



User Manual

AC750 Wi-Fi Router

Preface

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

Manual Revisions

Revision	Date	Description
1.00	July 26, 2016	Initial release

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Package Contents



DIR-814 AC750 Wi-Fi Router



Ethernet Cable



Power Adapter

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-814 will cause damage and void the warranty for this product.

System Requirements

Network Requirements	<ul style="list-style-type: none">• An Ethernet-based cable or DSL modem• IEEE 802.11 ac/n/g/b/a wireless clients• 10/100 Ethernet
Web-based Configuration Utility Requirements	<p>Computer with the following:</p> <ul style="list-style-type: none">• Windows®, Macintosh, or Linux-based operating system• An installed Ethernet adapter <p>Browser Requirements:</p> <ul style="list-style-type: none">• Internet Explorer 11 or higher• Firefox 20 or higher• Safari 7 or higher• Chrome 25 or higher <p>Windows® Users: Make sure you have the latest version of Java installed. Visit www.java.com to download the latest version.</p>
QRS Mobile Requirements	<ul style="list-style-type: none">• iPhone®/iPad®/iPod Touch® (iOS 7.0 or higher)• Android™ device (2.3.3 or higher)

Introduction

The D-Link DIR-814 is a wireless IEEE 802.11ac compliant device that delivers up to 3x faster speeds than 802.11n while staying backward compatible with 802.11n/g/b/a devices. This means you can connect the DIR-814 to a cable or DSL modem and provide high-speed Internet access to multiple computers, game consoles, and media players. You can create a secure wireless network to share photos, files, music, videos, printers, and network storage. Powered by 802.11ac technology and equipped with four external antennas, this router provides superior wireless coverage for larger homes and offices, or for users running bandwidth-intensive applications. The DIR-814 also includes a 4-port 10/100 Fast Ethernet switch that connects to wired devices for uninterrupted video calling and faster file transfers.

D-Link Intelligent QoS Technology helps to increase network efficiency by analyzing wired and wireless network traffic and prioritizing it in order of importance. This way, important network traffic such as VoIP and video streaming, take priority over background network traffic such as a file downloads and print tasks, ensuring you have optimal network performance.

The DIR-814 supports the latest wireless security features to help prevent unauthorized access, be it from over a wireless network or the Internet. Support for WPA™ and WPA2™ standards ensure that you will be able to use the best possible encryption regardless of your client devices. In addition, this router is equipped with a dual-active firewall (SPI and NAT) to prevent potential attacks over the Internet.

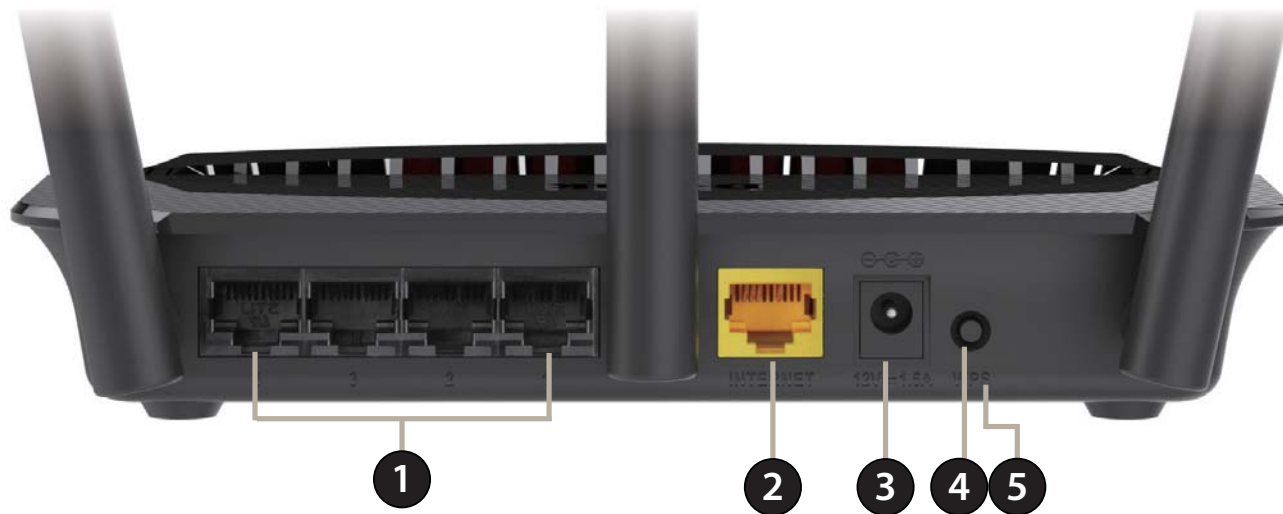
Features

- **Ultimate Fast Wireless Networking** - The DIR-814 provides up to 300 Mbps wireless connection in 2.4 GHz band, and up to 867 Mbps* wireless connection in 5 GHz with other 802.11ac and 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 802.11ac wireless router gives you the freedom of wireless networking at speeds 3x faster than 802.11n.
- **Compatible with 802.11n/g/b/a Wireless Devices** - The DIR-814 is still fully compatible with the IEEE 802.11a, IEEE 802.11b, 802.11g and 802.11n, so it can connect with existing 802.11a, IEEE 802.11b, 802.11g and 802.11n PCI, USB, and CardBus adapters.
- **Advanced Firewall Features** - The web-based user interface displays a number of advanced network management features. Easily apply content filtering based on MAC address, URL, and/or domain name. Schedule these filters to be active on certain days or for a duration of hours or minutes.
- **User-friendly Setup Wizard** - Through its easy-to-use web-based user interface, the DIR-814 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 802.11a, 802.11g, 802.11n and 802.11ac 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

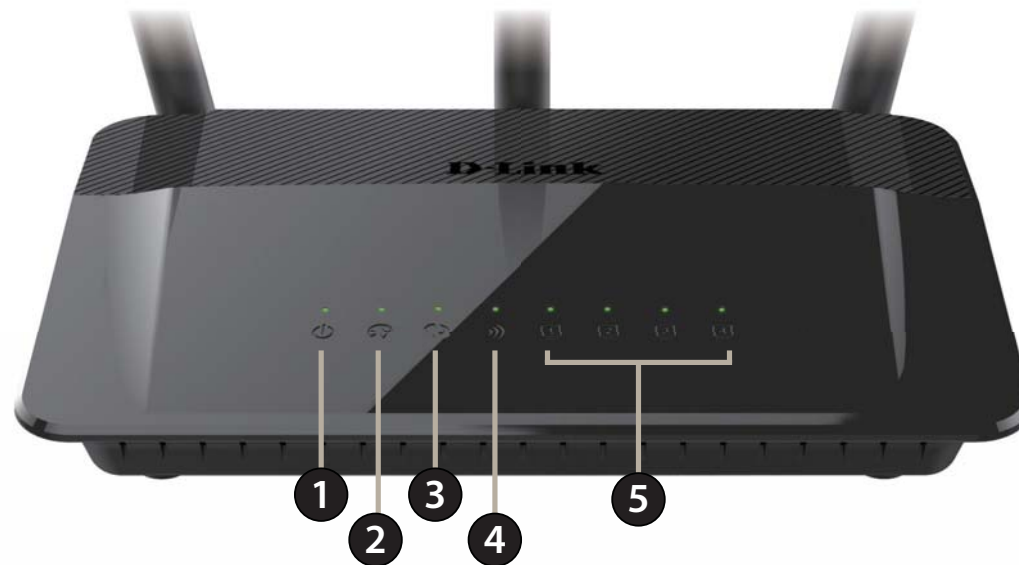
Connections



1	LAN Ports (1-4)	Connect 10/100 Ethernet devices such as computers, switches, storage (NAS) devices and game consoles.
2	Internet Port	Using an Ethernet cable, connect your broadband modem to this port.
3	Power Receptor	Receptor for the supplied power adapter.
4	WPS Button	Press to start the WPS process.
5	Reset Button	Insert a paperclip in the hole on the bottom of the device and wait for several seconds to reset the router to default settings.

Hardware Overview

LEDs



1	Power LED	A solid light indicates that the device is powered on. The light will blink while the device is in recovery mode.
2	Internet LED	A solid light indicates that an Internet link is established.
3	WPS LED	A solid light indicates that the WPS handshake has been completed. The light will blink while the WPS handshake is processing.
4	WLAN LED	A solid light indicates that the wireless segment is ready.
5	LAN LEDs 1-4	A solid light indicates a connection to an Ethernet-enabled computer on ports 1-4 respectively.

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 Internet Service Provider (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.

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 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 (0.5 meters), at a 45-degree angle appears to be almost 3 feet (1 meter) thick. At a 2-degree angle it looks over 42 feet (14 meters) thick! Position devices so that the signal will travel straight through a wall or ceiling (instead of at an angle) for better reception.
3. Building materials make a difference. A solid metal door or aluminum studs may have a negative effect on range. Try to position access points, wireless routers, and computers so that the signal passes through drywall or open doorways. Materials and objects such as glass, steel, metal, walls with insulation, water (fish tanks), mirrors, file cabinets, brick, and concrete will degrade your wireless signal.
4. Keep your product away (at least 3-6 feet or 1-2 meters) from electrical devices or appliances that generate RF noise.
5. If you are using 2.4 GHz cordless phones or X-10 (wireless products such as ceiling fans, lights, and home security systems), your wireless connection may degrade dramatically or drop completely. Make sure your 2.4 GHz phone base is as far away from your wireless devices as possible. The base transmits a signal even if the phone is not in use.

Manual Setup

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 LAN 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 connecting to a website. If the Internet LED indicator is lit, indicating a connection on the Internet/WAN port, then the router should be able to connect to the Internet.

Getting Started

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

- **QRS Mobile App** - Use your Android device, iPhone, iPad, or iPod touch to configure your router. Refer to page 11.
- **D-Link Setup Wizard** - This wizard will launch when you log into the router for the first time. Refer to page 16.
- **Manual Setup** - Log into the router and manually configure your router. Refer to page 19

QRS Mobile App

QRS Mobile app allows you to install and configure your router from your mobile device.

Note: The screenshots may be different depending on your mobile device's OS version.

Step 1

Search for the free **QRS Mobile** App on the iTunes Store or Google Play.



Step 2

Once your app is installed, you may now configure your router. Connect to the router wirelessly by going to your wireless utility on your device. Scan for the Wi-Fi name (SSID) as listed on device label. Select and then enter your Wi-Fi password.

Step 3

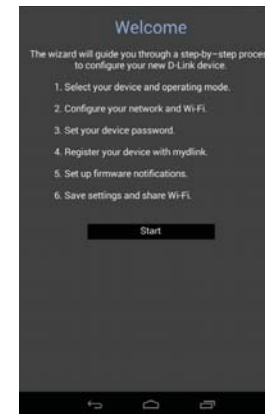
Once you connect to the router, launch the QRS Mobile app from the Home screen of your device.



Note: The following steps show the Android interface of the QRS Mobile app. If you are using an iPhone, iPad, or iPod touch, the appearance may be different to that of the screenshots, but the process is the same.

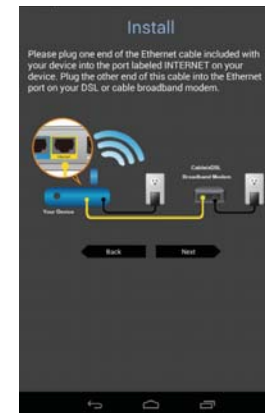
Step 4

You will see the welcome screen. Tap **Start** to proceed, then enter your device password and tap **Log In**. Tap **Next** once the Operation Mode screen appears.



Step 5

At this point, please ensure that you the router is connected to a modem. Plug one end of the provided Ethernet cable into your DSL or cable modem, and plug the other end into the port marked INTERNET on the DIR-814. Tap **Next** to automatically detect your Internet connection and proceed to the next step.

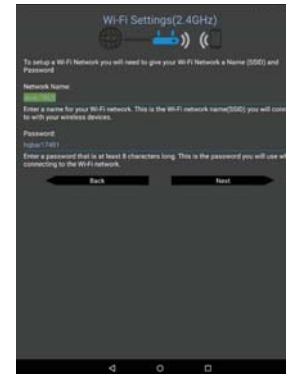


Step 6

You will be asked to configure your 2.4 GHz wireless network. Enter a network name (SSID) of your choice, or leave it unchanged to accept the default SSID.

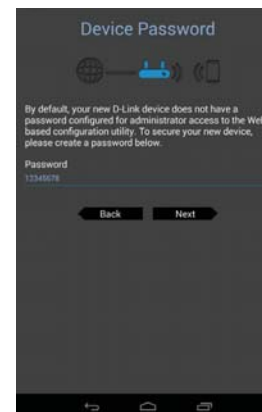
Next, choose a Wi-Fi password of at least 8 characters. Any device trying to connect to the router wirelessly will need to enter this password the first time it connects.

Tap **Next** to configure your 5 GHz wireless network. When satisfied tap **Next** to proceed.



Step 7

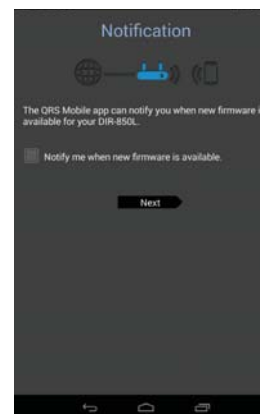
Enter the administrator password of your choice. Unlike the Wi-Fi password, this password is only required when you need to configure the router. See "**Configuration**" on page 19 for details of when this password is used. Tap **Next** to proceed.



Step 8

If you wish to receive push notifications whenever a new firmware update is available, check the **Notify me when new firmware is available** box and tap **Next**.

Otherwise, just tap **Next** to proceed.



Step 10

You will be presented with a summary of your chosen settings. Tap **Save** to complete the setup.



Congratulations, your device has been successfully configured! You can share this information by tapping **Share By E-mail**, or tap **Finish** to exit the app.



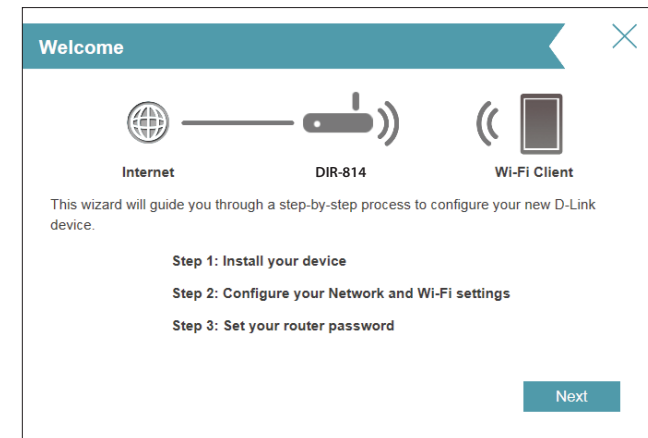
Setup Wizard

If this is your first time installing the router, open your web browser and enter **http://dlinkrouter.local/** in the address bar. Alternatively, enter the IP address of the router (default: **http://192.168.60.1**). Please refer to page 19.

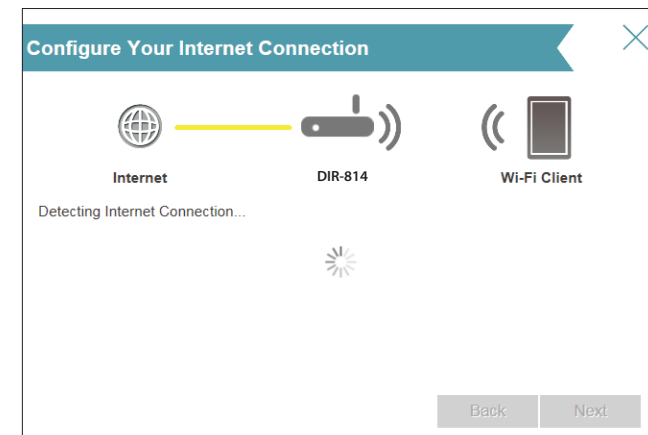


The wizard is designed to guide you through a step-by-step process to configure your new D-Link router and connect to the Internet.

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.



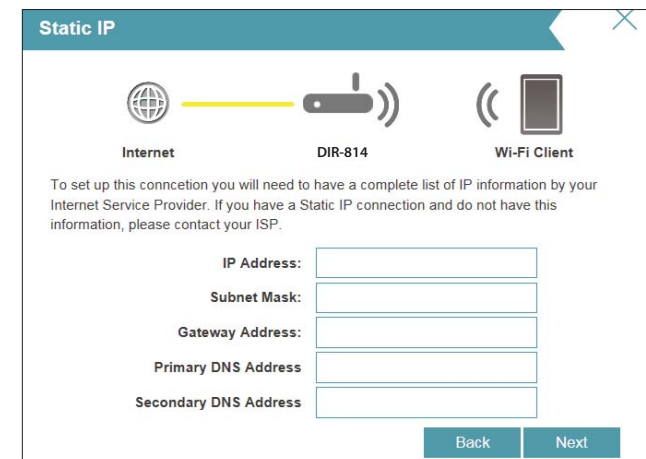
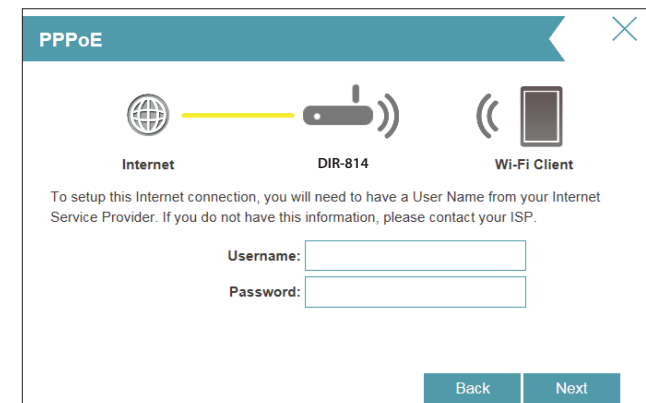
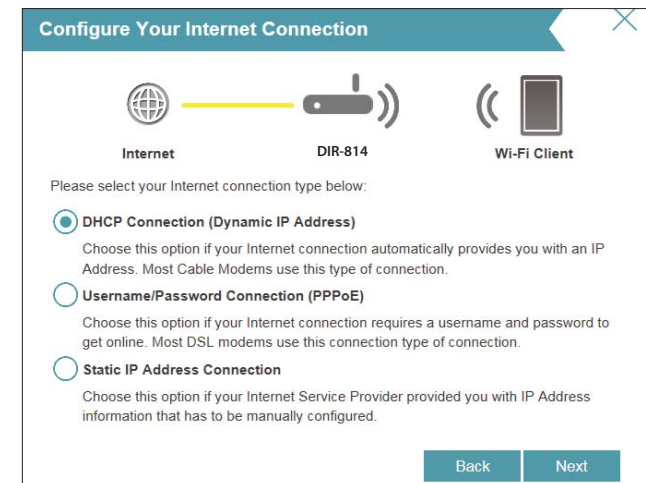
If the router does not detect a valid Internet connection, a list of connection types to choose from will be displayed.

Select your Internet connection type (this information can be obtained from your Internet Service Provider) and click **Next** to continue.

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.

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



Create a Wi-Fi password (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.

In order to secure the router, please enter a new password. You will be prompted for this password every time you want to use the router's web configuration utility. Click **Next** to continue.

At the end of the wizard, you will be presented with a final summary of your settings. Click **Finish** to close the wizard.

Wi-Fi Settings

Internet — DIR-814 — Wi-Fi Client

To setup a Wi-Fi network you will need to give your Wi-Fi network a name (SSID) and password.

2.4GHz Wi-Fi Network Name:

5GHz Wi-Fi Network Name:

The Wi-Fi Network Name is up to 32 characters. You will need to join your Wi-Fi network using this Network Name (SSID).

2.4GHz Wi-Fi Password:

5GHz Wi-Fi Password:

The password must contain at least 8 characters. You will need to join your Wi-Fi network using this password.

Device Admin Password




Internet — DIR-814 — Wi-Fi Client

By default, your new D-Link device does not have a password configured for administrator access to the Web-based configuration utility. To secure your new device, please create a password below.

Device Admin Password:

Congratulations

Congratulations, your device has been configured. You can now connect to your Wi-Fi network by using the new Wi-Fi Network Name and Password you created.

