

User Manual

Wireless N300 Gigabit Cloud ADSL2+ Modem 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
1.0	January 18, 2013	• Initial release
1.01	October 24, 2013	• update Link'n Print

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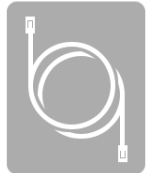
Package Contents



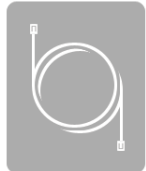
DSL-2770L Wireless N300 Gigabit Cloud ADSL2+ Modem Router



Power Adapter



Ethernet Cable



Telephone Cable + Microfilter



Quick Installation Guide



CD-ROM with Installation Wizard and User Manual

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 DSL-2770L may cause damage and will void the warranty for this product.

System Requirements

<p>Network Requirements</p>	<ul style="list-style-type: none"> • A subscription with an Internet Service Provider • A computer with 802.11n, g, or b wireless or an available Ethernet port
<p>Web-based Configuration Utility Requirements</p>	<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 7 or higher • Firefox 3.5 or higher • Safari 4 or higher • Chrome 8 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>
<p>mydlink Requirements</p>	<ul style="list-style-type: none"> • iPhone/iPad/iPod Touch (iOS 3.0 or higher) • Android device (1.6 or higher) • Computer with the following browser requirements: <ul style="list-style-type: none"> • Internet Explorer 7 or higher • Firefox 3 or higher • Safari 5 or higher • Chrome 5 or higher <p><small>iPhone, iPad, and iPod touch are registered trademarks of Apple Inc. Android is a trademark of Google, Inc.</small></p>

Introduction

The D-Link Wireless N300 Gigabit Cloud ADSL2+ Modem Router (DSL-2770L) comes equipped with four Gigabit ports to provide speeds up to 10x faster than standard 10/100 ports. It also uses 802.11n technology that significantly outperforms 802.11g devices. With the addition of Intelligent Quality of Service (QoS), data streams are separated which helps organize and prioritize your network traffic so your video streaming, gaming, and VoIP calls run smoother over both your wired and wireless network.

The Wireless N300 Gigabit Cloud ADSL2+ Modem Router is also mydlink-enabled, which gives you access to your home network no matter where you go. Now you can monitor and manage your home network right from your laptop, iPhone®, iPad®, or Android™ device. mydlink-enabled routers can be configured to send an email to keep you informed anywhere, anytime when new devices are connecting to your network or unwanted access is detected. Monitor in real-time websites that are being visited with recent browser history displayed on the mydlink™ Lite app – which is great for parents.

SharePort Mobile technology lets you take advantage of the USB 2.0 port found on the back of your DSL-2770L. Plug in a USB storage drive and you can use the SharePort Mobile app for iOS and Android to access files, stream videos, view photos, or listen to music on your laptop or mobile devices.

The DSL-2770L Wireless N300 Gigabit Cloud ADSL2+ Modem Router provides incredible speeds, fast ports, cloud features, and terrific security features. It also features an innovative design and easy installation options.

