-down menu.

**Enable Advanced DNS Service:** Advanced Domain Name System (DNS) services enhances your Internet performance by getting you the information and web pages you are looking for faster and more reliably. In addition, it improves your overall Internet experience by correcting many common typo mistakes automatically, taking you where you intended to go and saving you valuable time.

**Disclaimer:** D-Link makes no warranty as to the availability, reliability, functionality and operation of the Advanced DNS service or its features.

**Enable True Gigabit Routing Connectivity:** Check to enable true Gigabit routing. This will increase the through-put of the WAN-LAN connectivity of the router.

**Address Mode:** Select **Static IP** if your ISP assigned you the IP address, subnet mask, gateway, and DNS server addresses. In most cases, select **Dynamic**.

**IP Address:** Enter the IP address (Static PPPoE only).

**User Name:** Enter your PPPoE user name.

**Password:** Enter your PPPoE password and then retype the password in the next box.

**Service Name:** Enter the ISP Service Name (optional).

**Reconnect Mode:** Select either **Always-on**, **On-Demand**, or **Manual**.

| INTERNET CONNECTION TYPE   |
|--|
| Choose the mode to be used by the router to connect to the Internet.   |
| My Internet Connection is : <input type="text" value="PPPoE (Username / Password)"/>   |
| ADVANCED DNS SERVICE   |
| Advanced DNS is a free security option that provides Anti-Phishing to protect your Internet connection from fraud and navigation improvements such as auto-correction of common URL typos. |
| Enable Advanced DNS Service : <input type="checkbox"/>   |
| TRUE GIGABIT ROUTING CONNECTIVITY SETTING  |
| Enable True Gigabit Routing Connectivity : <input type="checkbox"/>  |
| PPPOE INTERNET CONNECTION TYPE   |
| Enter the information provided by your Internet Service Provider (ISP).  |
| Address Mode : <input checked="" type="radio"/> Dynamic IP (DHCP) <input type="radio"/> Static IP  |
| IP Address : <input type="text" value="0.0.0.0"/>  |
| Username : <input type="text"/>  |
| Password : <input type="password" value="*****"/>  |
| Verify Password : <input type="password" value="*****"/>   |
| Service Name : <input type="text"/> (optional)   |
| Reconnect Mode : <input type="radio"/> Always on <input checked="" type="radio"/> On demand <input type="radio"/> Manual   |
| Maximum Idle Time : <input type="text" value="5"/> (minutes, 0=infinite)   |
| Primary DNS Address : <input type="text" value="0.0.0.0"/> (Optional)  |
| Secondary DNS Address : <input type="text" value="0.0.0.0"/> (Optional)  |
| MTU : <input type="text" value="1492"/> (bytes) MTU default = 1492   |
| MAC Address : <input type="text" value="00:18:E7:95:68:9F"/>   |
| <input type="checkbox"/> Clone Your PC's MAC Address   |

**Maximum Idle Time:** Enter a maximum idle time during which the Internet connection is maintained during inactivity. To disable this feature, enable Auto-reconnect.

**DNS Addresses:** Enter the Primary and Secondary DNS Server Addresses (Static PPPoE only).

**MTU:** Maximum Transmission Unit - you may need to change the MTU for optimal performance with your specific ISP. 1492 is the default MTU.

**MAC Address:** The default MAC Address is set to the Internet port's physical interface MAC address on the Broadband Router. It is not recommended that you change the default MAC address unless required by your ISP. You can use the **Copy Your PC's MAC Address** button to replace the Internet port's MAC address with the MAC address of your Ethernet card.

# Internet Setup

## PPTP

Choose PPTP (Point-to-Point-Tunneling Protocol) if your ISP uses a PPTP connection. Your ISP will provide you with a username and password. This option is typically used for DSL services.

**My Internet Connection:** Select **PPTP (Username/Password)** from the drop-down menu.

**Enable Advanced DNS Service:** Advanced Domain Name System (DNS) services enhances your Internet performance by getting you the information and web pages you are looking for faster and more reliably. In addition, it improves your overall Internet experience by correcting many common typo mistakes automatically, taking you where you intended to go and saving you valuable time.

**Disclaimer:** D-Link makes no warranty as to the availability, reliability, functionality and operation of the Advanced DNS service or its features.

**Enable True Gigabit Routing Connectivity:** Check to enable true Gigabit routing. This will increase the throughput of the WAN-LAN connectivity of the router.

**Address Mode:** Select **Static** if your ISP assigned you the IP address, subnet mask, gateway, and DNS server addresses. In most cases, select **Dynamic**.

**PPTP IP Address:** Enter the IP address (Static PPTP only).

**PPTP Subnet Mask:** Enter the Primary and Secondary DNS Server Addresses (Static PPTP only).

**PPTP Gateway:** Enter the Gateway IP Address provided by your ISP.

**PPTP Server IP:** Enter the Server IP provided by your ISP (optional).

**INTERNET CONNECTION TYPE**

Choose the mode to be used by the router to connect to the Internet.

**My Internet Connection is :** PPTP (Username / Password) ▾

---

**ADVANCED DNS SERVICE**

Advanced DNS is a free security option that provides Anti-Phishing to protect your Internet connection from fraud and navigation improvements such as auto-correction of common URL typos.

**Enable Advanced DNS Service :**

---

**PPTP**

Enter the information provided by your Internet Service Provider (ISP).

**Address Mode :**  Dynamic IP (DHCP)  Static IP

**PPTP IP Address :**

**PPTP Subnet Mask :**

**PPTP Gateway IP Address :**

**PPTP Server IP Address :**

**Username :**

**Password :**

**Verify Password :**

**Reconnect Mode :**  Always on  On demand  Manual

**Maximum Idle Time :**  (minutes, 0=infinite)

**Primary DNS Address :**

**Secondary DNS Address :**

**MTU :**  (bytes) MTU default = 1400

**MAC Address :**

Clone Your PC's MAC Address

**Username:** Enter your PPTP username.

**Password:** Enter your PPTP password and then retype the password in the next box.

**Reconnect Mode:** Select either **Always-on**, **On-Demand**, or **Manual**.

**Maximum Idle Time:** Enter a maximum idle time during which the Internet connection is maintained during inactivity. To disable this feature, enable Auto-reconnect.

**DNS Servers:** The DNS server information will be supplied by your ISP (Internet Service Provider.)

**MTU:** Maximum Transmission Unit - you may need to change the MTU for optimal performance with your specific ISP. 1400 is the default MTU.

**MAC Address:** The default MAC Address is set to the Internet port's physical interface MAC address on the Broadband Router. It is not recommended that you change the default MAC address unless required by your ISP. You can use the **Clone Your PC's MAC Address** button to replace the Internet port's MAC address with the MAC address of your Ethernet card.

# Internet Setup

## L2TP

Choose L2TP (Layer 2 Tunneling Protocol) if your ISP uses a L2TP connection. Your ISP will provide you with a username and password. This option is typically used for DSL services.

**My Internet Connection:** Select **L2TP (Username/Password)** from the drop-down menu.

**Enable Advanced DNS Service:** Advanced Domain Name System (DNS) services enhances your Internet performance by getting you the information and web pages you are looking for faster and more reliably. In addition, it improves your overall Internet experience by correcting many common typo mistakes automatically, taking you where you intended to go and saving you valuable time.

**Disclaimer:** D-Link makes no warranty as to the availability, reliability, functionality and operation of the Advanced DNS service or its features.

**Enable True Gigabit Routing Connectivity:** Check to enable true Gigabit routing. This will increase the through-put of the WAN-LAN connectivity of the router.

**Address Mode:** Select **Static** if your ISP assigned you the IP address, subnet mask, gateway, and DNS server addresses. In most cases, select **Dynamic**.

**L2TP IP Address:** Enter the L2TP IP address supplied by your ISP (Static only).

**L2TP Subnet Mask:** Enter the Subnet Mask supplied by your ISP (Static only).

**L2TP Gateway:** Enter the Gateway IP Address provided by your ISP.

**L2TP Server IP:** Enter the Server IP provided by your ISP (optional).

**INTERNET CONNECTION TYPE**

Choose the mode to be used by the router to connect to the Internet.

My Internet Connection is : L2TP (Username / Password) ▾

---

**ADVANCED DNS SERVICE**

Advanced DNS is a free security option that provides Anti-Phishing to protect your Internet connection from fraud and navigation improvements such as auto-correction of common URL typos.

Enable Advanced DNS Service :

---

**L2TP**

Enter the information provided by your Internet Service Provider (ISP).

Address Mode :  Dynamic IP (DHCP)  Static IP

L2TP :

L2TP Subnet Mask :

L2TP Gateway IP Address :

L2TP Server IP Address :

Username:

Password :

Verify Password :

Reconnect Mode :  Always on  On demand  Manual

Maximum Idle Time :  (minutes, 0=infinite)

Primary DNS Address :

Secondary DNS Address :

MTU :  (bytes) MTU default = 1400

MAC Address :

**Username:** Enter your L2TP username.

**Password:** Enter your L2TP password and then retype the password in the next box.

**Reconnect Mode:** Select either **Always-on**, **On-Demand**, or **Manual**.

**Maximum Idle Time:** Enter a maximum idle time during which the Internet connection is maintained during inactivity. To disable this feature, enable Auto-reconnect.

**DNS Servers:** Enter the Primary and Secondary DNS Server Addresses (Static L2TP only).

**MTU:** Maximum Transmission Unit - you may need to change the MTU for optimal performance with your specific ISP. 1400 is the default MTU.

**Clone MAC Address:** The default MAC Address is set to the Internet port's physical interface MAC address on the Broadband Router. It is not recommended that you change the default MAC address unless required by your ISP. You can use the **Clone Your PC's MAC Address** button to replace the Internet port's MAC address with the MAC address of your Ethernet card.

# Internet Setup

## DS-Lite

Another Internet Connection type is DS-Lite.

DS-Lite is an IPv6 connection type. After selecting DS-Lite, the following parameters will be available for configuration:

**DS-Lite Configuration:** Select the DS-Lite DHCPv6 option to let the router allocate the AFTR IPv6 address automatically. Select the Manual Configuration to enter the AFTR IPv6 address in manually.

**AFTR IPv6 Address:** After selecting the Manual Configuration option above, enter the AFTR IPv6 address used here.

**B4 IPv4 Address:** Enter the B4 IPv4 address value used here.

**WAN IPv6 Address:** Once connected, the WAN IPv6 address will be displayed here.

**IPv6 WAN Default Gateway:** Once connected, the IPv6 WAN Default Gateway address will be displayed here.

**INTERNET CONNECTION TYPE**

Choose the mode to be used by the router to connect to the Internet.

My Internet Connection is :

---

**AFTR ADDRESS INTERNET CONNECTION TYPE**

Enter the AFTR address information provided by your Internet Service Provider(ISP).

DS-Lite Configuration  DS-Lite DHCPv6 Option  Manual Configuration

AFTR IPv6 Address :

B4 IPv4 Address : 192.0.0.1  (Optional)

WAN IPv6 Address :

IPv6 WAN Default Gateway :



# Wireless Settings

If you want to configure the wireless settings on your router using the wizard, click **Wireless Security Setup Wizard** and refer to page 38.

Click **Add Wireless Device with WPS** if you want to add a wireless device using Wi-Fi Protected Setup (WPS) and refer to page 41.

If you want to manually configure the wireless settings on your router click **Manual Wireless Network Setup** and refer to the next page.

The screenshot displays the D-Link router's configuration interface. At the top, the D-Link logo is visible. Below it, a navigation bar includes 'DIR-825', 'SETUP', 'ADVANCED', 'TOOLS', 'STATUS', and 'SUPPORT'. The left sidebar lists menu items: 'INTERNET', 'WIRELESS SETTINGS', 'NETWORK SETTINGS', 'MEDIA SERVER', and 'IPv6'. The main content area is titled 'WIRELESS SETTINGS' and contains three wizard sections:

- WIRELESS NETWORK SETUP WIZARD**: This wizard is designed to assist you in your wireless network setup. It will guide you through step-by-step instructions on how to set up your wireless network and how to make it secure. A button labeled 'Wireless Network Setup Wizard' is provided.
- ADD WIRELESS DEVICE WITH WPS (WI-FI PROTECTED SETUP) WIZARD**: This wizard is designed to assist you in connecting your wireless device to your router. It will guide you through step-by-step instructions on how to get your wireless device connected. Click the button below to begin. A button labeled 'Add Wireless Device with WPS' is provided.
- MANUAL WIRELESS NETWORK SETUP**: If your wireless network is already set up with Wi-Fi Protected Setup, manual configuration of the wireless network will destroy the existing wireless network. If you would like to configure the wireless settings of your new D-Link Systems Router manually, then click on the Manual Wireless Network Setup button below. A button labeled 'Manual Wireless Network Setup' is provided.

On the right side, there is a 'Helpful Hints ...' section with text: 'If you are new to wireless networking and have never configured a wireless router before, click on **Wireless Network Setup Wizard** and the router will guide you through a few simple steps to get your wireless network up and running.' Below this is another hint: 'If you consider yourself an advanced user and have configured a wireless router before, click **Manual Wireless Network Setup** to input all the settings manually.' A 'More...' link is also present.

# Manual Wireless Settings

## 802.11n/g (2.4GHz)

**Enable Wireless:** Check the box to enable the wireless function. If you do not want to use wireless, uncheck the box to disable all the wireless functions.

**Schedule:** Select the time frame that you would like your wireless network enabled. The schedule may be set to **Always**. Any schedule you create will be available in the drop-down menu. Click **New Schedule** to create a schedule.

**WIRELESS NETWORK SETTINGS**

Wireless Band : 2.4GHz Band

Enable Wireless :  Always

Wireless Network Name : dlink (Also called the SSID)

802.11 Mode : Mixed 802.11n, 802.11g and 802.11b

Enable Auto Channel Scan :

Wireless Channel : 2.412 GHz - CH 1

Channel Width : Auto 20/40 MHz

Visibility Status :  Visible  Invisible

**Wireless Network Name:** Service Set Identifier (SSID) is the name of your wireless network. Create a name for your wireless network using up to 32 characters. The SSID is case-sensitive.

**802.11 Mode:** Select one of the following:

**802.11b Only** - Select only if all of your wireless clients are 802.11b.

**802.11g Only** - Select only if all of your wireless clients are 802.11g.

**802.11n Only** - Select only if all of your wireless clients are 802.11n.

**Mixed 802.11g and 802.11b** - Select if you are using both 802.11g and 802.11b wireless clients.

**Mixed 802.11n and 802.11g** - Select if you are using both 802.11n and 802.11g wireless clients.

**Mixed 802.11n, 11g, and 11b** - Select if you are using a mix of 802.11n, 802.11g, and 802.11b wireless clients.

**Enable Auto Channel Scan:** The **Auto Channel Scan** setting can be selected to allow the DIR-825 to choose the channel with the least amount of interference.

**Wireless Channel:** Indicates the channel setting for the DIR-825. By default the channel is set to 6. The Channel can be changed to fit the channel setting for an existing wireless network or to customize the wireless network. If you enable **Auto Channel Scan**, this option will be greyed out.

**Transmission Rate:** Select the transmit rate. It is strongly suggested to select **Best (Auto)** for best performance.

**Channel Width:** Select the Channel Width:

**Auto 20/40** - This is the default setting. Select if you are using both 802.11n and non-802.11n wireless devices.

**20MHz** - Select if you are not using any 802.11n wireless clients.

**Visibility Status:** Select **Invisible** if you do not want the SSID of your wireless network to be broadcasted by the DIR-825. If Invisible is selected, the SSID of the DIR-825 will not be seen by Site Survey utilities so your wireless clients will have to know the SSID of your DIR-825 in order to connect to it.

**Wireless Security:** Refer to page 38 for more information regarding wireless security.

## 802.11n/a (5GHz)

**Enable Wireless:** Check the box to enable the wireless function. If you do not want to use wireless, uncheck the box to disable all the wireless functions.

**Schedule:** Select the time frame that you would like your wireless network enabled. The schedule may be set to **Always**. Any schedule you create will be available in the drop-down menu. Click **New Schedule** to create a schedule.

**Wireless Network Name:** Service Set Identifier (SSID) is the name of your wireless network. Create a name for your wireless network using up to 32 characters. The SSID is case-sensitive.

**802.11 Mode:** Select one of the following:

**802.11a Only** - Select if all of your wireless clients are 802.11a.

**802.11n Only** - Select only if all of your wireless clients are 802.11n.

**Mixed 802.11n and 802.11a** - Select if you are using both 802.11n and 802.11a wireless clients.

**Enable Auto Channel Scan:** The **Auto Channel Scan** setting can be selected to allow the DIR-825 to choose the channel with the least amount of interference.

**Wireless Channel:** Indicates the channel setting for the DIR-825. By default the channel is set to 6. The Channel can be changed to fit the channel setting for an existing wireless network or to customize the wireless network. If you enable **Auto Channel Scan**, this option will be greyed out.

**Transmission Rate:** Select the transmit rate. It is strongly suggested to select **Best (Auto)** for best performance.

**WIRELESS NETWORK SETTINGS**

**Wireless Band :** 5GHz Band

**Enable Wireless :**  Always  New Schedule

**Wireless Network Name :** dlink\_media (Also called the SSID)

**802.11 Mode :** Mixed 802.11n and 802.11a

**Enable Auto Channel Scan :**

**Wireless Channel :** 5.180 GHz - CH 36

**Channel Width :** Auto 20/40 MHz

**Visibility Status :**  Visible  Invisible

**Channel Width:** Select the Channel Width:

**Auto 20/40** - This is the default setting. Select if you are using both 802.11n and non-802.11n wireless devices.

**20MHz** - Select if you are not using any 802.11n wireless clients.

**Visibility Status:** Select **Invisible** if you do not want the SSID of your wireless network to be broadcasted by the DIR-825. If Invisible is selected, the SSID of the DIR-825 will not be seen by Site Survey utilities so your wireless clients will have to know the SSID of your DIR-825 in order to connect to it.

**Wireless Security:** Refer to page 38 for more information regarding wireless security.

# Wireless Security

This section will show you the different levels of security you can use to protect your data from intruders. The DIR-825 offers the following types of security:

- WPA2 (Wi-Fi Protected Access 2)
- WPA (Wi-Fi Protected Access)
- WPA2-PSK (Pre-Shared Key)
- WPA-PSK (Pre-Shared Key)

## What is WPA?

WPA (Wi-Fi Protected Access), is a Wi-Fi standard that was designed to improve the security features of WEP (Wired Equivalent Privacy).

The 2 major improvements over WEP:

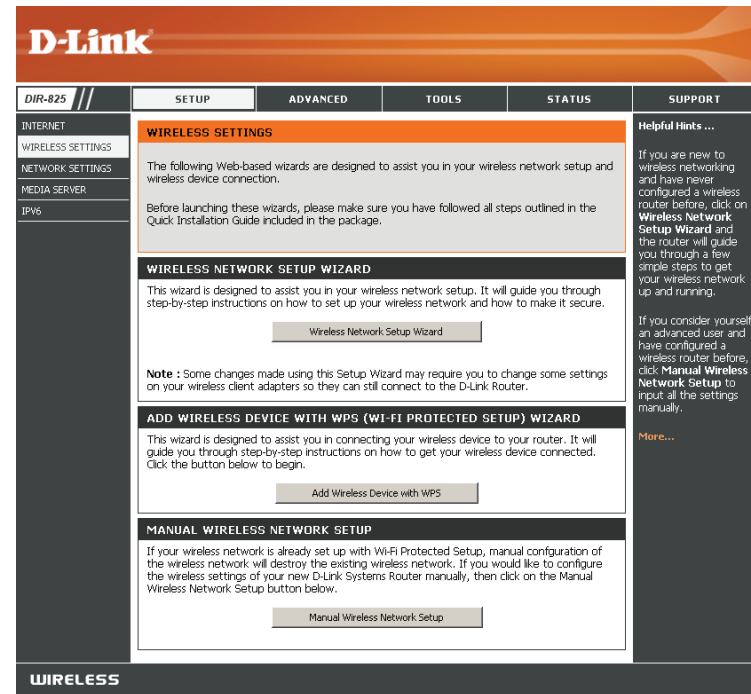
- Improved data encryption through the Temporal Key Integrity Protocol (TKIP). TKIP scrambles the keys using a hashing algorithm and, by adding an integrity-checking feature, ensures that the keys haven't been tampered with. WPA2 is based on 802.11i and uses Advanced Encryption Standard (AES) instead of TKIP.
- User authentication, which is generally missing in WEP, through the extensible authentication protocol (EAP). WEP regulates access to a wireless network based on a computer's hardware-specific MAC address, which is relatively simple to be sniffed out and stolen. EAP is built on a more secure public-key encryption system to ensure that only authorized network users can access the network.

WPA-PSK/WPA2-PSK uses a passphrase or key to authenticate your wireless connection. The key is an alpha-numeric password between 8 and 63 characters long. The password can include symbols (!?\*&\_) and spaces. This key must be the exact same key entered on your wireless router or access point.

WPA/WPA2 incorporates user authentication through the Extensible Authentication Protocol (EAP). EAP is built on a more secure public key encryption system to ensure that only authorized network users can access the network.

## Wireless Security Setup Wizard

To run the security wizard, click on Setup at the top and then click **Wireless Network Setup Wizard**.



Check the **Manually set 5GHz band Network Name...** box to manually set your desired wireless network name for the 5GHz band.

Type your desired wireless network name (SSID).

**Automatically:** Select this option to automatically generate the router's network key and click **Next**.

**Manually:** Select this option to manually enter your network key and click **Next**.

**STEP 1 : WELCOME TO THE D-LINK WIRELESS SECURITY SETUP WIZARD**

Give your network a name, using up to 32 characters.

Network Name (SSID) 2.4GHz Band :

Manually set 5GHz band Network Name (SSID)

Network Name (SSID) 5GHz Band :

Automatically assign a network key for both 2.4GHz and 5GHz band (Recommended)  
To prevent outsiders from accessing your network, the router will automatically assign a security (also called WEP or WPA key) to your network.

Manually assign a network key  
Use this options if you prefer to create our own key.

**Note: All D-Link wireless adapters currently support WPA.**

If you selected **Automatically**, the summary window will display your settings. Write down the security key and enter this on your wireless clients. Click **Save** to save your settings.

SETUP COMPLETE!

Below is a detailed summary of your wireless security settings. Please print this page out, or write the information on a piece of paper, so you can configure the correct settings on your wireless client adapters.

**2.4GHz Band Wireless Network**  
 Network Name (SSID) : dlink  
 Security Mode : Auto (WPA or WPA2) - Personal  
 Cipher Type : TKIP and AES  
 Pre-Shared Key : 9fa2e46b5e9e860843fe7d22398faf16fab24d64d60eb406b0829101495d4939

**5GHz Band Wireless Network**  
 Name (SSID) : dlink\_media  
 Security Mode : Auto (WPA or WPA2) - Personal  
 Cipher Type : TKIP and AES  
 Pre-Shared Key : 33191782c1704f60d0848d7562a2fa19f9924fea4e7733cd45f6c32f219a7291

If you selected **Manually**, the following screen will appear.

STEP 2 SET YOUR WIRELESS SECURITY PASSWORD

You have selected your security level - you will need to set a wireless security password.

The WPA (Wi-Fi Protected Access) key must meet one of following guidelines:

- Between 8 and 63 characters (A longer WPA key is more secure than a short one)
- Exactly 64 characters using 0-9 and A-F

Use the same Wireless Security Password on both 2.4GHz and 5GHz band.

2.4GHz Band Wireless Security Password :

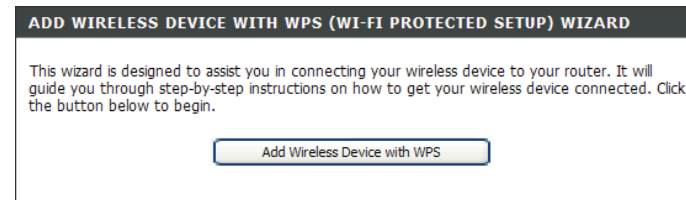
5GHz Band Wireless Security Password :

**Note:** You will need to enter the same password as keyed in this step into your wireless clients in order to enable proper wireless communication.