-  **Connection Type:** Dynamic IP (DHCP)
-  **Device Admin Password:** SecurePassword9
-  **2.4GHz Wi-Fi Network Name:** DIR-822 2.4 Ghz
2.4GHz Wi-Fi Password: SecurePassword9
5GHz Wi-Fi Network Name: DIR-822 5 Ghz
5GHz Wi-Fi Password: SecurePassword9

Configuration

To access the configuration utility, open a web-browser such as Internet Explorer and enter **http://dlinkrouter.local/** or you may also connect by typing the IP address of the router (by default this is **http://192.168.60.1**) in the address bar.

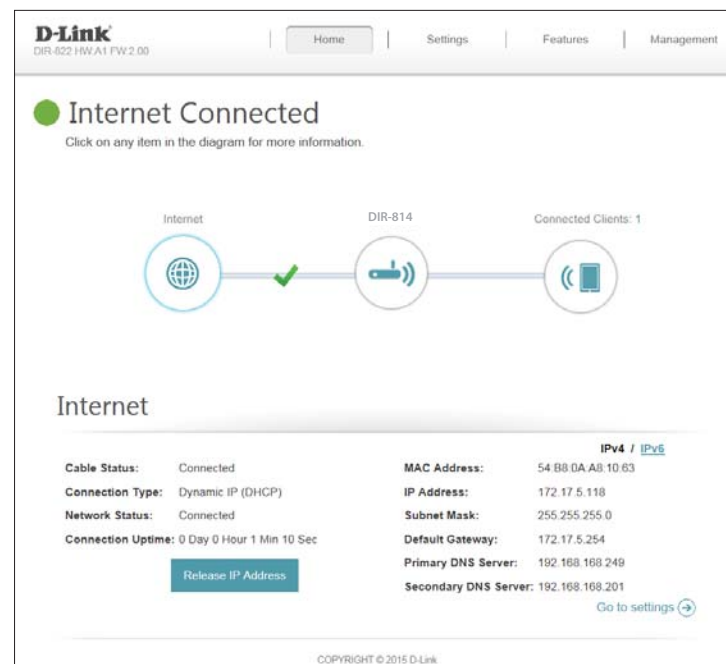
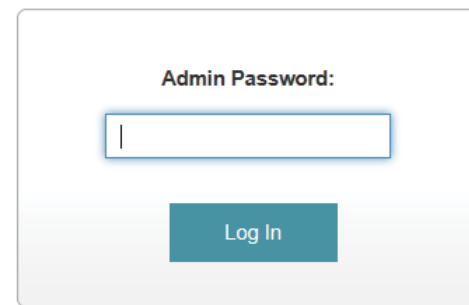
Enter your password. If you previously followed the setup wizard, please use the admin password you entered during the wizard. Otherwise, leave the password blank. Click **Log In** to proceed.

Note: If you cannot remember your password and cannot log in, press the reset button on the bottom of the device for longer than 10 seconds to restore the router to its default settings.

The router's home page will open displaying its current connection status.

The bar at the top of the page has quick access to Settings and Management functions. You may quickly jump back Home at any time.

Note: The system will automatically log out after a period of inactivity.



Home

The Home page displays the current status of the router in the form of an interactive diagram. You can click each icon to display information about each part of the network at the bottom of the screen. The menu bar at the top of the page will allow you to quickly navigate to other pages.

Internet

The Home page displays whether or not the router is currently connected to the Internet. If it is disconnected, click **Click to repair** to bring up the setup wizard (see page 16).

To bring up more details about your Internet connection, click on the **Internet** icon. Click **IPv4** or **IPv6** to see details of the IPv4 connection and IPv6 connection respectively.

Click **Release** to disconnect from the Internet. If you do this and wish to reconnect, click **Renew**.

To reconfigure the Internet settings, refer to page 23.



Internet		IPv4 / IPv6	
Cable Status:	Connected	MAC Address:	54 8B 0A AB 10 63
Connection Type:	Dynamic IP (DHCP)	IP Address:	172.17.5.118
Network Status:	Connected	Subnet Mask:	255.255.255.0
Connection Uptime:	0 Day 0 Hour 1 Min 10 Sec	Default Gateway:	172.17.5.254
		Primary DNS Server:	192.168.168.249
		Secondary DNS Server:	192.168.168.201

Release IP Address

Go to settings

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DIR-814

Click on the **DIR-814** icon to view details about the router and its wireless settings.

Here you can see the router's current wireless settings, as well as its MAC address and IPv4/IPv6 addresses.

To reconfigure the network settings, either click **Go to settings** on the lower left, or click **Settings** (at the top of the page) and then **Network** on the menu that appears. For more information refer to page 50.

To reconfigure the wireless settings, either click **Go to settings**, on the lower right, or click **Settings** (at the top of the page) and then **Wireless** on the menu that appears. For more information refer to page 47.

The screenshot displays the D-Link DIR-814 web interface. At the top, there is a navigation bar with 'Home', 'Settings', 'Features', and 'Management' tabs. Below the navigation bar, a green status indicator shows 'Internet Connected' with a sub-message: 'Click on any item in the diagram for more information.' A network diagram shows three components: 'Internet' (globe icon), 'DIR-814' (router icon with a green checkmark), and 'Connected Clients: 1' (phone icon). Below the diagram, the 'DIR-814' section is divided into two columns of settings:

IPv4 Network	Wi-Fi 2.4GHz
MAC Address: 54-B8-0A-A8-10-80	Status: Enabled
Router IP Address: 192.168.0.1	Wi-Fi Name (SSID): DIR-822 2.4 Ghz
Subnet Mask: 255.255.255.0	Password: SecurePassword9

IPv6 Network	Wi-Fi 5GHz
Link-Local Address: FE80::56B8:AFF:FEA8:1060	Status: Enabled
Router IPv6 Address: /	Wi-Fi Name (SSID): DIR-822 5 Ghz
DHCP-PD: Enabled	Password: SecurePassword9
Assigned Prefix: Not Available	

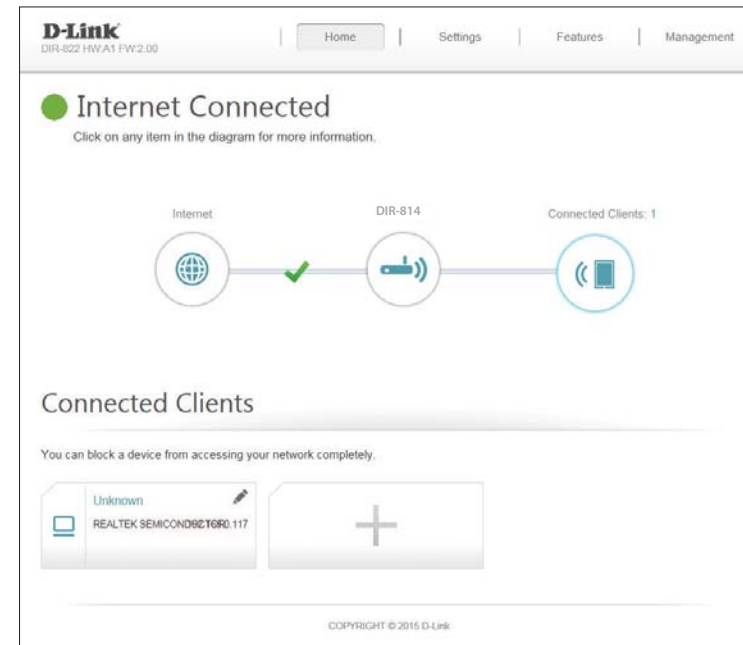
At the bottom of each settings column, there is a 'Go to settings' button with a right-pointing arrow. The footer of the page reads 'COPYRIGHT © 2015 D-Link'.

Connected Clients

Click on the **Connected Clients** icon to view details about the router and its wireless settings.

On this page you can see all the clients currently connected to the router, and their IP addresses.

To edit each client's settings, click the pencil icon on the client you want to edit.



Name: Enter a custom name for this client.

Vendor: Displays the vendor of the device.

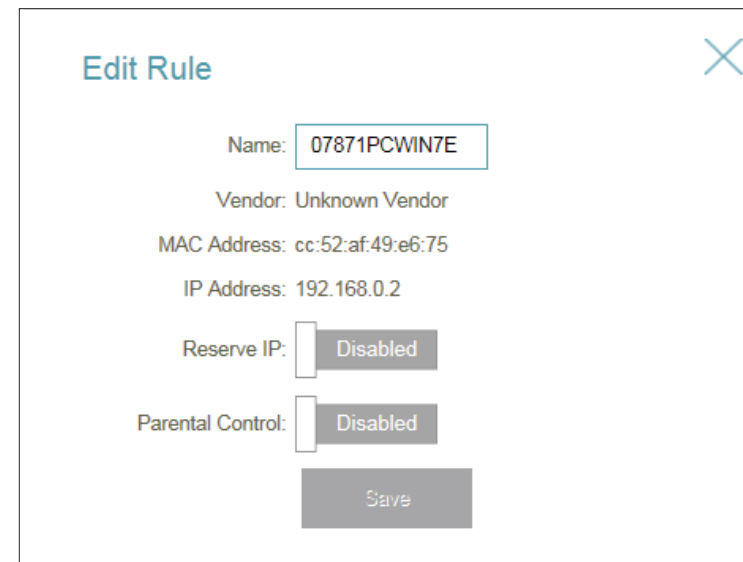
MAC Address: Displays the MAC address of the device.

IP Address: Enter a specific IP address for this client.

Reserve IP: Enable to reserve this IP address for this client.

Parental Control: Allow or Block access to the router.

Click **Save** when you are done.



Settings Wizard

In the Settings menu on the bar on the top of the page, click **Wizard** to open the setup wizard. This is the same wizard that appears when you start the router for the first time. Refer to page 16 for details.

Internet

In the Settings menu on the bar on the top of the page, click **Internet** to see the Internet configuration options.

My Internet Connection Is: Choose your Internet connection type from the drop-down menu. You will be presented with the appropriate options for your connection type. Click **Advanced Settings...** to expand the list and see all of the options.

For **Dynamic IP (DHCP)** refer to page 24.

For **Static IP** refer to page 25.

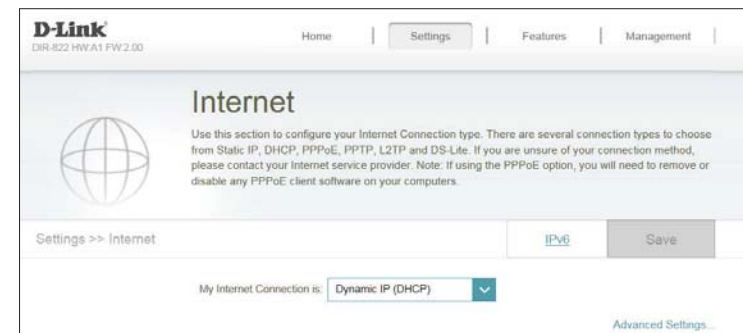
For **PPPoE** refer to page 26.

For **PPTP** refer to page 27.

For **L2TP** refer to page 29.

For **DS-Lite** refer to page 31.v

To configure an IPv6 connection, click the **IPv6** link. Refer to page 32.



Dynamic IP (DCHP)

Select **Dynamic IP (DHCP)** to obtain IP address information automatically from your Internet Service Provider (ISP). Select this option if your ISP does not give you an IP address to use.

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

Primary DNS Server: Enter the primary DNS server IP address assigned by your ISP. This address is usually obtained automatically from your ISP.

Secondary DNS Server: Enter the secondary DNS server IP address assigned by your ISP. This address is usually obtained automatically from your ISP.

MTU: Maximum Transmission Unit - you may need to change the MTU for optimal performance with your ISP.

MAC Address Clone: The default MAC address is set to the Internet port's physical interface MAC address on the router. You can use the drop-down menu to replace the Internet port's MAC address with the MAC address of a connected client.

Click **Save** when you are done.

The screenshot shows the D-Link router's web interface for configuring the Internet connection. The page title is "Internet" and it includes a navigation bar with "Home", "Settings", "Features", and "Management". The "Settings" tab is active, and the "Internet" sub-tab is selected. The "My Internet Connection is:" dropdown menu is set to "Dynamic IP (DHCP)". Below this, there are fields for "Host Name" (containing "dlinkrouter"), "Primary DNS Server", "Secondary DNS Server", "MTU" (set to "Auto"), and "Mac Address Clone" (set to "54:B8:0A:A8:10:63"). A "Save" button is visible in the top right corner. The footer of the page reads "COPYRIGHT © 2015 D-Link".

Static IP

Select **Static IP** if your IP information is provided by your Internet Service Provider (ISP).

IP Address: Enter the IP address provided by your ISP.

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

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

Primary DNS Server: Enter the primary DNS server IP address assigned by your ISP.

Secondary DNS Server: Enter the secondary DNS server IP address assigned by your ISP.

MTU: Maximum Transmission Unit - you may need to change the MTU for optimal performance with your ISP.

MAC Address Clone: The default MAC address is set to the Internet port's physical interface MAC address on the router. You can use drop-down menu to replace the Internet port's MAC address with the MAC address of a connected client.

Click **Save** when you are done.

The screenshot displays the D-Link web interface for configuring the Internet connection. The 'Internet' section is active, and the 'Address Mode' is set to 'Static IP'. The configuration fields are as follows:

- My Internet Connection is:** L2TP
- L2TP Server IP Address:** [Empty text box]
- Username:** [Empty text box]
- Password:** [Empty text box]
- Reconnect Mode:** On demand
- Maximum Idle Time:** 5 minutes
- Address Mode:** Static IP
- L2TP IP Address:** [Empty text box]
- L2TP Subnet Mask:** [Empty text box]
- L2TP Gateway IP Address:** [Empty text box]
- Primary DNS Server:** [Empty text box]
- Secondary DNS Server:** [Empty text box]
- MTU:** Auto

A 'Save' button is located at the top right of the configuration area. The page footer indicates 'COPYRIGHT © 2015 D-Link'.

PPPoE

Select **PPPoE** if your Internet connection requires you to enter a username and password. This information is provided by your Internet Service Provider (ISP).

Username: Enter the username provided by your ISP.

Password: Enter the password provided by your ISP.

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.

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**.

IP Address: Enter the IP address provided by your ISP (Static IP only).

Service Name: Enter the ISP service name (optional).

Primary DNS Server: Enter the primary DNS server IP address assigned by your ISP.

Secondary DNS Server: Enter the secondary DNS server IP address assigned by your ISP.

MTU: Maximum Transmission Unit - you may need to change the MTU for optimal performance with your ISP.

MAC Address Clone: The default MAC address is set to the Internet port's physical interface MAC address on the router. You can use the drop-down menu to replace the Internet port's MAC address with the MAC address of a connected client.

Click **Save** when you are done.

The screenshot shows the 'Internet' configuration page in the D-Link router's web interface. The 'My Internet Connection is:' dropdown is set to 'PPPoE'. Below it are input fields for 'Username:' and 'Password:'. The 'Reconnect Mode:' dropdown is set to 'On demand', and the 'Maximum Idle Time:' is set to '5 minutes'. A 'Save' button is visible in the top right corner.

This screenshot shows the 'Dynamic IP' configuration section. The 'Address Mode:' dropdown is set to 'Dynamic IP'. It includes input fields for 'Service Name:', 'Primary DNS Server:', and 'Secondary DNS Server:'. The 'MTU:' dropdown is set to 'Auto'. The 'Mac Address Clone:' dropdown is set to '<< MAC Address'. A copyright notice 'COPYRIGHT © 2015 D-Link' is visible at the bottom.

This screenshot shows the 'Static IP' configuration section. The 'Address Mode:' dropdown is set to 'Static IP'. It includes input fields for 'IP Address:', 'Service Name:', 'Primary DNS Server:', and 'Secondary DNS Server:'. The 'MTU:' dropdown is set to 'Auto'. The 'Mac Address Clone:' dropdown is set to '<< MAC Address'.

PPTP

Choose **PPTP** (Point-to-Point-Tunneling Protocol) if your Internet Service Provider (ISP) uses a PPTP connection. Your ISP will provide you with a username and password.

PPTP Server IP Address: Enter the PPTP server IP address provided by your ISP.

Username: Enter the username provided by your ISP.

Password: Enter the password provided by your ISP.

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.

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**.

PPTP IP Address: Enter the IP address provided by your ISP (Static IP only).

PPTP Subnet Mask: Enter the subnet mask provided by your ISP (Static IP only).

PPTP Gateway IP Address: Enter the gateway IP address provided by your ISP (Static IP only).

Primary DNS Server: Enter the primary DNS server IP address assigned by your ISP.

D-Link DIR-822 HW v1 FW 2.00

Home | Settings | Features | Management

Internet

Use this section to configure your Internet Connection type. There are several connection types to choose from Static IP, DHCP, PPPoE, PPTP, L2TP and DS-Lite. If you are unsure of your connection method, please contact your Internet service provider. Note: If using the PPPoE option, you will need to remove or disable any PPPoE client software on your computers.

Settings >> Internet | IPv6 | Save

My Internet Connection is: PPTP

PPTP Server IP Address:

Username:

Password:

Reconnect Mode: On demand

Maximum Idle Time: 5 minutes

[Advanced Settings](#)

Address Mode: Dynamic IP

Primary DNS Server:

Secondary DNS Server:

MTU: Auto

Address Mode: Static IP

PPTP IP Address:

PPTP Subnet Mask:

PPTP Gateway IP Address:

Primary DNS Server:

Secondary DNS Server:

MTU: Auto

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Secondary DNS Server: Enter the secondary DNS server IP address assigned by your ISP.

MTU: Maximum Transmission Unit - you may need to change the MTU for optimal performance with your ISP.

Click **Save** when you are done.

The screenshot shows the 'Internet' settings page for a D-Link DIR-822 HW v1 FW 2.00 router. The page title is 'Internet' and it includes a navigation bar with 'Home', 'Settings', 'Features', and 'Management'. A globe icon is on the left. Below the title, there is a paragraph of instructions: 'Use this section to configure your Internet Connection type. There are several connection types to choose from Static IP, DHCP, PPPoE, PPTP, L2TP and DS-Lite. If you are unsure of your connection method, please contact your Internet service provider. Note: If using the PPPoE option, you will need to remove or disable any PPPoE client software on your computers.' Below this, there is a breadcrumb 'Settings >> Internet' and a 'IPv6' tab. A 'Save' button is in the top right. The main configuration area includes: 'My Internet Connection is:' with a dropdown menu set to 'PPTP'; 'PPTP Server IP Address:' with an empty text box; 'Username:' with an empty text box; 'Password:' with an empty text box; 'Reconnect Mode:' with a dropdown menu set to 'On demand'; and 'Maximum Idle Time:' with a text box containing '5' and the unit 'minutes'. An 'Advanced Settings...' link is at the bottom right.

This screenshot shows the 'Dynamic IP' configuration section. It includes: 'Address Mode:' with a dropdown menu set to 'Dynamic IP'; 'Primary DNS Server:' with an empty text box; 'Secondary DNS Server:' with an empty text box; and 'MTU:' with a dropdown menu set to 'Auto'.

This screenshot shows the 'Static IP' configuration section. It includes: 'Address Mode:' with a dropdown menu set to 'Static IP'; 'PPTP IP Address:' with an empty text box; 'PPTP Subnet Mask:' with an empty text box; 'PPTP Gateway IP Address:' with an empty text box; 'Primary DNS Server:' with an empty text box; 'Secondary DNS Server:' with an empty text box; and 'MTU:' with a dropdown menu set to 'Auto'. At the bottom, there is a copyright notice: 'COPYRIGHT © 2015 D-Link'.

L2TP

Choose **L2TP** (Layer 2 Tunneling Protocol) if your Internet Service Provider (ISP) uses a L2TP connection. Your ISP will provide you with a username and password.

L2TP Server IP Address: Enter the L2TP server IP address provided by your ISP.

Username: Enter the username provided by your ISP.

Password: Enter the password provided by your ISP.

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.

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**.

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

L2TP Subnet Mask: Enter the subnet mask provided by your ISP (Static IP only).

L2TP Gateway IP Address: Enter the gateway IP address provided by your ISP (Static IP only).

Primary DNS Server: Enter the primary DNS server IP address assigned by your ISP.