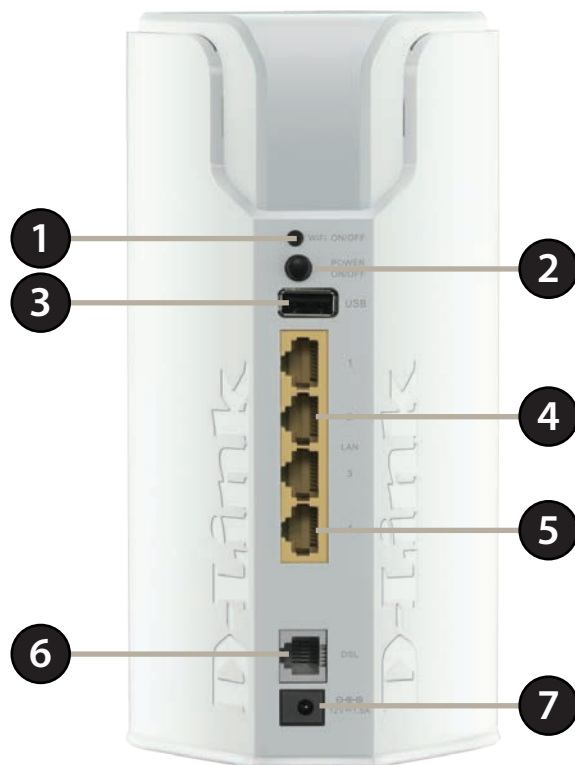
Features

- **Fast Wireless Networking** - The DSL-2770L provides up to a full 300 Mbps* wireless connection with other 802.11n wireless clients.
- **Cloud Features** - The DSL-2770L is mydlink-enabled so you can remotely access and manage your router from a mobile device. SharePort Mobile can be used to share files, stream videos, view photos, and play music.
- **Compatible with 802.11n/g/b Devices** - The DSL-2770L is still fully compatible with the IEEE 802.11g and 802.11b standards, so it can connect with all your existing wireless devices.
- **Advanced Firewall Features** - The Web-based user interface displays a number of advanced network management features including:
 - **Content Filtering** - Easily applied content filtering based on MAC Address, URL, and/or Domain Name.
 - **Filter Scheduling** - These filters can be scheduled to be active on certain days or for a duration of hours or minutes.
 - **Secure Multiple/Concurrent Sessions** - The DSL-2770L can pass through VPN sessions. It supports multiple and concurrent IPSec and PPTP sessions, so users behind the DSL-2770L can securely access corporate networks.
- **User-friendly Setup Wizard** - Through its easy-to-use Web-based user interface, the DSL-2770L 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 802.11b, 802.11g, and 802.11n specifications. Actual data throughput will vary. Network conditions and environmental factors, including volume of network traffic, building materials and construction, and network overhead, lower actual data throughput rate. Environmental conditions will adversely affect wireless signal range.

Hardware Overview

Back

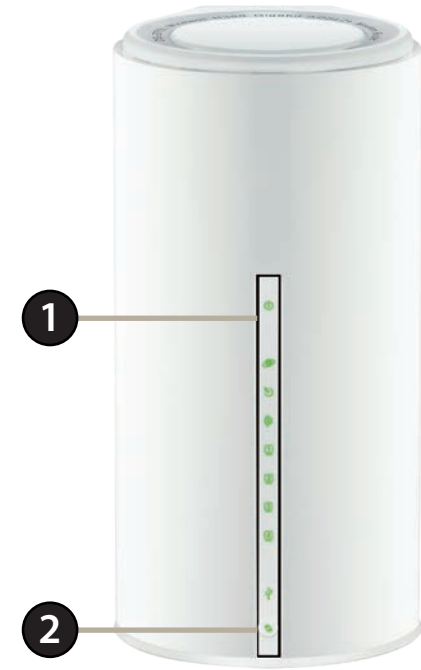


1	Wi-Fi On/Off Button	Turns the wireless network on and off
2	Power Button	Turns the DSL-2770L on and off.
3	USB Port	Connects to a USB flash drive to share content , or connect it to a USB printer to share it on your network.
4	Gigabit LAN Ports (1-3)	Connect to Ethernet devices such as computers, switches, storage (NAS) devices and game consoles.
5	Gigabit LAN/WAN Port (4)	Connects to Ethernet devices, or to another modem or Internet connection when the WAN interface is enabled on the GUI. For more information, refer to "Internet Setup" on page 16.
6	DSL Port	Connects to your DSL phone line.
7	Power Receptor	Receptor for the supplied power adapter.

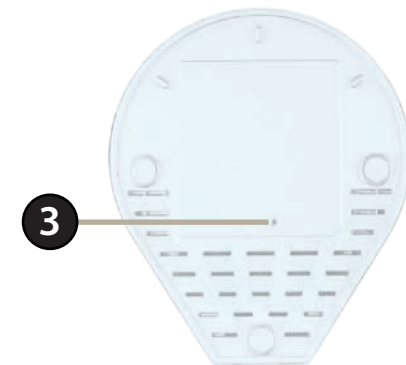
Hardware Overview

Front/Bottom

1	Status LEDs	<ul style="list-style-type: none"> • Power: Indicates the router is receiving power • Internet: Indicates traffic to and from the Internet • DSL: Indicates activity on your DSL connection • Wi-Fi (WLAN): Indicates activity on your wireless network • LAN (1-4): Indicates activity by a connected device • USB: Indicates activity on the USB port
2	WPS Button	<p>Helps create a secure wireless connection to a device automatically. To connect a device using WPS, press the WPS button on your device, then press the WPS button on the router within 120 seconds.</p>