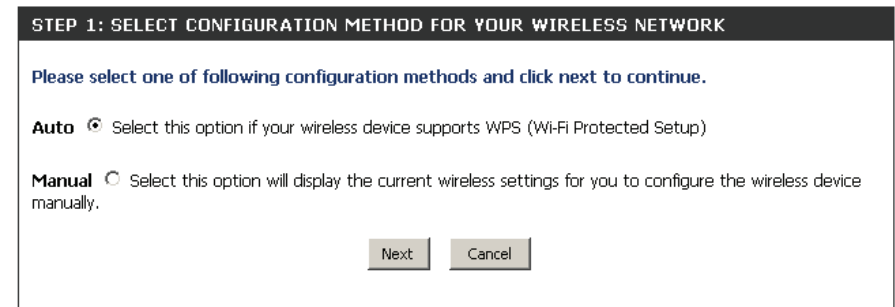


## Add Wireless Device with WPS Wizard

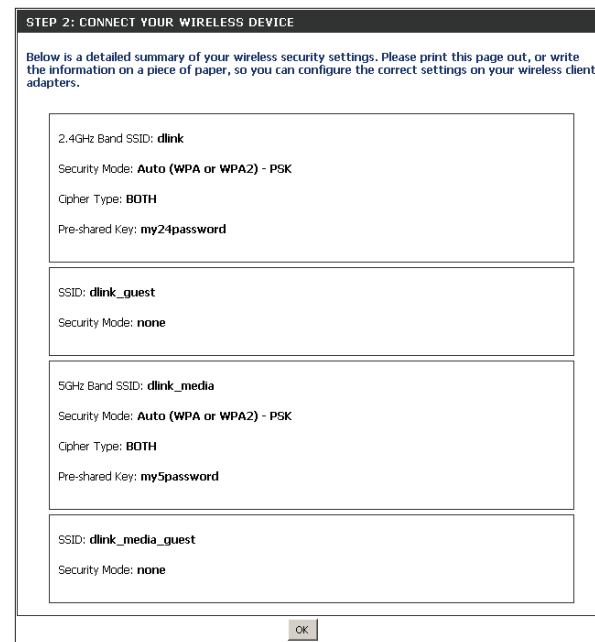
From the **Setup > Wireless Settings** screen, click **Add Wireless Device with WPS**.



Select **Auto** to add a wireless client using WPS (Wi-Fi Protected Setup) and then click **Next**. Skip to the next page.



If you select **Manual**, a settings summary screen will appear. Write down the security key and enter this on your wireless clients. Click **OK** to finish.



**PIN:** Select this option to use PIN method. In order to use this method you must know the wireless client's 8 digit PIN and click **Connect**.

**PBC:** Select this option to use PBC (Push Button) method to add a wireless client. Click **Connect**.

Once you click **Connect**, you will have a 120 second time limit to apply the settings to your wireless client(s) and successfully establish a connection.

**ADD WIRELESS DEVICE WITH WPS (WI-FI PROTECTED SETUP) WIZARD**

There are two ways to add wireless device to your wireless network

- PIN (Personal Identification Number)
- PBC (Push Button Configuration)

**PIN :**

please enter the PIN from your wireless device and click the below "Connect" Button

**PBC**

please press the push button on your wireless device and click the below "Connect" Button within 120 seconds

**ADD WIRELESS DEVICE WITH WPS**

Please press down the Push Button (physical or virtual) on the wireless device you are adding to your wireless network within **117** seconds ...

## WPA/WPA2-Personal (PSK)

It is recommended to enable encryption on your wireless router before your wireless network adapters. Please establish wireless connectivity before enabling encryption. Your wireless signal may degrade when enabling encryption due to the added overhead.

1. Log into the web-based configuration by opening a web browser and entering the IP address of the router (192.168.0.1). Click on **Setup** and then click **Wireless Settings** on the left side.
2. Next to *Security Mode*, select **WPA-Personal**.
3. Next to *WPA Mode*, select **Auto**, **WPA2 Only**, or **WPA Only**. Use **Auto** if you have wireless clients using both WPA and WPA2.
4. Next to *Cypher Type*, select **TKIP and AES**, **TKIP**, or **AES**.
5. Next to *Group Key Update Interval*, enter the amount of time before the group key used for broadcast and multicast data is changed (3600 is default).
6. Next to *Pre-Shared Key*, enter a key (passphrase). The key is entered as a pass-phrase in ASCII format at both ends of the wireless connection. The pass-phrase must be between 8-63 characters.
7. Click **Save Settings** to save your settings. If you are configuring the router with a wireless adapter, you will lose connectivity until you enable WPA-PSK on your adapter and enter the same passphrase as you did on the router.

**WIRELESS SECURITY MODE**

To protect your privacy you can configure wireless security features. This device supports three wireless security modes, including WEP, WPA-Personal, and WPA-Enterprise. WEP is the original wireless encryption standard. WPA provides a higher level of security. WPA-Personal does not require an authentication server. The WPA-Enterprise option requires an external RADIUS server.

**Security Mode :**

**WPA**

Use **WPA** or **WPA2** mode to achieve a balance of strong security and best compatibility. This mode uses WPA for legacy clients while maintaining higher security with stations that are WPA2 capable. Also the strongest cipher that the client supports will be used. For best security, use **WPA2 Only** mode. This mode uses AES(CCMP) cipher and legacy stations are not allowed access with WPA security. For maximum compatibility, use **WPA Only**. This mode uses TKIP cipher. Some gaming and legacy devices work only in this mode.

To achieve better wireless performance use **WPA2 Only** security mode (or in other words AES cipher).

**WPA Mode :**

**Cipher Type :**

**Group Key Update Interval :**  (seconds)

**PRE-SHARED KEY**

Enter an 8- to 63-character alphanumeric pass-phrase. For good security it should be of ample length and should not be a commonly known phrase.

**Pre-Shared Key :**

## Configure WPA/WPA2-Enterprise (RADIUS)

It is recommended to enable encryption on your wireless router before your wireless network adapters. Please establish wireless connectivity before enabling encryption. Your wireless signal may degrade when enabling encryption due to the added overhead.

1. Log into the web-based configuration by opening a web browser and entering the IP address of the router (192.168.0.1). Click on **Setup** and then click **Wireless Settings** on the left side.
2. Next to *Security Mode*, select **WPA-Enterprise**.
3. Next to *WPA Mode*, select **Auto, WPA2 Only, or WPA Only**. Use **Auto** if you have wireless clients using both WPA and WPA2.
4. Next to *Cypher Type*, select **TKIP and AES, TKIP, or AES**.
5. Next to *Group Key Update Interval*, enter the amount of time before the group key used for broadcast and multicast data is changed (3600 is default).
6. Next to *Authentication Timeout*, enter the amount of time before a client is required to re-authenticate (60 minutes is default).
7. Next to *RADIUS Server IP Address* enter the IP Address of your RADIUS server.

**WIRELESS SECURITY MODE**

To protect your privacy you can configure wireless security features. This device supports three wireless security modes including WEP, WPA-Personal, and WPA-Enterprise. WEP is the original wireless encryption standard. WPA provides a higher level of security. WPA-Personal does not require an authentication server. The WPA-Enterprise option requires an external RADIUS server.

**Security Mode :**

---

**WPA**

Use **WPA or WPA2** mode to achieve a balance of strong security and best compatibility. This mode uses WPA for legacy clients while maintaining higher security with stations that are WPA2 capable. Also the strongest cipher that the client supports will be used. For best security, use **WPA2 Only** mode. This mode uses AES(CCMP) cipher and legacy stations are not allowed access with WPA security. For maximum compatibility, use **WPA Only**. This mode uses TKIP cipher. Some gaming and legacy devices work only in this mode.

To achieve better wireless performance use **WPA2 Only** security mode (or in other words AES cipher).

**WPA Mode :**

**Cipher Type :**

**Group Key Update Interval :**  (seconds)

---

**EAP (802.1X)**

**When WPA enterprise is enabled, the router uses EAP (802.1x) to authenticate clients via a remote RADIUS server. MAC Address Authentication**

**Authentication Timeout :**  (minutes)

**RADIUS server IP Address :**

**RADIUS server Port :**

**RADIUS server Shared Secret :**

**Second MAC Address Authentication :**

8. Next to *RADIUS Server Port*, enter the port you are using with your RADIUS server. 1812 is the default port.
9. Next to *RADIUS Server Shared Secret*, enter the security key.
10. If the *MAC Address Authentication* box is selected then the user will need to connect from the same computer whenever logging into the wireless network.
11. Click **Advanced** to enter settings for a secondary RADIUS Server.
12. Click **Apply Settings** to save your settings.

### EAP (802.1X)

When WPA enterprise is enabled, the router uses EAP (802.1x) to authenticate clients via a remote RADIUS server. **MAC Address Authentication**

Authentication Timeout :  (minutes)

RADIUS server IP Address :

RADIUS server Port :

RADIUS server Shared Secret :

Second MAC Address Authentication :

<<Advanced

Optional backup RADIUS server :

Second RADIUS server IP Address :

Second RADIUS server Port :

Second RADIUS server Shared Secret :

Second MAC Address Authentication :

# Network Settings

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

## Router Settings

**Router 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 **Save Settings**, 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.

**Device Name:** Enter a name for the router.

**Local Domain:** Enter the Domain name (Optional).

**Enable DNS Relay:** Uncheck the box to transfer the DNS server information from your ISP to your computers. If checked, your computers will use the router for a DNS server.

**ROUTER SETTINGS**

Use this section to configure the internal network settings of your router. The IP Address that is configured here is the IP Address that you use to access the Web-based management interface. If you change the IP Address here, you may need to adjust your PC's network settings to access the network again.

**Router IP Address :**

**Subnet Mask :**

**Device Name :**

**Local Domain Name :**

**Enable DNS Relay :**

## DHCP Server Settings

DHCP stands for Dynamic Host Control Protocol. The DIR-825 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 DIR-825. 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.

**Enable DHCP Server:** Check this box to enable the DHCP server on your router.  
**Server:** Uncheck to disable this function.

**DHCP IP Address 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.

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

**Always Broadcast:** Enable this feature to broadcast your networks DHCP server to LAN/WLAN clients.

**NetBIOS Announcement:** NetBIOS allows LAN hosts to discover all other computers within the network, enable this feature to allow the DHCP Server to offer NetBIOS configuration settings.

**Learn NetBIOS from WAN:** Enable this feature to allow WINS information to be learned from the WAN side, disable to allow manual configuration.

**NetBIOS Scope:** This feature allows the configuration of a NetBIOS 'domain' name under which network hosts operates. This setting has no effect if the 'Learn NetBIOS information from WAN' is activated.

DHCP SERVER SETTINGS

Use this section to configure the built-in DHCP Server to assign IP addresses to the computers on your network.

**Enable DHCP Server :**

**DHCP IP Address Range :**  to

**DHCP Lease Time :**  (minutes)

**Always broadcast :**  (compatibility for some DHCP Clients)

**NetBIOS announcement :**

**Learn NetBIOS from WAN :**

**NetBIOS Scope :**  (Optional)

**NetBIOS node type :**  Broadcast only (use when no WINS servers configured)  
 Point-to-Point (no broadcast)  
 Mixed-mode (Broadcast then Point-to-Point)  
 Hybrid (Point-to-Point then Broadcast)

**Primary WINS IP Address :**

**Secondary WINS IP Address :**

**NetBIOS Node:** Select the different type of NetBIOS node; **Broadcast only, Point-to-Point, Mixed-mode,** and **Hybrid.**

**WINS IP** Enter your WINS Server IP address(es).

**Address:**



## DHCP Reservation

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.

**Enable:** Check this box to enable the reservation.

**Computer Name:** Enter the computer name or select from the drop-down menu and click <<.

**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.

**Copy Your PC's MAC Address:** If you want to assign an IP address to the computer you are currently on, click this button to populate the fields.

**Save:** Click **Save** to save your entry. You must click **Save Settings** at the top to activate your reservations.

### DHCP Reservations List

**DHCP Reservations List:** Displays any reservation entries. Displays the host name (name of your computer or device), MAC Address, and IP address.

**Enable:** Check to enable the reservation.

**Edit:** Click the edit icon to make changes to the reservation entry.

**Delete:** Click to remove the reservation from the list.

**ADD DHCP RESERVATION**

Enable :

Computer Name :  <<

IP Address :

MAC Address :

| DHCP RESERVATIONS LIST              |           |                   |               |
|-------------------------------------|-----------|-------------------|---------------|
| Enable                              | Host Name | MAC Address       | IP Address    |
| <input checked="" type="checkbox"/> | PM_test01 | 00:04:23:2c:51:a3 | 192.168.0.112 |

| NUMBER OF DYNAMIC DHCP CLIENTS : 1 |               |           |                         |  |
|------------------------------------|---------------|-----------|-------------------------|--|
| Hardware Address                   | Assigned IP   | Hostname  | Expires                 |  |
| 00:04:23:2c:51:a3                  | 192.168.0.112 | PM_test01 | Thu Sep 1 19:49:06 2011 | <a href="#">Revoke</a> <a href="#">Reserve</a> |

| DHCP RESERVATIONS LIST              |           |                   |               |
|-------------------------------------|-----------|-------------------|---------------|
| Enable                              | Host Name | MAC Address       | IP Address    |
| <input checked="" type="checkbox"/> | PM_test01 | 00:04:23:2c:51:a3 | 192.168.0.112 |

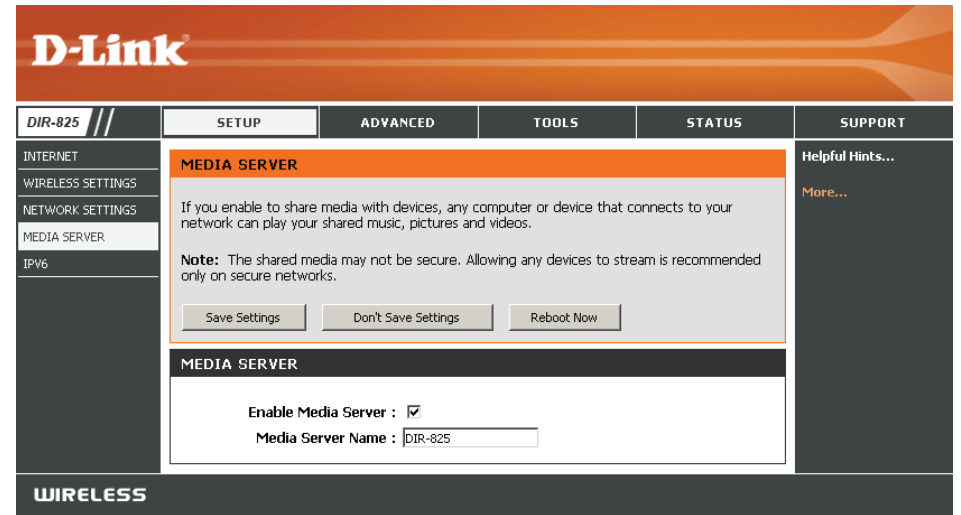
| NUMBER OF DYNAMIC DHCP CLIENTS : 1 |               |           |                         |  |
|------------------------------------|---------------|-----------|-------------------------|--|
| Hardware Address                   | Assigned IP   | Hostname  | Expires                 |  |
| 00:04:23:2c:51:a3                  | 192.168.0.112 | PM_test01 | Thu Sep 1 19:49:06 2011 | <a href="#">Revoke</a> <a href="#">Reserve</a> |

# Media Server

This feature allows you to share music, pictures and videos with any devices connected to your network.

**Enable Media Server:** Check this box to enable the media server feature.

**Computer Name:** Enter the media server's name.



The screenshot shows the D-Link DIR-825 web interface. The top navigation bar includes the D-Link logo and tabs for SETUP, ADVANCED, TOOLS, STATUS, and SUPPORT. The left sidebar lists menu items: INTERNET, WIRELESS SETTINGS, NETWORK SETTINGS, MEDIA SERVER, and IPV6. The main content area is titled "MEDIA SERVER" and contains the following text:

If you enable to share media with devices, any computer or device that connects to your network can play your shared music, pictures and videos.

**Note:** The shared media may not be secure. Allowing any devices to stream is recommended only on secure networks.

Below the note are three buttons: "Save Settings", "Don't Save Settings", and "Reboot Now".

At the bottom of the main content area, there is a section titled "MEDIA SERVER" with the following configuration options:

Enable Media Server :

Media Server Name :

The bottom of the interface features a "WIRELESS" section.

# Storage

This page will allow you to access files from a USB external hard drive or thumb drive that is plugged into the router from your local network or from the Internet using either a web browser or an app for your smartphone or tablet. You can create users to be allowed to access these files.

**Enable Web File Access:** Check to enable sharing files on your USB storage device that is plugged in your router.

**Enable HTTP Storage Remote Access:** Check to enable HTTP access to your router's storage. You will have to type HTTP in the URL.

**Remote Access Port:** Enter a port (8181 is default). You will have to enter this port in the URL when connecting to the shared files. For example: (**http://192.168.0.1:8181**).

**Enable HTTPS Storage Remote Access:** Check to enable HTTPS (secure) access to your router's storage. You will have to type HTTPS in the URL.

**Remote HTTPS Port:** Enter a port (4433 is default). You will have to enter this port in the URL when connecting to the shared files. For example: (**https://192.168.0.1:8181**).

**User Name:** To create a new user, enter a user name.

**Password:** Enter a password for this account.

**Verify Password:** Re-enter the password. Click **Add/Edit** to create the user.

**User List:** Displays the accounts. The Admin and Guest accounts are built-in to the router.

**Number of Devices:** Displays the USB device plugged into the router.

The screenshot shows the D-Link DIR-825 web interface. The top navigation bar includes tabs for SETUP, ADVANCED, MAINTENANCE, STATUS, and HELP. The main content area is titled "STORAGE" and contains the following sections:

- Web File Access:** A checkbox labeled "Enable Web File Access" is checked. Below it, there are buttons for "Save Settings" and "Don't Save Settings".
- HTTP STORAGE:** A section with "Enable HTTP Storage Remote Access" checked and a "Remote Access Port" field set to "8181". Below it, "Enable HTTPS Storage Remote Access" is unchecked and the "Remote HTTPS Port" field is set to "4433".
- 10 -- USER CREATION:** A form with fields for "User Name", "Password", and "Verify Password". There are "Add/Edit" and "Delete" buttons.
- USER LIST:** A table with columns for "No.", "User Name", "Access Path", and "Permission". It lists two users: "Admin" (Read/Write) and "Guest" (Read Only).
- NUMBER OF DEVICES : 1:** A table with columns for "Device", "Total Space", and "Free Space". It shows one device: "usb\_A1" with 7.5GB total space and 7.1GB free space.
- HTTP STORAGE LINK:** A section with a link to connect to the drive remotely after logging in with a user account.

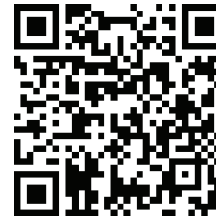
On the right side of the interface, there is a "Helpful Hints..." section with a "More..." link.

## SharePort Mobile App

The SharePort Mobile app will allow you to access files from a USB thumb drive that is plugged into your router. You must enable file sharing from the **Setup > Storage** page (refer to page 58) for this app to work properly.

1. Insert your USB flash drive into DIR-825.

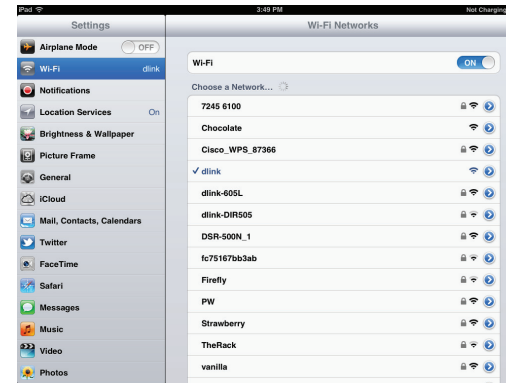
2. Scan the bar code to download the **SharePort Mobile** app from the app store to your iPhone or iPad.



3. From your iOS mobile device, click **Settings**.



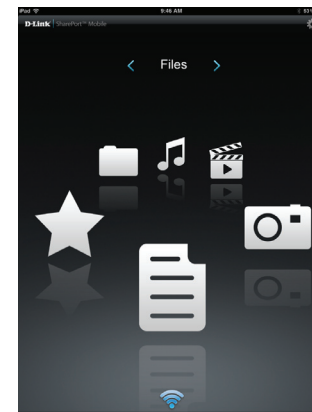
4. Click **Wi-Fi**, select the wireless network (SSID) that you created in the setup and then enter your Wi-Fi password.



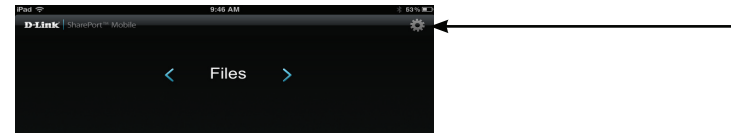
5. Once connected, click on the **SharePort Mobile** icon.



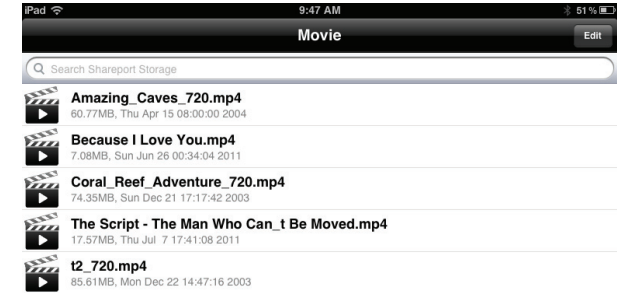
6. The following screen will appear.



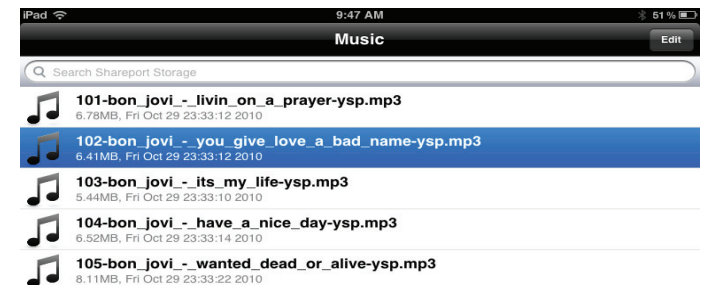
7. Click on **Settings** icon located on the right top corner of the screen. Click **Edit** to enter your User Name and Password. Once you finish, click **Done** to continue.



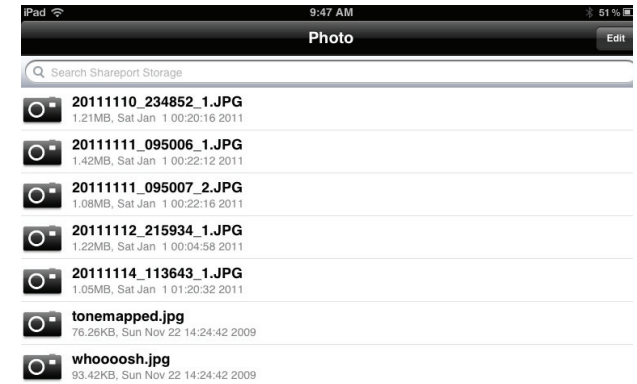
8. For the Movie section, click the movie icon to play your movie from your USB flash drive.



9. For the Music section, click the music icon to play your music from your USB flash drive.



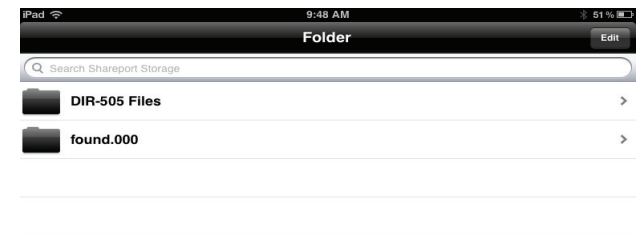
10. For the Photo section, click the Photo icon to view your photos from your USB flash drive.