D-Link
DIR-822 HW v1 FW 2.00

Home | Settings | Features | Management

Internet

Use this section to configure your Internet Connection type. There are several connection types to choose from Static IP, DHCP, PPPoE, PPTP, L2TP and DS-Lite. If you are unsure of your connection method, please contact your Internet service provider. Note: If using the PPPoE option, you will need to remove or disable any PPPoE client software on your computers.

Settings >> Internet | IPv6 | Save

My Internet Connection is: L2TP

L2TP Server IP Address:

Username:

Password:

Reconnect Mode: On demand

Maximum Idle Time: 5 minutes

[Advanced Settings](#)

Address Mode: Dynamic IP

Primary DNS Server:

Secondary DNS Server:

MTU: Auto

Address Mode: Static IP

L2TP IP Address:

L2TP Subnet Mask:

L2TP Gateway IP Address:

Primary DNS Server:

Secondary DNS Server:

MTU: Auto

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Secondary DNS Server: Enter the secondary DNS server IP address assigned by your ISP.

MTU: Maximum Transmission Unit - you may need to change the MTU for optimal performance with your ISP.

Click **Save** when you are done.

The screenshot shows the 'Internet' configuration page for a D-Link DIR-822 HW v1 FW 2.00. The page has a navigation bar with 'Home', 'Settings', 'Features', and 'Management'. Below the navigation bar is a header with a globe icon and the title 'Internet'. A sub-header reads: 'Use this section to configure your Internet Connection type. There are several connection types to choose from: Static IP, DHCP, PPPoE, PPTP, L2TP and DS-Lite. If you are unsure of your connection method, please contact your Internet service provider. Note: If using the PPPoE option, you will need to remove or disable any PPPoE client software on your computers.' The main content area is titled 'Settings >> Internet' and includes a 'IPv6' tab and a 'Save' button. The configuration options are: 'My Internet Connection is:' set to 'L2TP'; 'L2TP Server IP Address:' (empty text field); 'Username:' (empty text field); 'Password:' (empty text field); 'Reconnect Mode:' set to 'On demand'; and 'Maximum Idle Time:' set to '5 minutes'. There is an 'Advanced Settings...' link at the bottom right.

This screenshot shows the configuration options for 'Dynamic IP' mode. The 'Address Mode' is set to 'Dynamic IP'. Below it are three empty text input fields for 'Primary DNS Server:', 'Secondary DNS Server:', and 'MTU:'. The 'MTU' dropdown menu is currently set to 'Auto'.

This screenshot shows the configuration options for 'Static IP' mode. The 'Address Mode' is set to 'Static IP'. Below it are five empty text input fields for 'L2TP IP Address:', 'L2TP Subnet Mask:', 'L2TP Gateway IP Address:', 'Primary DNS Server:', and 'Secondary DNS Server:'. The 'MTU' dropdown menu is currently set to 'Auto'. At the bottom of the page, there is a copyright notice: 'COPYRIGHT © 2015 D-Link'.

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

AFTR IPv6 Address: If you selected Manual Configuration 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.

Click **Save** when you are done.

The screenshot shows the D-Link web interface for the DIR-822 HW v1 FW 2.00 router. The page is titled "Internet" and contains the following configuration options:

- My Internet Connection is:** A dropdown menu set to "DS-Lite".
- DS-Lite Configuration:** A dropdown menu set to "DS-Lite DHCPv6 Option".
- B4 IPv4 Address:** A text input field containing "192.0.0.".
- WAN IPv6 Address:** Displayed as "N/A".
- IPv6 WAN Default Gateway:** Displayed as "N/A".

At the top right, there are navigation tabs for "Home", "Settings", "Features", and "Management". A "Save" button is located in the top right corner of the configuration area. The footer of the page reads "COPYRIGHT © 2015 D-Link".

IPv6

To configure an IPv6 connection, click the **IPv6** link. To return to the IPv4 settings, click **IPv4**.

My Internet Connection Is: Choose your IPv6 connection type from the drop-down menu. You will be presented with the appropriate options for your connection type. Click **Advanced Settings...** to expand the list and see all of the options.

For **Auto Detection** refer to page 33.

For **Static IPv6** refer to page 35.

For **Auto Configuration (SLAAC/DHCPv6)** refer to page 37.

For **PPPoE** refer to page 39.

For **IPv6 in IPv4 Tunnel** refer to page 41.

For **6 to 4** refer to page 43.

For **6rd** refer to page 44.

For **Local Connectivity Only** refer to page 46.

The screenshot displays the IPv6 configuration interface for a D-Link router. At the top, there's a navigation bar with 'Home', 'Settings', 'Features', and 'Management'. The main heading is 'IPv6' with a sub-note: 'All of your IPv6 Internet and network connection details are displayed on this page.' Below this, there's a breadcrumb trail 'Settings >> Internet >> IPv6' and a 'Save' button. The 'My Internet Connection is' dropdown is set to 'Auto Detection'. Under 'IPv6 DNS SETTINGS', the 'DNS Type' is 'Use the following DNS address', with empty fields for 'Primary DNS Server' and 'Secondary DNS Server'. The 'LAN IPv6 ADDRESS SETTINGS' section shows 'LAN IPv6 Address' and 'LAN IPv6 Link-Local Address: fe80:56b8:aff:fea8:1090'. An 'Advanced Settings...' link is present. The 'ADDRESS AUTOCONFIGURATION SETTINGS' section includes 'Enable Automatic IPv6 Address Assignment' (checked), 'Enable Automatic DHCP-PD in LAN' (checked), 'Autoconfiguration Type' (Stateful DHCPv6), and fields for 'IPv6 Address Range (Start)', 'IPv6 Address Range (End)', and 'IPv6 Address Lifetime' (minutes).

Auto Detection

This is a connection method where the ISP assigns your IPv6 address when your router requests one from the ISP's server. Some ISPs require you to make some settings on your side before your router can connect to the IPv6 Internet.

DNS Type: Select either **Obtain DNS server address automatically** or **Use the following DNS address**.

Primary DNS Server: If you selected **Use the following DNS address** above, enter the primary DNS server address.

Secondary DNS Server: If you selected **Use the following DNS address** above, enter the secondary DNS server address.

Enable DHCP-PD: Enable or disable prefix delegation services.

LAN IPv6 Address: If you disabled DHCP-PD, enter the LAN (local) IPv6 address for the router.

LAN IPv6 Link-Local Address: Displays the router's LAN link-local address.

Enable Automatic IPv6 Address Assignment: Enable or disable the Automatic IPv6 Address Assignment feature.

Enable Automatic DHCP-PD in LAN: Enable or disable DHCP-PD for other IPv6 routers connected to the LAN interface.

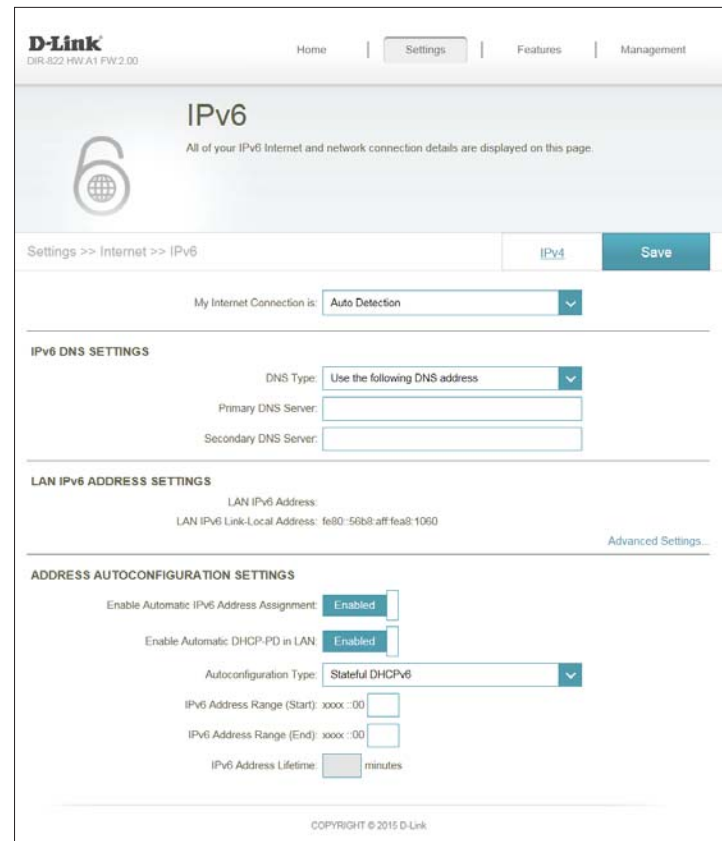
Note: This feature requires a smaller subnet prefix than /64 (i.e. allowing for a larger address allocation), such as /63. Contact your ISP for more information.

The screenshot displays the IPv6 configuration interface of a D-Link router. At the top, there are navigation links for Home, Settings, Features, and Management. The main heading is 'IPv6', with a sub-note stating that all IPv6 Internet and network connection details are displayed on this page. Below the heading, there is a breadcrumb trail: 'Settings >> Internet >> IPv6'. A dropdown menu for 'My Internet Connection is' is set to 'Auto Detection'. The 'IPv6 DNS SETTINGS' section includes a 'DNS Type' dropdown set to 'Use the following DNS address', and two empty input fields for 'Primary DNS Server' and 'Secondary DNS Server'. The 'LAN IPv6 ADDRESS SETTINGS' section shows an empty 'LAN IPv6 Address' field and a 'LAN IPv6 Link-Local Address' of 'fe80:56b8:aff:fea8:1060'. The 'ADDRESS AUTOCONFIGURATION SETTINGS' section has 'Enable Automatic IPv6 Address Assignment' and 'Enable Automatic DHCP-PD in LAN' both set to 'Enabled'. The 'Autoconfiguration Type' is set to 'Stateful DHCPv6'. There are also input fields for 'IPv6 Address Range (Start)', 'IPv6 Address Range (End)', and 'IPv6 Address Lifetime'.

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

Router Advertisement Lifetime: Enter the IPv6 address lifetime (in minutes).

Click **Save** when you are done.



Static IPv6

Select **Static IP** if your IPv6 information is provided by your Internet Service Provider (ISP).

Use Link-Local Address: Enable or disable a link-local address.

Address:

IPv6 Address: If you disabled **Use Link-Local Address**, enter the address supplied by your ISP.

Subnet Prefix Length: If you disabled **Use Link-Local Address**, enter the subnet prefix length supplied by your ISP.

Default Gateway: Enter the default gateway for your IPv6 connection.

Primary DNS Server: Enter the primary DNS server address.

Secondary DNS Server: Enter the secondary DNS server address.

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

LAN IPv6 Link-Local Address: Displays the router's LAN link-local address.

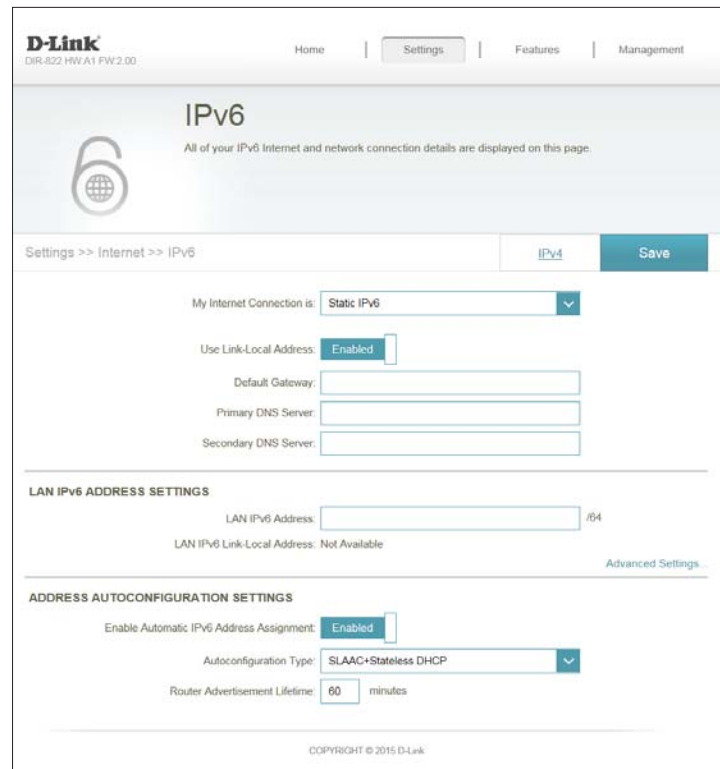
Enable Automatic IPv6 Address Assignment: Check to enable the Automatic IPv6 Address Assignment feature.

The screenshot shows the D-Link IPv6 configuration interface. At the top, there's a navigation bar with 'Home', 'Settings', 'Features', and 'Management'. Below that, the page title is 'IPv6' with a subtitle: 'All of your IPv6 Internet and network connection details are displayed on this page.' The main content area is titled 'Settings >> Internet >> IPv6' and includes a 'Save' button. The configuration is set to 'Static IPv6'. The 'Use Link-Local Address' checkbox is checked. There are input fields for 'Default Gateway', 'Primary DNS Server', and 'Secondary DNS Server'. Under 'LAN IPv6 ADDRESS SETTINGS', the 'LAN IPv6 Address' field is empty, and the 'LAN IPv6 Link-Local Address' is 'Not Available'. Under 'ADDRESS AUTOCONFIGURATION SETTINGS', the 'Enable Automatic IPv6 Address Assignment' checkbox is checked, the 'Autoconfiguration Type' is set to 'SLAAC+Stateless DHCP', and the 'Router Advertisement Lifetime' is set to 60 minutes. A copyright notice 'COPYRIGHT © 2015 D-Link' is at the bottom.

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

Router Advertisement Lifetime: Enter the IPv6 address lifetime (in minutes).

Click **Save** when you are done.



Auto Configuration (SLAAC/DHCPv6)

This is a connection method where the ISP assigns your IPv6 address when your router requests one from the ISP's server. Some ISPs require you to make some settings on your side before your router can connect to the IPv6 Internet.

DNS Type: Select either **Obtain DNS server address automatically** or **Use the following DNS address**.

Primary DNS Server: If you selected **Use the following DNS address** above, enter the primary DNS server address.

Secondary DNS Server: If you selected **Use the following DNS address** above, enter the secondary DNS server address.

Enable DHCP-PD: Enable or disable prefix delegation services.

LAN IPv6 Address: If you disabled DHCP-PD, enter the LAN (local) IPv6 address for the router.

LAN IPv6 Link-Local Address: Displays the router's LAN link-local address.

Enable Automatic IPv6 Address Assignment: Enable or disable the Automatic IPv6 Address Assignment feature.

Enable Automatic DHCP-PD in LAN: Enable or disable DHCP-PD for other IPv6 routers connected to the LAN interface.

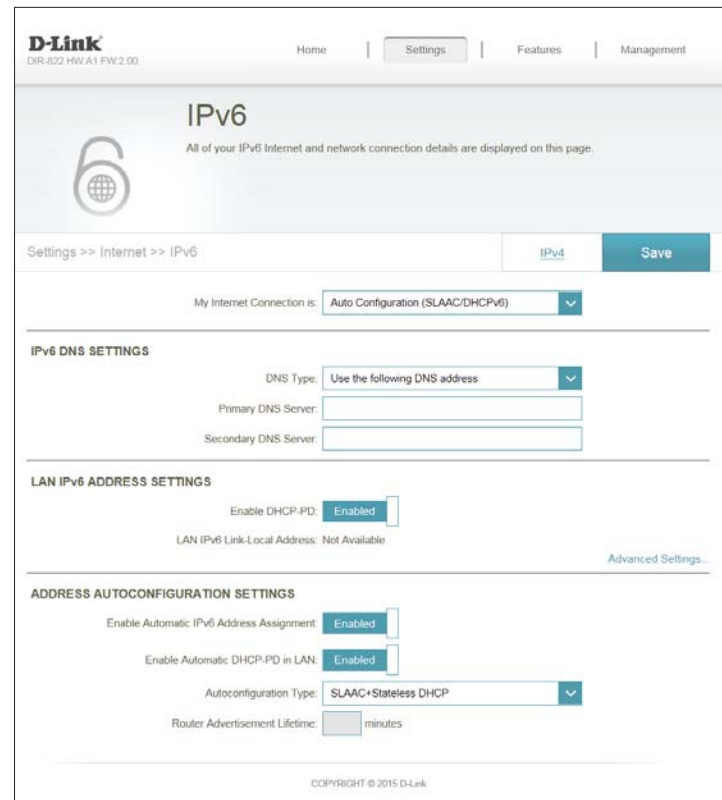
Note: This feature requires a smaller subnet prefix than /64 (i.e. allowing for a larger address allocation), such as /63. Contact your ISP for more information.

The screenshot displays the IPv6 configuration interface of a D-Link router. At the top, there are navigation tabs for Home, Settings, Features, and Management. The main heading is 'IPv6', with a sub-note stating 'All of your IPv6 Internet and network connection details are displayed on this page.' Below this, a breadcrumb trail shows 'Settings >> Internet >> IPv6'. A dropdown menu indicates 'My Internet Connection is: Auto Configuration (SLAAC/DHCPv6)'. The 'IPv6 DNS SETTINGS' section includes a 'DNS Type' dropdown set to 'Use the following DNS address', and input fields for 'Primary DNS Server' and 'Secondary DNS Server'. The 'LAN IPv6 ADDRESS SETTINGS' section shows 'Enable DHCP-PD' as 'Enabled' and 'LAN IPv6 Link-Local Address' as 'Not Available'. The 'ADDRESS AUTOCONFIGURATION SETTINGS' section shows 'Enable Automatic IPv6 Address Assignment' and 'Enable Automatic DHCP-PD in LAN' both as 'Enabled', and 'Autoconfiguration Type' set to 'SLAAC+Stateless DHCP'. A 'Router Advertisement Lifetime' field is set to 'minutes'. The footer contains the copyright notice 'COPYRIGHT © 2015 D-Link'.

Auto Configuration Type: Select **Stateful (DHCPv6), SLAAC + RDNSS** or **SLAAC + Stateless DHCPv6**

Router Advertisement Lifetime: Enter the IPv6 address lifetime (in minutes).

Click **Save** when you are done.



PPPoE

Select **PPPoE** if your Internet connection requires you to enter a username and password. This information is provided by your Internet Service Provider (ISP).

PPPoE Session: Choose **Share with IPv4** to re-use your IPv4 PPPoE username and password, or **Create a new session**.

Username: If you selected **Create a new session** above, enter the PPPoE username provided by your ISP here.

Password: If you selected **Create a new session** above, enter the PPPoE password provided by your ISP here.

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**.

IP Address: Enter the IP address provided by your ISP (Static IP only).

DNS Type: Select either **Obtain DNS server address automatically** or **Use the following DNS address**.

Primary DNS Server: If you selected **Use the following DNS address** above, enter the primary DNS server address.

Secondary DNS Server: If you selected **Use the following DNS address** above, enter the secondary DNS server address.

Enable DHCP-PD: Enable or disable DHCP-PD for other IPv6 routers connected to the LAN interface.

Note: This feature requires a smaller subnet prefix than /64 (i.e. allowing for a larger address allocation), such as /63. Contact your ISP for more information.

The screenshot shows the IPv6 configuration page in the D-Link web interface. The breadcrumb trail is 'Settings >> Internet >> IPv6'. The page has a 'Save' button and a 'IPv4' link. The configuration is as follows:

- My Internet Connection is:** PPPoE
- PPPoE Session:** Create a new session
- Username:** [Empty text box]
- Password:** [Empty text box]
- Address Mode:** Static IP
- IP Address:** [Empty text box]
- Service Name:** [Empty text box]
- Reconnect Mode:** Always on
- MTU:** 1452 bytes
- IPv6 DNS SETTINGS:**
 - DNS Type:** Use the following DNS address
 - Primary DNS Server:** [Empty text box]
 - Secondary DNS Server:** [Empty text box]
- LAN IPv6 ADDRESS SETTINGS:**
 - LAN IPv6 Address:** [Empty text box] /64
 - LAN IPv6 Link-Local Address:** Not Available
- ADDRESS AUTOCONFIGURATION SETTINGS:**
 - Enable Automatic IPv6 Address Assignment:** Enabled
 - Autoconfiguration Type:** Stateful DHCPv6
 - IPv6 Address Range (Start):** xxxx::00 3
 - IPv6 Address Range (End):** xxxx::00 16
 - IPv6 Address Lifetime:** [Empty text box] minutes

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

LAN IPv6 Link-Local Address: Displays the router's LAN link-local address.