3	Reset Button	<p>Use an unfolded paperclip to press and hold the reset button for 6 seconds to reset all settings to their factory defaults.</p> <p>Note: Resetting your router will delete all settings on it.</p>
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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.
- 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, however, that the number, thickness and location of walls, ceilings, or other objects that the wireless signals must pass through, may limit the range. Typical ranges vary depending on the types of materials and background RF (radio frequency) noise in your home or business. The key to maximizing wireless range is to follow these basic guidelines:

1. Keep the number of walls and ceilings between the D-Link router and other network devices to a minimum - each wall or ceiling can reduce your adapter's range from 3-90 feet (1-30 meters.) Position your devices so that the number of walls or ceilings is minimized.
2. Be aware of the direct line between network devices. A wall that is 1.5 feet thick (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.

Setup Wizard (on Installation CD)

The Installation CD included in your package has a Setup Wizard that guides you through the installation and configuration of your DSL-2770L.

Note: It is highly recommended that you use this Setup Wizard to install and configure your DSL-2770L.

1. Insert the Installation CD into your PC's CD-ROM drive.
2. The Setup Wizard should start automatically. Follow the on-screen instructions to set up and configure your DSL-2770L.

Note: If the Setup Wizard does not start automatically, go to your CD in Windows and double-click the setup file to start the wizard.

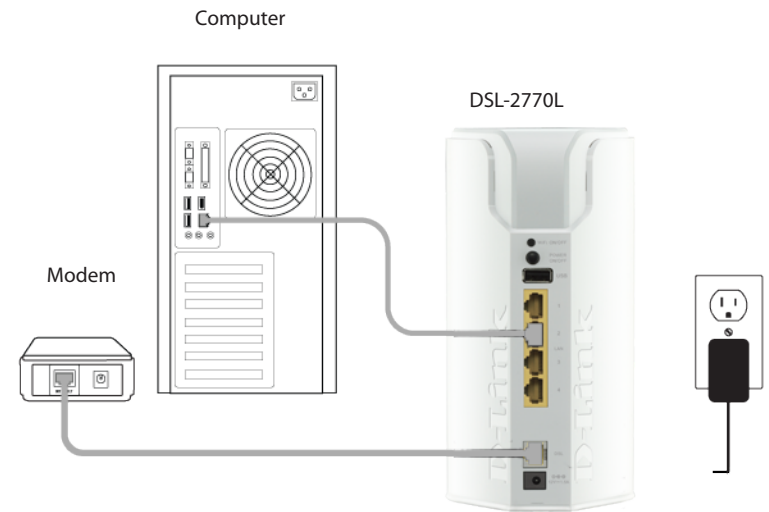


Connecting the DSL-2770L

1. 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.
2. Connect your DSL phone line to the DSL port.
3. Plug the included Ethernet cable into your PC's Ethernet port. Plug the other end of the cable into one of the four LAN ports on the DSL-2770L.
4. Connect the supplied power adapter into the power receptor 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.

To continue on to configuring the DSL-2770L, refer to "Web-based Configuration Utility" on page 15.

Connecting to another modem or Internet line: If you are connecting the DSL-2770L to another modem or a wired Internet connection, connect the Ethernet cable from your Internet source to port 4 on the DSL-2770L. Refer to "Ethernet WAN Interface" on page 26 for setup details.



SharePort Mobile App (iOS, Android)

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

1. Plug your USB storage drive into the USB port.

Note: The DSL-2770L supports USB storage drives with up to one terabyte(1 TB) of storage capacity.



2. Use your iOS or Android mobile device to scan the QR code to the right to download the **SharePort Mobile** app.

You can also search for the **SharePort Mobile** app directly in the iOS App Store or Google Play.



3. From your iOS or Android mobile device, choose **Settings**.

Note: These steps are for the iOS version of the app. The Android version may differ slightly.