11. For the Files section, click on the Files icon to view your files from your USB flash drive.



12. For the Folder section, click the folder icon to view your folders from your USB flash drive.



# IPv6

On this page, the user can configure the IPv6 Connection type. There are two ways to set up the IPv6 Internet connection. You can use the Web-based IPv6 Internet Connection Setup Wizard, or you can manually configure the connection.

For the beginner user that has not configured a router before, click on the **IPv6 Internet Connection Setup Wizard** button and the router will guide you through a few simple steps to get your network up and running.

For the advanced user that has configured a router before, click on the **Manual IPv6 Internet Connection Setup** button to input all the settings manually.

To configure the IPv6 local settings, click on the **IPv6 Local Connectivity Setup** button.

The screenshot shows the D-Link DIR-825 web interface. The navigation menu includes INTERNET, WIRELESS SETTINGS, NETWORK SETTINGS, MEDIA SERVER, and IPv6. The main content area is titled "IPv6 INTERNET CONNECTION" and contains three sections:

- IPv6 INTERNET CONNECTION**: A general overview section stating there are two ways to set up the IPv6 Internet connection: using the Web-based IPv6 Internet Connection Setup Wizard or manually configuring the connection.
- IPv6 INTERNET CONNECTION SETUP WIZARD**: A section for users who want to use the wizard. It includes a button labeled "IPv6 Internet Connection Setup Wizard" and a note: "Note: Before launching the wizard, please make sure you have followed all steps outlined in the Quick Installation Guide included in the package."
- MANUAL IPv6 LOCAL CONNECTIVITY SETTINGS**: A section for users who want to configure IPv6 local connectivity settings. It includes a button labeled "IPv6 Local Connectivity Settings".
- MANUAL IPv6 INTERNET CONNECTION SETUP**: A section for users who want to configure the IPv6 Internet settings manually. It includes a button labeled "Manual IPv6 Internet Connection Setup".

On the right side, there is a "Helpful Hints..." section with additional information and a "More..." link.

The screenshot shows the D-Link DIR-825 web interface for "IPv6 LOCAL CONNECTIVITY SETTINGS". The navigation menu is the same as in the previous screenshot. The main content area includes:

- IPv6 LOCAL CONNECTIVITY SETTINGS**: A section with a description: "Use this section to configure Unique Local IPv6 Unicast Addresses(ULA) settings for your router. ULA is intended for local communications and not expected to be routable on the global Internet." It contains two buttons: "Save Settings" and "Don't Save Settings".
- IPv6 ULA SETTINGS**: A section with the following options:
  - Enable ULA :
  - Use Default ULA Prefix :
  - ULA Prefix :  /64
- CURRENT IPv6 ULA SETTINGS**: A section with the following information:
  - Current ULA Prefix :
  - LAN IPv6 ULA :

On the right side, there is a "Helpful Hints..." section with information about ULA and a "More..." link.



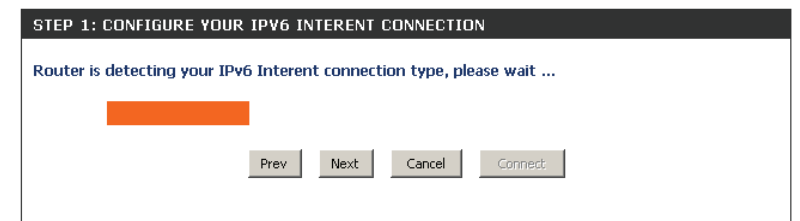
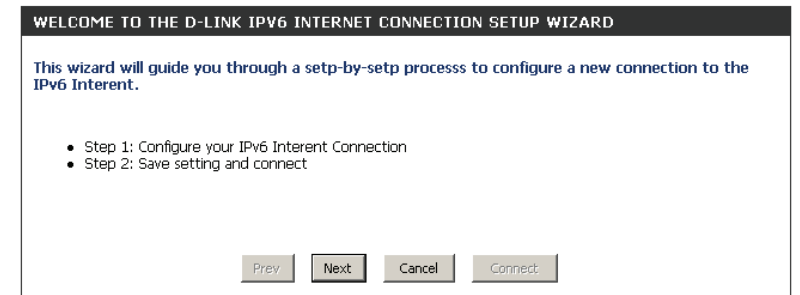
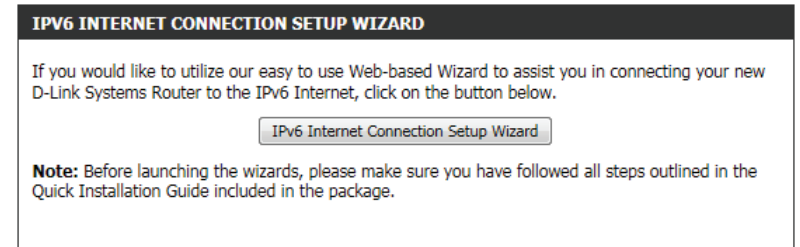
## IPv6 Internet Connection Setup Wizard

On this page, the user can configure the IPv6 Connection type using the IPv6 Internet Connection Setup Wizard.

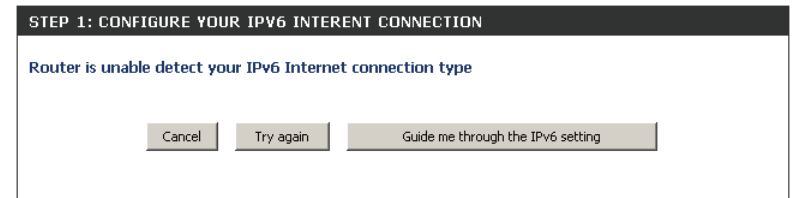
Click the **IPv6 Internet Connection Setup Wizard** button and the router will guide you through a few simple steps to get your network up and running.

Click **Next** to continue to the next page. Click **Cancel** to discard the changes made and return to the main page.

The router will try to detect whether its possible to obtain the IPv6 Internet connection type automatically. If this succeeds then the user will be guided through the input of the appropriate parameters for the connection type found.



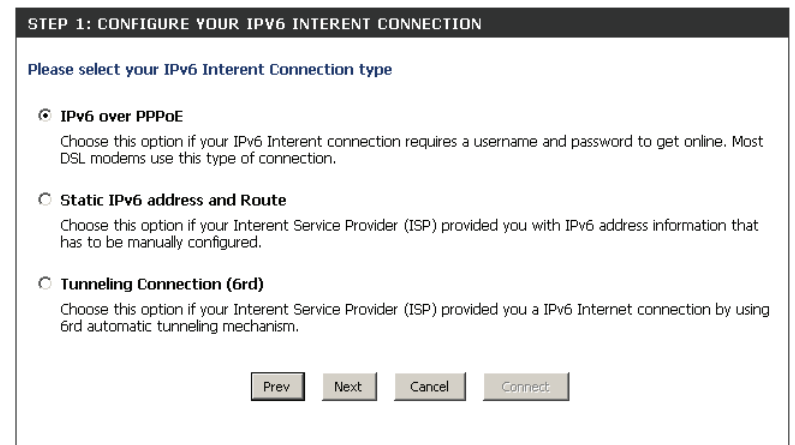
However, if the automatic detection fails, the user will be prompt to either **Try again** or to click on the **Guide me through the IPv6 settings** button to initiate the manual continual of the wizard.



There are several connection types to choose from. If you are unsure of your connection method, please contact your IPv6 Internet Service Provider.

**Note:** If using the PPPoE option, you will need to ensure that any PPPoE client software on your computers has been removed or disabled. The 3 options available on this page are **IPv6 over PPPoE**, **Static IPv6 address and Route**, and **Tunneling Connection**.

Choose the required IPv6 Internet Connection type and click on the **Next** button to continue. Click on the **Prev** button to return to the previous page. Click on the **Cancel** button to discard all the changes made and return to the main page.



Click on the **Next** button to continue. Click on the **Prev** button to return to the previous page.

Click on the **Cancel** button to discard all the changes made and return to the main page.

## IPv6 over PPPoE

After selecting the IPv6 over PPPoE option, the user will be able to configure the IPv6 Internet connection that requires a username and password to get online. Most DSL modems use this type of connection.

The following parameters will be available for configuration:

**PPPoE Session:** Select the PPPoE Session value used here. This option will state that this connection shares it's information with the already configured IPv6 PPPoE connection, or the user can create a new PPPoE connection here.

**User Name:** Enter the PPPoE username used here. If you do not know your user name, please contact your ISP.

**Password:** Enter the PPPoE password used here. If you do not know your password, please contact your ISP.

**Verify Password:** Re-enter the PPPoE password used here.

**Service Name:** Enter the service name for this connection here. This option is optional.

**SET USERNAME AND PASSWORD CONNECTION (PPPoE)**

To set up this connection you will need to have a Username and Password from your IPv6 Internet Service Provider. If you do not have this information, please contact your ISP.

**PPPoE Session:**  Share with IPv4  Create a new session

**Username :**

**Password :**

**Verify Password :**

**Service Name :**  (Optional)

Note: You may also need to provide a Service Name. If you do not have or know this information, please contact your ISP.

## Static IPv6 Address Connection

This mode is used when your ISP provides you with a set IPv6 addresses that does not change. The IPv6 information is manually entered in your IPv6 configuration settings. You must enter the IPv6 address, Subnet Prefix Length, Default Gateway, Primary DNS Server, and Secondary DNS Server. Your ISP provides you with all this information.

**Use Link-Local Address:** The Link-local address is used by nodes and routers when communicating with neighboring nodes on the same link. This mode enables IPv6-capable devices to communicate with each other on the LAN side.

**IPv6 Address:** Enter the WAN IPv6 address for the router here.

**Subnet Prefix Length:** Enter the WAN subnet prefix length value used here.

**Default Gateway:** Enter the WAN default gateway IPv6 address used here.

**Primary IPv6 DNS Address:** Enter the WAN primary DNS Server address used here.

**Secondary IPv6 DNS Address:** Enter the WAN secondary DNS Server address used here.

**LAN IPv6 Address:** These are the settings of the LAN (Local Area Network) IPv6 interface for the router. The router's LAN IPv6 Address configuration is based on the IPv6 Address and Subnet assigned by your ISP. (A subnet with prefix /64 is supported in LAN.)

**SET STATIC IPv6 ADDRESS CONNECTION**

To set up this connection you will need to have a complete list of IPv6 information provided by your IPv6 Internet Service Provider. If you have a Static IPv6 connection and do not have this information, please contact your ISP.

Use Link-Local Address :

IPv6 Address :

Subnet Prefix Length :

Default Gateway :

Primary DNS Address :

Secondary DNS Address :

LAN IPv6 Address :  /64

## Tunneling Connection (6rd)

After selecting the Tunneling Connection (6rd) option, the user can configure the IPv6 6rd connection settings.

The following parameters will be available for configuration:

**6rd IPv6 Prefix:** Enter the 6rd IPv6 address and prefix value used here.

**IPv4 Address:** Enter the IPv4 address used here.

**Mask Length:** Enter the IPv4 mask length used here.

**Assigned IPv6 Prefix:** Displays the IPv6 assigned prefix value here.

**6rd Border Relay IPv4 Address:** Enter the 6rd border relay IPv4 address used here.

**IPv6 DNS Server:** Enter the primary DNS Server address used here.

The screenshot shows a configuration window titled "SET UP 6RD TUNNELING CONNECTION". The window contains the following text and fields:

- Instruction: "To set up this 6rd tunneling connection you will need to have the following information from your IPv6 Internet Service Provider. If you do not have this information, please contact your ISP."
- Field: "6rd IPv6 Prefix : [ ] / [32]"
- Field: "IPv4 Address : 192.168.1.2 Mask Length : [0]"
- Text: "Assign IPv6 Prefix : None"
- Text: "Tunnel Link-Local Address : FE80::COA8:0102/64"
- Field: "6rd Border Relay IPv4 Address : [ ]"
- Field: "IPv6 DNS Server : [ ]"
- Buttons: "Prev", "Next", "Cancel", "Connect"

The IPv6 Internet Connection Setup Wizard is complete.

Click on the **Connect** button to continue. Click on the **Prev** button to return to the previous page. Click on the **Cancel** button to discard all the changes made and return to the main page.

The screenshot shows a confirmation window titled "SETUP COMPLETE!". The window contains the following text and buttons:

- Text: "The IPv6 Internet Connection Setup Wizard has completed. Click the Connect button to save your settings and reboot the router."
- Buttons: "Prev", "Next", "Cancel", "Connect"

## IPv6 Manual Setup

There are several connection types to choose from: Auto Detection, Static IPv6, Autoconfiguration (SLAAC/DHCPv6), PPPoE, IPv6 in IPv4 Tunnel, 6to4, 6rd, and Link-local. If you are unsure of your connection method, please contact your IPv6 Internet Service Provider.

**Note:** If using the PPPoE option, you will need to ensure that any PPPoE client software on your computers has been removed or disabled.

### Auto Detection

Select **Auto Detection** to have the router detect and automatically configure your IPv6 setting from your ISP.

| IPv6 CONNECTION TYPE  |   |
|---|---|
| Choose the mode to be used by the router to the IPv6 Internet.  |   |
| My IPv6 Connection is :   | <input type="text" value="Auto Detection"/>           |
| IPv6 DNS SETTINGS   |   |
| Obtain a DNS server address automatically or enter a specific DNS server address.   |   |
| <input checked="" type="radio"/> Obtain a DNS server address automatically<br><input type="radio"/> Use the following DNS address   |   |
| Primary DNS Server :  | <input type="text"/>                                  |
| Secondary DNS Server :  | <input type="text"/>                                  |
| LAN IPv6 ADDRESS SETTINGS   |   |
| Use this section to configure the internal network settings of your router. If you change the LAN IPv6 Address here, you may need to adjust your PC network settings to access the network again. |   |
| Enable DHCP-PD :  | <input checked="" type="checkbox"/>                   |
| LAN IPv6 Address :  | <input type="text"/> /64                              |
| LAN IPv6 Link-Local Address :   | FE80::218:E7FF:FE95:689E/64                           |
| ADDRESS AUTOCONFIGURATION SETTINGS  |   |
| Use this section to setup IPv6 Autoconfiguration to assign IP addresses to the computers on your network. You can also enable DHCP-PD to delegate prefixes for router in your LAN.                |   |
| Enable automatic IPv6 address assignment :  | <input checked="" type="checkbox"/>                   |
| Enable Automatic DHCP-PD in LAN :   | <input checked="" type="checkbox"/>                   |
| Autoconfiguration Type :  | <input type="text" value="SLAAC + Stateless DHCPv6"/> |
| Router Advertisement Lifetime:  | <input type="text" value="1440"/> (minutes)           |

## Static IPv6

**My IPv6 Connection:** Select **Static IPv6** from the drop-down menu.

**WAN IPv6 Address Settings:** Enter the address settings supplied by your Internet provider (ISP).

**LAN IPv6 Address:** Enter the LAN (local) IPv6 address for the router.

**LAN Link-Local Address:** Displays the Router's LAN Link-Local Address.

**Enable Autoconfiguration:** Check to enable the Autoconfiguration feature.

**Autoconfiguration Type:** Select **Stateful (DHCPv6)**, **SLAAC + RDNSS** or **SLAAC + Stateless DHCPv6**.

**IPv6 Address Range Start:** Enter the start IPv6 Address for the DHCPv6 range for your local computers.

**IPv6 Address Range End:** Enter the end IPv6 Address for the DHCPv6 range for your local computers.

**IPv6 Address Lifetime:** Enter the IPv6 Address Lifetime (in minutes).

| IPv6 CONNECTION TYPE  |                                     |
|---|-------------------------------------|
| Choose the mode to be used by the router to the IPv6 Internet.  |                                     |
| My IPv6 Connection is :   | Static IPv6                         |
| WAN IPv6 ADDRESS SETTINGS   |                                     |
| Enter the IPv6 address information provided by your Internet Service Provider (ISP).  |                                     |
| Use Link-Local Address :  | <input checked="" type="checkbox"/> |
| IPv6 Address :  | FE80::218:E7FF:FE95:689F            |
| Subnet Prefix Length :  | 64                                  |
| Default Gateway :   |                                     |
| Primary DNS Server :  |                                     |
| Secondary DNS Server :  |                                     |
| LAN IPv6 ADDRESS SETTINGS   |                                     |
| Use this section to configure the internal network settings of your router. If you change the LAN IPv6 Address here, you may need to adjust your PC network settings to access the network again. |                                     |
| LAN IPv6 Address :  | /64                                 |
| LAN IPv6 Link-Local Address :   | FE80::218:E7FF:FE95:689E/64         |
| ADDRESS AUTOCONFIGURATION SETTINGS  |                                     |
| Use this section to setup IPv6 Autoconfiguration to assign IP addresses to the computers on your network.   |                                     |
| Enable automatic IPv6 address assignment :  | <input checked="" type="checkbox"/> |
| Autoconfiguration Type :  | SLAAC + Stateless DHCPv6            |
| Router Advertisement Lifetime:  | 1440 (minutes)                      |

## Autoconfiguration

**My IPv6 Connection:** Select **Autoconfiguration (Stateless/DHCPv6)** from the drop-down menu.

**IPv6 DNS Settings:** Select either **Obtain DNS server address automatically** or **Use the following DNS Address.**

**Primary/Secondary DNS Address:** Enter the primary and secondary DNS server addresses.

**LAN IPv6 Address:** Enter the LAN (local) IPv6 address for the router.

**LAN Link-Local Address:** Displays the Router's LAN Link-Local Address.

**Enable Autoconfiguration:** Check to enable the Autoconfiguration feature.

**Autoconfiguration Type:** Select **Stateful (DHCPv6)**, **SLAAC + RDNSS** or **SLAAC + Stateless DHCPv6.**

**IPv6 Address Range Start:** Enter the start IPv6 Address for the DHCPv6 range for your local computers.

**IPv6 Address Range End:** Enter the end IPv6 Address for the DHCPv6 range for your local computers.

**IPv6 Address Lifetime:** Enter the IPv6 Address Lifetime (in minutes).

| IPv6 CONNECTION TYPE  |                                     |
|---|-------------------------------------|
| Choose the mode to be used by the router to the IPv6 Internet.  |                                     |
| My IPv6 Connection is :   | Autoconfiguration (SLAAC/DHCPv6) ▾  |
| IPv6 DNS SETTINGS   |                                     |
| Obtain a DNS server address automatically or enter a specific DNS server address.   |                                     |
| <input checked="" type="radio"/> Obtain a DNS server address automatically<br><input type="radio"/> Use the following DNS address   |                                     |
| Primary DNS Server :  | <input type="text"/>                |
| Secondary DNS Server :  | <input type="text"/>                |
| LAN IPv6 ADDRESS SETTINGS   |                                     |
| Use this section to configure the internal network settings of your router. If you change the LAN IPv6 Address here, you may need to adjust your PC network settings to access the network again. |                                     |
| Enable DHCP-PD :  | <input checked="" type="checkbox"/> |
| LAN IPv6 Address :  | <input type="text"/> /64            |
| LAN IPv6 Link-Local Address :   | FE80::218:E7FF:FE95:689E/64         |
| ADDRESS AUTOCONFIGURATION SETTINGS  |                                     |
| Use this section to setup IPv6 Autoconfiguration to assign IP addresses to the computers on your network. You can also enable DHCP-PD to delegate prefixes for router in your LAN.                |                                     |
| Enable automatic IPv6 address assignment :  | <input checked="" type="checkbox"/> |
| Enable Automatic DHCP-PD in LAN :   | <input checked="" type="checkbox"/> |
| Autoconfiguration Type :  | SLAAC + Stateless DHCPv6 ▾          |
| Router Advertisement Lifetime :   | 1440 (minutes)                      |



## PPPoE

**My IPv6 Connection:** Select **PPPoE** from the drop-down menu.

**PPPoE:** Enter the PPPoE account settings supplied by your Internet provider (ISP).

**Address Mode:** Select **Static** if your ISP assigned you the IP address, subnet mask, gateway, and DNS server addresses. In most cases, select **Dynamic**.

**IP Address:** Enter the IP address (Static PPPoE only).

**User Name:** Enter your PPPoE user name.

**Password:** Enter your PPPoE password and then retype the password in the next box.

**Service Name:** Enter the ISP Service Name (optional).

**Reconnection Mode:** Select either **Always-on**, **On-Demand**, or **Manual**.

**Maximum Idle Time:** Enter a maximum idle time during which the Internet connection is maintained during inactivity. To disable this feature, enable Auto-reconnect.

**MTU:** Maximum Transmission Unit - you may need to change the MTU for optimal performance with your specific ISP. 1492 is the default MTU.