Enable Automatic IPv6 Address Assignment: Enable or disable the Automatic IPv6 Address Assignment feature.

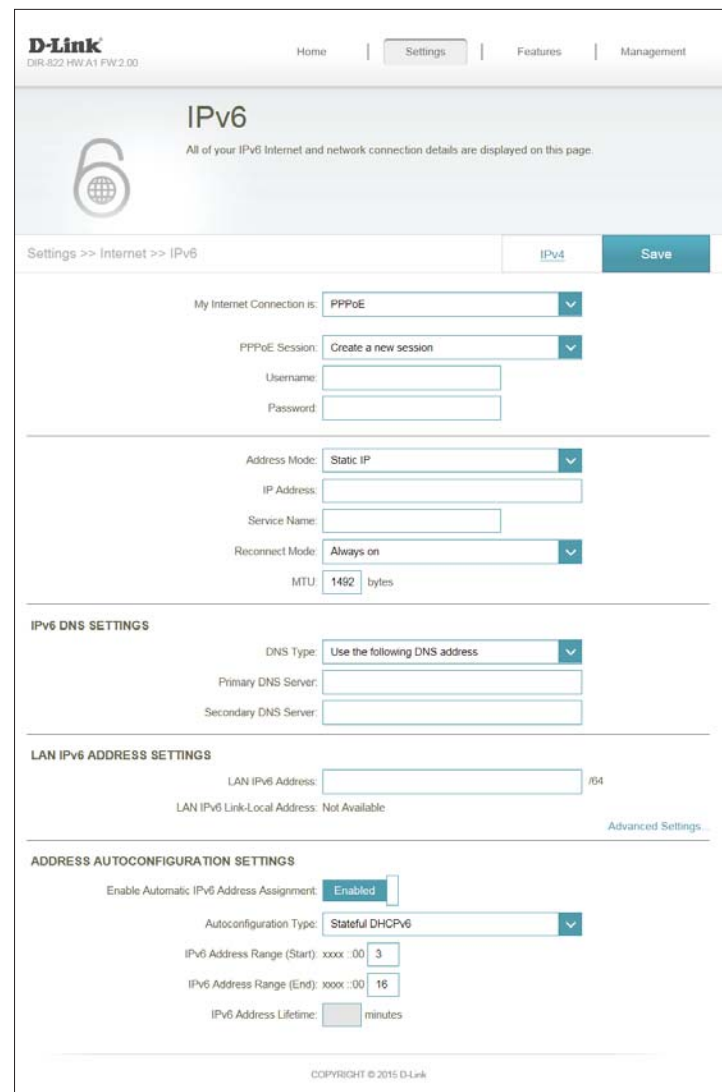
Enable Automatic DHCP-PD in LAN: Enable or disable DHCP-PD for other IPv6 routers connected to the LAN interface.

Note: This feature requires a smaller subnet prefix than /64 (i.e. allowing for a larger address allocation), such as /63. Contact your ISP for more information.

Auto Configuration Type: Select **Stateful (DHCPv6)**, **SLAAC + RDNSS** or **SLAAC + Stateless DHCPv6**

Router Advertisement Lifetime: Enter the IPv6 address lifetime (in minutes).

Click **Save** when you are done.



IPv6 in IPv4 Tunnel

The user can configure the IPv6 connection to run in IPv4 Tunnel mode. IPv6 over IPv4 tunneling encapsulates IPv6 packets in IPv4 packets so that IPv6 packets can be sent over an IPv4 infrastructure.

Remote IPv4 Address: Enter the IPv4 remote address you will use.

Remote IPv6 Address: Enter the IPv6 remote address you will use.

Local IPv4 Address: Enter the IPv4 local address you will use.

Local IPv6 Address: Enter the IPv6 local address you will use.

Subnet Prefix Length: Enter the subnet prefix length supplied by your ISP.

DNS Type: Select either **Obtain DNS server address automatically** or **Use the following DNS address**.

Primary DNS Server: If you selected **Use the following DNS address** above, enter the primary DNS server address.

Secondary DNS Server: If you selected **Use the following DNS address** above, enter the secondary DNS server address.

Enable DHCP-PD: Enable or disable DHCP-PD for other IPv6 routers connected to the LAN interface.

Note: This feature requires a smaller subnet prefix than /64 (i.e. allowing for a larger address allocation), such as /63. Contact your ISP for more information.

The screenshot shows the D-Link IPv6 configuration interface. At the top, there are navigation links for Home, Settings, Features, and Management. The main heading is 'IPv6' with a sub-note: 'All of your IPv6 Internet and network connection details are displayed on this page.' Below this, there is a breadcrumb trail: 'Settings >> Internet >> IPv6'. A 'Save' button is visible in the top right corner of the configuration area.

The configuration is set to 'IPv6 in IPv4 tunnel'. The fields are as follows:

- My Internet Connection is: IPv6 in IPv4 tunnel (dropdown)
- Remote IPv4 Address: (empty text box)
- Remote IPv6 Address: (empty text box)
- Local IPv4 Address: 172.17.5.118
- Local IPv6 Address: (empty text box)
- Subnet Prefix Length: (empty text box)

IPv6 DNS SETTINGS

- DNS Type: Use the following DNS address (dropdown)
- Primary DNS Server: (empty text box)
- Secondary DNS Server: (empty text box)

LAN IPv6 ADDRESS SETTINGS

- Enable DHCP-PD: Enabled (checkbox)
- LAN IPv6 Link-Local Address: Not Available

ADDRESS AUTOCONFIGURATION SETTINGS

- Enable Automatic IPv6 Address Assignment: Enabled (checkbox)
- Enable Automatic DHCP-PD in LAN: Enabled (checkbox)
- Autoconfiguration Type: Stateful DHCPv6 (dropdown)
- IPv6 Address Range (Start): xxxx::00 (text box with '3' in a small box)
- IPv6 Address Range (End): xxxx::00 (text box with '16' in a small box)
- IPv6 Address Lifetime: 60 (text box) minutes

At the bottom right, there is a link for 'Advanced Settings...' and a copyright notice: 'COPYRIGHT © 2015 D-Link'.

LAN IPv6 Address: If you disabled DHCP-PD, enter the LAN (local) IPv6 address for the router.

LAN IPv6 Link-Local Address: Displays the router's LAN link-local address.

Enable Automatic IPv6 Address Assignment: Enable or disable the Automatic IPv6 Address Assignment feature.

Enable Automatic DHCP-PD in LAN: Enable or disable DHCP-PD for other IPv6 routers connected to the LAN interface.

Note: This feature requires a smaller subnet prefix than /64 (i.e. allowing for a larger address allocation), such as /63. Contact your ISP for more information.

Auto Configuration Type: Select **Stateful (DHCPv6)**, **SLAAC + RDNSS** or **SLAAC + Stateless DHCPv6**

Router Advertisement Lifetime: Enter the IPv6 address lifetime (in minutes).

Click **Save** when you are done.

The screenshot shows the IPv6 configuration interface for a D-Link router. The page title is "IPv6" and it includes a navigation menu with "Home", "Settings", "Features", and "Management". The breadcrumb trail is "Settings >> Internet >> IPv6".

My Internet Connection is: IPv6 in IPv4 tunnel (dropdown menu)

Remote IPv4 Address: [text input field]

Remote IPv6 Address: [text input field]

Local IPv4 Address: 172.17.5.118

Local IPv6 Address: [text input field]

Subnet Prefix Length: [text input field]

IPv6 DNS SETTINGS

DNS Type: Use the following DNS address (dropdown menu)

Primary DNS Server: [text input field]

Secondary DNS Server: [text input field]

LAN IPv6 ADDRESS SETTINGS

Enable DHCP-PD: Enabled (checkbox)

LAN IPv6 Link-Local Address: Not Available

[Advanced Settings...](#)

ADDRESS AUTOCONFIGURATION SETTINGS

Enable Automatic IPv6 Address Assignment: Enabled (checkbox)

Enable Automatic DHCP-PD in LAN: Enabled (checkbox)

Autoconfiguration Type: Stateful DHCPv6 (dropdown menu)

IPv6 Address Range (Start): xxxx::00 [text input field] **3** [text input field]

IPv6 Address Range (End): xxxx::00 [text input field] **16** [text input field]

IPv6 Address Lifetime: 60 [text input field] minutes

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6 to 4

In this section the user can configure the IPv6 6 to 4 connection settings. 6to4 is an IPv6 address assignment and automatic tunneling technology that is used to provide unicast IPv6 connectivity between IPv6 sites and hosts across the IPv4 Internet.

6 to 4 Address: Displays the 6 to 4 address.

6 to 4 Relay: Enter the 6 to 4 relay supplied by your ISP.

Primary DNS Server: Enter the primary DNS server address.

Secondary DNS Server: Enter the secondary DNS server address.

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

LAN IPv6 Link-Local Address: Displays the router's LAN link-local address.

Enable Automatic IPv6 Address Assignment: Check to enable the Automatic IPv6 Address Assignment feature.

Auto Configuration Type: Select **Stateful (DHCPv6)**, **SLAAC + RDNSS** or **SLAAC + Stateless DHCPv6**

Router Advertisement Lifetime: Enter the IPv6 address lifetime (in minutes).

Click **Save** when you are done.

The screenshot shows the D-Link IPv6 configuration interface. At the top, there is a navigation bar with 'Home', 'Settings', 'Features', and 'Management'. Below this, the page title is 'IPv6' with a subtitle: 'All of your IPv6 Internet and network connection details are displayed on this page.' The breadcrumb trail is 'Settings >> Internet >> IPv6'. There are 'IPv4' and 'Save' buttons. The main configuration area includes:

- 'My Internet Connection is:' set to '6to4'.
- '6to4 Address:' 172.17.5.118
- '6to4 Relay:' 192.88.99.1
- 'Primary DNS Server:' (empty field)
- 'Secondary DNS Server:' (empty field)

 Below this is the 'LAN IPv6 ADDRESS SETTINGS' section:

- 'LAN IPv6 Address:' FFFF:FFFF:FFFF: [] ::1/64
- 'LAN IPv6 Link-Local Address:' Not Available
- 'Advanced Settings...' link

 The 'ADDRESS AUTOCONFIGURATION SETTINGS' section includes:

- 'Enable Automatic IPv6 Address Assignment:' Enabled (checkbox)
- 'Autoconfiguration Type:' SLAAC+Stateless DHCP (dropdown menu)
- 'Router Advertisement Lifetime:' [] minutes

 At the bottom, there is a copyright notice: 'COPYRIGHT © 2015 D-Link'.

6rd

In this section the user can configure the IPv6 6rd connection settings.

Assign IPv6 Prefix: Currently unsupported.

Primary DNS Server: Enter the primary DNS server address.

Secondary DNS Server: Enter the secondary DNS server address.

Enable Hub and Spoke Mode: Enable if you want to minimize the number of routes to the destination by using a hub and spoke method of networking.

6rd Configuration: Choose the **6rd DHCPv4 Option** to automatically discover and populate the data values, or **Manual Configuration** to enter the settings yourself.

6rd IPv6 Prefix: Enter the 6rd IPv6 prefix and mask length supplied by your ISP (manual configuration only).

6rd Border Relay IPv4 Address: Enter the 6rd border relay IPv4 address settings supplied by your ISP (manual configuration only).

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

LAN IPv6 Link-Local Address: Displays the router's LAN link-local address.

The screenshot shows the D-Link IPv6 configuration interface. At the top, there is a navigation bar with 'Home', 'Settings', 'Features', and 'Management'. The main heading is 'IPv6' with a sub-heading 'All of your IPv6 Internet and network connection details are displayed on this page.' Below this, there is a breadcrumb trail 'Settings >> Internet >> IPv6' and a 'Save' button. The configuration is divided into several sections:

- My Internet Connection is:** A dropdown menu set to '6rd'.
- Assign IPv6 Prefix:** An empty text input field.
- Primary DNS Server:** An empty text input field.
- Secondary DNS Server:** An empty text input field.
- 6RD MANUAL CONFIGURATION:**
 - Enable Hub and Spoke Mode:** A toggle switch set to 'Enabled'.
 - 6rd Configuration:** A dropdown menu set to '6rd DHCPv4 Option'.
- LAN IPv6 ADDRESS SETTINGS:**
 - LAN IPv6 Address:** Not Available.
 - LAN IPv6 Link-Local Address:** Not Available.
- ADDRESS AUTOCONFIGURATION SETTINGS:**
 - Enable Automatic IPv6 Address Assignment:** A toggle switch set to 'Enabled'.
 - Autoconfiguration Type:** A dropdown menu set to 'SLAAC+Stateless DHCP'.
 - Router Advertisement Lifetime:** A text input field set to 'minutes'.

At the bottom right, there is a link for 'Advanced Settings...' and a copyright notice 'COPYRIGHT © 2015 D-Link'.

Enable Automatic IPv6 Address Assignment: Check to enable the Automatic IPv6 Address Assignment feature.

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

Router Advertisement Lifetime: Enter the IPv6 address lifetime (in minutes).

Click **Save** when you are done.



Local Connectivity Only

Local Connectivity Only allows you to set up an IPv6 connection that will not connect to the Internet.

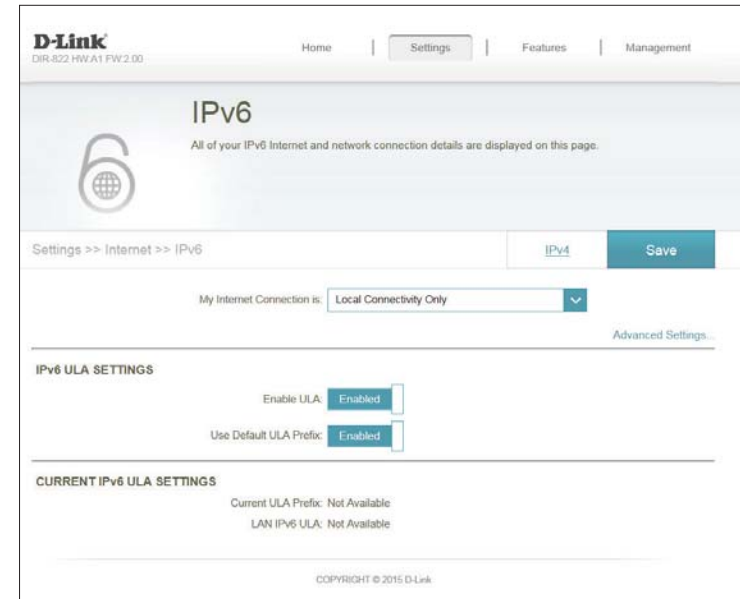
Enable ULA: Click here to enable Unique Local IPv6 Unicast Addresses settings.

Use Default ULA Prefix: Checking this box will automatically configure the ULA prefix for the default setting.

ULA Prefix: If you wish to choose your own ULA prefix, enter it here.

Current IPv6 ULA Settings: This section will display the current settings for your IPv6 ULA.

Click **Save** when you are done.



The screenshot shows the D-Link IPv6 configuration interface. At the top, there is a navigation bar with 'Home', 'Settings', 'Features', and 'Management'. Below this, the page title is 'IPv6' with a subtitle: 'All of your IPv6 Internet and network connection details are displayed on this page.' A breadcrumb trail reads 'Settings >> Internet >> IPv6'. There are tabs for 'IPv4' and 'Save'. A dropdown menu for 'My Internet Connection is:' is set to 'Local Connectivity Only'. Below this is a link for 'Advanced Settings...'. The 'IPv6 ULA SETTINGS' section contains two toggle switches: 'Enable ULA' (set to 'Enabled') and 'Use Default ULA Prefix' (set to 'Enabled'). The 'CURRENT IPv6 ULA SETTINGS' section shows 'Current ULA Prefix: Not Available' and 'LAN IPv6 ULA: Not Available'. A copyright notice 'COPYRIGHT © 2015 D-Link' is at the bottom.

Wireless

In the Settings menu on the bar on the top of the page, click **Wireless** to see the wireless configuration options. To configure the router's guest zone, click the **Guest Zone** link. Refer to page 49 for details. Click **Advanced Settings...** to expand the list and see all of the options. The following options apply to both the 2.4 GHz and the 5 GHz wireless frequency bands:

Status: Enable or disable the wireless frequency band.

Wi-Fi Name (SSID): Create a name for your wireless network using up to 32 characters.

Password: Create a password to use for wireless security. Wireless clients will need to enter this password to successfully connect to the network.

Security Mode: Choose **None**, **WEP**, or **WPA/WPA2-(Personal)** (recommended).

802.11 Mode: Select the desired wireless networking standards to use. The available options will depend on the wireless frequency band, as well as the currently selected security mode.

Wi-Fi Channel: Select the desired channel. The default is **Auto** (recommended).

Transmission Power: Select the desired wireless transmission power.

Channel Width: Select **Auto 20/40** if you are using both 802.11n and non-802.11n wireless devices, or select **20 MHz** if you are not using any 802.11n wireless clients.

Visibility Status: The default setting is **Visible**. Select **Invisible** if you do not want to broadcast the SSID of your wireless network.

D-Link
DIR-814 HW:V1 FW:2.00

Home | Settings | Features | Management

Wireless

Use this section to configure the wireless settings for your D-Link Router. Please make sure that any changes made in this section will need to be updated on your wireless device.

Settings >> Wireless Guest Zone Save

2.4GHz

Status: Enabled

Wi-Fi Name (SSID):

Password:

[Advanced Settings...](#)

Security Mode:

802.11 Mode:

Wi-Fi Channel:

Transmission Power:

Channel Width:

HT20/40 Coexistence: Enabled

Visibility Status:

[Schedule](#):

5GHz

Status: Enabled

Wi-Fi Name (SSID):

Password:

[Advanced Settings...](#)

Security Mode:

802.11 Mode:

Wi-Fi Channel:

Transmission Power:

Channel Width:

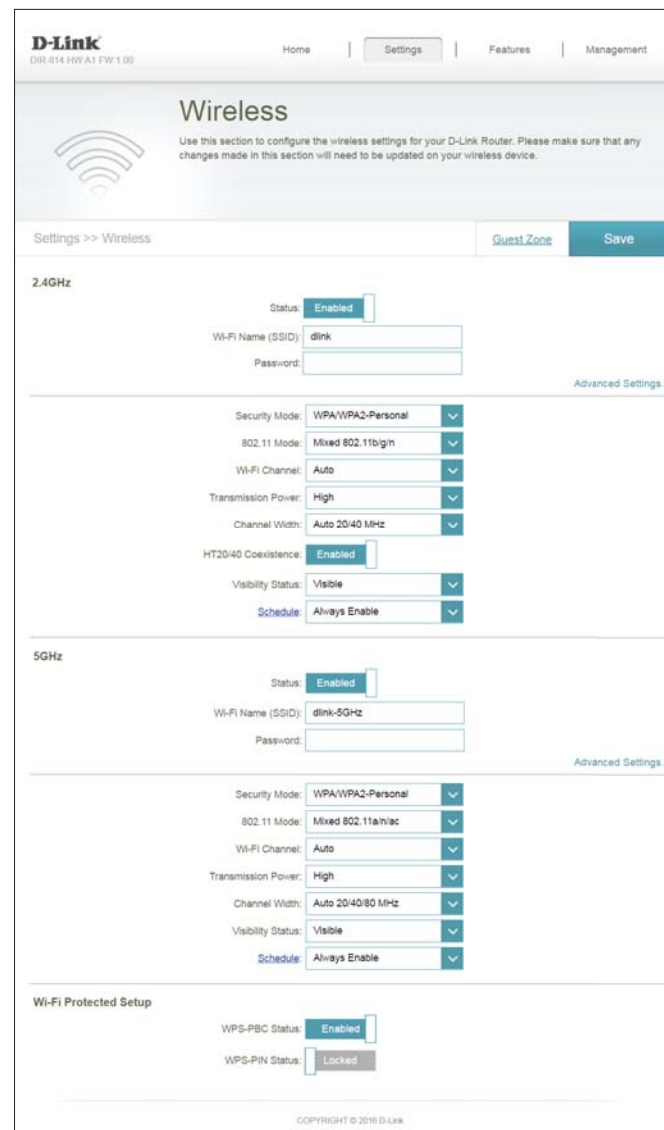
Visibility Status:

[Schedule](#):

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Schedule: Use the drop-down menu to select the time schedule that the rule will be enabled on. The schedule may be set to **Always Enable**, or you can create your own schedules in the **Schedules** section. Refer to page 64 for more information.