Settings

4. Click **Wi-Fi**, select the Wi-Fi Network Name (SSID) that you created during setup and then enter the default Wi-Fi password located on your Wi-Fi configuration note.



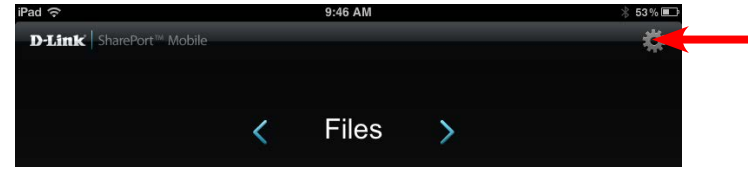
5. Once connected, tap on the **SharePort Mobile** icon.



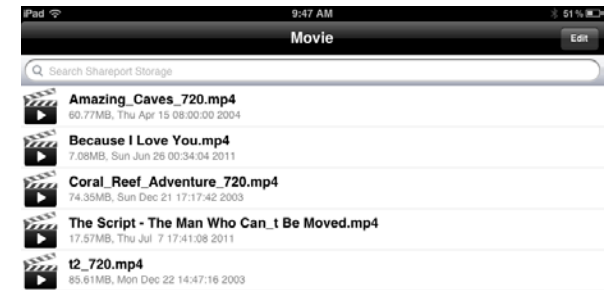
6. The following screen will appear.



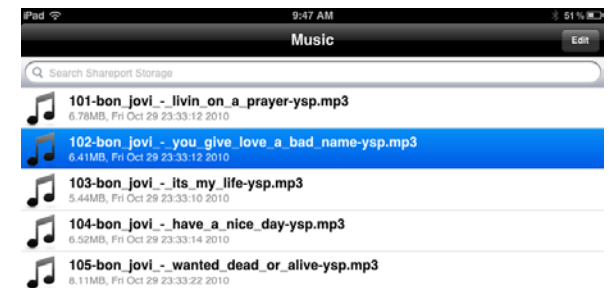
7. Tap on the **Settings** icon located on the right top corner of the screen. Tap **Edit** to enter your User Name and Password (the default username is **admin** and the password field should be left blank). Once you finish, click **Done** to continue.



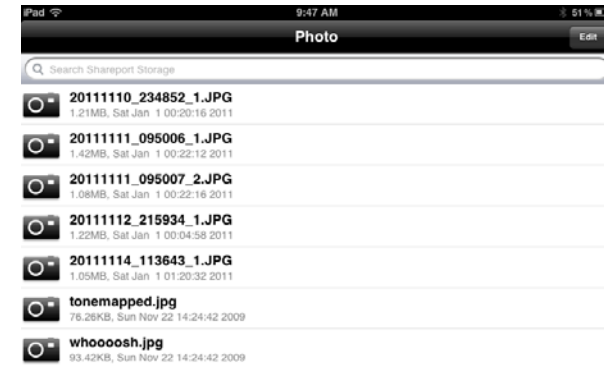
8. For the Movie section, click the movie icon to play your movie from your USB flash drive.



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



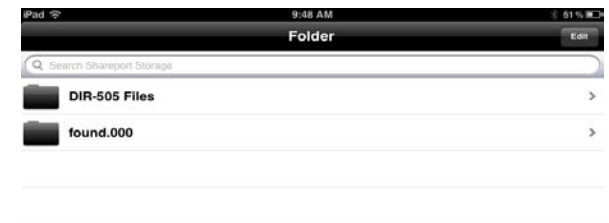
10. For the Photo section, click the Photo icon to view your photos from your USB flash drive.



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



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



Configuration

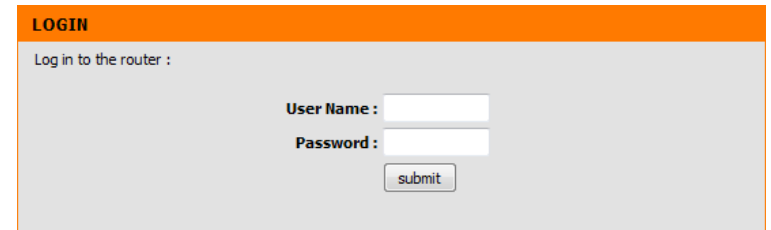
Web-based Configuration Utility

To access the configuration utility, open a web-browser such as Internet Explorer and enter **http://dlinkrouter.local**.