**IPv6 DNS Settings:** Select either **Obtain DNS server address automatically** or **Use the following DNS Address**.

**Primary/Secondary DNS Address:** Enter the primary and secondary DNS server addresses.

**LAN IPv6 Address:** Enter the LAN (local) IPv6 address for the router.

**LAN Link-Local Address:** Displays the Router's LAN Link-Local Address.

**Enable Autoconfiguration:** Check to enable the Autoconfiguration feature.

| IPv6 CONNECTION TYPE  |   |
|---|---|
| Choose the mode to be used by the router to the IPv6 Internet.  |   |
| My IPv6 Connection is :   | PPPoE   |
| PPPOE   |   |
| Enter the information provided by your Internet Service Provider (ISP).   |   |
| PPPoE Session:  | <input checked="" type="radio"/> Share with IPv4 <input type="radio"/> Create a new session             |
| Address Mode :  | <input checked="" type="radio"/> Dynamic IP <input type="radio"/> Static IP                             |
| IP Address :  | <input type="text"/>  |
| Username :  | <input type="text"/>  |
| Password :  | <input type="text"/>  |
| Verify Password :   | <input type="text"/>  |
| Service Name :  | <input type="text"/> (Optional)   |
| Reconnect Mode :  | <input checked="" type="radio"/> Always on <input type="radio"/> On demand <input type="radio"/> Manual |
| Maximum Idle Time :   | 5 (minutes, 0=infinite)   |
| MTU :   | 1492 (bytes)MTU default = 1492  |
| IPv6 DNS SETTINGS   |   |
| Obtain a DNS server address automatically or enter a specific DNS server address.   |   |
|   | <input checked="" type="radio"/> Obtain a DNS server address automatically                              |
|   | <input type="radio"/> Use the following DNS address   |
| Primary DNS Server :  | <input type="text"/>  |
| Secondary DNS Server :  | <input type="text"/>  |
| LAN IPv6 ADDRESS SETTINGS   |   |
| Use this section to configure the internal network settings of your router. If you change the LAN IPv6 Address here, you may need to adjust your PC network settings to access the network again. |   |
| Enable DHCP-PD :  | <input checked="" type="checkbox"/>   |
| LAN IPv6 Address :  | <input type="text"/> /64  |
| LAN IPv6 Link-Local Address :   | FE80::218:E7FF:FE95:689E/64   |
| ADDRESS AUTOCONFIGURATION SETTINGS  |   |
| Use this section to setup IPv6 Autoconfiguration to assign IP addresses to the computers on your network.You can also enable DHCP-PD to delegate prefixes for router in your LAN.                 |   |
| Enable automatic IPv6 address assignment :  | <input checked="" type="checkbox"/>   |
| Enable Automatic DHCP-PD in LAN :   | <input checked="" type="checkbox"/>   |
| Autoconfiguration Type :  | SLAAC + Stateless DHCPv6  |
| Router Advertisement Lifetime:  | 1440 (minutes)  |

**Autoconfiguration Type:** Select **Stateful (DHCPv6)**, **SLAAC + RDNSS** or **SLAAC + Stateless DHCPv6**.

**IPv6 Address Range Start:** Enter the start IPv6 Address for the DHCPv6 range for your local computers.

**IPv6 Address Range End:** Enter the end IPv6 Address for the DHCPv6 range for your local computers.

**IPv6 Address Lifetime:** Enter the IPv6 Address Lifetime (in minutes).

## IPv6 in IPv4 Tunneling

**My IPv6 Connection:** Select **IPv6 in IPv4 Tunnel** from the drop-down menu.

**IPv6 in IPv4 Tunnel Settings:** Enter the settings supplied by your Internet provider (ISP).

**LAN IPv6 Address:** Enter the LAN (local) IPv6 address for the router.

**LAN Link-Local Address:** Displays the Router's LAN Link-Local Address.

**Enable Autoconfiguration:** Check to enable the Autoconfiguration feature.

**Autoconfiguration Type:** Select **Stateful (DHCPv6)**, **SLAAC + RDNSS** or **SLAAC + Stateless DHCPv6**.

**IPv6 Address Range Start:** Enter the start IPv6 Address for the DHCPv6 range for your local computers.

**IPv6 Address Range End:** Enter the end IPv6 Address for the DHCPv6 range for your local computers.

**Pv6 Address Lifetime:** Enter the Router Advertisement Lifetime (in minutes).

| IPv6 CONNECTION TYPE  |                                     |
|---|-------------------------------------|
| Choose the mode to be used by the router to the IPv6 Internet.  |                                     |
| My IPv6 Connection is :   | IPv6 in IPv4 Tunnel                 |
| IPv6 in IPv4 TUNNEL SETTINGS  |                                     |
| Enter the IPv6 in IPv4 Tunnel information provided by your Tunnel Broker.   |                                     |
| Remote IPv4 Address :   |                                     |
| Remote IPv6 Address :   |                                     |
| Local IPv4 Address :  | 192.168.1.2                         |
| Local IPv6 Address :  |                                     |
| IPv6 DNS SETTINGS   |                                     |
| Obtain a DNS server address automatically or enter a specific DNS server address.   |                                     |
| <input checked="" type="radio"/> Obtain a DNS server address automatically<br><input type="radio"/> Use the following DNS address   |                                     |
| Primary DNS Server :  |                                     |
| Secondary DNS Server :  |                                     |
| LAN IPv6 ADDRESS SETTINGS   |                                     |
| Use this section to configure the internal network settings of your router. If you change the LAN IPv6 Address here, you may need to adjust your PC network settings to access the network again. |                                     |
| Enable DHCP-PD :  | <input checked="" type="checkbox"/> |
| LAN IPv6 Address :  | /64                                 |
| LAN IPv6 Link-Local Address :   | FE80::218:E7FF:FE95:689E/64         |
| ADDRESS AUTOCONFIGURATION SETTINGS  |                                     |
| Use this section to setup IPv6 Autoconfiguration to assign IP addresses to the computers on your network. You can also enable DHCP-PD to delegate prefixes for router in your LAN.                |                                     |
| Enable automatic IPv6 address assignment :  | <input checked="" type="checkbox"/> |
| Enable Automatic DHCP-PD in LAN :   | <input checked="" type="checkbox"/> |
| Autoconfiguration Type :  | SLAAC + Stateless DHCPv6            |
| Router Advertisement Lifetime:  | 1440 (minutes)                      |

## 6 to 4 Tunneling

**My IPv6 Connection:** Select **6 to 4** from the drop-down menu.

**6 to 4 Settings:** Enter the IPv6 settings supplied by your Internet provider (ISP).

**Primary/Secondary DNS Address:** Enter the primary and secondary DNS server addresses.

**LAN IPv6 Address:** Enter the LAN (local) IPv6 address for the router.

**LAN Link-Local Address:** Displays the Router's LAN Link-Local Address.

**Enable Autoconfiguration:** Check to enable the Autoconfiguration feature.

**Autoconfiguration Type:** Select **Stateful (DHCPv6)**, **SLAAC + RDNSS** or **SLAAC + Stateless DHCPv6**.

**IPv6 Address Range Start:** Enter the start IPv6 Address for the DHCPv6 range for your local computers.

**IPv6 Address Range End:** Enter the end IPv6 Address for the DHCPv6 range for your local computers.

**IPv6 Address Lifetime:** Enter the IPv6 Address Lifetime (in minutes).

| IPv6 CONNECTION TYPE  |                                     |
|---|-------------------------------------|
| Choose the mode to be used by the router to the IPv6 Internet.  |                                     |
| My IPv6 Connection is :   | 6to4                                |
| 6to4 SETTINGS   |                                     |
| Enter the IPv6 address information provided by your Internet Service Provider (ISP).  |                                     |
| 6to4 Address :  | 2002:COA8:0102::COA8:0102           |
| 6to4 Relay :  | 192.88.99.1                         |
| Primary DNS Server :  |                                     |
| Secondary DNS Server :  |                                     |
| LAN IPv6 ADDRESS SETTINGS   |                                     |
| Use this section to configure the internal network settings of your router. If you change the LAN IPv6 Address here, you may need to adjust your PC network settings to access the network again. |                                     |
| LAN IPv6 Address :  | 2002:COA8:0102:0001::1/64           |
| LAN IPv6 Link-Local Address :   | FE80::218:E7FF:FE95:689E/64         |
| ADDRESS AUTOCONFIGURATION SETTINGS  |                                     |
| Use this section to setup IPv6 Autoconfiguration to assign IP addresses to the computers on your network.   |                                     |
| Enable automatic IPv6 address assignment :  | <input checked="" type="checkbox"/> |
| Autoconfiguration Type :  | SLAAC + Stateless DHCPv6            |
| Router Advertisement Lifetime :   | 60 (minutes)                        |

## 6rd

**My IPv6 Connection:** Select **6rd** from the drop-down menu.

**6RD Settings:** Enter the address settings supplied by your Internet provider (ISP).

**LAN IPv6 Address:** Enter the LAN (local) IPv6 address for the router.

**LAN Link-Local Address:** Displays the Router's LAN Link-Local Address.

**Enable Autoconfiguration:** Check to enable the Autoconfiguration feature.

**Autoconfiguration Type:** Select **Stateful (DHCPv6)**, **SLAAC+RDNSS** or **SLAAC + Stateless DHCPv6**.

**Router Advertisement Lifetime:** Enter the Router Advertisement Lifetime (in minutes).

| IPv6 CONNECTION TYPE  |   |
|---|---|
| Choose the mode to be used by the router to the IPv6 Internet.  |   |
| My IPv6 Connection is :   | 6rd   |
| 6RD SETTINGS  |   |
| Enter the IPv6 address information provided by your Internet Service Provider (ISP).  |   |
| 6rd Configuration :   | <input checked="" type="radio"/> 6rd DHCPv4 Option <input type="radio"/> Manual Configuration |
| 6rd IPv6 Prefix :   | <input type="text"/> / <input type="text" value="32"/>  |
| IPv4 Address :  | 192.168.1.2 Mask Length : <input type="text" value="0"/>                                      |
| Assign IPv6 Prefix :  | None  |
| Tunnel Link-Local Address :   | FE80::C0A8:0102/64  |
| 6rd Border Relay IPv4 Address :   | <input type="text"/>  |
| Primary DNS Server :  | <input type="text"/>  |
| Secondary DNS Server :  | <input type="text"/>  |
| LAN IPv6 ADDRESS SETTINGS   |   |
| Use this section to configure the internal network settings of your router. If you change the LAN IPv6 Address here, you may need to adjust your PC network settings to access the network again. |   |
| LAN IPv6 Address :  | None  |
| LAN IPv6 Link-Local Address :   | FE80::218:E7FF:FE95:689E/64   |
| ADDRESS AUTOCONFIGURATION SETTINGS  |   |
| Use this section to setup IPv6 Autoconfiguration to assign IP addresses to the computers on your network.   |   |
| Enable automatic IPv6 address assignment :  | <input checked="" type="checkbox"/>   |
| Autoconfiguration Type :  | SLAAC + Stateless DHCPv6  |
| Router Advertisement Lifetime:  | <input type="text" value="60"/> (minutes)   |

## Link-Local Connectivity

**My IPv6 Connection:** Select **Link-Local Only** from the drop-down menu.

**LAN IPv6 Address Settings:** Displays the IPv6 address of the router.

### IPv6 CONNECTION TYPE

Choose the mode to be used by the router to the IPv6 Internet.

My IPv6 Connection is :

### LAN IPv6 ADDRESS SETTINGS

LAN IPv6 address for local IPv6 communications.

LAN IPv6 Link-Local Address : FE80::218:E7FF:FE95:689E/64

# Advanced Virtual Server

This will allow you to open a single port. If you would like to open a range of ports, refer to the next page.

**Name:** Enter a name for the rule or select an application from the drop-down menu. Select an application and click << to populate the fields.

**IP Address:** Enter the IP address of the computer on your local network that you want to allow the incoming service to. If your computer is receiving an IP address automatically from the router (DHCP), you computer will be listed in the “Computer Name” drop-down menu. Select your computer and click <<.

**Private Port/ Public Port:** Enter the port that you want to open next to Private Port and Public Port. The private and public ports are usually the same. The public port is the port seen from the Internet side, and the private port is the port being used by the application on the computer within your local network.

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

**Schedule:** The schedule of time when the Virtual Server Rule will be enabled. The schedule may be set to Always, which will allow the particular service to always be enabled. You can create your own times in the **Tools** > **Schedules** section.

**Inbound Filter:** Select **Allow All** (most common) or a created Inbound filter. You may create your own inbound filters in the **Advanced** > **Inbound Filter** page.

**D-Link**

DIR-825 // SETUP ADVANCED TOOLS STATUS SUPPORT

**VIRTUAL SERVER**

The Virtual Server option allows you to define a single public port on your router for redirection to an internal LAN IP Address and Private LAN port if required. This feature is useful for hosting online services such as FTP or Web Servers.

Save Settings Don't Save Settings

24 -- VIRTUAL SERVERS LIST

|                          |  | Port                | Traffic Type    | Schedule                    |
|--------------------------|--|---------------------|-----------------|-----------------------------|
| <input type="checkbox"/> | Name<br>[ ] << Application Name          | Public Port<br>[0]  | Protocol<br>TCP | Schedule<br>Always          |
| <input type="checkbox"/> | IP Address<br>[0.0.0.0] << Computer Name | Private Port<br>[0] | [5]             | Inbound Filter<br>Allow All |
| <input type="checkbox"/> | Name<br>[ ] << Application Name          | Public Port<br>[0]  | Protocol<br>TCP | Schedule<br>Always          |
| <input type="checkbox"/> | IP Address<br>[0.0.0.0] << Computer Name | Private Port<br>[0] | [5]             | Inbound Filter<br>Allow All |
| <input type="checkbox"/> | Name<br>[ ] << Application Name          | Public Port<br>[0]  | Protocol<br>TCP | Schedule<br>Always          |
| <input type="checkbox"/> | IP Address<br>[0.0.0.0] << Computer Name | Private Port<br>[0] | [5]             | Inbound Filter<br>Allow All |

**Helpful Hints...**

Check the **Application Name** drop down menu for a list of predefined server types. If you select one of the predefined server types, click the arrow button next to the drop down menu to fill out the corresponding field.

You can select a computer from the list of DHCP clients in the **Computer Name** drop down menu, or you can manually enter the IP address of the computer at which you would like to open the specified port.

Select a schedule for when the virtual server will be enabled. If you do not see the schedule you need in

## Port Forwarding

This will allow you to open a single port or a range of ports.

**Name:** Enter a name for the rule or select an application from the drop-down menu. Select an application and click << to populate the fields.

**IP Address:** Enter the IP address of the computer on your local network that you want to allow the incoming service to. If your computer is receiving an IP address automatically from the router (DHCP), your computer will be listed in the “Computer Name” drop-down menu. Select your computer and click <<.

**TCP/UDP:** Enter the TCP and/or UDP port or ports that you want to open. You can enter a single port or a range of ports. Separate ports with a common.

Example: 24,1009,3000-4000

**Schedule:** The schedule of time when the Virtual Server Rule will be enabled. The schedule may be set to Always, which will allow the particular service to always be enabled. You can create your own times in the **Tools > Schedules** section.

**Inbound Filter:** Select **Allow All** (most common) or a created Inbound filter. You may create your own inbound filters in the **Advanced > Inbound Filter** page.

**D-Link**

DIR-825 // SETUP ADVANCED TOOLS STATUS SUPPORT

**PORT FORWARDING RULES :**

This option is used to open multiple ports or a range of ports in your router and redirect data through those ports to a single PC on your network. This feature allows you to enter ports in various formats including, Port Ranges (100-150), Individual Ports (80, 68, 888), or Mixed (1020-5000, 689).

Save Settings Don't Save Settings

**24 -- PORT FORWARDING RULES**

| Name                     | IP Address           | Application Name    | Computer Name    | Ports to Open               | Inbound Filter              |
|--------------------------|----------------------|---------------------|------------------|-----------------------------|-----------------------------|
| <input type="checkbox"/> | <input type="text"/> | << Application Name | << Computer Name | TCP<br><input type="text"/> | Schedule<br>Always          |
| <input type="checkbox"/> | 0.0.0.0              | << Computer Name    | << Computer Name | UDP<br><input type="text"/> | Inbound Filter<br>Allow All |
| <input type="checkbox"/> | <input type="text"/> | << Application Name | << Computer Name | TCP<br><input type="text"/> | Schedule<br>Always          |
| <input type="checkbox"/> | 0.0.0.0              | << Computer Name    | << Computer Name | UDP<br><input type="text"/> | Inbound Filter<br>Allow All |
| <input type="checkbox"/> | <input type="text"/> | << Application Name | << Computer Name | TCP<br><input type="text"/> | Schedule<br>Always          |
| <input type="checkbox"/> | 0.0.0.0              | << Computer Name    | << Computer Name | UDP<br><input type="text"/> | Inbound Filter<br>Allow All |

**Helpful Hints...**

Check the **Application Name** drop down menu for a list of predefined applications. If you select one of the predefined applications, click the arrow button next to the drop down menu to fill out the corresponding field.

You can select a computer from the list of DHCP clients in the **Computer Name** drop down menu, or you can manually enter the IP address of the LAN computer to which you would like to open the specified port.

Select a schedule for when the rule will be enabled. If you do not see the schedule you need in the list of



## Application Rules

Some applications require multiple connections, such as Internet gaming, video conferencing, Internet telephony and others. These applications have difficulties working through NAT (Network Address Translation). Special Applications makes some of these applications work with the DIR-825. If you need to run applications that require multiple connections, specify the port normally associated with an application in the "Trigger Port" field, select the protocol type as TCP or UDP, then enter the firewall (public) ports associated with the trigger port to open them for inbound traffic.

The DIR-825 provides some predefined applications in the table on the bottom of the web page. Select the application you want to use and enable it.

**Name:** Enter a name for the rule. You may select a pre-defined application from the drop-down menu and click <<.

**Trigger:** This is the port used to trigger the application. It can be either a single port or a range of ports.

**Traffic Type:** Select the protocol of the trigger port (TCP, UDP, or Both).

**Firewall:** This is the port number on the Internet side that will be used to access the application. You may define a single port or a range of ports. You can use a comma to add multiple ports or port ranges.

**Traffic Type:** Select the protocol of the firewall port (TCP, UDP, or Both).

**Schedule:** The schedule of time when the Application Rule will be enabled. The schedule may be set to Always, which will allow the particular service to always be enabled. You can create your own times in the **Tools > Schedules** section.

**D-Link**

DIR-825 // SETUP ADVANCED TOOLS STATUS SUPPORT

**APPLICATION RULES**

This option is used to open single or multiple ports on your router when the router senses data sent to the Internet on a "trigger" port or port range. Special Applications rules apply to all computers on your internal network.

Save Settings Don't Save Settings

24 -- APPLICATION RULES

|                          | Name       | Application         | Port                                     | Traffic Type | Schedule |
|--------------------------|------------|---------------------|--|--------------|----------|
| <input type="checkbox"/> | BitTorrent | << BitTorrent       | Trigger<br>6969<br>Firewall<br>6881-6888 | TCP          | Always   |
| <input type="checkbox"/> |            | << Application Name | Trigger<br>0<br>Firewall<br>0            | TCP          | Always   |
| <input type="checkbox"/> |            | << Application Name | Trigger<br>0<br>Firewall<br>0            | TCP          | Always   |

**Helpful Hints...**

Use this feature if you are trying to execute one of the listed network applications and it is not communicating as expected.

Check the **Application Name** drop down menu for a list of predefined applications. If you select one of the predefined applications, click the arrow button next to the drop down menu to fill out the corresponding field.

Select a schedule for when the service will be enabled. If you do not see the schedule you need in the list of schedules, go to the **Tools > Schedules** section.

## QoS Engine

The QoS Engine option helps improve your network gaming performance by prioritizing applications. By default the QoS Engine settings are disabled and application priority is not classified automatically.

**Enable Traffic Shaping:** This option is disabled by default. Enable this option for better performance and experience with online games and other interactive applications, such as VoIP.

**Automatic Uplink Speed:** This option is enabled by default when the QoS Engine option is enabled. This option will allow your router to automatically determine the uplink speed of your Internet connection.

**Measured Uplink Speed:** This displays the detected uplink speed.

**Manual Uplink Speed:** The speed at which data can be transferred from the router to your ISP. This is determined by your ISP. ISP's often speed as a download/upload pair. For example, 1.5Mbits/284Kbits. Using this example, you would enter 284. Alternatively you can test your uplink speed with a service such as speedtest.net.

**Enable QoS Engine:** This option is enabled by default. This will allow your router to automatically determine the network priority of running programs.

**Automatic Classification:** This option should be enabled when you have a slow Internet uplink. It helps to reduce the impact that large low priority network packets can have on more urgent ones.

**Dynamic Fragmentation:** This option should be enabled when you have a slow Internet uplink. It helps to reduce the impact that large low priority network packets can have on more urgent ones.

**D-Link**

DIR-825 // SETUP ADVANCED TOOLS STATUS SUPPORT

**QoS ENGINE**

Use this section to configure D-Link's QoS Engine powered by QoS Engine™ Technology. This QoS Engine improves your online gaming experience by ensuring that your game traffic is prioritized over other network traffic, such as FTP or Web. For best performance, use the Automatic Classification option to automatically set the priority for your applications.

Save Settings Don't Save Settings

**WAN TRAFFIC SHAPING**

Enable Traffic Shaping :

Automatic Uplink Speed :

Measured Uplink Speed : Not Estimated

Manual Uplink Speed : 128 kbps << 128 kbps

**QoS ENGINE SETUP**

Enable QoS Engine :

Automatic Classification :

Dynamic Fragmentation :

**10 -- QoS ENGINE RULES**

| Name                                    | Priority   | Protocol          |
|---|------------|-------------------|
|   | 1 (1..255) | 6 << TCP          |
| <input type="checkbox"/> Local IP Range |            | Local Port Range  |
| 0.0.0.0 to 255.255.255.255              |            | 0 to 65535        |
| Remote IP Range                         |            | Remote Port Range |
| 0.0.0.0 to 255.255.255.255              |            | 0 to 65535        |
| Name                                    | Priority   | Protocol          |
|   | 1 (1..255) | 6 << TCP          |

Helpful Hints ...

If the Measured Uplink Speed is known to be incorrect (that is, it produces suboptimal performance), disable Automatic Uplink Speed and enter the Manual Uplink Speed. Some experimentation and performance measurement may be required to converge on the optimal value.

More...

## Network Filters

Use MAC (Media Access Control) Filters to allow or deny LAN (Local Area Network) computers by their MAC addresses from accessing the network. You can either manually add a MAC address or select the MAC address from the list of clients that are currently connected to the Broadband Router.

**Configure MAC Filtering:** Select **Turn MAC Filtering Off, Allow MAC addresses listed below**, or **Deny MAC addresses listed below** from the drop-down menu.

**MAC Address:** Enter the MAC address you would like to filter.

To find the MAC address on a computer, please refer to the *Networking Basics* section in this manual.

**DHCP Client:** Select a DHCP client from the drop-down menu and click << to copy that MAC Address.

**Clear:** Click to remove the MAC address.

**D-Link**

DIR-825 // SETUP ADVANCED TOOLS STATUS SUPPORT

**MAC ADDRESS FILTER**

The MAC (Media Access Controller) Address filter option is used to control network access based on the MAC Address of the network adapter. A MAC address is a unique ID assigned by the manufacturer of the network adapter. This feature can be configured to ALLOW or DENY network/Internet access.

Save Settings Don't Save Settings

**24 -- MAC FILTERING RULES**

Configure MAC Filtering below:  
Turn MAC Filtering ON and ALLOW computers listed to access the network

| MAC Address       |    | DHCP Client List              |       |
|-------------------|----|-------------------------------|-------|
| 00:04:23:2c:51:a3 | << | PM_test01 (00:04:23:2c:51:a3) | Clear |
| 00:00:00:00:00:00 | << | Computer Name                 | Clear |
| 00:00:00:00:00:00 | << | Computer Name                 | Clear |
| 00:00:00:00:00:00 | << | Computer Name                 | Clear |
| 00:00:00:00:00:00 | << | Computer Name                 | Clear |
| 00:00:00:00:00:00 | << | Computer Name                 | Clear |

**Helpful Hints...**

Create a list of MAC addresses that you would either like to allow or deny access to your network.

Computers that have obtained an IP address from the router's DHCP server will be in the DHCP Client List. Select a device from the drop down menu, then click the arrow to add that device's MAC address to the list.

Click the Clear button to remove the MAC address from the MAC Filtering list.

[More...](#)

## Access Control

The Access Control section allows you to control access in and out of your network. Use this feature as Parental Controls to only grant access to approved sites, limit web access based on time or dates, and/or block access from applications like P2P utilities or games.

**Add Policy:** Click the **Add Policy** button to start the Access Control Wizard.

**D-Link**

DIR-825 // SETUP ADVANCED TOOLS STATUS SUPPORT

**ACCESS CONTROL**

The Access Control option allows you to control access in and out of your network. Use this feature as Access Controls to only grant access to approved sites, limit web access based on time or dates, and/or block internet access for applications like P2P utilities or games.

Save Settings Don't Save Settings

**ENABLE**

Enable Access Control :  Add Policy

**POLICY TABLE**

| Enable Policy | Machine | Filtering | Logged | Schedule |
|---------------|---------|-----------|--------|----------|
|               |         |           |        |          |

**Helpful Hints...**

Check **Enable Access Control** if you want to enforce rules that limit internet access from specific LAN computers.

Click **Add Policy** to start the process of creating a rule. You can cancel the process at any time. When you are finished creating a rule it will be added to the **Policy Table** below.

Click the **Edit** icon to modify an existing rule using the **Policy Wizard**.

Click the **Delete** icon to permanently remove a rule.

## Access Control Wizard

Click **Next** to continue with the wizard.

**ADD NEW POLICY**

This wizard will guide you through the following steps to add a new policy for Access Control.

Step 1 - Choose a unique name for your policy  
 Step 2 - Select a schedule  
 Step 3 - Select the machine to which this policy applies  
 Step 4 - Select filtering method  
 Step 5 - Select filters  
 Step 6 - Configure Web Access Logging

Prev Next Save Cancel

Enter a name for the policy and then click **Next** to continue.

STEP 1: CHOOSE POLICY NAME

Choose a unique name for your policy.

Policy Name :

Select a schedule (I.E. Always) from the drop-down menu and then click **Next** to continue.

STEP 2: SELECT SCHEDULE

Choose a schedule to apply to this policy.

Details :

Enter the following information and then click **Next** to continue.

- **Address Type** - Select IP address, MAC address, or Other Machines.
- **IP Address** - Enter the IP address of the computer you want to apply the rule to.
- **Machine Address** - Enter the PC MAC address (i.e. 00:00.00.00.00).

STEP 3: SELECT MACHINE

Select the machine to which this policy applies.

Specify a machine with its IP or MAC address, or select "Other Machines" for machines that do not have a policy.

Address Type :  IP  MAC  Other Machines

IP Address :  <<

Machine Address :  <<

| Machine       |
|---------------|
| 192.168.0.112 |

Select the filtering method and then click **Next** to continue.

STEP 4: SELECT FILTERING METHOD

Select the method for filtering.

Method :  Log Web Access Only  Block All Access  Block Some Access

Apply Web Filter :

Apply Advanced Port Filters :

Enter the rule:

**Enable** - Check to enable the rule.

**Name** - Enter a name for your rule.

**Dest IP Start** - Enter the starting IP address.

**Dest IP End** - Enter the ending IP address.

**Protocol** - Select the protocol.

**Dest Port Start** - Enter the starting port number.

**Dest Port End** - Enter the ending port number.

**STEP 5: PORT FILTER**

Add Port Filters Rules.