Click **Save** when you are done.



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 2.4 GHz and 5 GHz wireless bands.

In the Settings menu on the bar on the top of the page, click **Wireless**, then click the **Guest Zone** link. Click **Advanced Settings...** to expand the list and see all of the options. The following options apply to both the 2.4 GHz and the 5 GHz wireless frequency bands:

Status: Enable or disable the guest zone for each wireless frequency band.

Wi-Fi Name (SSID): Enter a wireless network name (SSID) that is different from your main wireless network.

Password: Create a password to use for wireless security. Wireless clients will need to enter this password to successfully connect to the guest zone.

Internet Access Only: Enabling this option will confine connectivity to the Internet, disallowing guests from accessing other local network devices.

Click **Save** when you are done.

The screenshot shows the D-Link web interface for configuring the Guest Zone. The page title is "Guest Zone" and it includes a navigation bar with "Home", "Settings", "Features", and "Management". Below the title, there is a brief description: "This page lets you enable and configure a Wi-Fi Guest Zone. Users connected to a Guest Zone cannot communicate or detect devices on your home network unless Internet Access Only is disabled under Home Network Access." The page is divided into sections for "2.4GHz" and "5GHz" configurations, and a "Home Network Access" section. Each section has a "Status" dropdown menu (set to "Enabled"), a "Wi-Fi Name (SSID)" text input field, and a "Password" text input field. The "Home Network Access" section has an "Internet Access Only" dropdown menu (set to "Enabled"). A "Save" button is located at the top right of the configuration area. The footer of the page reads "COPYRIGHT © 2015 D-Link".

Network

This section will allow you to change the local network settings of the router and to configure the DHCP settings. In the Settings menu on the bar on the top of the page, click **Network**. Click **Advanced Settings...** to expand the list and see all of the options.

LAN IP Address: Enter the IP address of the router. The default IP address is **192.168.60.1**.

If you change the IP address, once you click **Save**, 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 of the router. The default subnet mask is **255.255.255.0**.

Management Link: The default address to access the router's configuration is **http://dlinkrouter.local/**. Here, you can replace **dlinkrouter** with a name of your choice.

Local Domain Name: Enter the domain name (optional).

Enable DNS Relay: Disable to transfer the DNS server information from your ISP to your computers. If enabled, your computers will use the router for a DNS server.

Status: Enable or disable the DHCP server.

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.

The screenshot displays the D-Link Network configuration interface. At the top, there's a navigation bar with 'Home', 'Settings', 'Features', and 'Management'. The 'Settings' menu is active. Below the navigation bar, the 'Network' section is titled, with a sub-header 'Settings >> Network' and a 'Save' button. The 'Network Settings' section includes:

- LAN IP Address: 192.168.0.1
- Subnet Mask: 255.255.255.0
- Management Link: http://dlinkrouter.local/
- Local Domain Name: (empty field)
- Enable DNS Relay: Enabled

 An 'Advanced Settings...' link is located at the bottom right of this section. The 'DHCP Server' section includes:

- Status: Enabled
- DHCP IP Address Range: 192.168.0.100 to 192.168.0.199
- DHCP Lease Time: 10000 minutes
- Always Broadcast: Disabled (with a note: compatibility for some DHCP Clients)

 The 'Advanced Settings' section includes:

- WAN Port Speed: Auto
- UPnP: Enabled
- IPv4 Multicast Streams: Disabled
- IPv6 Multicast Streams: Enabled

 A copyright notice 'COPYRIGHT © 2015 D-Link' is at the bottom.

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

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

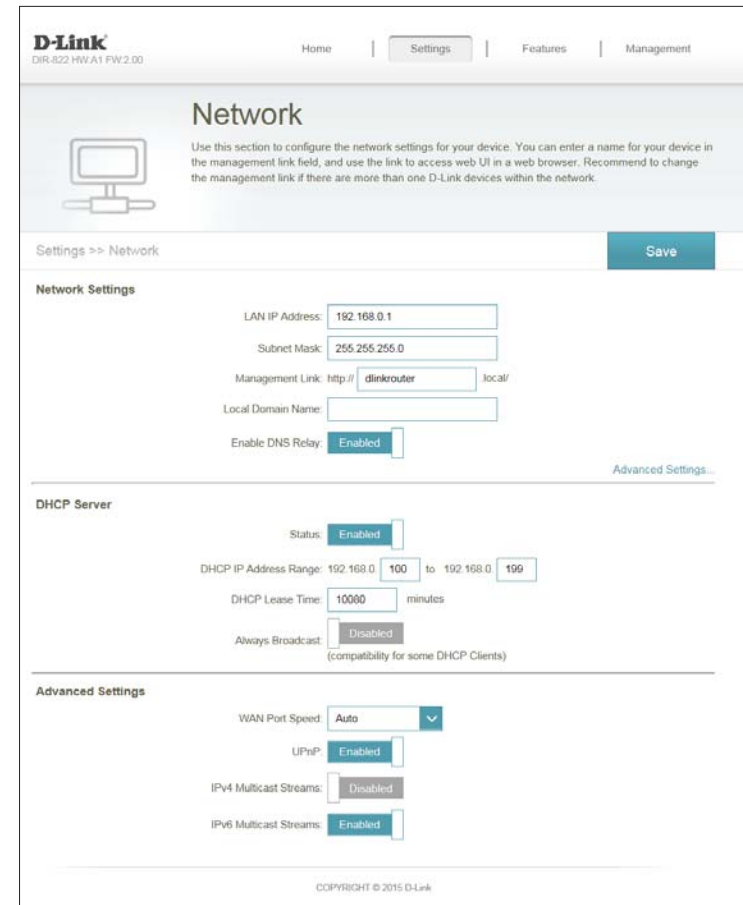
UPnP: Enable or disable Universal Plug and Play (UPnP). UPnP provides compatibility with networking equipment, software and peripherals.

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

IPv4 Multicast Stream: Enable to allow IPv4 multicast traffic to pass through the router from the Internet.

IPv6 Multicast Stream: Enable to allow IPv6 multicast traffic to pass through the router from the Internet.

Click **Save** when you are done.



Features

QoS Engine

This section will allow you to prioritize particular clients over others, so that those clients receive higher bandwidth. For example, if one client is streaming a movie and another is downloading a non-urgent file, you might wish to assign the former device a higher priority than the latter so that the movie streaming is not disrupted by the traffic of the other devices on the network.

In the Features menu on the bar on the top of the page, click **QoS Engine**.

Under All Devices, you will see device cards representing each connected client. If some are off-screen, you can use the < and > buttons to scroll through the cards.

A maximum of **one** device can be assigned **Highest** priority.

A maximum of **two** devices can be assigned **High** priority.

A maximum of **eight** devices can be assigned **Medium** priority.

If no devices are explicitly assigned a priority, they will all be treated with equal priority. If some devices are not assigned a priority and others are, the unassigned devices will be treated with the lowest priority.

To assign a priority level to a device, drag the device card from the All Devices list over an empty slot and release the mouse button. The card will remain in the slot. If you want to remove a priority assignment from a device and return it to the All Devices list, click the cross icon in the top right of the device card.

Click **Save** when you are done.

The screenshot displays the D-Link QoS Engine configuration page. At the top, there is a navigation menu with 'Home', 'Settings', 'Features', and 'Management'. The 'QoS Engine' section is highlighted. Below the navigation, there is a 'Bandwidth' section with a 'Uplink Speed (Mbps)' input field set to '2'. A 'Connected Clients' section follows, showing a scrollable list of device cards. One card is visible, displaying 'Unknown REALTEK SEMICOND. 192.168.0.117'. Below the list, there are three priority boxes: 'Highest' (yellow), 'High' (blue), and 'Medium' (grey). The 'Highest' box contains one device card: '07896PCWin7E UNKNOWN VENDOR 192.168.0.135'. The 'High' box is empty, and the 'Medium' box is empty. A 'Save' button is located at the top right of the configuration area.

Firewall Settings

The router's firewall protects your network from malicious attacks over the Internet. In the Features menu on the bar on the top of the page, click **Firewall Settings**. Click **Advanced Settings...** to expand the list and see all of the options.

Enable DMZ: Enable or disable Demilitarized Zone (DMZ). This completely exposes the client to threats over the Internet, and is not recommended in ordinary situations.

DMZ IP Address: If you enabled DMZ, enter the IP address of the client you wish to expose, or use the drop-down menu to quickly select it.

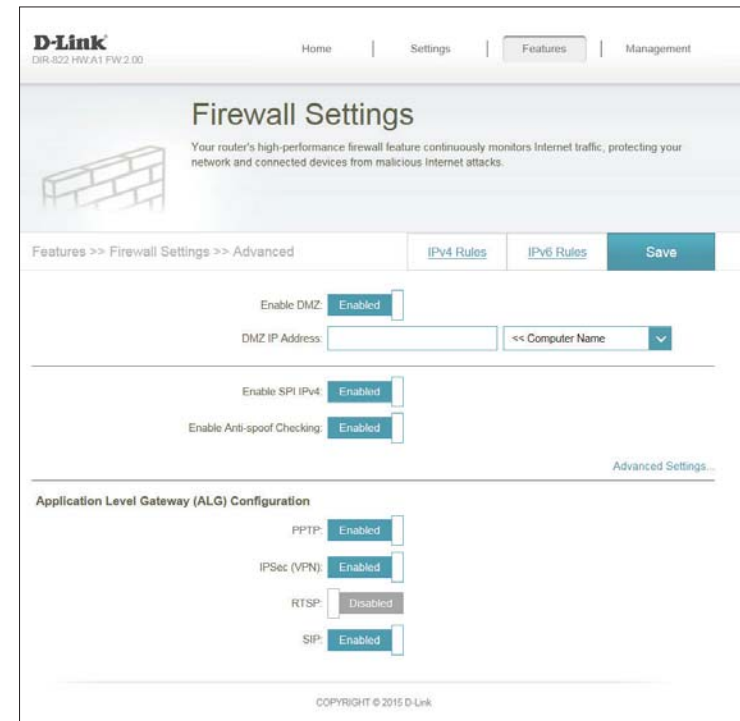
Enable SPI IPv4: Enabling Stateful Packet Inspection (SPI) helps to prevent cyber attacks by validating that the traffic passing through the session conforms to the protocol.

Enable Anti-Spoof Checking: Enable this feature to protect your network from certain kinds of "spoofing" attacks.

IPv6 Simple Security: Enable or disable IPv6 simple security.

IPv6 Ingress Filtering: Enable or disable IPv6 ingress filtering.

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

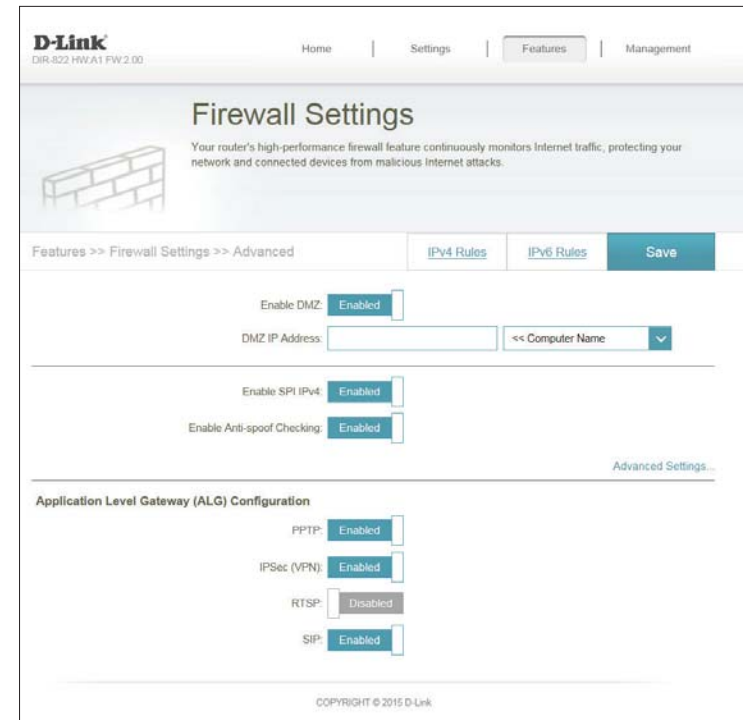


IPSec (VPN): Allows multiple VPN clients to connect to their corporate network using IPSec. Some VPN clients support traversal of IPSec through NAT. This Application Level Gateway (ALG) may interfere with the operation of such VPN clients. If you are having trouble connecting with your corporate network,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

RTSP: Allows applications that uses Real Time Streaming Protocol (RTSP) to receive streaming media from the Internet.

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.

Click **Save** when you are done.



IPv4/IPv6 Rules

The IPv4/IPv6 Rules section is an advanced option that lets you configure what kind of traffic is allowed to pass through the network. To configure the IPv4 rules, from the Firewall Settings page click **IPv4 Rules**. To configure IPv6 rules, from the Firewall Settings page click **IPv6 Rules**. To return to the main Firewall Settings page, click **Security Check**.

To begin, use the drop-down menu to select whether you want to **ALLOW** or **DENY** the rules you create. You can also choose to turn filtering **OFF**.

If you wish to remove a rule, click on its trash can icon in the Delete column. If you wish to edit a rule, click on its pencil icon in the Edit column. If you wish to create a new rule, click the **Add Rules** button. Click **Save** when you are done. If you edit or create a rule, the following options will appear:

Name: Enter a name for the rule.

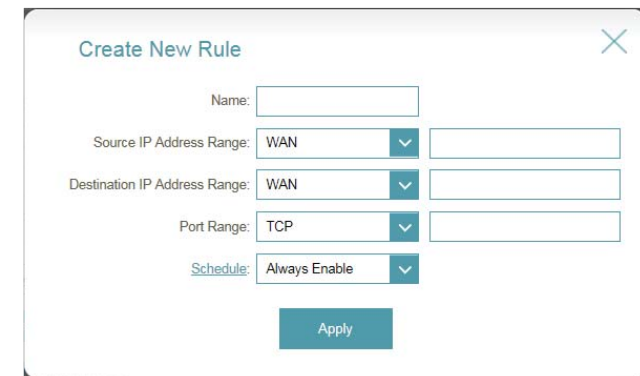
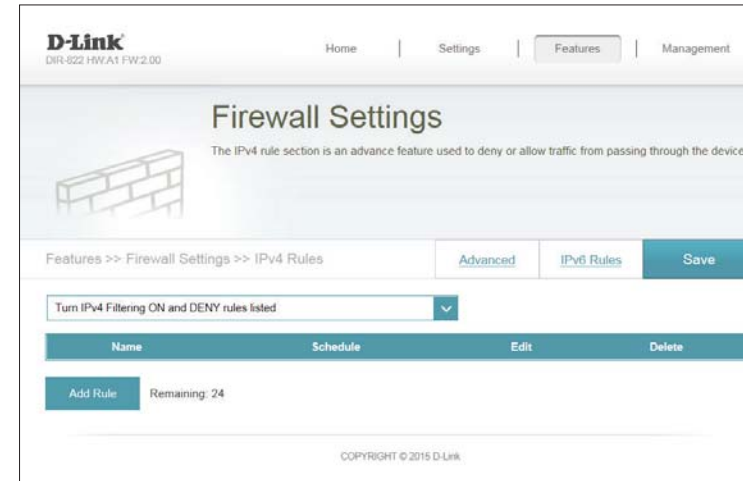
Source IP Address Range: Enter the source IP address range that the rule will apply to, and using the drop-down menu, specify whether it is a **WAN** or **LAN** IP address.

Destination IP Address Range: Enter the destination IP address range that the rule will apply to, and using the drop-down menu, specify whether it is a **WAN** or **LAN** IP address.

Port Range: Select the protocol of the traffic to allow or deny (**Any**, **TCP**, or **UDP**) and then enter the range of ports that the rule will apply to.

Schedule: Use the drop-down menu to select the time schedule that the rule will be enabled on. The schedule may be set to **Always Enable**, or you can create your own schedules in the **Schedules** section. Refer to page 64 for more information.

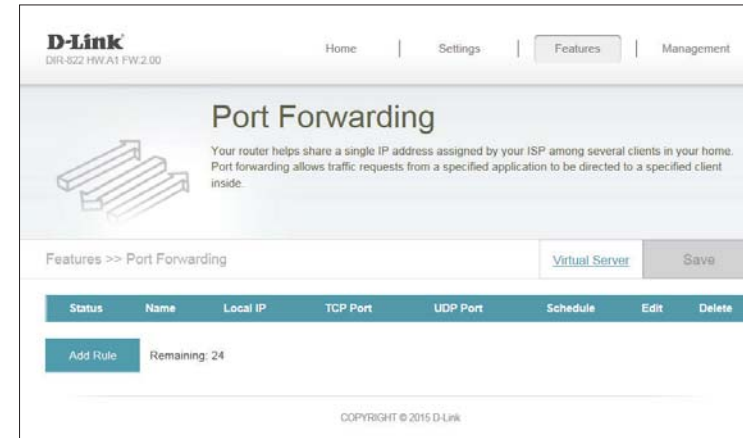
Click **Apply** when you are done.



Port Forwarding

Port forwarding allows you to specify a port or range of ports to open for specific devices on the network. This might be necessary for certain applications to connect through the router. In the Features menu on the bar on the top of the page, click **Port Forwarding**.

If you wish to remove a rule, click on its trash can icon in the Delete column. If you wish to edit a rule, click on its pencil icon in the Edit column. If you wish to create a new rule, click the **Add Rules** button. Click **Save** when you are done. If you edit or create a rule, the following options will appear:



Name: Enter a name for the rule.

Local IP: Enter the IP address of the computer on your local network that you want to allow the incoming service to. Alternatively, select the device from the drop-down menu.

TCP Port: Enter the TCP ports that you want to open. You can enter a single port or a range of ports. Separate ports with a comma (for example: 24,1009,3000-4000).

UDP Port: Enter the UDP ports that you want to open. You can enter a single port or a range of ports. Separate ports with a comma (for example: 24,1009,3000-4000).

Schedule: Use the drop-down menu to select the time schedule that the rule will be enabled on. The schedule may be set to **Always Enable**, or you can create your own schedules in the **Schedules** section. Refer to page 64 for more information.

Click **Apply** when you are done.

Virtual Server

The virtual server allows you to specify a single public port on your router for redirection to an internal LAN IP Address and Private LAN port. To configure the virtual server, from the Port Forwarding page click **Virtual Server**. To return to the main Port Forwarding page, click **Port Forwarding**.

If you wish to remove a rule, click on its trashcan icon in the Delete column. If you wish to edit a rule, click on its pencil icon in the Edit column. If you wish to create a new rule, click the **Add Rules** button. Click **Save** when you are done. If you edit or create a rule, the following options will appear:

Name: Enter a name for the rule.

Local IP: Enter the IP address of the computer on your local network that you want to allow the incoming service to. Alternatively, select the device from the drop-down menu.

Protocol: Select the protocol of the traffic to allow or deny (**TCP**, **UDP**, **Both**, or **Other**).

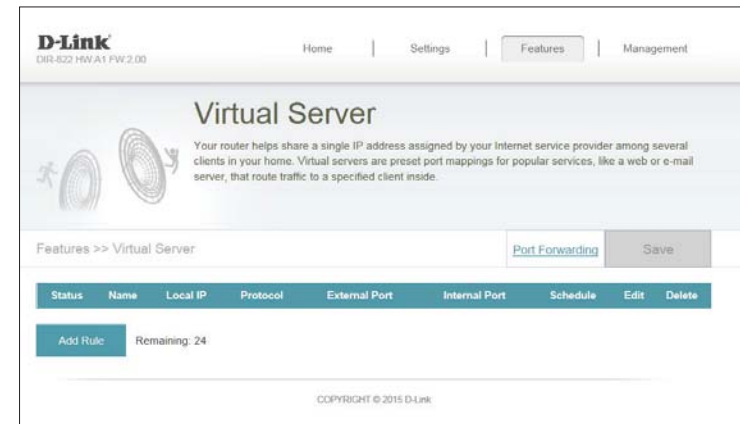
Protocol Number: If you entered **Other** above, enter the protocol number.