Windows and Mac users may also connect by typing the IP address of the router (**http://192.168.1.1**) in the address bar.

Enter your username and password. The default username is admin and the password should be left blank by default.

A screenshot of the login page for the web-based configuration utility. The page has an orange header with the word 'LOGIN' in white. Below the header, the text 'Log in to the router :' is displayed. There are two input fields: 'User Name :' and 'Password :'. Below the 'Password :' field is a 'submit' button.

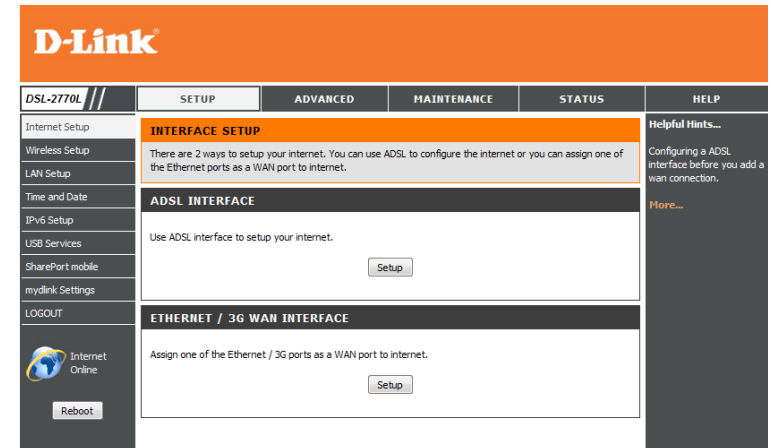
Setup

Internet Setup

From this screen, you can set up various settings related to your Internet connection.

ADSL Interface Click the **Setup** button to see and edit your ADSL settings.

Ethernet WAN Interface Click this **Setup** button to see and edit the WAN settings if you are using port 4 as a WAN port. This allows you to use the DSL-2770L as a router for another modem or Internet connection.



ADSL Interface

If you clicked the Setup button for ADSL Interface, you will see the following settings. You can click the **Setup Wizard** button to use a step by step wizard that guides you through configuration of your ADSL settings. See the following pages for how to use the **Setup Wizard**. If you are not sure what settings to use, please contact your Internet Service Provider.

WAN Interface Select the WAN interface to configure, and whether to enable or disable it.

My Internet Connection Is: Select the WAN connection type for your ISP. Based on which connection type you choose, different settings will be displayed below. These settings are described on the following pages after the **Setup Wizard** pages.

- Ethernet Over ATM(RFC1483 Bridged) with NAT
- IP over ATM(RFC 1483 Routed)
- PPP over Ethernet
- PPP over ATM
- RFC 1483 Bridged

Host Name: Enter a host name to use for your connection.

The settings displayed in the middle will vary depending on what you select for the **My Internet Connection Is** setting. Refer to the following pages for information about the different connection type settings.

Data Encapsulation: Select VCMux or LLC based on your ISP's recommended settings.

Country/ISP Provider: Selecting your country and ISP provider from the dropdown boxes will automatically fill in the VPI and VCI numbers for you.

VPI Number: Enter the VPI number specified by your ISP.

VCI Number: Enter the VCI number specified by your ISP.

Schedule type: Select UBR, CBR, VBR, or GFR based on your ISP's recommended settings.

Multicast: You can set multicast mode to Auto, IGMP v1, IGMP v2, or IGMP v3.

IGMP Snooping: You can enable the IGMP snooping function by checking this box.

VLAN TAG: You can enable and specify the VLAN TAG if required by your ISP.

D-Link

DSL-2770L // SETUP ADVANCED MAINTENANCE STATUS HELP

INTERNET CONNECTION

Use this section to configure your Internet Connection type. There are several connection types to choose. 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.

Setup Wizard

INTERNET CONNECTION TYPE

Choose the mode to be used by the router to connect to the Internet. LAN4 could be assigned as Ethernet WAN if you enable Ethernet Interface to configure Internet access.