Specify rules to prohibit access to specific IP addresses and ports.

| Enable                   | Name | Dest IP Start | Dest IP End     | Protocol | Dest Port Start | Dest Port End |
|--------------------------|------|---------------|-----------------|----------|-----------------|---------------|
| <input type="checkbox"/> |      | 0.0.0.0       | 255.255.255.255 | Any      | 0               | 65535         |
| <input type="checkbox"/> |      | 0.0.0.0       | 255.255.255.255 | Any      | 0               | 65535         |
| <input type="checkbox"/> |      | 0.0.0.0       | 255.255.255.255 | Any      | 0               | 65535         |
| <input type="checkbox"/> |      | 0.0.0.0       | 255.255.255.255 | Any      | 0               | 65535         |
| <input type="checkbox"/> |      | 0.0.0.0       | 255.255.255.255 | Any      | 0               | 65535         |
| <input type="checkbox"/> |      | 0.0.0.0       | 255.255.255.255 | Any      | 0               | 65535         |
| <input type="checkbox"/> |      | 0.0.0.0       | 255.255.255.255 | Any      | 0               | 65535         |
| <input type="checkbox"/> |      | 0.0.0.0       | 255.255.255.255 | Any      | 0               | 65535         |

Prev Next Save Cancel

To enable web logging, click **Enable**.

Click **Save** to save the access control rule.

**STEP 6: CONFIGURE WEB ACCESS LOGGING**

Web Access Logging :  Disabled  
 Enable

Prev Next Save Cancel

Your newly created policy will now show up under **Policy Table**.

**ACCESS CONTROL**

The Access Control option allows you to control access in and out of your network. Use this feature as Access Controls to only grant access to approved sites, limit web access based on time or dates, and/or block internet access for applications like P2P utilities or games.

Save Settings Don't Save Settings Reboot Now

**ENABLE**

Enable Access Control :

Add Policy

**POLICY TABLE**

| Enable Policy                       | Machine | Filtering     | Logged            | Schedule |        |  |
|-------------------------------------|---------|---------------|-------------------|----------|--------|--|
| <input checked="" type="checkbox"/> | dlink   | 192.168.0.106 | Block Some Access | No       | Always |  |

## Website Filters

Website Filters are used to allow you to set up a list of Web sites that can be viewed by multiple users through the network. To use this feature select to **Allow** or **Deny**, enter the domain or website and click **Save Settings**. You must also select **Apply Web Filter** under the *Access Control* section (page 42).

**Add Website** Select either **DENY computers access to ONLY Filtering Rule: these sites** or **ALLOW computers access to ONLY these sites**.

**Website URL/ Domain:** Enter the keywords or URLs that you want to allow or block. Click **Save Settings**.

The screenshot displays the D-Link DIR-825 web interface. The top navigation bar includes 'DIR-825', 'SETUP', 'ADVANCED', 'TOOLS', 'STATUS', and 'SUPPORT'. The left sidebar lists various configuration options, with 'WEBSITE FILTER' selected. The main content area is titled 'WEBSITE FILTER' and contains the following text: 'The Website Filter option allows you to set up a list of Web sites you would like to allow or deny through your network. To use this feature, you must also select the "Apply Web Filter" checkbox in the Access Control section.' Below this text are two buttons: 'Save Settings' and 'Don't Save Settings'. A section titled '40 - WEBSITE FILTERING RULES' contains the instruction 'Configure Website Filter below:' followed by a dropdown menu set to 'ALLOW computers access to ONLY these sites' and a 'Clear the list below...' button. At the bottom, there is a table with the header 'Website URL/Domain' and four rows of input fields. The right sidebar contains 'Helpful Hints...' with instructions on creating a list of sites to deny or allow, and a 'More...' link.

## Inbound Filters

The Inbound Filter option is an advanced method of controlling data received from the Internet. With this feature you can configure inbound data filtering rules that control data based on an IP address range. Inbound Filters can be used with Virtual Server, Port Forwarding, or Remote Administration features.

**Name:** Enter a name for the inbound filter rule.

**Action:** Select **Allow** or **Deny**.

**Enable:** Check to enable rule.

**Remote IP Start:** Enter the starting IP address. Enter 0.0.0.0 if you do not want to specify an IP range.

**Remote IP End:** Enter the ending IP address. Enter 255.255.255.255 if you do not want to specify and IP range.

**Add:** Click the **Add** button to apply your settings. You must click **Save Settings** at the top to save the settings.

**Inbound Filter Rules List:** This section will list any rules that are created. You may click the **Edit** icon to change the settings or enable/disable the rule, or click the **Delete** icon to remove the rule.

The screenshot shows the D-Link DIR-825 web interface. The top navigation bar includes 'SETUP', 'ADVANCED', 'TOOLS', 'STATUS', and 'SUPPORT'. The left sidebar lists various configuration options, with 'INBOUND FILTER' selected. The main content area is titled 'INBOUND FILTER' and contains the following text:

The Inbound Filter option is an advanced method of controlling data received from the Internet. With this feature you can configure inbound data filtering rules that control data based on an IP address range.

Inbound Filters can be used for limiting access to a server on your network to a system or group of systems. Filter rules can be used with Virtual Server, Port Forwarding, or Remote Administration features.

The 'ADD INBOUND FILTER RULE' section includes a 'Name' input field, an 'Action' dropdown menu set to 'Allow', and a table for adding rules:

| Remote IP Range | Enable                   | Remote IP Start | Remote IP End   |
|-----------------|--------------------------|-----------------|-----------------|
|                 | <input type="checkbox"/> | 0.0.0.0         | 255.255.255.255 |
|                 | <input type="checkbox"/> | 0.0.0.0         | 255.255.255.255 |
|                 | <input type="checkbox"/> | 0.0.0.0         | 255.255.255.255 |
|                 | <input type="checkbox"/> | 0.0.0.0         | 255.255.255.255 |
|                 | <input type="checkbox"/> | 0.0.0.0         | 255.255.255.255 |

The 'Helpful Hints...' sidebar on the right provides additional information:

Give each rule a **Name** that is meaningful to you.

Each rule can either **Allow** or **Deny** access from the WAN.

Up to eight ranges of WAN IP addresses can be controlled by each rule. The checkbox by each IP range can be used to disable ranges already defined.

The starting and ending IP addresses are WAN-side address.

Click the **Add** or **Update** button to store a finished rule.



## Firewall Settings

A firewall protects your network from the outside world. The DIR-825 offers a firewall type functionality. The SPI feature helps prevent cyber attacks. 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 DMZ. DMZ is short for Demilitarized Zone. This option will expose the chosen computer completely to the outside world.

**Enable SPI:** SPI (Stateful Packet Inspection, also known as dynamic packet filtering) helps to prevent cyber attacks by tracking more state per session. It validates that the traffic passing through the session conforms to the protocol.

**Anti-Spoof Check:** Enable this feature to protect your network from certain kinds of “spoofing” attacks.

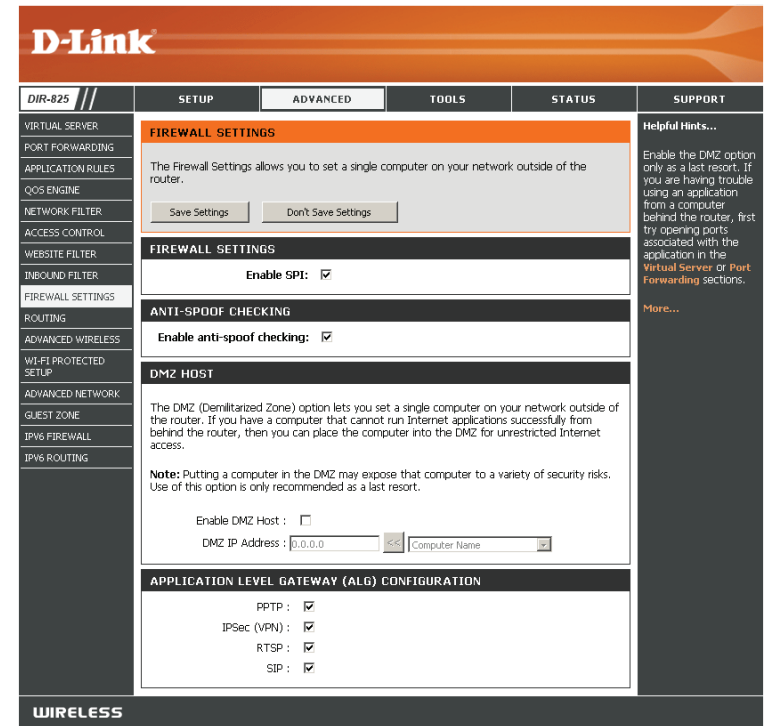
**Enable DMZ:** If an application has trouble working from behind the router, you can expose one computer to the Internet and run the application on that computer.

**Note:** *Placing a computer in the DMZ may expose that computer to a variety of security risks. Use of this option is only recommended as a last resort.*

**DMZ IP Address:** Specify the IP address of the computer on the LAN that you want to have unrestricted Internet communication. If this computer obtains its IP address automatically using DHCP, be sure to make a static reservation on the **Setup > Network Settings** page so that the IP address of the DMZ machine does not change.

**PPTP:** Allows multiple machines on the LAN to connect to their corporate network using PPTP protocol.

**IPSEC (VPN):** Allows multiple VPN clients to connect to their corporate network using IPsec. Some VPN clients support traversal of IPsec through NAT. This ALG may interfere with the operation of such VPN clients. If you are having trouble connecting with your corporate network, try turning this ALG off. Please check with the system administrator of your corporate network whether your VPN client supports NAT traversal.



- RTSP:** Allows application that uses Real Time Streaming Protocol to receive streaming media from the Internet. QuickTime and Real Player are some of the common applications using this protocol.
- SIP:** Allows devices and applications using VoIP (Voice over IP) to communicate across NAT. Some VoIP applications and devices have the ability to discover NAT devices and work around them. This ALG may interfere with the operation of such devices. If you are having trouble making VoIP calls, try turning this ALG off.

## Routing

The Routing option is an advanced method of customizing specific routes of data through your network.

**Destination IP:** Enter the IP address of packets that will take this route.

**Netmask:** Enter the netmask of the route, please note that the octets must match your destination IP address.

**Gateway:** Enter your next hop gateway to be taken if this route is used.

**Metric:** The route metric is a value from 1 to 16 that indicates the cost of using this route. A value 1 is the lowest cost and 15 is the highest cost.

**Interface:** Select the interface that the IP packet must use to transit out of the router when this route is used.

The screenshot shows the D-Link DIR-825 web interface. The top navigation bar includes 'DIR-825', 'SETUP', 'ADVANCED', 'TOOLS', 'STATUS', and 'SUPPORT'. The 'ADVANCED' tab is selected, and the 'ROUTING' section is active. The main content area contains a 'ROUTING' header, a description: 'This Routing page allows you to specify custom routes that determine how data is moved around your network.', and two buttons: 'Save Settings' and 'Don't Save Settings'. Below this is a '32 --ROUTE LIST' table with columns for Name, Destination IP, Metric, and Interface. The table contains three rows, each with a checkbox, a Name field, a Destination IP field (0.0.0.0), a Gateway field (0.0.0.0), a Metric field (1), and an Interface dropdown menu (WAN). The sidebar on the right, titled 'Helpful Hints..', provides instructions: 'Each route has a check box next to it, check this box if you want the route to be enabled.', 'The name field allows you to specify a name for identification of this route, e.g. "Network 2"', 'The destination IP address is the address of the host or network you wish to reach.', 'The netmask field identifies the portion of the destination IP in use.', and 'The gateway IP address is the IP address of the router, if any, used to reach the specified destination.'

## Advanced Wireless

**Transmit Power:** Set the transmit power of the antennas.

**WLAN Partition:** This enables 802.11d operation. 802.11d is a wireless specification developed to allow implementation of wireless networks in countries that cannot use the 802.11 standard. This feature should only be enabled if you are in a country that requires it.

**WMM Enable:** WMM is QoS for your wireless network. This will improve the quality of video and voice applications for your wireless clients.

**Short GI:** Check this box to reduce the guard interval time therefore increasing the data capacity. However, it's less reliable and may create higher data loss.

**HT20/40 Coexistence (2.4GHz only):** Select to Enable or Disable this feature.

**D-Link**

DIR-825 // SETUP ADVANCED TOOLS STATUS SUPPORT

**ADVANCED WIRELESS**

If you are not familiar with these Advanced Wireless settings, please read the help section before attempting to modify these settings.

Save Settings Don't Save Settings

**ADVANCED WIRELESS SETTINGS**

Wireless Band : 2.4GHz  
 Transmit Power : High  
 WLAN Partition :   
 WMM Enable :   
 Short GI :   
 HT20/40 Coexistence :  Enable  Disable

**ADVANCED WIRELESS SETTINGS**

Wireless Band : 5GHz  
 Transmit Power : High  
 WLAN Partition :   
 WMM Enable :   
 Short GI :

**Helpful Hints...**

It is recommended that you leave these parameters at their default values. Adjusting them could limit the performance of your wireless network.

Use **802.11d** only for countries where it is required.

Enabling **WMM** can help control latency and jitter when transmitting multimedia content over a wireless connection.

[More...](#)

**WIRELESS**

## Wi-Fi Protected Setup (WPS)

Wi-Fi Protected Setup (WPS) System is a simplified method for securing your wireless network during the “Initial setup” as well as the “Add New Device” processes. The Wi-Fi Alliance (WFA) has certified it across different products as well as manufactures. The process is just as easy as pressing a button for the Push-Button Method or correctly entering the 8-digit code for the Pin Code Method. The time reduction in setup and ease of use are quite beneficial, while the highest wireless Security setting of WPA2 is automatically used.

**Enable:** Enable the Wi-Fi Protected Setup feature.

**Note:** if this option is unchecked, the WPS button on the side of the router will be disabled.

**Lock Wireless Security Settings:** Locking the wireless security settings prevents the settings from being changed by the Wi-Fi Protected Setup feature of the router. Devices can still be added to the network using Wi-Fi Protected Setup. However, the settings of the network will not change once this option is checked.

**PIN Settings:** A PIN is a unique number that can be used to add the router to an existing network or to create a new network. Only the Administrator (“admin” account) can change or reset the PIN.

**Current PIN:** Shows the current PIN.

**Reset PIN to Default:** Restore the default PIN of the router.

**Generate New PIN:** Create a random number that is a valid PIN. This becomes the router’s PIN. You can then copy this PIN to the user interface of the wireless client.

The screenshot displays the D-Link router's configuration page for Wi-Fi Protected Setup. The main content area is divided into three sections:

- WI-FI PROTECTED SETUP:** Contains a description of WPS, a 'Save Settings' button, and a 'Don't Save Settings' button.
- WI-FI PROTECTED SETUP (Settings):** Shows 'Enable' checked and 'Lock Wireless Security Settings' unchecked. A 'Reset to Unconfigured' button is present.
- PIN SETTINGS:** Displays the 'Current PIN' as 69735462, with 'Generate New PIN' and 'Reset PIN to Default' buttons.
- ADD WIRELESS STATION:** Features a button labeled 'Add Wireless Device with WPS'.

The left sidebar lists various configuration categories, with 'WI-FI PROTECTED SETUP' highlighted. The right sidebar contains 'Helpful Hints...' and 'More...' sections.

**Add Wireless Station:** This Wizard helps you add wireless devices to the wireless network.

The wizard will either display the wireless network settings to guide you through manual configuration, prompt you to enter the PIN for the device, or ask you to press the configuration button on the device. If the device supports Wi-Fi Protected Setup and has a configuration button, you can add it to the network by pressing the configuration button on the device and then the on the router within 60 seconds. The status LED on the router will flash three times if the device has been successfully added to the network.

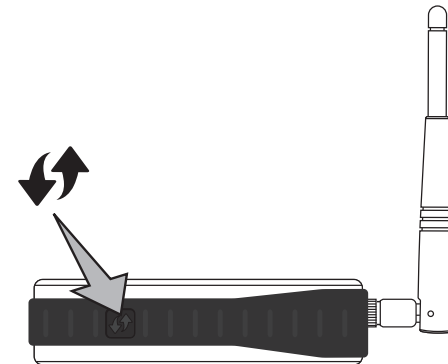
There are several ways to add a wireless device to your network. A “registrar” controls access to the wireless network. A registrar only allows devices onto the wireless network if you have entered the PIN, or pressed a special Wi-Fi Protected Setup button on the device. The router acts as a registrar for the network, although other devices may act as a registrar as well.

**Add Wireless Device Wizard:** Click to start the wizard and skip to page 41.

## WPS Button

You can also simply press the WPS button on the side of the router, and then press the WPS button on your wireless client to automatically connect without logging into the router.

Refer to page 106 for more information.



## Advanced Network Settings

**Enable UPnP:** To use the Universal Plug and Play (UPnP™) feature click on **Enabled**. UPnP provides compatibility with networking equipment, software and peripherals.

**WAN Ping:** Checking the box will allow the DIR-825 to respond to pings. Unchecking the box may provide some extra security from hackers.

**WAN Ping Inbound Filter:** Select from the drop-down menu if you would like to apply the Inbound Filter to the WAN ping. Refer to the Inbound Filters section for more information.

**WAN Port Speed:** You may set the port speed of the Internet port to 10Mbps, 100Mbps, 1000Mbps, or Auto (recommended).

**Enable IPV4 Multicast Streams:** Check the box to allow multicast traffic to pass through the router from the Internet (IPV4).

**Enable IPV6 Multicast Streams:** Check the box to allow multicast traffic to pass through the router from the Internet (IPV6).

The screenshot displays the 'Advanced Network' settings for a D-Link DIR-825 router. The interface is organized into several sections:

- ADVANCED NETWORK:** Contains a warning message and 'Save Settings' / 'Don't Save Settings' buttons.
- UPNP:** The 'Enable UPnP' checkbox is checked.
- WAN PING:** The 'Enable WAN Ping Respond' checkbox is unchecked. The 'WAN Ping Inbound Filter' is set to 'Allow All'.
- WAN PORT SPEED:** The 'WAN Port Speed' is set to 'Auto'.
- IPV4 MULTICAST STREAMS:** The 'Enable IPv4 Multicast Streams' checkbox is unchecked.
- IPV6 MULTICAST STREAMS:** The 'Enable IPv6 Multicast Streams' checkbox is checked.

Helpful Hints...  
 UPnP helps other UPnP LAN hosts interoperate with the router. Leave the UPnP option enabled as long as the LAN has other UPnP applications.  
 For added security, it is recommended that you disable the WAN Ping Respond option. Ping is often used by malicious Internet users to locate active networks or PCs.  
 The WAN speed is usually detected automatically. If you are having problems connecting to the WAN, try selecting the speed manually.  
 If you are having trouble receiving multicast streams from the Internet, make sure the Multicast Streams option is enabled.  
 More...

## Guest Zone

The Guest Zone feature will allow you to create temporary zones that can be used by guests to access the Internet. These zones will be separate from your main wireless network. You may configure different zones for the 2.4GHz and 5GHz wireless bands.

**Enable Guest Zone:** Check to enable the Guest Zone feature.

**Schedule:** The schedule of time when the Guest Zone will be active. The schedule may be set to Always, which will allow the particular service to always be enabled. You can create your own times in the **Tools > Schedules** section.

**Wireless Network Name:** Enter a wireless network name (SSID) that is different from your main wireless network.

**Enable Routing Between Zones:** Check to allow network connectivity between the different zones created.

**Security Mode:** Select the type of security or encryption you would like to enable for the guest zone.

The screenshot displays the D-Link DIR-825 web interface for configuring Guest Zones. The interface is organized into a sidebar on the left, a main content area, and a sidebar on the right.

- Left Sidebar:** Contains navigation links for various settings: VIRTUAL SERVER, PORT FORWARDING, APPLICATION RULES, QOS ENGINE, NETWORK FILTER, ACCESS CONTROL, WEBSITE FILTER, INBOUND FILTER, FIREWALL SETTINGS, ROUTING, ADVANCED WIRELESS, WI-FI PROTECTED SETUP, ADVANCED NETWORK, GUEST ZONE (highlighted), IPV6 FIREWALL, and IPV6 ROUTING.
- Main Content Area:**
  - Header:** D-Link logo and navigation tabs: DIR-825 //, SETUP, ADVANCED, TOOLS, STATUS, SUPPORT.
  - GUEST ZONE Section:**
    - Introduction: "Use this section to configure the guest zone settings of your router. The guest zone provide a separate network zone for guest to access Internet." Includes "Save Settings" and "Don't Save Settings" buttons.
    - GUEST ZONE SELECTION (2.4GHz Band):**
      - Enable Guest Zone:  Always (dropdown) [New Schedule]
      - Wireless Band: 2.4GHz Band
      - Wireless Network Name: dlink\_guest (Also called the SSID)
      - Enable Routing Between Zones:
      - Security Mode: None (dropdown)
    - GUEST ZONE SELECTION (5GHz Band):**
      - Enable Guest Zone:  Always (dropdown) [New Schedule]
      - Wireless Band: 5GHz Band
      - Wireless Network Name: dlink\_media\_guest (Also called the SSID)
      - Enable Routing Between Zones:
      - Security Mode: None (dropdown)
- Right Sidebar:**
  - Helpful Hints...**: "Use this section to configure the guest zone settings of your router. The guest zone provide a separate network zone for guest to access Internet."
  - More...**
- Bottom Bar:** WIRELESS



## IPv6 Firewall

The DIR-825's IPv6 Firewall feature allows you to configure which kind of IPv6 traffic is allowed to pass through the device. The DIR-825's IPv6 Firewall functions in a similar way to the IP Filters feature.

**Enable Checkbox:** Check the box to enable the IPv6 firewall simple security.

**Configure IPv6 Firewall:** Select an action from the drop-down menu.

**Name:** Enter a name to identify the IPv6 firewall rule.

**Schedule:** Use the drop-down menu to select the time schedule that the IPv6 Firewall Rule will be enabled on. The schedule may be set to **Always**, which will allow the particular service to always be enabled. You can create your own times in the **Tools > Schedules** section.

**Source:** Use the **Source** drop-down menu to specify the interface that connects to the source IPv6 addresses of the firewall rule.

**IP Address Range:** Enter the source IPv6 address range in the adjacent **IP Address Range** field.

**Dest:** Use the **Dest** drop-down menu to specify the interface that connects to the destination IP addresses of the firewall rule.

**Protocol:** Select the protocol of the firewall port (**All**, **TCP**, **UDP**, or **ICMP**).

**Port Range:** Enter the first port of the range that will be used for the firewall rule in the first box and enter the last port in the field in the second box.

The screenshot shows the D-Link DIR-825 web interface. The top navigation bar includes 'DIR-825 //', 'SETUP', 'ADVANCED', 'TOOLS', 'STATUS', and 'SUPPORT'. The left sidebar lists various configuration options, with 'IPv6 FIREWALL' selected. The main content area is titled 'IPv6 FIREWALL' and contains the following sections:

- IPv6 FIREWALL:** A text box explaining that the Firewall settings section is an advanced feature used to allow or deny traffic. It includes 'Save Settings' and 'Don't Save Settings' buttons.
- IPv6 SIMPLE SECURITY:** A section with the text 'Enable IPv6 Simple Security:' and a checked checkbox.
- IPv6 FIREWALL:** A section for configuring IPv6 Firewall rules. It includes a dropdown for 'Turn IPv6 Firewall OFF', a text box for 'Remaining number of firewall rules that can be configured:', and two rule configurations. Each rule has fields for Name, Schedule, Interface, IP Address Range, Protocol, and Port Range.

On the right side, there is a 'Helpful Hints...' section with text explaining that for each rule, a name and direction of traffic can be created, and a schedule can be defined. It also mentions that to apply a schedule, the user must first define a schedule on the 'Tools -- Schedules' page.

## IPv6 Routing

This page allows you to specify custom routes that determine how data is moved around your network.