External Port: Enter the public port you want to open.

Internal Port: Enter the private port you want to open.

Schedule: Use the drop-down menu to select the time schedule that the rule will be enabled on. The schedule may be set to **Always Enable**, or you can create your own schedules in the **Schedules** section. Refer to page 64 for more information.

Click **Apply** when you are done.



Website Filter

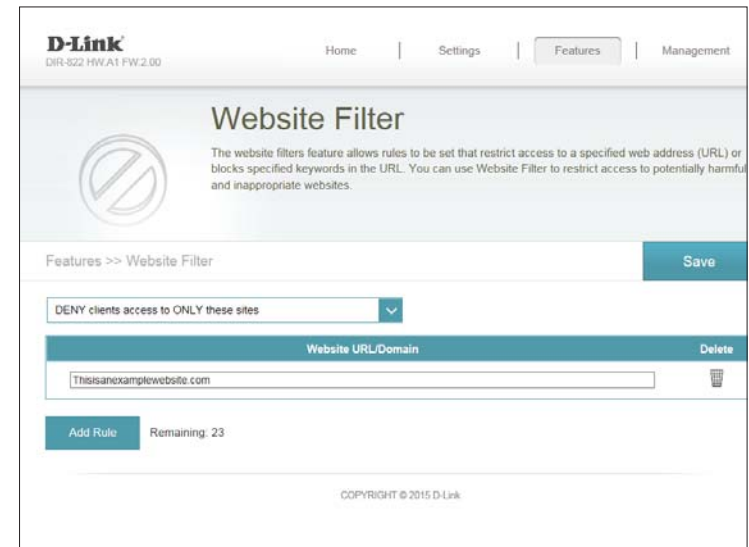
The website filter settings allow you to block access to certain web sites. You can either create a list of sites to block, or create a list of sites to allow (with all other sites being blocked).

In the Features menu on the bar on the top of the page, click **Website Filter**.

If you want to create a list of sites to block, select **DENY computers access to ONLY these sites** from the drop-down menu. All other sites will be accessible. If you want to specify a list of sites to allow, select **ALLOW computers access to ONLY these sites** from the drop-down menu. All other sites will be blocked.

You may specify a maximum of fifteen web sites. To add a new site to the list, click **Create New Rule**. Next, under Website URL/Domain enter the URL or domain. If you wish to remove a rule, click on its trashcan icon in the Delete column. If you wish to edit a rule, simply replace the URL or domain.

Click **Save** when you are done.



Static Routes

The Static Routes section allows you to define custom routes to control how data traffic is moved around your network.

In the Features menu on the bar on the top of the page, click **Static Routes**. To configure IPv6 rules, click **IPv6** and refer to page 60. To return to the main IPv4 static routes page, click **IPv4**.

If you wish to remove a rule, click on its trash can icon in the Delete column. If you wish to edit a rule, click on its pencil icon in the Edit column. If you wish to create a new rule, click the **Add Rules** button. Click **Save** when you are done. If you edit or create a rule, the following options will appear:

Name: Enter a name for the rule.

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

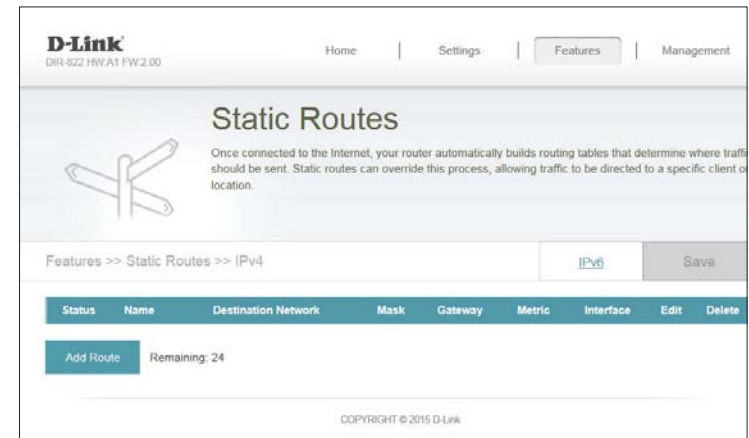
Mask: Enter the netmask of the route.

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.

Click **Apply** when you are done.



IPv6

To configure IPv6 rules, on the Static Routes page click **IPv6**. To return to the main IPv4 static routes page, click **IPv4**.

If you wish to remove a rule, click on its trash can icon in the Delete column. If you wish to edit a rule, click on its pencil icon in the Edit column. If you wish to create a new rule, click the **Add Rules** button. Click **Save** when you are done. If you edit or create a rule, the following options will appear:

Name: Enter a name for the rule.

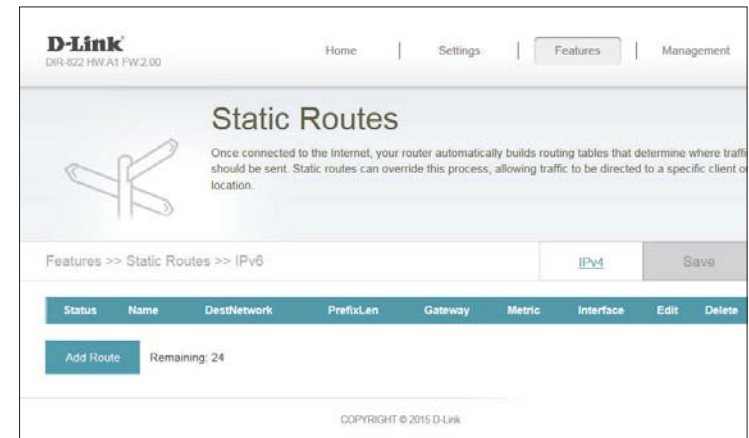
DestNetwork: This is the IP address of the router used to reach the specified destination.

PrefixLen: Enter the IPv6 address prefix length of the packets that will take this route.

Metric: Enter the metric value for this rule here.

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

Click **Apply** when you are done.



Dynamic DNS

Most Internet Service Providers (ISPs) assign dynamic (changing) IP addresses. Using a dynamic DNS service provider, people can enter your domain name in their web browser to connect to your server no matter what your IP address is.

In the Features menu on the bar on the top of the page, click **Dynamic DNS**.

Enable Dynamic DNS: Enabling dynamic DNS will reveal further configuration options.

Status: Displays the current dynamic DNS connection status.

Server Address: Enter the address of your dynamic DNS server, or select one from the drop-down menu.

Host Name: Enter the host name that you registered with your dynamic DNS service provider.

User Name: Enter your dynamic DNS username.

Password: Enter your dynamic DNS password.

Time Out: Enter a timeout time (in hours).

Click **Save** when you are done.

At the bottom of the page are the IPv6 host settings. To configure an IPv6 dynamic DNS host, refer to page 62.

The screenshot shows the D-Link Dynamic DNS configuration interface. At the top, there is a navigation bar with 'Home', 'Settings', 'Features', and 'Management'. The main heading is 'Dynamic DNS' with a sub-heading: 'Dynamic Domain Name Service allows your router to associate an easy-to-remember domain name such as [YourDomainName].com with the regularly changing IP address assigned by your Internet Service provider. This feature is helpful when running a virtual server.'

Below the heading, there is a 'Features >> Dynamic DNS' breadcrumb and a 'Save' button. The configuration options are as follows:

- Enable Dynamic DNS: Enabled
- Status: Disconnected
- Server Address: (dropdown menu)
- Host Name:
- User Name:
- Password:
- Time Out: hours

At the bottom, there is a table with columns: Status, Host Name, IPv6 Address, Edit, and Delete. Below the table is an 'Add Record' button and 'Remaining: 10'. The footer contains 'COPYRIGHT © 2015 D-Link'.

IPv6 Host

The IPv6 host settings are found at the bottom of the Dynamic DNS page.

If you wish to remove a rule, click on its trash can icon in the Delete column. If you wish to edit a rule, click on its pencil icon in the Edit column. If you wish to create a new rule, click the **Add Rules** button. Click **Save** when you are done. If you edit or create a rule, the following options will appear:

Host Name: Enter the host name that you registered with your dynamic DNS service provider.

IPv6 Address: Enter the IPv6 address of the dynamic DNS server. Alternatively, select the server device in the drop-down menu.

Click **Apply** when you are done.

Status	Host Name	IPv6 Address	Edit	Delete
Add Record	Remaining: 10			

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✕

Create New Record

Host Name:

IPv6 Address: << Computer Name ▼

Apply

Management

Time & Schedule

Time

The Time page allows you to configure, update, and maintain the correct time on the internal system clock. From here you can set the time zone, the Network Time Protocol (NTP) server, and enable or disable daylight saving time.

In the Management menu on the bar on the top of the page, click **Time & Schedule**.

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

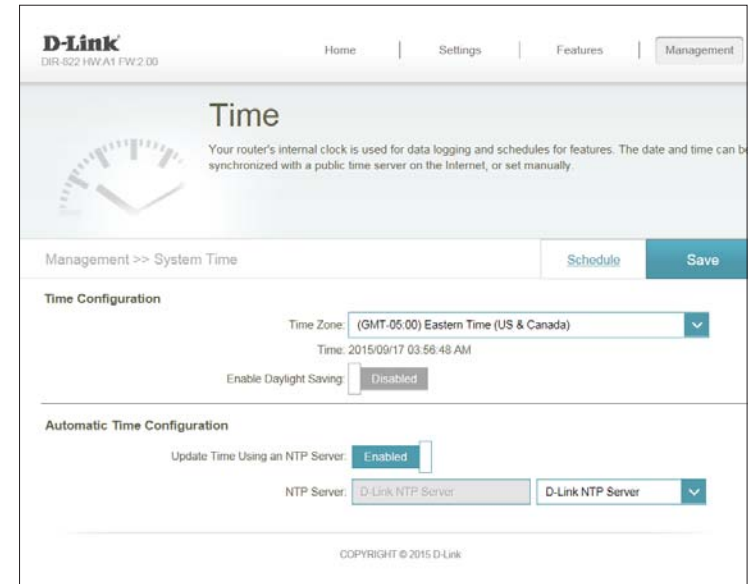
Time: Displays the current date and time of the router.

Daylight Saving: Enable or disable daylight saving time.

Update Time Using an NTP Server: Enable or disable to allow an NTP server on the Internet to synchronize the time and date with your router. If you enable this option, select an NTP server from the drop-down menu. To configure the router's time and date manually, disable this option and use the drop-down menus that appear to input the time and date.

Click **Save** when you are done.

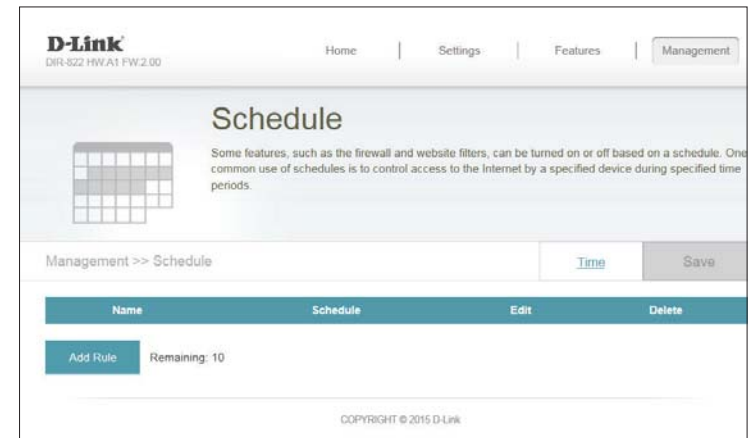
To configure and manage your schedules, click **Schedule** and refer to page 64.



Schedule

Some configuration rules can be set according to a pre-configured schedule. To create, edit, or delete schedules, from the Time page click **Schedule**. To return to the Time page, click **Time**.

If you wish to remove a rule, click on its trash can icon in the Delete column. If you wish to edit a rule, click on its pencil icon in the Edit column. If you wish to create a new rule, click the **Add Rules** button. Click **Save** when you are done. If you edit or create a rule, the following screen will appear:

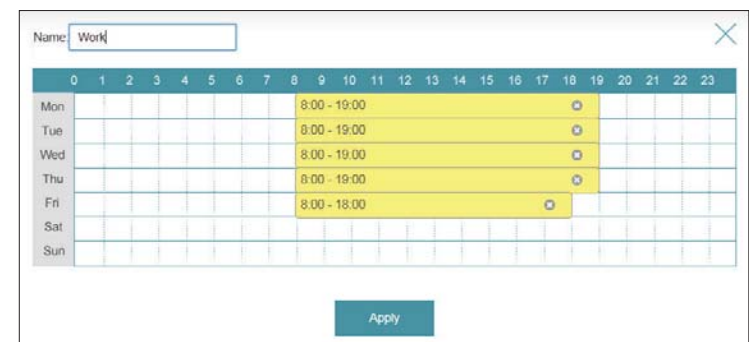
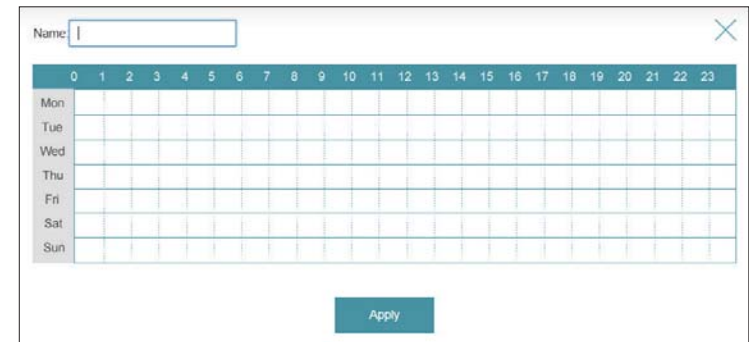


First, enter the name of your schedule in the **Name** field.

Each box represents one hour, with the time at the top of each column. To add a time period to the schedule, simply click on the start hour and drag to the end hour. You can add multiple days to the schedule, but only one period per day.

To remove a time period from the schedule, click on the cross icon.

Click **Apply** when you are done.



System Log

The router keeps a running log of events. This log can be sent to a Syslog server, and sent to your email address. In the Management menu on the bar on the top of the page, click **System Log**.

Enable Logging to Syslog Server: Check this box to send the router logs to a SysLog Server. If this is disabled, there will be no other options on this page.

Syslog Server IP Address: Enter the IP address for the Syslog server. If the Syslog server is connected to the router, select it from the drop-down menu to automatically populate the field.

Enable Email Notification: If you want the logs to be automatically sent to an email address, enable this option.

Enter the settings for your email account. These are obtained from your email service provider.

Send When Log Full: If email notification is enabled, this option will set the router to send the log by email when the log is fully.

Send On Schedule: This option can be enabled to send an email according to a preconfigured schedule. See below.

Schedule: If you enable **On Schedule** is enabled, use the drop-down menu to select the time schedule that the rule will be enabled on. The schedule may be set to **Always Enable**, or you can create your own schedules in the **Schedules** section. Refer to page 64 for more information.

Click **Save** when you are done.

D-Link
DIR-822 HW v1 FW 2.00

Home | Settings | Features | Management

System Log

On-board diagnostics run continually in the background to monitor the health of your router. The results are recorded in the system log if it is enabled. This info can be used to diagnose common problems or help Customer Support resolve issues more quickly.

Management >> System Log Save

SysLog Settings

Enable Logging to Syslog Server:

SysLog Server IP Address: << Computer Name

E-mail Settings

Enable E-mail Notification:

From E-mail Address:

To E-mail Address:

SMTP Server Address:

SMTP Server Port:

Enable Authentication:

Account Name:

Password:

E-mail Log When Full or On Schedule

Send When Log Full:

Send on Schedule:

Schedule:

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Admin

This page will allow you to change the administrator (Admin) password and enable remote management.

In the Management menu on the bar on the top of the page, click **Admin**.

Password: Enter a new password for the administrator account. You will need to enter this password whenever you configure the router using a web browser.

Enable Graphical Authentication (CAPTCHA): 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. Instead of using **http://dlinkrouter.local/**, you must use **https://dlinkrouter.local/** in order to connect to the router.

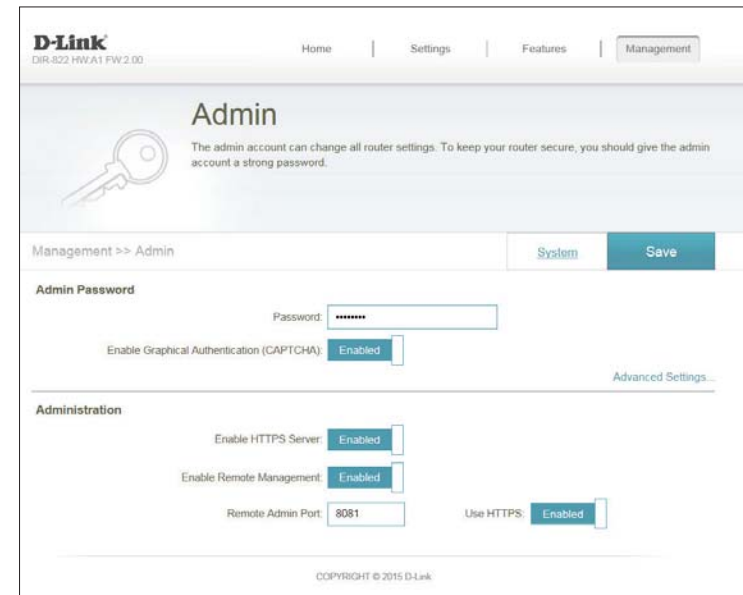
Enable Remote Management: Remote management allows the DIR-814 to be configured from the Internet by a web browser. A password is still required to access the web management interface.

Remote Admin Port: The port number used to access the DIR-814 is used in the URL. Example: **http://x.x.x.x:8080** where x.x.x.x is the Internet IP address of the DIR-814 and 8080 is the port used for the web management interface.

Note: If you enabled **HTTPS Server** and wish to access the router remotely and securely, you must enter **https://** at the beginning of the address.

Click **Save** when you are done.

To load, save, or reset settings, or reboot the router, click **System** and refer to page 67.



System

This page allows you to save the router's current configuration, load a previously saved configuration, reset the router to its factory default settings, or reboot the router.

From the Admin page, click **System**. To return to the Admin page, click **Admin**.

Save Settings To Local Hard Drive: This option will save the current router configuration settings to a file on your computer.

Load Settings From Local Hard Drive: This option will load a previously saved router configuration file. This will overwrite the router's current configuration.

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 Settings To Local Hard Drive** button above.

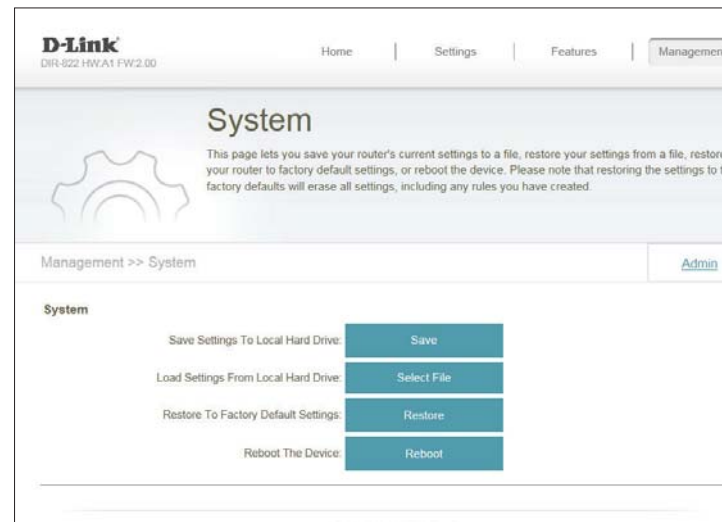
Reboot The Device: Click to reboot the router immediately.

Auto Reboot: You may select **Never**, **Daily**, or **Weekly**.

Day of the week: Choose the day of the week to automatically reboot the router.

Time: Choose the time of day to automatically reboot the router.

Click **Save** when you are done.



Upgrade

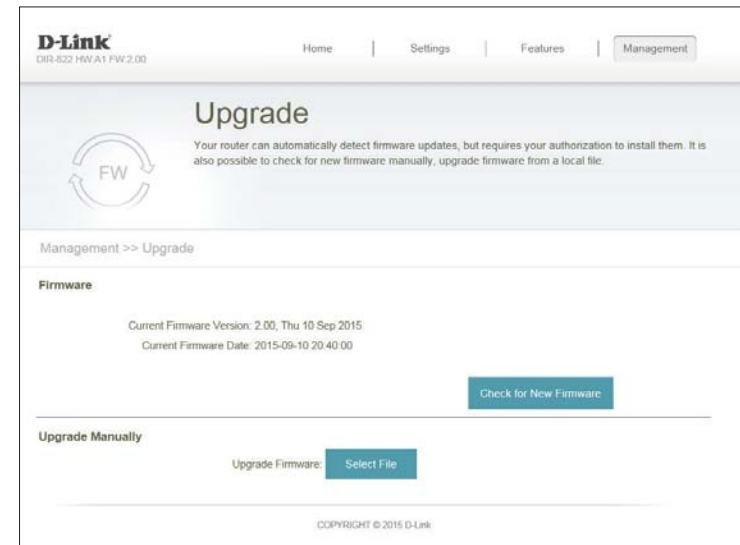
This page will allow you to upgrade the router's firmware or language pack, either automatically or manually. To manually upgrade the firmware or language pack, you must first download the relevant file from <http://support.dlink.com>.

In the Management menu on the bar on the top of the page, click **Upgrade**.

Firmware Information: The current firmware's version and date will be displayed.

Check for New Firmware: Click this button to prompt the router to automatically check for a new firmware version. If a newer version is found, it will prompt you to install it.

Upgrade Firmware: If you wish to upgrade manually, first download the firmware file you wish to upgrade to. Next, click the **Upgrade Firmware** button and browse to the file to install the new firmware. You can also browse to a language pack file to install a new language pack.



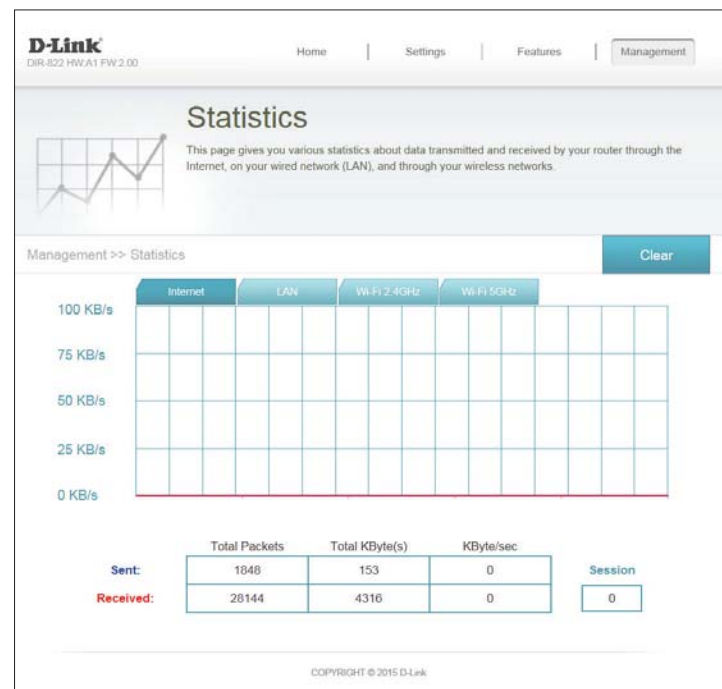
Statistics

On the Statistics page you can view the amount of packets that pass through the router on the WAN, LAN, and wireless segments.

In the Management menu on the bar on the top of the page, click **Statistics**.

You can view the **Internet**, **LAN**, **Wi-Fi 2.4 GHz**, or **Wi-Fi 5 GHz** by clicking on the respective tabs at the top. The graph will update in real time. To clear the information on the graph, click **Clear**.

The traffic counter will reset if the device is rebooted.



Connect a Wireless Client to your Router

WPS Button

The easiest and most secure way to connect your wireless devices to the router is with 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-814 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-814 for about 1 second. The Internet LED on the front will start to blink.



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

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

Windows® 8

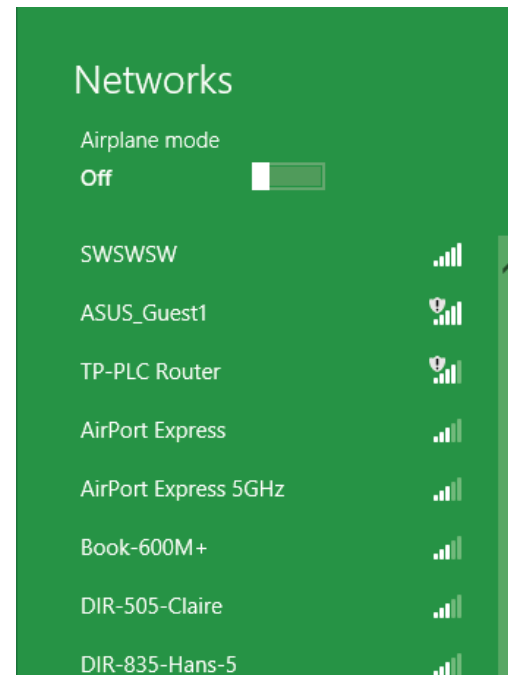
WPA/WPA2

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

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



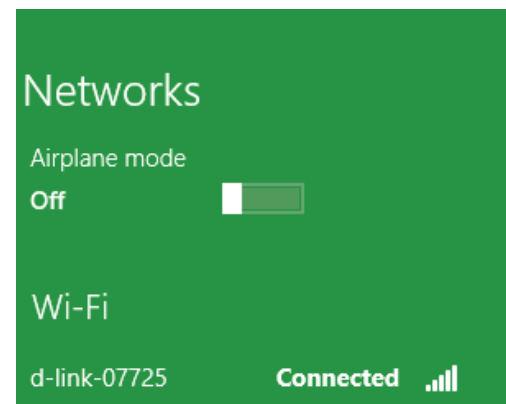
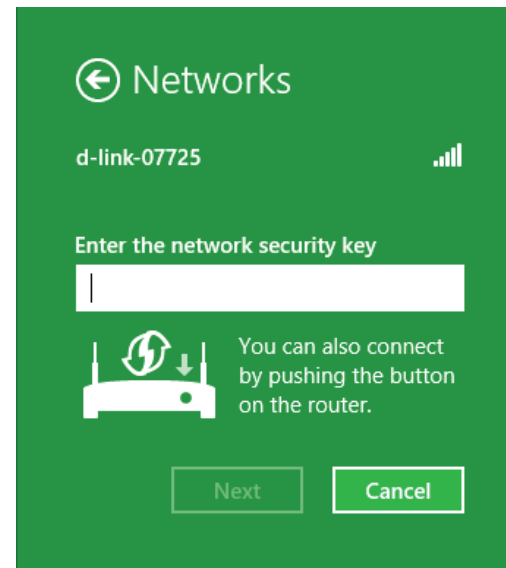
Clicking on this icon will display a list of wireless networks that are within connecting proximity of your computer. Select the desired network by clicking on the network name.



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

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

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



Windows® 7

WPA/WPA2

It is recommended that you 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.

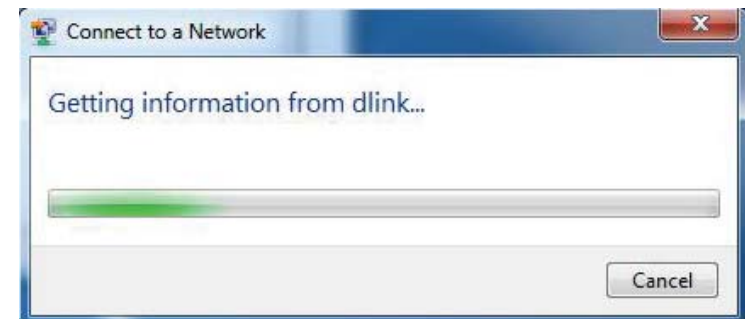


3. Highlight the wireless connection with Wi-Fi name (SSID) you would like to connect to and click the **Connect** button.

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.

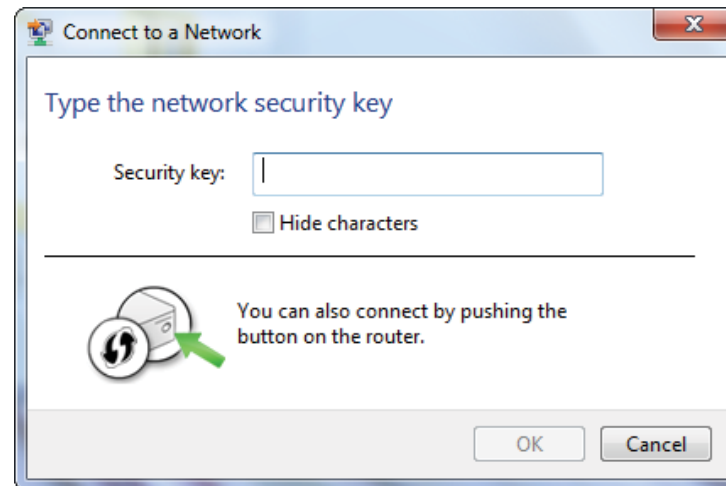


4. The following window appears while your computer tries to connect to the router.



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

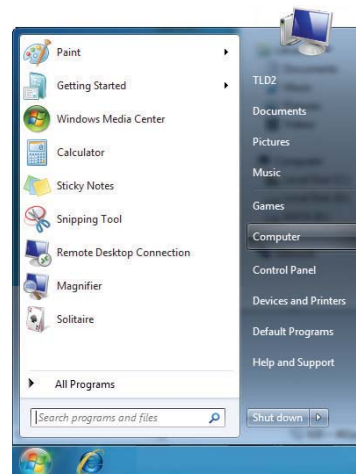
It may take 20-30 seconds to connect to the wireless network. If the connection fails, please verify that the security settings are correct. The key or passphrase must be exactly the same as the one on the wireless router.



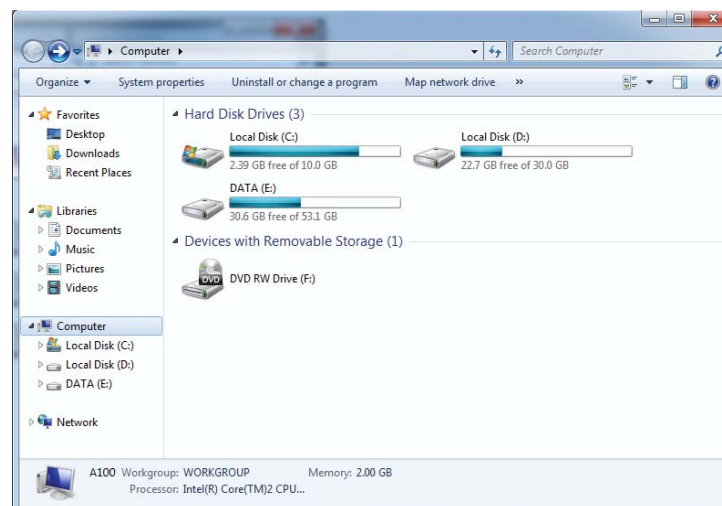
WPS

The WPS feature of the DIR-814 can be configured using Windows® 7. Carry out the following steps to use Windows® 7 to configure the WPS feature:

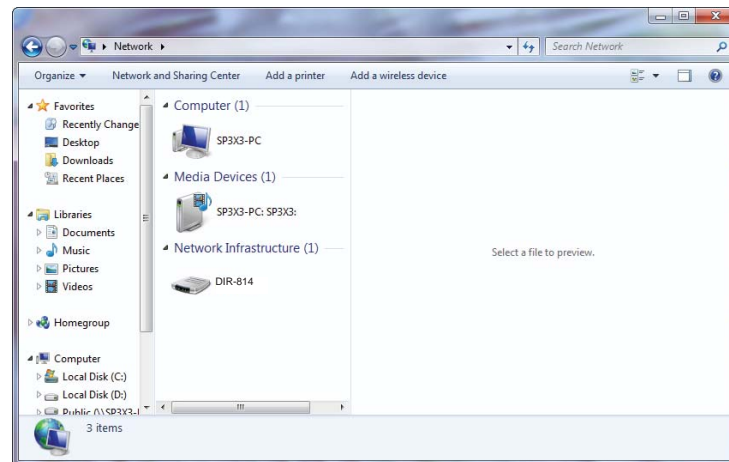
1. Click the **Start** button and select **Computer** from the Start menu.



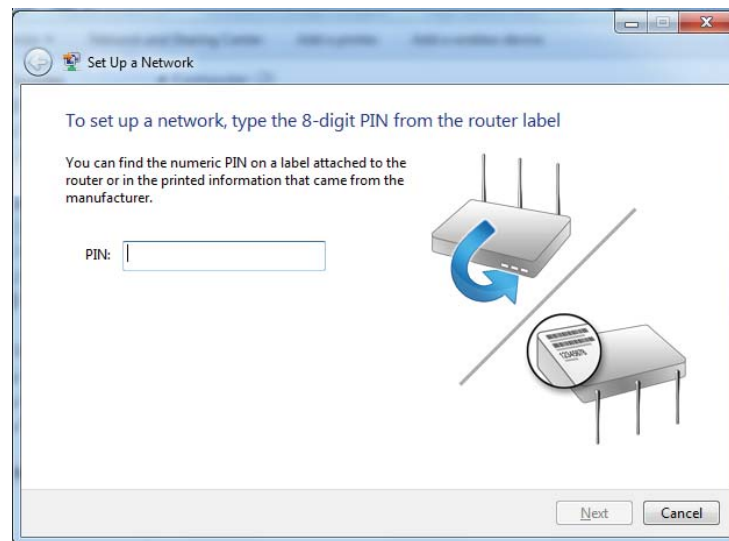
2. Click **Network** on the left side.



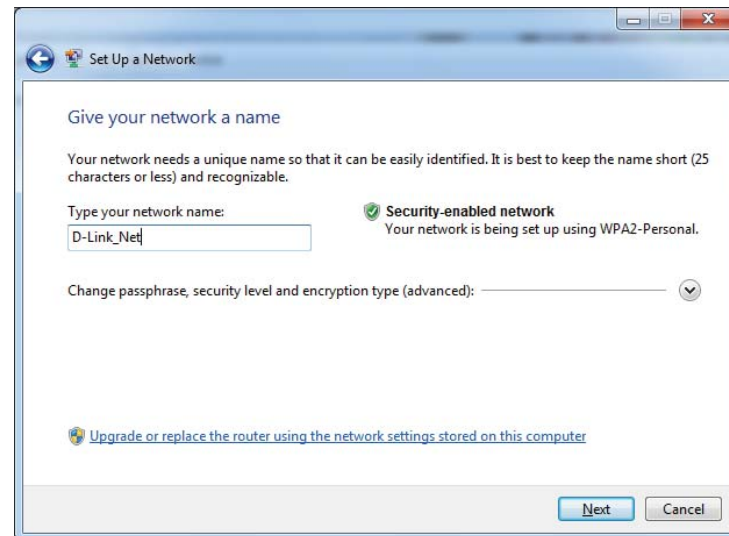
3. Double-click the DIR-814.




4. Input the WPS PIN number (on the router label) in the **Setup > Wireless Setup** menu in the Router's Web UI and click **Next**.

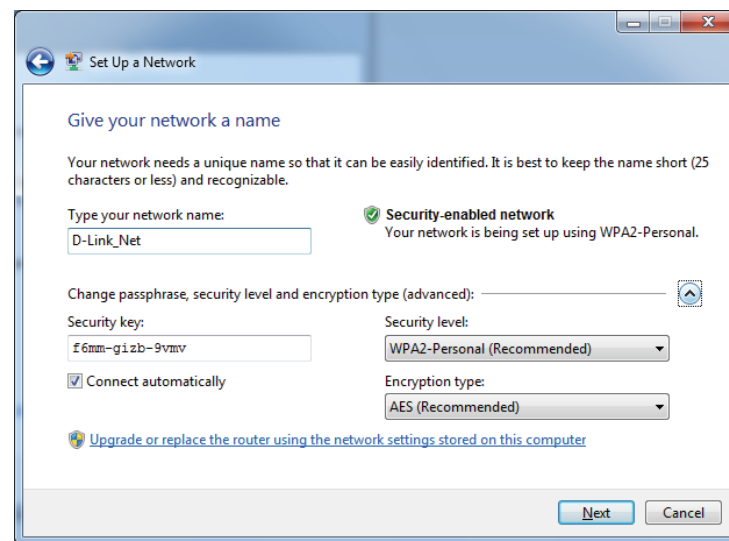


5. Type a name to identify the network.



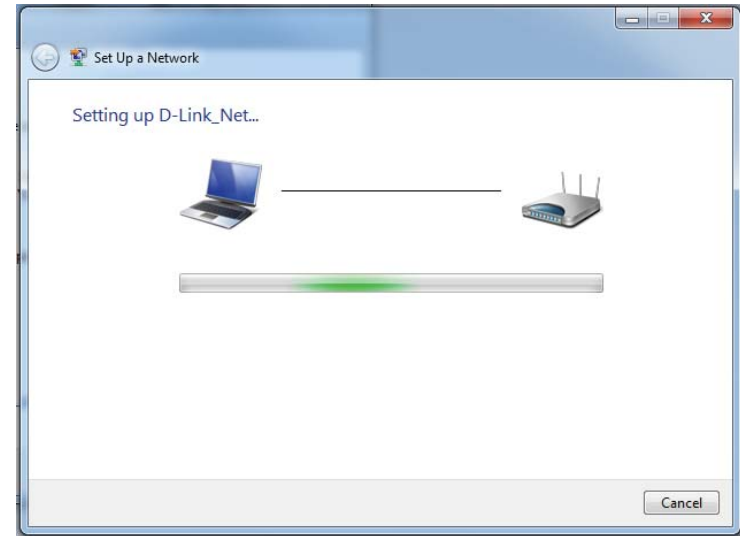
6. To configure advanced settings, click the  icon.

Click **Next** to continue.



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

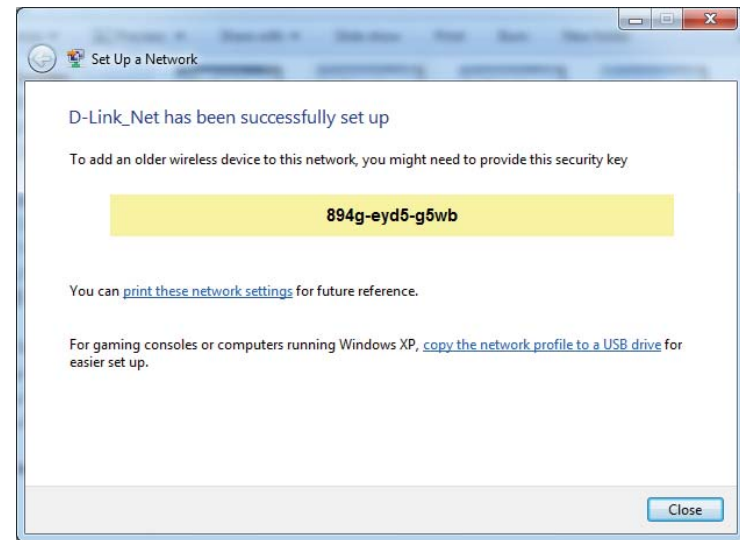
Wait for the configuration to complete.



8. The following window informs you that WPS on the router has been set up 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 wireless utility, please refer to the user manual of your wireless adapter for help connecting to a wireless network. Most wireless 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.

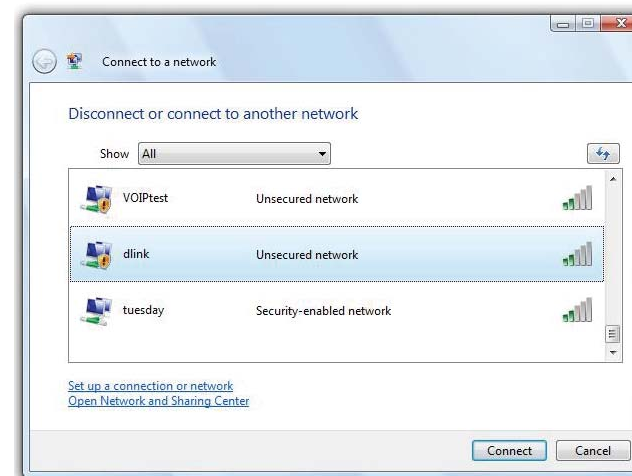
or

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.