**Route List:** Check the box next to the route you wish to enable.

**Name:** Enter a specific name to identify this route.

**Destination IP/Prefix Length:** This is the IP address of the router used to reach the specified destination or enter the IPv6 address prefix length of the packets that will take this route.

**Metric:** Enter the metric value for this rule here.

**Interface:** Use the drop-down menu to specify if the IP packet must use the WAN or LAN interface to transit out of the Router.

**Gateway:** Enter the next hop that will be taken if this route is used.

**D-Link**

DIR-825 //

SETUP ADVANCED TOOLS STATUS SUPPORT

### IPV6 ROUTING

This Routing page allows you to specify custom routes that determine how data is moved around your network.

Save Settings Don't Save Settings

#### ROUTE LIST

|                          |         |                              |
|--------------------------|---------|------------------------------|
| <input type="checkbox"/> | Name    | Destination IP/Prefix Length |
|                          |         | /64                          |
|                          | Metric  | Interface                    |
|                          | 1       | NULL                         |
|                          | Gateway |                              |
| <input type="checkbox"/> | Name    | Destination IP/Prefix Length |
|                          |         | /64                          |
|                          | Metric  | Interface                    |
|                          | 1       | NULL                         |
|                          | Gateway |                              |
| <input type="checkbox"/> | Name    | Destination IP/Prefix Length |
|                          |         | /64                          |
|                          | Metric  | Interface                    |
|                          | 1       | NULL                         |
|                          | Gateway |                              |

**Helpful Hints...**

Each route has a check box next to it, check this box if you want the route to be enabled.

The name field allows you to specify a name for identification of this route, e.g. "Network 2"

The destination IP address is the address of the host or network you wish to reach.

The netmask field identifies the portion of the destination IP in use.

The gateway IP address is the IP address of the router, if any, used to reach

# Tools

## Admin

This page will allow you to change the Administrator and User passwords. You can also enable Remote Management. There are two accounts that can access the management interface through the web browser. The accounts are admin and user. Admin has read/write access while user has read-only access. User can only view the settings but cannot make any changes. Only the admin account has the ability to change both admin and user account passwords.

**Admin Password:** Enter a new password for the Administrator Login Name. The administrator can make changes to the settings.

**User Password:** Enter the new password for the User login. If you login as the User, you cannot change the settings (you can only view them).

**System Name:** Enter a name for your router.

**Enable Graphical Authentication:** Enables a challenge-response test to require users to type letters or numbers from a distorted image displayed on the screen to prevent online hackers and unauthorized users from gaining access to your router's network settings.

**Enable HTTPS Server:** Check to enable HTTPS to connect to the router securely. This means to connect to the router, you must enter **https://192.168.0.1** (for example) instead of **http://192.168.0.1**.

**Enable Remote Management:** Remote management allows the DIR-825 to be configured from the Internet by a web browser. A username/password is still required to access the Web Management interface.

**Remote Admin Port:** The port number used to access the DIR-825 is used in the URL. Example: **http://x.x.x.x:8080** whereas x.x.x.x is the Internet IP address of the DIR-825 and 8080 is the port used for the Web Management interface.

If you have enabled **HTTPS Server**, you must enter **https://** as part of the URL to access the router remotely.

**Remote Admin Inbound Filter:** This section will list any rules that are created. You may click the **Edit** icon to change the settings or enable/disable the rule, or click the **Delete** icon to remove the rule. **Details** will display the current status.

The screenshot shows the D-Link DIR-825 web management interface. The top navigation bar includes tabs for SETUP, ADVANCED, TOOLS (selected), STATUS, and SUPPORT. The left sidebar lists various configuration categories like ADMIN, TIME, SYSLOG, etc. The main content area is titled 'ADMINISTRATOR SETTINGS' and contains the following sections:

- ADMINISTRATOR SETTINGS:** A text box explaining that 'admin' and 'user' accounts can access the management interface. Below this are 'Save Settings' and 'Don't Save Settings' buttons.
- ADMIN PASSWORD:** A section with the instruction 'Please enter the same password into both boxes, for confirmation.' It contains two input fields for 'Password' and 'Verify Password'.
- USER PASSWORD:** A section with the instruction 'Please enter the same password into both boxes, for confirmation.' It contains two input fields for 'Password' and 'Verify Password'.
- SYSTEM NAME:** A section with a 'Gateway Name' input field containing 'DIR-825'.
- ADMINISTRATION:** A section with several checkboxes and input fields:
  - Enable Graphical Authentication:
  - Enable HTTPS Server:
  - Enable Remote Management:
  - Remote Admin Port:  Use HTTPS:
  - Remote Admin Inbound Filter:
  - Details:

On the right side of the interface, there is a 'Helpful Hints...' section with several tips, including one about enabling Remote Management and another about selecting a filter for remote management.

## Time

The Time Configuration option allows you to configure, update, and maintain the correct time on the internal system clock. From this section you can set the time zone that you are in and set the Time Server. Daylight Saving can also be configured to automatically adjust the time when needed.

**Time:** Displays the current date and time of the router.

**Time Zone:** Select your Time Zone from the drop-down menu.

**Enable Daylight Saving:** To select Daylight Saving time manually, select enabled or disabled, and enter a start date and an end date for daylight saving time.

**Enable NTP Server:** NTP is short for Network Time Protocol. A NTP server will synch the time and date with your router. This will only connect to a server on the Internet, not a local server. Check the box to enable this feature.

**NTP Server Used:** Enter the IP address of a NTP server or select one from the drop-down menu.

**Manual:** To manually input the time, enter the values in these fields for the Year, Month, Day, Hour, Minute, and Second and then click **Set Time**.

You can also click **Copy Your Computer's Time Settings** to synch the date and time with the computer you are currently on.

The screenshot shows the D-Link DIR-825 web interface. The top navigation bar includes 'DIR-825', 'SETUP', 'ADVANCED', 'TOOLS', 'STATUS', and 'SUPPORT'. The left sidebar lists menu items: ADMIN, TIME, SYSLOG, EMAIL SETTINGS, SYSTEM, FIRMWARE, DYNAMIC DNS, SYSTEM CHECK, and SCHEDULES. The main content area is titled 'TIME' and contains the following sections:

- TIME:** A text box explaining the Time Configuration option, with 'Save Settings' and 'Don't Save Settings' buttons below it.
- TIME CONFIGURATION:** Displays the current time as 'Wednesday, August 31, 2011 8:31:04 PM'. The 'Time Zone' is set to '(GMT-08:00) Pacific Time (US/Canada), Tijuana'. There is an unchecked checkbox for 'Enable Daylight Saving'. Below, 'Daylight Saving Dates' are configured with DST Start on Mar 3rd Sun at 1:00 AM and DST End on Nov 2nd Sun at 1:00 AM.
- AUTOMATIC TIME CONFIGURATION:** Features an unchecked checkbox for 'Enable NTP Server' and an 'NTP Server Used' field with a dropdown menu for selecting a server.
- SET THE DATE AND TIME MANUALLY:** Provides fields for 'Date And Time' with dropdowns for Year (2011), Month (Aug), Day (31), Hour (08), Minute (31), and Second (01), along with a PM/AM selector. A 'Copy Your Computer's Time Settings' button is located at the bottom.

The right sidebar contains 'Helpful Hints...' with the text: 'Good timekeeping is important for accurate logs and scheduled firewall rules.' and a 'More...' link.

## SysLog

The Broadband Router keeps a running log of events and activities occurring on the Router. You may send these logs to a SysLog server on your network.

**Enable Logging to SysLog Server:** Check this box to send the router logs to a SysLog Server.

**SysLog Server IP Address:** The address of the SysLog server that will be used to send the logs. You may also select your computer from the drop-down menu (only if receiving an IP address from the router via DHCP).

**D-Link**

DIR-825 // SETUP ADVANCED **TOOLS** STATUS SUPPORT

ADMIN  
TIME  
**SYSLOG**  
EMAIL SETTINGS  
SYSTEM  
FIRMWARE  
DYNAMIC DNS  
SYSTEM CHECK  
SCHEDULES

**SYSLOG**

The SysLog options allow you to send log information to a SysLog Server.

Save Settings Don't Save Settings

**SYSLOG SETTINGS**

Enable Logging To Syslog Server :

Syslog Server IP Address : 192.168.0.112 << PM\_test01

**Helpful Hints...**

A System Logger (syslog) is a server that collects in one place the logs from different sources. If the LAN includes a syslog server, you can use this option to send the router's logs to that server.

More...

## Email Settings

The Email feature can be used to send the system log files, router alert messages, and firmware update notification to your email address.

**Enable Email Notification:** When this option is enabled, router activity logs are emailed to a designated email address.

**From Email Address:** This email address will appear as the sender when you receive a log file or firmware upgrade notification via email.

**To Email Address:** Enter the email address where you want the email sent.

**SMTP Server Address:** Enter the SMTP server address for sending email.

**SMTP Server Port:** Enter the SMTP port used on the server.

**Enable Authentication:** Check this box if your SMTP server requires authentication.

**Account Name:** Enter your account for sending email.

**Password:** Enter the password associated with the account. Re-type the password associated with the account.

**On Log Full:** When this option is selected, logs will be sent via email to your account when the log is full.

**On Schedule:** Selecting this option will send the logs via email according to schedule.

**Schedule:** This option is enabled when **On Schedule** is selected. You can select a schedule from the list of defined schedules. To create a schedule, go to **Tools > Schedules**.

The screenshot shows the D-Link DIR-825 web interface. The top navigation bar includes 'DIR-825', 'SETUP', 'ADVANCED', 'TOOLS', 'STATUS', and 'SUPPORT'. The left sidebar lists various configuration categories: ADMIN, TIME, SYSLOG, EMAIL SETTINGS (highlighted), SYSTEM, FIRMWARE, DYNAMIC DNS, SYSTEM CHECK, and SCHEDULES. The main content area is titled 'EMAIL SETTINGS' and contains the following sections:

- EMAIL SETTINGS (Intro):** A message stating, "The Email feature can be used to send the system log files, router alert messages, and firmware update notification to your email address." Below this are two buttons: "Save Settings" and "Don't Save Settings".
- EMAIL NOTIFICATION:** A section with the option "Enable Email Notification" checked with a checkbox.
- EMAIL SETTINGS (Form):** A form with the following fields:
  - From Email Address : [text input]
  - To Email Address : [text input]
  - SMTP Server Address : [text input]
  - SMTP Server Port : [text input with value 25]
  - Enable Authentication :
  - Account Name : [text input with value user]
  - Password : [password input with masked characters \*\*\*\*]
  - Verify Password : [password input with masked characters \*\*\*\*]
- EMAIL LOG WHEN FULL OR ON SCHEDULE:** A section with the following options:
  - On Log Full :
  - On Schedule :
  - Schedule : [dropdown menu with value Never]
  - Details : [text input with value Never]

The bottom of the page features a 'WIRELESS' section header.

## System

This section allows you to manage the router's configuration settings, reboot the router, and restore the router to the factory default settings. Restoring the unit to the factory default settings will erase all settings, including any rules that you've created.

**Save Settings to Local Hard Drive:** Use this option to save the current router configuration settings to a file on the hard disk of the computer you are using. First, click the **Save** button. A file dialog will appear, allowing you to select a location and file name for the settings.

**Load Settings from Local Hard Drive:** Use this option to load previously saved router configuration settings. First, use the **Browse** option to find a previously saved file of configuration settings. Then, click the **Load** button to transfer those settings to the router.

**Restore to Factory Default Settings:** This option will restore all configuration settings back to the settings that were in effect at the time the router was shipped from the factory. Any settings that have not been saved will be lost, including any rules that you have created. If you want to save the current router configuration settings, use the **Save** button above.

**Reboot Device:** Click to reboot the router.

The screenshot displays the D-Link DIR-825 web interface. The top navigation bar includes tabs for SETUP, ADVANCED, TOOLS, STATUS, and SUPPORT. The left sidebar lists menu items: ADMIN, TIME, SYSLOG, EMAIL SETTINGS, SYSTEM (highlighted), FIRMWARE, DYNAMIC DNS, SYSTEM CHECK, and SCHEDULES. The main content area is titled 'SYSTEM SETTINGS' and contains the following text and buttons:

The System Settings section allows you to reboot the device, or restore the router to the factory default settings. Restoring the unit to the factory default settings will erase all settings, including any rules that you have created.

The current system settings can be saved as a file onto the local hard drive. The saved file or any other saved setting file created by device can be uploaded into the unit.

**Save To Local Hard Drive:**

**Load From Local Hard Drive:**

**Restore To Factory Default Settings:**   
 Restore all Settings to the Factory Defaults

**Reboot The Device:**

On the right side of the interface, there is a 'Helpful Hints...' section with the following text:

Once your router is configured the way you want it, you can save the configuration settings to a configuration file.

You might need this file so that you can load your configuration later in the event that the router's default settings are restored.

To save the configuration, click the **Save Configuration** button.

[More...](#)

## Firmware

You can upgrade the firmware of the access point here. Make sure the firmware you want to use is on the local hard drive of the computer. Click on **Browse** to locate the firmware file to be used for the update. Please check the D-Link support website for firmware updates at <http://support.dlink.com>. You can download firmware upgrades to your hard drive from this site.

**Browse:** After you have downloaded the new firmware, click **Browse** to locate the firmware update on your hard drive. Click **Upload** to complete the firmware upgrade.

**Upload:** Once you have a firmware update on your computer, use this option to browse for the file and then upload the information into the access point.

## Language Pack

You can change the language of the web UI by uploading available language packs.

**Browse:** After you have downloaded the new language pack, click **Browse** to locate the language pack file on your hard drive. Click **Upload** to complete the language pack upgrade.

The screenshot displays the D-Link DIR-825 web management interface. The top navigation bar includes 'DIR-825', 'SETUP', 'ADVANCED', 'TOOLS', 'STATUS', and 'SUPPORT'. A left sidebar lists various configuration options, with 'FIRMWARE' selected. The main content area is divided into several sections:

- FIRMWARE:** Contains introductory text about firmware updates and instructions on how to upgrade using a local file.
- FIRMWARE INFORMATION:** Displays the current firmware version (3.00), date (31 Aug 2011), and language pack version (No Language Pack). It includes a 'Check Now' button for the latest updates.
- FIRMWARE UPGRADE:** Features a warning note that some upgrades reset configuration to factory defaults. It provides instructions for a wired connection and includes a 'Browse...' button to select a file and an 'Upload' button to start the process.
- LANGUAGE PACK UPGRADE:** Includes an 'Upload:' label, a 'Browse...' button to select a language pack file, and an 'Upload' button to complete the upgrade.

A 'Helpful Hints...' sidebar on the right provides additional information about firmware updates and a 'More...' link.



## Dynamic DNS

The DDNS feature allows you to host a server (Web, FTP, Game Server, etc...) 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 in your domain name to connect to your server no matter what your IP address is.

**Enable** Dynamic Domain Name System is a method of **Dynamic DNS:** keeping a domain name linked to a changing IP Address. Check the box to enable DDNS.

**Server Address:** Select your DDNS provider from the drop-down menu or enter the DDNS server address.

**Host Name:** Enter the Host Name that you registered with your DDNS service provider.

**Username or Key:** Enter the Username or key for your DDNS account.

**Password or Key:** Enter the Password or key for your DDNS account.

**Timeout:** Enter a timeout time (in hours).

**Status:** Displays the current connection status.

### DDNS for IPv6 Hosts

**Enable:** Check the box to enable DDNS for IPv6 Hosts.

**IPv6 Address:** Enter the IPv6 address of your computer/server in your local network. You can click the << button and select a computer/server from the drop-down list.

**D-Link**

DIR-825 // SETUP ADVANCED **TOOLS** STATUS SUPPORT

**DYNAMIC DNS**

The DDNS feature allows you to host a server (Web, FTP, Game Server, etc...) 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 host name to connect to your game server no matter what your IP address is.

Sign up for D-Link's Free DDNS service at [www.DLinkDDNS.com](http://www.DLinkDDNS.com).

Save Settings Don't Save Settings

**DYNAMIC DNS SETTINGS**

Enable Dynamic DNS :

Server Address :  << Select Dynamic DNS Server

Host Name :

Username or Key :

Password or Key :

Verify Password or Key :

Timeout : 576 (hours)

Status : Disconnected

**DYNAMIC DNS FOR IPV6 HOSTS**

Enable:

IPv6 Address:  << Computer Name

Host Name:  (e.g.: ipv6.mydomain.net)

Save Clear

**IPV6 DYNAMIC DNS LIST**

| Enable | Host Name | IPv6 Address |
|--------|-----------|--------------|
|        |           |              |

WIRELESS

**Helpful Hints...**

To use this feature, you must first have a Dynamic DNS account from one of the providers in the drop down menu.

More...

**Host Name:** Enter the IPv6 Host Name that you registered with your DDNS service provider.

**IPv6 DDNS List:** Once you save your entry, the IPv6 DDNS host information will be displayed here.

**Enable:** Check to enable the entry.

**Host Name:** Displays the name of your IPv6 DDNS host.

**IPv6 Address:** Displays the IPv6 address of your computer/server associated with the IPv6 DDNS host.

**Edit/Delete:** Click the edit icon to make changes to the entry or click the delete icon to remove the entry.

## System Check

**Ping Test:** The Ping Test is used to send Ping packets to test if a computer is on the Internet. Enter the IP address that you wish to Ping and click **Ping**.

**IPv6 Ping Test:** Enter the IPv6 address that you wish to Ping and click **Ping**.

**Ping Results:** The results of your ping attempts will be displayed here.

The screenshot shows the D-Link DIR-825 web interface. The top navigation bar includes 'DIR-825', 'SETUP', 'ADVANCED', 'TOOLS', 'STATUS', and 'SUPPORT'. The left sidebar lists various system settings: ADMIN, TIME, SYSLOG, EMAIL SETTINGS, SYSTEM, FIRMWARE, DYNAMIC DNS, SYSTEM CHECK (highlighted), and SCHEDULES. The main content area is titled 'SYSTEM CHECK' and contains three sections:

- PING TEST:** A section with an orange header. It contains the text: "Ping Test sends 'ping' packets to test a computer on the Internet." Below this is a form with the label "Host Name or IP Address:" followed by a text input field containing "192.168.0.112" and a "ping" button.
- IPv6 PING TEST:** A section with a dark header. It contains the text: "Host Name or IPv6 Address:" followed by an empty text input field and a "ping" button.
- PING RESULT:** A section with a dark header. It contains the text: "Enter a host name or IP address above and click 'Ping'" followed by the result: "ping: 192.168.0.112 is alive".

On the right side of the interface, there is a 'Helpful Hints...' section with the following text: "Ping checks whether a computer on the Internet is running and responding. Enter either the IP address of the target computer or enter its fully qualified domain name." Below this is a 'More...' link.

## Schedules

Schedules can be created for use with enforcing rules. For example, if you want to restrict web access to Mon-Fri from 3pm to 8pm, you could create a schedule selecting Mon, Tue, Wed, Thu, and Fri and enter a Start Time of 3pm and End Time of 8pm.

**Name:** Enter a name for your new schedule.

**Days:** Select a day, a range of days, or All Week to include every day.

**Time:** Check **All Day - 24hrs** or enter a start and end time for your schedule.

**Save:** You must click **Save Settings** at the top for your schedules to go into effect.

**Schedule Rules** The list of schedules will be listed here. Click the **List: Edit** icon to make changes or click the **Delete** icon to remove the schedule.

The screenshot shows the D-Link DIR-825 web interface. The top navigation bar includes 'DIR-825 //', 'SETUP', 'ADVANCED', 'TOOLS', 'STATUS', and 'SUPPORT'. The left sidebar lists menu items: ADMIN, TIME, SYSLOG, EMAIL SETTINGS, SYSTEM, FIRMWARE, DYNAMIC DNS, SYSTEM CHECK, and SCHEDULES. The main content area is titled 'SCHEDULES' and contains the following text: 'The Schedule configuration option is used to manage schedule rules for various firewall and parental control features.' Below this text are two buttons: 'Save Settings' and 'Don't Save Settings'. The '10 - ADD SCHEDULE RULE' section includes a 'Name' input field, a 'Day(s)' section with radio buttons for 'All Week' (selected) and 'Select Day(s)', and checkboxes for days of the week (Sun, Mon, Tue, Wed, Thu, Fri, Sat). There are also checkboxes for 'All Day - 24 hrs', a 'Time Format' dropdown set to '24-hour', and 'Start Time' and 'End Time' fields with hour and minute inputs and AM/PM dropdowns. The 'SCHEDULE RULES LIST' table has columns for 'Name', 'Day(s)', and 'Schedule Rules List'. The right sidebar contains 'Helpful Hints...' text explaining the use of schedules and providing instructions on how to save, edit, and delete schedules.

# Status Device Info

This page displays the current information for the DIR-825. It will display the LAN, WAN (Internet), and Wireless information. If your Internet connection is set up for a Dynamic IP address then a **Release** button and a **Renew** button will be displayed. Use **Release** to disconnect from your ISP and use **Renew** to connect to your ISP.

If your Internet connection is set up for PPPoE, a **Connect** button and a **Disconnect** button will be displayed. Use **Disconnect** to drop the PPPoE connection and use **Connect** to establish the PPPoE connection.

**General:** Displays the router's time and firmware version.

**WAN:** Displays the MAC address and the public IP settings

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

**Wireless LAN:** Displays the wireless MAC address and your wireless settings such as SSID and Channel. The first Wireless LAN section is for the 2.4GHz segment and the second section is for the 5GHz segment.

**LAN Computers:** Displays computers and devices that are connected to the router via Ethernet and that are receiving an IP address assigned by the router (DHCP).

The screenshot shows the D-Link DIR-825 web interface. The top navigation bar includes 'DIR-825', 'SETUP', 'ADVANCED', 'TOOLS', 'STATUS', and 'SUPPORT'. The 'STATUS' tab is selected, and the 'DEVICE INFO' sub-tab is active. The main content area is divided into several sections:

- DEVICE INFORMATION:** A message states: "All of your Internet and network connection details are displayed on this page. The firmware version is also displayed here."
- GENERAL:** Shows the time as "Wednesday, August 31, 2011 8:18:17 PM" and the firmware version as "3.00, 31, Aug, 2011".
- WAN:** Displays connection details:
  - Connection Type: DHCP Client
  - Cable Status: Connected
  - Network Status: Disconnected
  - Connection Up Time: N/A
  - Buttons: DHCP Renew, DHCP Release
  - MAC Address: 00:18:E7:95:68:9F
  - IP Address: 0.0.0.0
  - Subnet Mask: 0.0.0.0
  - Default Gateway: 0.0.0.0
  - Primary DNS Server: 0.0.0.0
  - Secondary DNS Server: 0.0.0.0
  - Advanced DNS: Disabled
- LAN:** Displays local network settings:
  - MAC Address: 00:18:E7:95:68:9E
  - IP Address: 192.168.0.1
  - Subnet Mask: 255.255.255.0
  - DHCP Server: Enabled
- WIRELESS LAN (2.4GHz Band):**
  - Wireless Band: 2.4GHz Band
  - Wireless Radio: Enabled
  - 802.11 Mode: Mixed 802.11n, 802.11g and 802.11b
  - Channel Width: Auto 20/40 Mhz
  - Channel: 11
  - Wi-Fi Protected Setup: Enabled/Configured
  - SSID List:
  - Network Name (SSID): dlink
  - Guest: No
  - MAC Address: 00:18:E7:95:68:9E
  - Security Mode: AUTO (WPA or WPA2) - PSK
- WIRELESS LAN (5GHz Band):**
  - Wireless Band: 5GHz Band
  - Wireless Radio: Enabled
  - 802.11 Mode: 11n
  - Channel Width: Auto 20/40 Mhz
  - Channel: 52
  - Wi-Fi Protected Setup: Enabled/Configured
  - SSID List:
  - Network Name (SSID): dlink\_medea
  - Guest: No
  - MAC Address: 00:18:E7:95:68:A0
  - Security Mode: AUTO (WPA or WPA2) - PSK
- LAN COMPUTERS:** A table showing connected devices:
 

| IP Address    | Name (if any) | MAC               |
|---------------|---------------|-------------------|
| 192.168.0.112 | PM_test01     | 00:04:23:2C:51:A3 |
| 192.168.0.100 | Mays-iPad     | a4:67:06:13:2f:fa |
- IGMP MULTICAST MEMBERSHIPS:** A table with one header row:
 

| Multicast Group Address |
|-------------------------|
|-------------------------|

## Logs

The router automatically logs (records) events of possible interest in its internal memory. If there isn't enough internal memory for all events, logs of older events are deleted but logs of the latest events are retained. The Logs option allows you to view the router logs. You can define what types of events you want to view and the level of the events to view. This router also has external Syslog Server support so you can send the log files to a computer on your network that is running a Syslog utility.