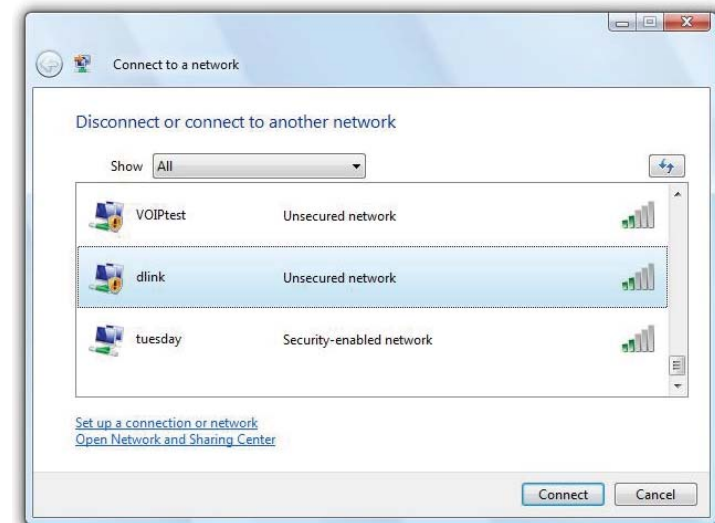
WPA/WPA2

It is recommended that you 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**.

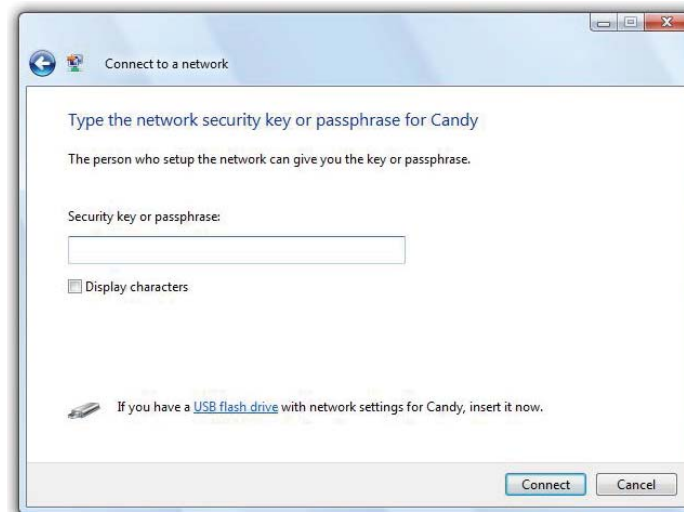


2. Highlight the Wi-Fi name (SSID) you would like to connect to and click **Connect**.



3. Enter the same security key or passphrase (Wi-Fi password) 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 the one on the wireless 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.

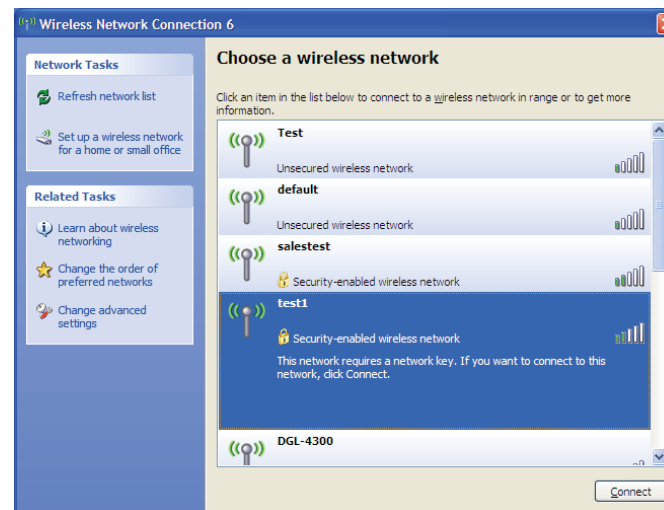
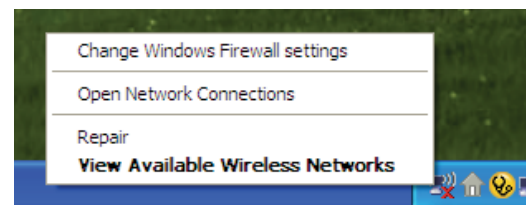
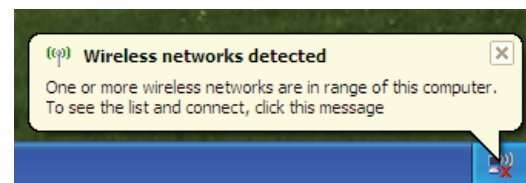
If you receive the **Wireless Networks Detected** bubble, click on the center of the bubble to access the utility.

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 Wi-Fi network (displayed using the SSID) and click the **Connect** button.

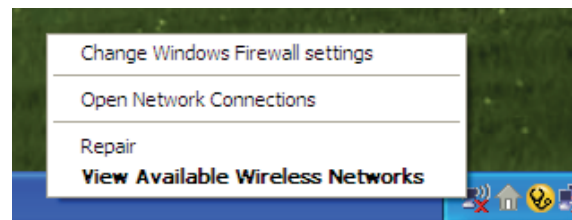
If you get a good signal but cannot access the Internet, check your TCP/IP settings for your wireless adapter. Refer to the **Networking Basics** section in this manual for more information.



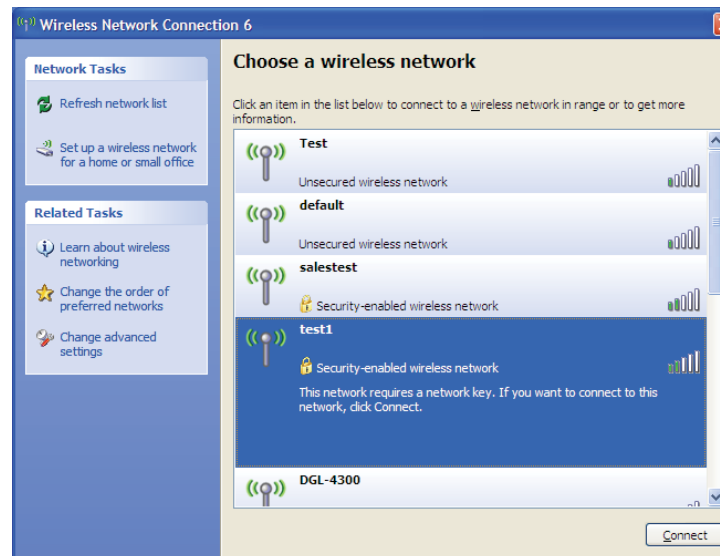
WPA/WPA2

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**.

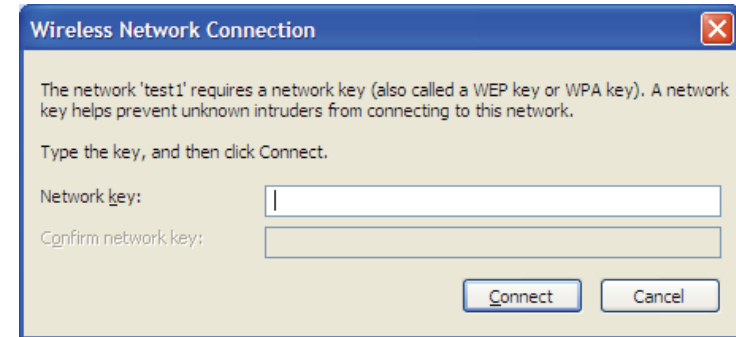


2. Highlight the Wi-Fi network (SSID) you would like to connect to and click **Connect**.



3. The **Wireless Network Connection** box will appear. Enter the WPA-PSK Wi-Fi password 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 Wi-Fi password 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-814. 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 these examples.

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

When entering the IP address of the D-Link router (**192.168.60.1** 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:
 - Internet Explorer 11 or higher
 - Firefox 20 or higher
 - Safari 7 or higher
 - Chrome 25 or higher
- Verify physical connectivity by checking for solid link lights on the device. If you do not get a solid link light, try using a different cable, or connect to a different port on the device if possible. If the computer is turned off, the link light may not be on.
- Disable any Internet security software running on the computer. Software firewalls such as ZoneAlarm, BLACKICE, Sygate, Norton Personal Firewall, and Windows® XP firewall may block access to the configuration pages. Check the help files included with your firewall software for more information on disabling or configuring it.

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

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

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

To reset the router, locate the reset button (hole) on the bottom 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 **192.168.60.1**. When logging in, 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 (192.168.60.1) 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 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 similarly to how cordless phones work, through radio signals that 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 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, university 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. This 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 Uses/Benefits

- 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 Uses/Benefits

- 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 the 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 the 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-814 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

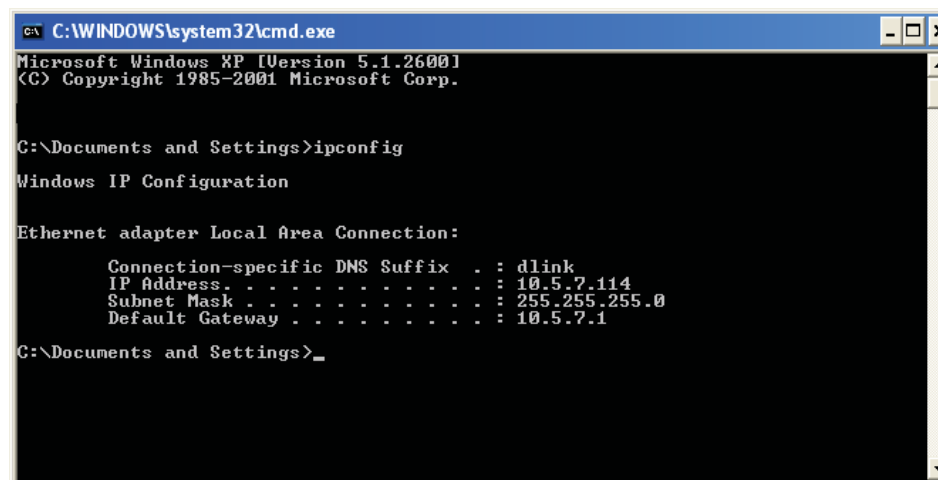
After you install your new D-Link adapter, by default, the TCP/IP settings should be set to obtain an IP address from a DHCP server (i.e. wireless router) automatically. To verify your IP address, please follow the steps below.

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

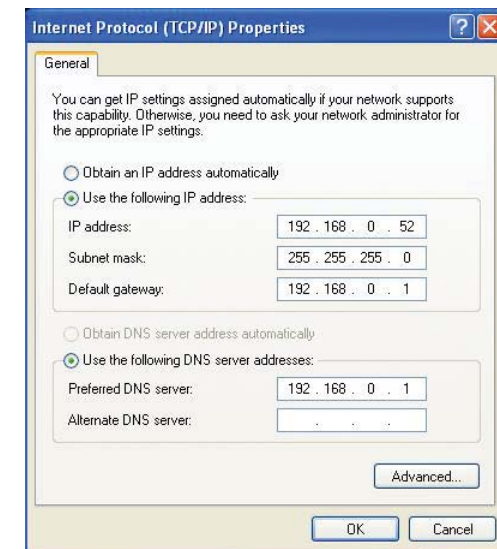
Click **Use the following IP address** and enter an IP address that is on the same subnet as your network or the LAN IP address on your router.

Example: If the router's LAN IP address is 192.168.60.1, 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. 192.168.60.1).

Set Primary DNS the same as the LAN IP address of your router (192.168.60.1). 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.



Wireless Security

This section will show you the different levels of security you can use to protect your data from intruders. The DIR-814 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.

Technical Specifications

Hardware Specifications

- LAN Interface: Four 10/100 Mbps LAN ports
- WAN Interface: One 10/100 Mbps Internet port
- Wireless Interface (2.4 GHz): IEEE 802.11b/g/n
- Wireless Interface (5 GHz): IEEE 802.11 ac/n/a

Operating Voltage

- Input: 100~240 V AC, 50~60 Hz
- Output: 12V DC, 1.5A

Temperature

- Operating: 32 ~ 104 °F (0 ~ 40 °C)
- Non-Operating: -4 ~ 149 °F (-20 ~ 65 °C)

Humidity

- Operating: 10% - 90% non-condensing
- Non-Operating: 5% - 95% non-condensing

Wireless Frequency Range

- IEEE 802.11a: 5150 MHz~5250 MHz, 5725 MHz~5850 MHz
- IEEE 802.11b: 2412 MHz~2462 MHz
- IEEE 802.11g: 2412 MHz~2462 MHz
- IEEE 802.11n: 2412 MHz~2462 MHz, 5150 MHz~5250 MHz, 5725 MHz~5850 MHz
- IEEE 802.11ac: 5150 MHz~5250 MHz, 5725 MHz~5850 MHz

Wireless Bandwidth Rate

- IEEE 802.11a: 54, 48, 36, 24, 18, 12, 9, and 6 Mbps
- IEEE 802.11b: 11, 5.5, 2, and 1 Mbps

- IEEE 802.11g: 54, 48, 36, 24, 18, 12, 9, and 6 Mbps
- IEEE 802.11n: 6.5 to 300 Mbps
- IEEE 802.11ac: 6.5 to 433 Mbps

Antenna Type

- Three external antennas

Wireless Security

- 64/128bit WEP, WPA/WPA2-Personal, WPS-PBC

Certifications

- BSMI
- NCC
- FCC
- D-Link Green

Dimensions & Weight

- 189.95 x 149.75 x 38.11 mm (7.48 x 5.90 x 1.50 inches)
- 227.8 grams (8.03 ounces)

Safety Statements

Federal Communication Commission Interference Statement

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

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

Non-modifications Statement:

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

Caution:

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.

This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter except in accordance with FCC multi-transmitter product procedures. For product available in the USA/Canada market, only channel 1~11 can be operated. Selection of other channels is not possible.

Note

The country code selection is for non-USA models only and is not available to all USA models. Per FCC regulations, all WiFi product marketed in the USA must be fixed to USA operational channels only.

RF Frequency Requirements

This device is for indoor use only when using all channels in the 5.150 to 5.250 GHz frequency range. High power radars are allocated as primary users of the 5.150 to 5.250 GHz bands. These radar stations can cause interference with and/or damage this device.

It is restricted to indoor environments 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 20 cm between the radiator and your body.

NCC 警語：

以下警語適用台灣地區

本產品符合低功率電波輻射性電機管理辦法：

第十二條

經形式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。

第十四條

低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。

前項合法通信，指依電信規定作業之無線電信。低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

無線傳輸設備 (UNII)

無線資訊傳輸設備忍受合法通信之干擾且不得干擾合法通信；如造成干擾，應立即停用，俟無干擾之虞，始得繼續使用。無線資訊傳設備的製造廠商應確保頻率穩定性，如依製造廠商使用手冊上所述正常操作，發射的信號應維持於操作頻帶中。

電磁波曝露量MPE標準值(MPE) 1 mW/cm^2 ，送測產品實值為 0.62656 mW/cm^2

Safety Instructions

Please adhere to the following safety guidelines to help ensure your own personal safety and protect your system from potential damage. Any acts taken that are inconsistent with ordinary use of the product, including improper testing, etc., and those not expressly approved by D-Link may result in the loss of product warranty.

Unless expressly approved by an authorized representative of D-Link in writing, you may not and may not permit others to:

- Disassemble or reverse engineer the device or attempt to derive source code (underlying ideas, algorithms, or structure) from the device or from any other information provided by D-Link, except to the extent that this restriction is expressly prohibited by local law.
- Modify or alter the device.
- Remove from the device any product identification or other notices, including copyright notices and patent markings, if any.

To reduce the risk of bodily injury, electrical shock, fire, and damage to the device and other equipment, observe the following precautions:

Power Sources

- Observe and follow service markings.
- Do not push any objects into the openings of your device unless consistent with the authorized operation of the device. Doing so can cause a fire or an electrical shock by shorting out interior components.
- The powering of this device must adhere to the power specifications indicated for this product.
- Do not overload wall outlets and/or extension cords as this will increase the risk of fire or electrical shock.
- Do not rest anything on the power cord or on the device (unless the device is made and expressly approved as suitable for stacking).
- Position system cables and power cables carefully; route cables so that they cannot be stepped on or tripped over. Be sure that nothing rests on any cables.
- Operate the device only from the type of external power source indicated on the electrical ratings label.
- To help avoid damaging your device, be sure the voltage selection switch (if provided) on the power supply is set to match the power available at your location.
- Also be sure that attached devices are electrically rated to operate with the power available in your location.

- Use only approved power cable(s). If you have not been provided a power cable for your device or for any AC -powered option intended for your device, purchase a power cable that is approved for use in your country and is suitable for use with your device. The power cable must be rated for the device and for the voltage and current marked on the device's electrical ratings label. The voltage and current rating of the cable should be greater than the ratings marked on the device.
- To help prevent an electrical shock, plug the device and peripheral power cables into properly grounded electrical outlets. These cables are equipped with three-prong plugs to help ensure proper grounding. Do not use adapter plugs or remove the grounding prong from a cable. If you must use an extension cable, use a 3-wire cable with properly grounded plugs.
- Observe extension cable and power strip ratings. Ensure that the total ampere rating of all products plugged into the extension cable or power strip does not exceed 80 percent of the ampere ratings limit for the extension cable or power strip.
- To help protect your device from sudden, transient increases and decreases in electrical power, use a surge suppressor, line conditioner, or uninterruptible power supply (UPS).
- Do not modify power cables or plugs. Consult a licensed electrician or your power company for site modifications. Always follow your local/national wiring rules.
- When connecting or disconnecting power to hot-pluggable power supplies, if offered with your device, observe the following guidelines.
- Install the power supply before connecting the power cable to the power supply.
- Unplug the power cable before removing the power supply.
- If the system has multiple sources of power, disconnect power from the device by unplugging all power cables from the power supplies.

Servicing/Disassembling

- Do not service any product except as expressly set forth in your system documentation.
- Opening or removing covers that are marked with the triangular symbol with a lightning bolt may expose you to an electrical shock. Only a trained service technician should service components inside these compartments.
- To reduce the risk of electrical shock, never disassemble this device. None of its internal parts are user-replaceable; therefore, there is no reason to access the interior.
- Do not spill food or liquids on your system components, and never operate the device in a wet environment. If the device gets wet, see the appropriate section in your troubleshooting guide or contact your trained service provider.
- Use the device only with approved equipment.

- Move products with care; ensure that all casters and/or stabilizers are firmly connected to the system. Avoid sudden stops and uneven surfaces.

Environment

- Do not use this device near water (e.g. near a bathtub, sink, laundry tub, fish tank, in a wet basement or near a swimming pool).
- Do not use this device in areas with high humidity.
- This device must not be subjected to water or condensation.
- Keep your device away from radiators and heat sources. Also, do not block cooling vents.

Cleaning

- Always unplug the power before cleaning this device.
- Do not use liquid or aerosol cleaners of any kind. Use only compressed air that is recommended for electronic devices.
- Use a dry cloth for cleaning.

Protecting Against Electrostatic Discharge

Static electricity can harm delicate components inside your system. To prevent static damage, discharge static electricity from your body before you touch any of the electronic components, such as the microprocessor. You can do so by periodically touching an unpainted metal surface on the chassis.

You can also take the following steps to help prevent damage from electrostatic discharge (ESD):

1. When unpacking a static-sensitive component from its shipping carton, do not remove the component from the antistatic packing material until you are ready to install the component in your system. Just before unwrapping the antistatic packaging, be sure to discharge static electricity from your body.
2. When transporting a sensitive component, first place it in an antistatic container or packaging.
3. Handle all sensitive components in a static-safe area. If possible, use antistatic floor pads, workbench pads, and an antistatic grounding strap.

Environmental

This product may contain a battery. Recycle or dispose of batteries in accordance with the battery manufacturer's instructions and local/national disposal and recycling regulations. For more information, please refer to the warranty guide.