**Log Types:** You can select the types of messages that you want to display from the log. System Activity, Debug Information, Attacks, Dropped Packets, and Notice messages can be selected. Click **Apply Log Settings Now** to activate your settings.

**Refresh:** Updates the log details on the screen so it displays any recent activity.

**Clear:** Clears all of the log contents.

**Email Now:** This option will send a copy of the router log to your email address configured in the **Tools > Email Settings** screen.

**Save Log:** This option will save the router log to a file on your computer.

**D-Link**

DIR-825

SETUP    ADVANCED    TOOLS    STATUS    SUPPORT

DEVICE INFO

LOGS

STATISTICS

INTERNET SESSIONS

ROUTING

WIRELESS

IPV6

IPV6 ROUTING

**LOGS**

Use this option to view the router logs. You can define what types of events you want to view and the event levels to view. This router also has internal syslog server support so you can send the log files to a computer on your network that is running a syslog utility.

**LOG OPTIONS**

Log Type :  System Activity  
 Debug Information  
 Attacks  
 Dropped Packets  
 Notice

Apply Log Settings Now

**LOG DETAILS**

First Page    Last Page    Previous    Next

Refresh    Clear    Email Now    Save Log

1/23

| Time            | Message  |
|-----------------|--|
| Aug 31 20:35:26 | using nameserver 192.168.1.1#53                |
| Aug 31 20:35:26 | reading /etc/resolv.conf                       |
| Aug 31 20:32:30 | open bandwidth_tmp.txt fail                    |
| Aug 31 20:32:30 | Lease of 192.168.1.2 obtained, lease time 3600 |
| Aug 31 20:32:30 | Sending renew...                               |

**Helpful Hints...**

Check the log frequently to detect unauthorized network usage.

You can also have the log mailed to you periodically. Refer to [Tools --> Email](#).

[More...](#)

## Statistics

The screen below displays the **Traffic Statistics**. Here you can view the amount of packets that pass through the DIR-825 on both the WAN, LAN ports and both the 802.11n/g (2.4GHz) and 802.11n/a (5GHz) wireless bands. The traffic counter will reset if the device is rebooted.

**D-Link**

DIR-825 // SETUP ADVANCED TOOLS STATUS SUPPORT

DEVICE INFO  
LOGS  
STATISTICS  
INTERNET SESSIONS  
ROUTING  
WIRELESS  
IPV6  
IPV6 ROUTING

**TRAFFIC STATISTICS**  
Traffic Statistics display Receive and Transmit packets passing through your router.  
Refresh Statistics Clear Statistics

**LAN STATISTICS**  
Sent : 45633  
TX Packets : 0  
Dropped : 0  
Received : 22754  
RX Packets : 0  
Dropped : 0  
Errors : 0

**WAN STATISTICS**  
Sent : 241  
TX Packets : 0  
Dropped : 0  
Received : 1239  
RX Packets : 0  
Dropped : 0  
Errors : 0

**WIRELESS STATISTICS**  
Sent : 229  
TX Packets : 0  
Dropped : 0  
Received : 0  
RX Packets : 0  
Dropped : 0  
Errors : 0

**WIRELESS STATISTICS2**  
Sent : 1173  
TX Packets : 0  
Dropped : 0  
Received : 0  
RX Packets : 0  
Dropped : 0  
Errors : 0

Helpful Hints...  
This is a summary of the number of packets that have passed between the WAN and the LAN since the router was last initialized.  
[More...](#)

**WIRELESS**

## Internet Sessions

The Internet Sessions page displays full details of active Internet sessions through your router. An Internet session is a conversation between a program or application on a LAN-side computer and a program or application on a WAN-side computer.



**D-Link**

DIR-825 // SETUP ADVANCED TOOLS STATUS SUPPORT

DEVICE INFO  
LOGS  
STATISTICS  
**INTERNET SESSIONS**  
ROUTING  
WIRELESS  
IPV6  
IPV6 ROUTING

**INTERNET SESSIONS**

This page displays the full details of active sessions to your router.

**INTERNET SESSIONS**

| Local             | NAT | Internet          | Protocol | State | Dir | Timeout |
|-------------------|-----|-------------------|----------|-------|-----|---------|
| 192.168.0.112:138 | 2   | 192.168.0.255:138 | UDP      | -     | OUT | 43      |

**Helpful Hints...**

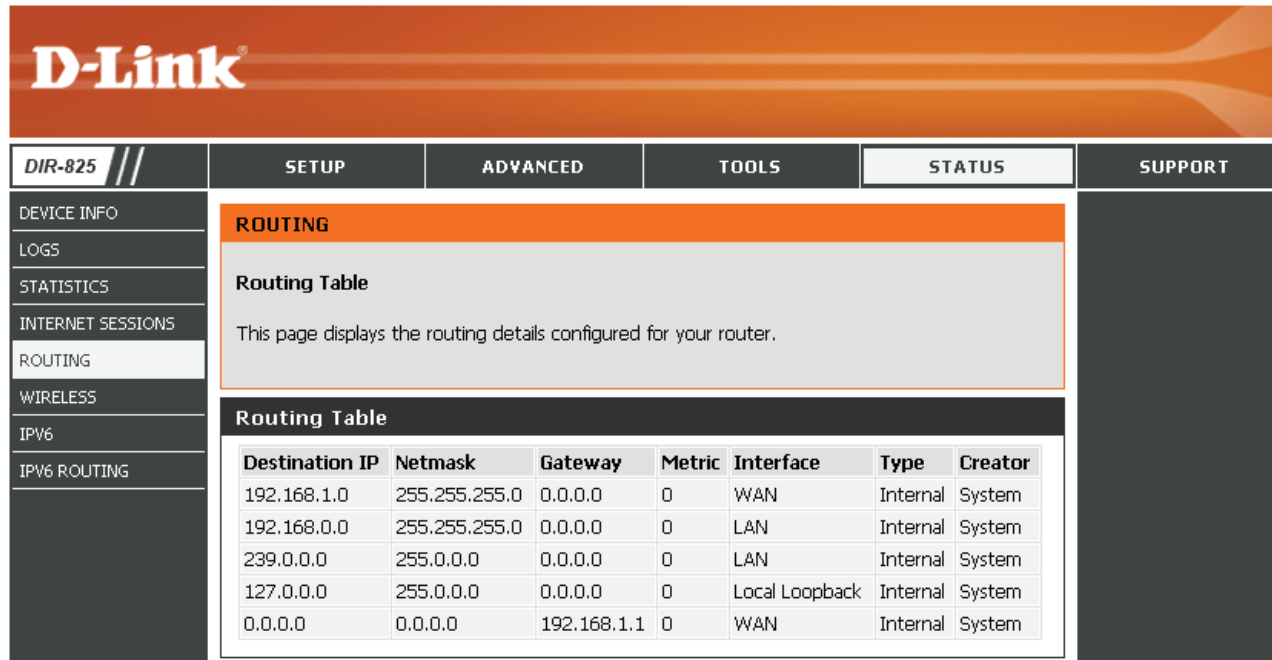
This is a list of all active conversations between WAN computers and LAN computers.

[More...](#)



## Routing

This page will display your current routing table.



**D-Link**

DIR-825 // SETUP ADVANCED TOOLS STATUS SUPPORT

DEVICE INFO  
LOGS  
STATISTICS  
INTERNET SESSIONS  
**ROUTING**  
WIRELESS  
IPV6  
IPV6 ROUTING

**ROUTING**

**Routing Table**

This page displays the routing details configured for your router.

**Routing Table**

| Destination IP | Netmask       | Gateway     | Metric | Interface      | Type     | Creator |
|----------------|---------------|-------------|--------|----------------|----------|---------|
| 192.168.1.0    | 255.255.255.0 | 0.0.0.0     | 0      | WAN            | Internal | System  |
| 192.168.0.0    | 255.255.255.0 | 0.0.0.0     | 0      | LAN            | Internal | System  |
| 239.0.0.0      | 255.0.0.0     | 0.0.0.0     | 0      | LAN            | Internal | System  |
| 127.0.0.0      | 255.0.0.0     | 0.0.0.0     | 0      | Local Loopback | Internal | System  |
| 0.0.0.0        | 0.0.0.0       | 192.168.1.1 | 0      | WAN            | Internal | System  |

## Wireless

The wireless client table displays a list of current connected wireless clients. This table also displays the connection time and MAC address of the connected wireless clients.

The screenshot shows the D-Link DIR-825 web interface. The top navigation bar includes 'DIR-825', 'SETUP', 'ADVANCED', 'TOOLS', 'STATUS', and 'SUPPORT'. The 'STATUS' tab is selected, and the 'WIRELESS' sub-tab is active. The main content area displays the following information:

- WIRELESS** (Section Header)
- Use this option to view the wireless clients that are connected to your wireless router.
- NUMBER OF WIRELESS CLIENTS - 2.4GHZ BAND: 0**
- Table with columns: MAC Address, IP Address, Mode, Rate, Signal(%)
- NUMBER OF WIRELESS CLIENTS - 5GHZ BAND: 0**
- Table with columns: MAC Address, IP Address, Mode, Rate, Signal(%)

On the right side, there is a 'Helpful Hints...' section with the text: 'This is a list of all wireless clients that are currently connected to your wireless router.' and a 'More...' link.

## IPv6

The IPv6 page displays a summary of the Router's IPv6 settings and lists the IPv6 address and host name of any IPv6 clients.

| D-Link            |  |          |       |        |  |
|-------------------|--|----------|-------|--------|--|
| DIR-825           | SETUP  | ADVANCED | TOOLS | STATUS | SUPPORT  |
| DEVICE INFO       | <b>IPv6 Network Information</b>  |          |       |        | <b>Helpful Hints...</b><br>All of your WAN and LAN connection details are displayed here.<br><a href="#">More...</a> |
| LOGS              | All of your IPv6 Internet and network connection details are displayed on this page. |          |       |        |  |
| STATISTICS        | <b>IPv6 Connection Information</b>   |          |       |        |  |
| INTERNET SESSIONS | IPv6 Connection Type : Local Connectivity Only                                       |          |       |        |  |
| ROUTING           | LAN IPv6 Link-Local Address : fe80::218:e7ff:fe95:689e/64                            |          |       |        |  |
| WIRELESS          | <b>LAN IPv6 Computers</b>  |          |       |        |  |
| IPv6              | IPv6 Address   |          |       |        |  |
| IPv6 ROUTING      | Name (if any)  |          |       |        |  |

## IPv6 Routing

This page displays the IPv6 routing details configured for your router.

The screenshot shows the D-Link web interface for a DIR-825 router. At the top is the D-Link logo. Below it is a navigation bar with tabs for SETUP, ADVANCED, TOOLS, STATUS, and SUPPORT. A left sidebar contains a menu with options: DEVICE INFO, LOGS, STATISTICS, INTERNET SESSIONS, ROUTING, WIRELESS, IPV6, and IPV6 ROUTING. The main content area is titled "IPv6 ROUTING" and contains the text "IPv6 Routing Table" and "This page displays the IPv6 routing details configured for your router." Below this text is a table header for the "IPv6 Routing Table" with columns: Destination IP, Gateway, Metric, and Interface.

# Support

The screenshot displays the D-Link DIR-825 web interface. At the top, the D-Link logo is visible. Below it, a navigation bar contains the following tabs: DIR-825, SETUP, ADVANCED, TOOLS, STATUS, and SUPPORT. The SUPPORT tab is currently selected. On the left side, a vertical menu lists the main sections: MENU, SETUP, ADVANCED, TOOLS, and STATUS. The main content area is titled 'SUPPORT MENU' and contains five sub-sections, each with a list of links:

- SUPPORT MENU**
  - [Setup](#)
  - [Advanced](#)
  - [Tools](#)
  - [Status](#)
- SETUP HELP**
  - [Internet](#)
  - [WAN](#)
  - [Wireless Settings](#)
  - [Network Settings](#)
  - [IPv6](#)
- ADVANCED HELP**
  - [Virtual Server](#)
  - [Port Forwarding](#)
  - [Application Rules](#)
  - [QoS Engine](#)
  - [Network Filter](#)
  - [Access Control](#)
  - [Website Filter](#)
  - [Inbound Filter](#)
  - [Firewall Settings](#)
  - [Routing](#)
  - [Advanced Wireless](#)
  - [Wi-Fi Protected Setup](#)
  - [Advanced Network](#)
  - [GUEST\\_ZONE](#)
  - [IPv6Firewall](#)
  - [IPv6 Routing](#)
- TOOLS HELP**
  - [Admin](#)
  - [Time](#)
  - [Syslog](#)
  - [Email Settings](#)
  - [System](#)
  - [Firmware](#)
  - [Dynamic DNS](#)
  - [System Check](#)
  - [Schedules](#)
- STATUS**
  - [Device Info](#)
  - [Logs](#)
  - [Statistics](#)
  - [Internet Sessions](#)
  - [Routing](#)
  - [Wireless](#)
  - [IPv6](#)
  - [IPv6 Routing](#)

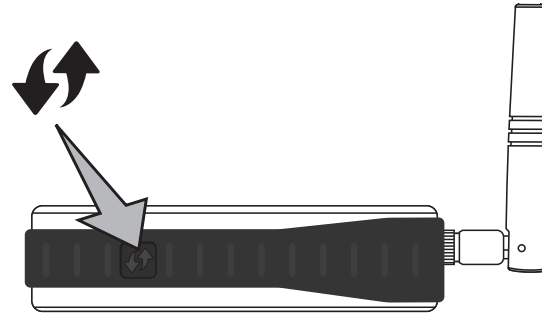
At the bottom of the interface, the word 'WIRELESS' is displayed in a dark bar.

# Connect a Wireless Client to your Router

## WPS Button

The easiest and most secure way to connect your wireless devices to the router is WPS (Wi-Fi Protected Setup). Most wireless devices such as wireless adapters, media players, Blu-ray DVD players, wireless printers and cameras will have a WPS button (or a software utility with WPS) that you can press to connect to the DIR-825 router. Please refer to your user manual for the wireless device you want to connect to make sure you understand how to enable WPS. Once you know, follow the steps below:

**Step 1** - Press the WPS button on the DIR-825 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).

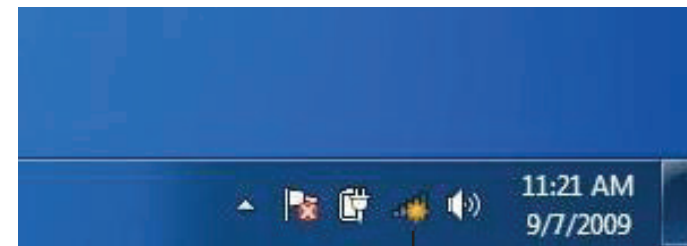
**Step 3** - Allow up to 1 minute to configure. Once the WPS light stops blinking, you will be connected and your wireless connection will be secure with WPA2.

# 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).



Wireless Icon

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

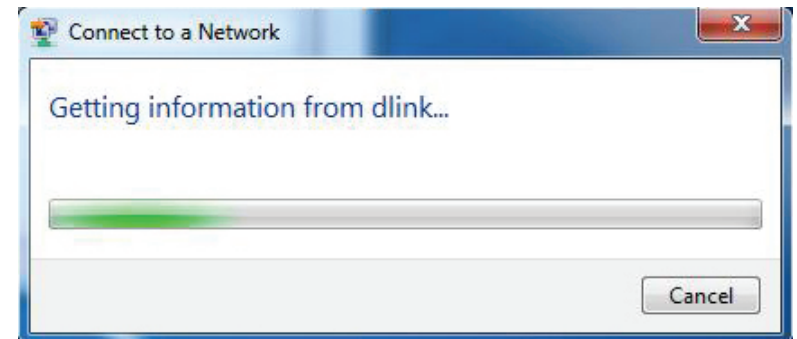


3. Highlight the wireless network (SSID) you would like to connect to and click the **Connect** button.

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.



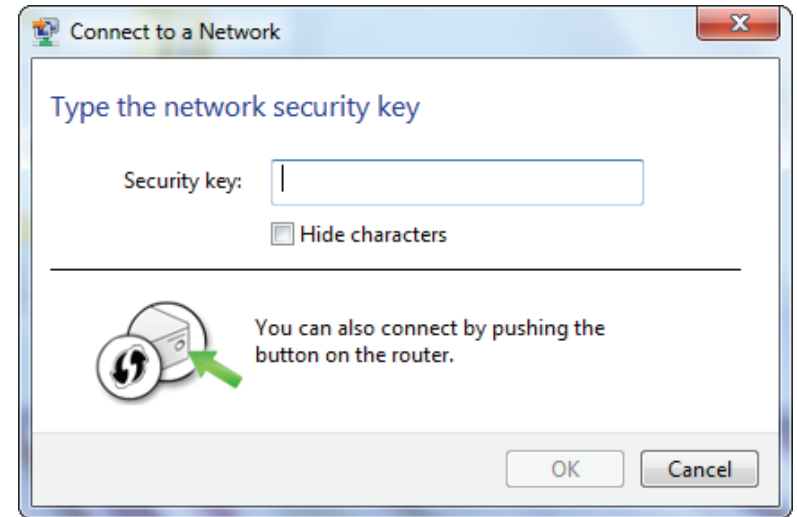
4. The following window appears while your computer tries to connect to the router.





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.

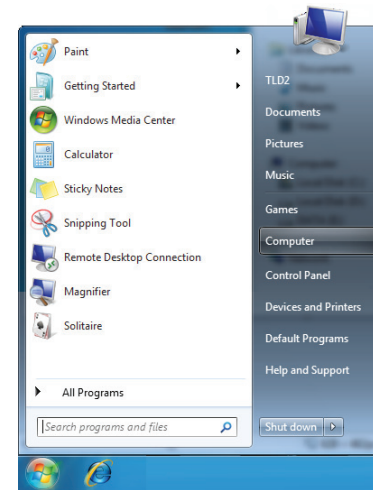
It may take 20-30 seconds to connect to the wireless network. If the connection fails, please verify that the security settings are correct. The key or passphrase must be exactly the same as on the wireless router.



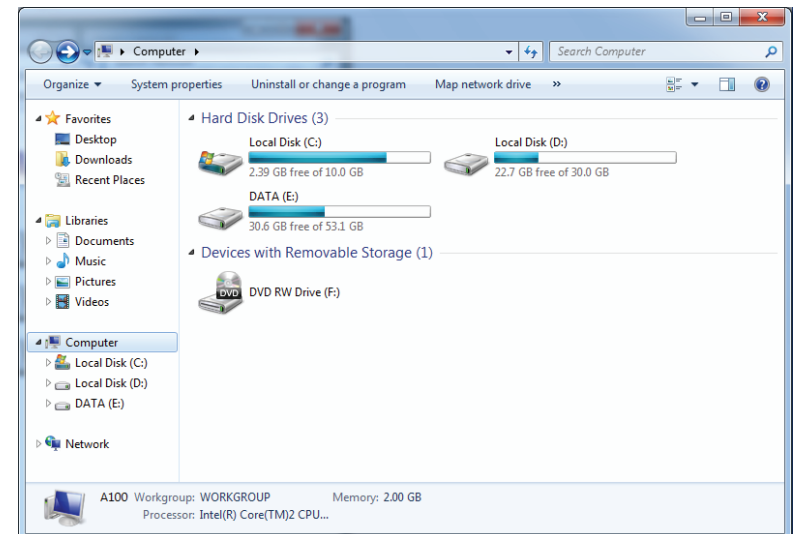
# WPS

The WPS feature of the DIR-825 can be configured using Windows® 7. Carry out the following steps to use Windows® 7 to configure the WPS feature:

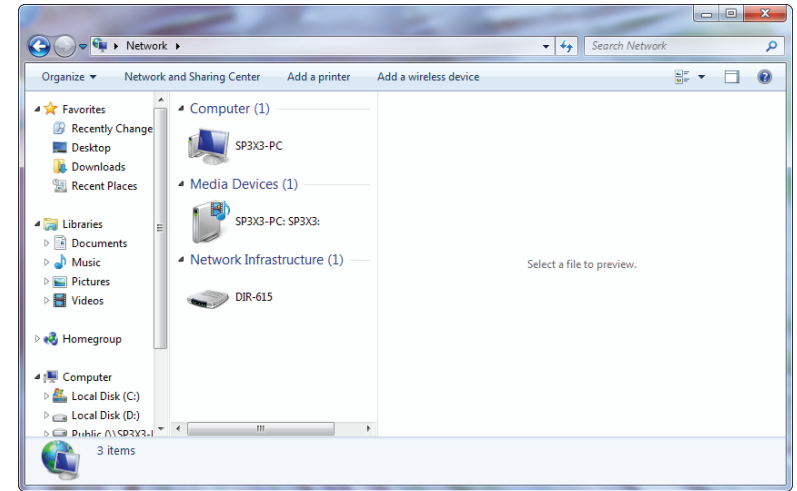
1. Click the **Start** button and select **Computer** from the Start menu.



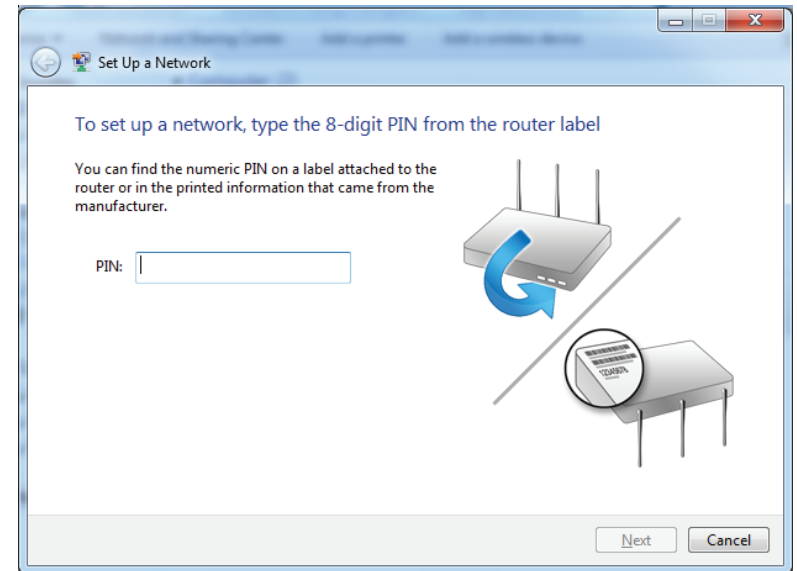
2. Click **Network** on the left side.



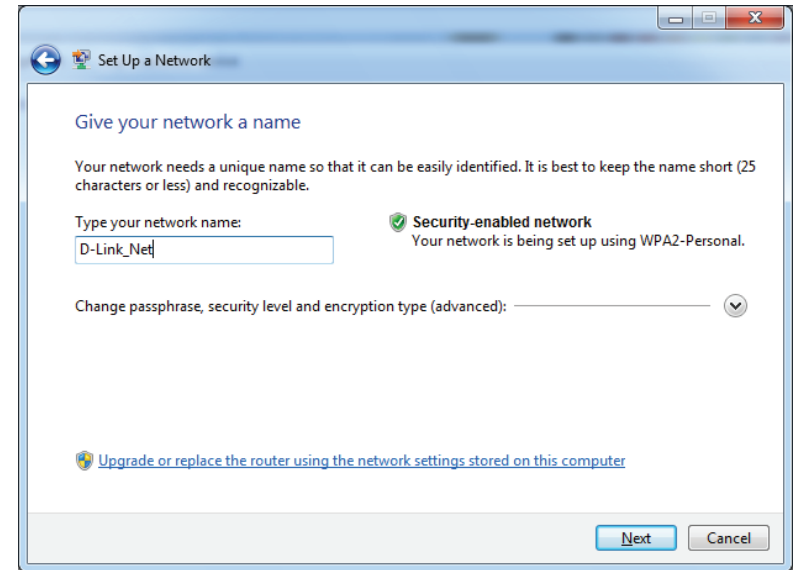
3. Double-click the DIR-825.



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**.

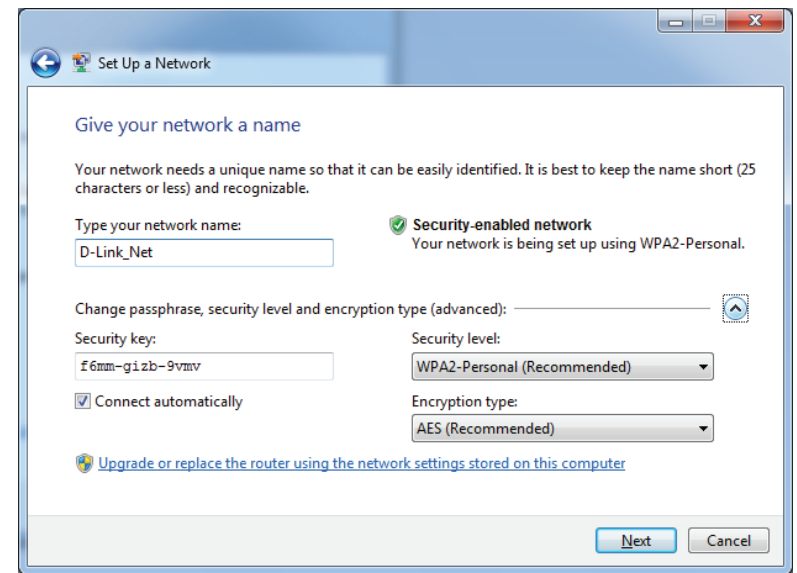


5. Type a name to identify the network.



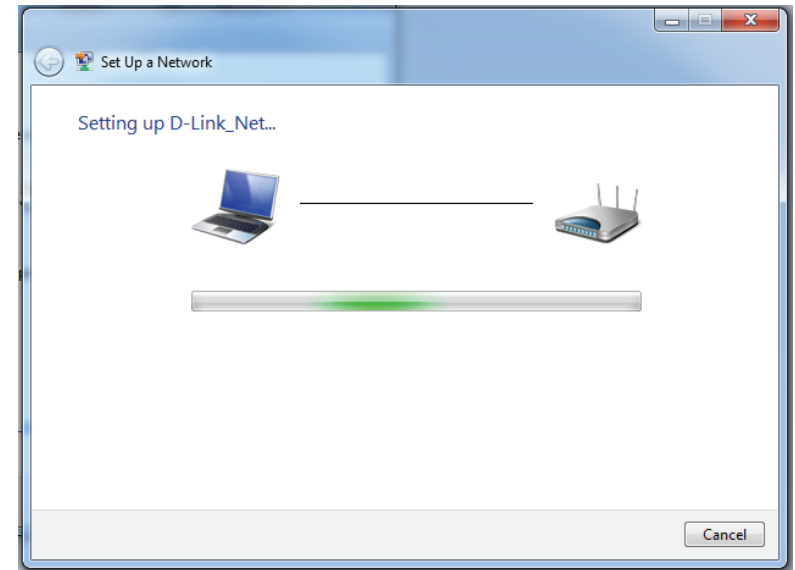
6. To configure advanced settings, click the  icon.

Click **Next** to continue.



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

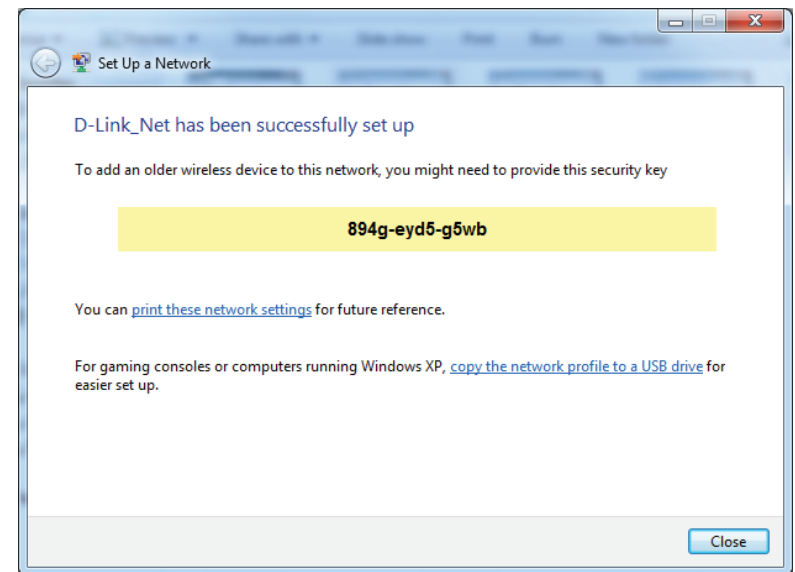
Wait for the configuration to complete.



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.



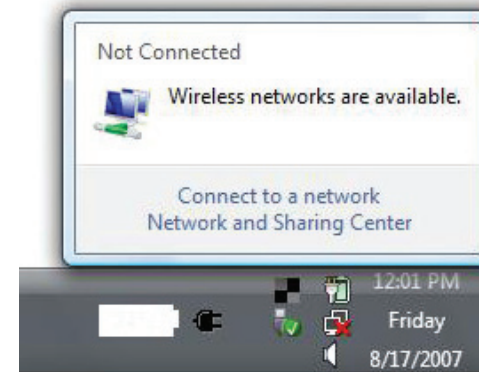
# Windows Vista®

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.

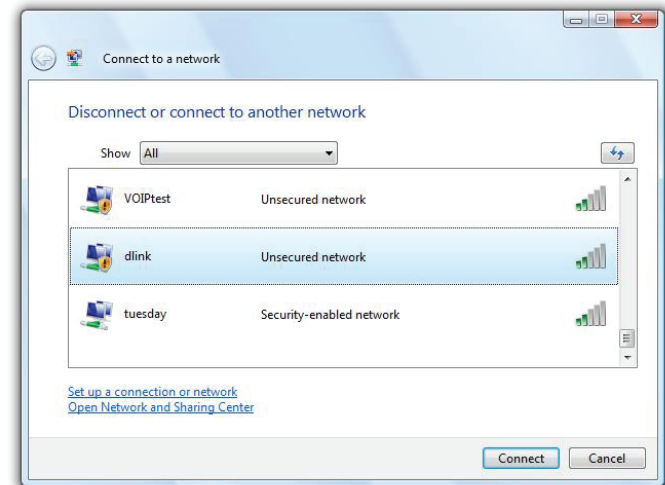
or

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.

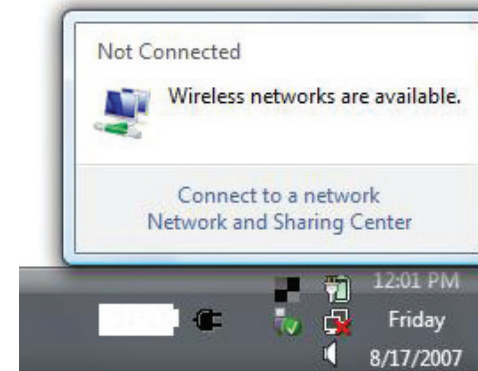
If you get a good signal but cannot access the Internet, check you TCP/IP settings for your wireless adapter. Refer to the **Networking Basics** section in this manual for more information.



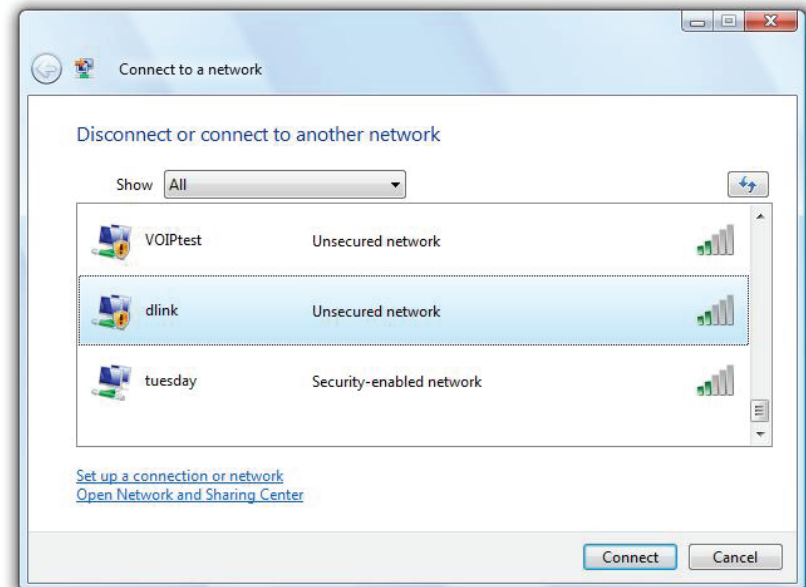
## WPA/WPA2

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**.

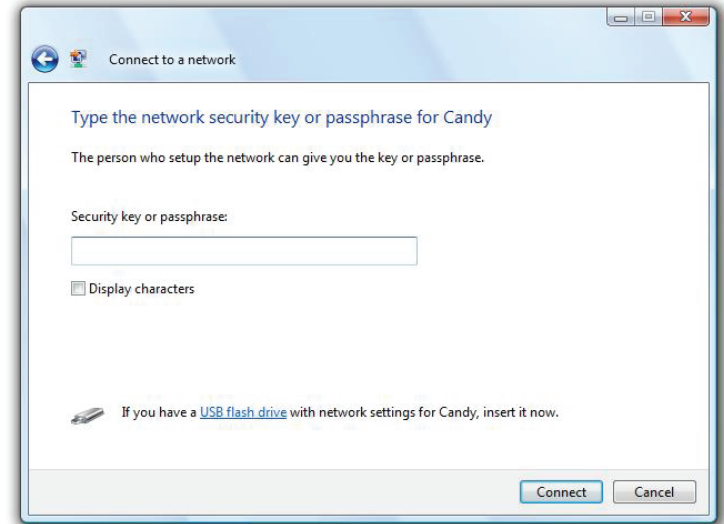


2. Highlight the wireless network (SSID) you would like to connect to and click **Connect**.



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.



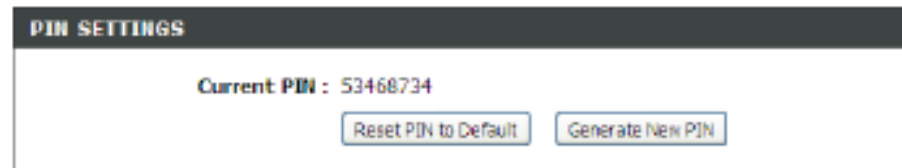


## WPS/WCN 2.0

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.

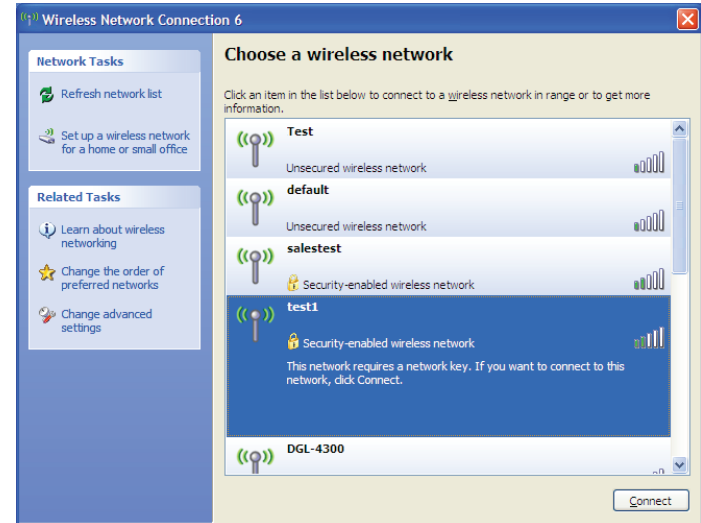
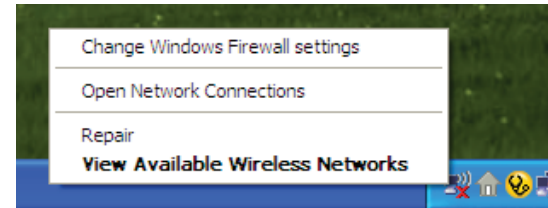
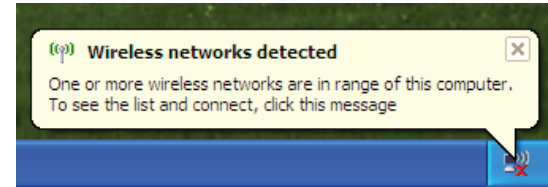
If you receive the **Wireless Networks Detected** bubble, click on the center of the bubble to access the utility.

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.

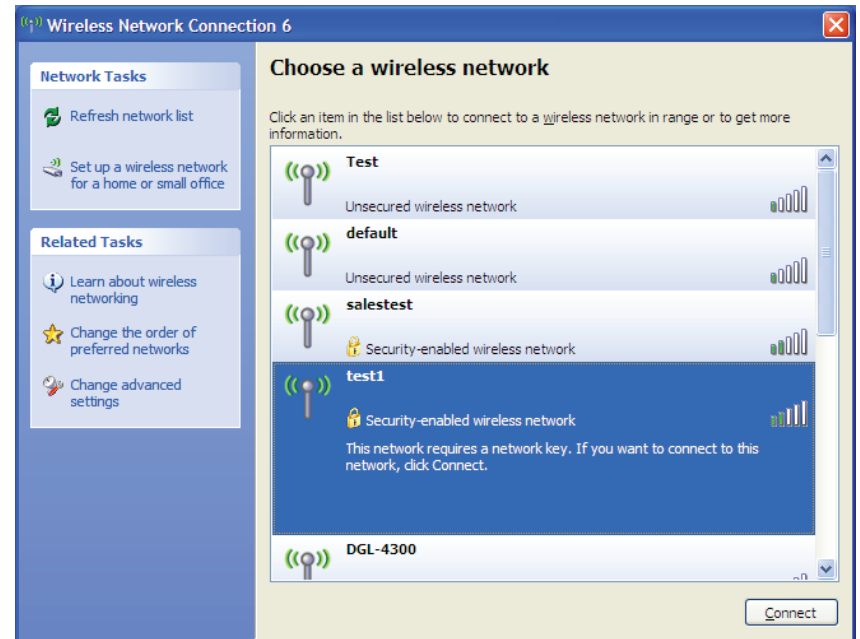
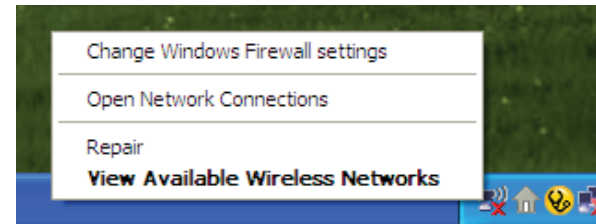
If you get a good signal but cannot access the Internet, check you TCP/IP settings for your wireless adapter. Refer to the **Networking Basics** section in this manual for more information.



## WPA/WPA2

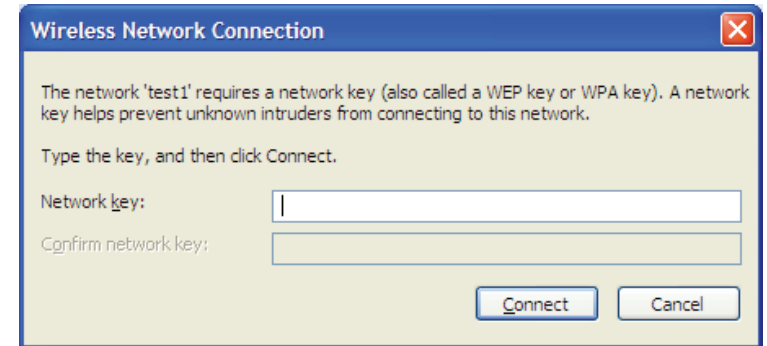
It is recommended to enable WPA on your wireless router or access point before configuring your wireless adapter. If you are joining an existing network, you will need to know the WPA key being used.

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 DIR-825. 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 Zone Alarm, Black Ice, 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®, and 7 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, let's 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 has 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 like: Airports, Hotels, Coffee Shops, Libraries, Restaurants, and Convention Centers.

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 your 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.

# Wireless Modes

There are basically two modes of networking:

- **Infrastructure** – All wireless clients will connect to an access point or wireless router.
- **Ad-Hoc** – Directly connecting to another computer, for peer-to-peer communication, using wireless network adapters on each computer, such as two or more DIR-825 wireless network Cardbus adapters.

An Infrastructure network contains an Access Point or wireless router. All the wireless devices, or clients, will connect to the wireless router or access point.

An Ad-Hoc network contains only clients, such as laptops with wireless cardbus adapters. All the adapters must be in Ad-Hoc mode to communicate.

# Networking Basics

## Check your IP address

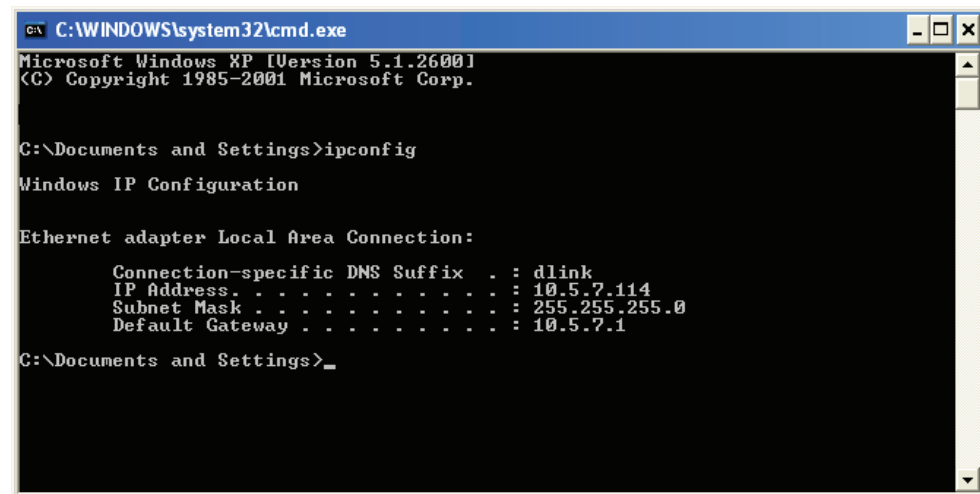
After you install your new D-Link adapter, by default, the TCP/IP settings should be set to obtain an IP address from a DHCP server (i.e. wireless router) automatically. To verify your IP address, please follow the steps below.

Click on **Start > Run**. In the run box type **cmd** and click **OK**. (Windows® 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.



```
C:\WINDOWS\system32\cmd.exe
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

C:\Documents and Settings>ipconfig

Windows IP Configuration

Ethernet adapter Local Area Connection:

    Connection-specific DNS Suffix  . : dlink
    IP Address . . . . . : 10.5.7.114
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 10.5.7.1

C:\Documents and Settings>_
```

## 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.**

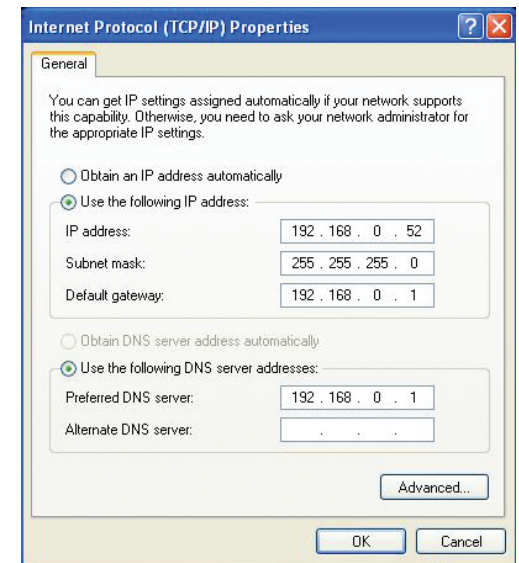
**Step 3**  
Highlight **Internet Protocol (TCP/IP)** and click **Properties.**

**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 802.11a
- IEEE 802.3
- IEEE 802.3u
- IEEE 802.3ab

## Security

- WPA™ - Personal/Enterprise
- WPA2™ - Personal/Enterprise

## Wireless Signal Rates<sup>1</sup>

### IEEE 802.11n HT20/40:

- 144.4Mbps (300)
- 130 Mbps(270)
- 86.7Mbps (180)
- 65Mbps (135)
- 43.3Mbps (90)
- 21.7Mbps (45)
- 7.2Mbps (15)
- 130.7Mbps (270)
- 115.6Mbps (240)
- 72.2Mbps (150)
- 57.8Mbps (120)
- 28.9Mbps (60)
- 14.4Mbps (30)

### IEEE 802.11 a:

- 54Mbps
- 36Mbps
- 18Mbps
- 6Mbps
- 48Mbps
- 24Mbps
- 12Mbps
- 9Mbps

## IEEE 802.11b/g:

- 54Mbps
- 24Mbps
- 11Mbps
- 5.5Mbps
- 48Mbps
- 18Mbps
- 9Mbps
- 2Mbps
- 36Mbps
- 12Mbps
- 6Mbps
- 1Mbps

## Frequency Range<sup>2</sup>

- 2.412GHz to 2.462GHz
- 5.15GHz to 5.825GHz

## External Antenna Type

- Two (2) detachable Antennas

## Operating Temperature

- 32°F to 104°F ( 0°C to 40°C)

## Humidity

- 95% maximum (non-condensing)

## Safety & Emissions

- FCC
- IC

## Dimensions

- L = 7.6 inches
- W = 4.6 inches
- H = 1.2inches

## Warranty

- 1 Year

<sup>1</sup> Maximum wireless signal rate derived from IEEE Standard 802.11a, 802.11g, and 802.11n 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 factors will adversely affect wireless signal range.

<sup>2</sup> Frequency Range varies depending on country's regulation

<sup>3</sup> The DIR-825 does not include 5.25-5.35GHz & 5.47-5.725GHz in some regions.



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Snail Mail:  
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17595 Mt. Herrmann Street  
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**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.

**FCC Statement:**

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

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

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

**FCC Caution:**

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

Operations in the 5.15-5.25GHz / 5.470 ~ 5.725GHz band are restricted to indoor usage only.

**IMPORTANT NOTICE:**  
**FCC Radiation Exposure Statement:**

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body. To maintain compliance with FCC RF exposure compliance requirements, please avoid direct contact to the transmitting antenna during transmitting.

If this device is going to be operated in 5.15 ~ 5.25GHz frequency range, then it is restricted in indoor environment only. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

The availability of some specific channels and/or operational frequency bands are country dependent and are firmware programmed at the factory to match the intended destination. The firmware setting is not accessible by the end user.

**ICC Notice:**

Operation is subject to the following two conditions:

- 1) This device may not cause interference and
- 2) This device must accept any interference, including interference that may cause undesired operation of the device.

**IMPORTANT NOTE:**

**IC Radiation Exposure Statement:**

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

- (i) The device for the band 5150-5250 MHz is only for indoor usage to reduce potential for harmful interference to co-channel mobile satellite systems;
- (ii) The maximum antenna gain (2dBi) permitted (for devices in the band 5725-5825 MHz) to comply with the e.i.r.p. limits specified for point-to-point and non point-to-point operation as appropriate, as stated in section A9.2(3).

In addition, users should also be cautioned to take note that high-power radars are allocated as primary users (meaning they have priority) of the bands 5250-5350 MHz and 5650-5850 MHz and these radars could cause interference and/or damage to LE-LAN devices.

**Règlement d'Industry Canada**

Les conditions de fonctionnement sont sujettes à deux conditions:

- (1) Ce périphérique ne doit pas causer d'interférence et.
- (2) Ce périphérique doit accepter toute interférence, y compris les interférences pouvant perturber le bon fonctionnement de ce périphérique.