WAN Interface : PVC0 Active Inactive

My Internet Connection is : Ethernet Over ATM (RFC 1483 Bridged) with NAT

Host Name : _____

ETHERNET OVER ATM WITH NAT INTERNET CONNECTION TYPE

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

Address Mode : Dynamic IP Static IP

Primary DNS Server : _____

Secondary DNS Server : _____ (optional)

MAC Address : _____ Clone

MTU : _____ (bytes) MTU default = 1500

Enable NAT :

Data Encapsulation : VCMux

Country : Belgium

ISP provider : (Click to select)

VPI Number : _____ (range: 0~255)

VCI Number : _____ (range: 1~65535)

Schedule type : UBR

Multicast : Disable

IGMP Snooping : Disable

VLAN TAG : Enable 1 (range: 1~4094)

Apply Settings Cancel

BROADBAND

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Setup Wizard

If you clicked the Setup Wizard button on the ADSL Interface page, this wizard will appear. This Wizard will help you set up an ADSL connection.

Click **Next** to continue.

WELCOME TO THE SETUP WIZARD

It appears that you have already successfully connected your new router to the Internet.

- Step 1: Set your Password
- Step 2: Select your Time Zone
- Step 3: select the Internet connection type
- Step 4: Save Settings and Connect
- Step 5: Name your Wireless Network
- Step 6: Secure your Wireless Network
- Step 7: Set your Wireless Security Password
- Step 8: SETUP mylink

Prev Next Cancel Connect

Enter a password for your network and verify it in the box below, then click **Next**.

STEP 1: SET YOUR PASSWORD

To secure your new networking device, please set and verify a password below:

Password :

Verify Password :

Prev Next Cancel Connect

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

STEP 2: SELECT YOUR TIME ZONE

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

Time Zone :

Prev Next Cancel Connect

Select your Internet connection type from Ethernet Over ATM (RFC1483 Bridged) with NAT, IP over ATM(RFC 1483 Routed), PPP over Ethernet, PPP over ATM, and RFC 1483 Bridged. For more details on the different settings for each connection type, refer to ADSL Interface. Click **Next**.

STEP 3: CONFIGURE YOUR INTERNET CONNECTION

Please select the Internet connection type below:

- Ethernet Over ATM (RFC 1483 Bridged) with NAT**
Choose this option if your ISP uses Ethernet Over ATM with NAT.
- IP over ATM (RFC 1483 Routed)**
Choose this option if your ISP uses IP over ATM.
- PPP over Ethernet**
Choose this option if your ISP uses PPP over Ethernet.
- PPP over ATM**
Choose this option if your ISP uses PPP over ATM.
- RFC 1483 Bridged**
Choose this option if your ISP uses RFC 1483 Bridged.

Configure some settings for your Internet Connection. See below for the description of each setting. Click **Next** when finished.

Data Encapsulation: Select VCMux or LLC based on your ISP's recommended settings.

Country: Select your country.

ISP Provider: Select your ISP provider from the dropdown boxes will automatically fill in the VPI and VCI numbers for you.

VPI Number: Enter the VPI number specified by your ISP.

VCI Number: Enter the VCI number specified by your ISP.

MAC Address: Click **Clone** to have your computer's MAC number automatically input.

STEP 4: CONFIGURE YOUR INTERNET CONNECTION

Data Encapsulation :

Country:

ISP provider:

VPI Number : (range: 0~255)

VCI Number : (range: 1~65535)

MAC Address :

Enter a SSID name for your wireless network and click **Next**.

STEP 5: NAME YOUR WIRELESS NETWORK

Your wireless network needs a name so it can be easily recognized by wireless clients.

Wireless Network Name (SSID) :

Select a security option for your network from WPA, WPA2, or none. Click **Next**.

STEP 6: SECURE YOUR WIRELESS NETWORK

In order to protect your network from hackers and unauthorized users, it is highly recommended you choose one of the following wireless network security settings.

There are three levels of wireless security -Good Security, Better Security, or Best Security. The level you choose depends on the security features your wireless adapters support.

BEST : Select this option if your wireless adapters SUPPORT WPA2

BETTER : Select this option if your wireless adapters SUPPORT WPA

GOOD : Select this option if your wireless adapters DO NOT SUPPORT WPA

NONE : Select this option if you do not want to activate any security features

For information on which security features your wireless adapters support, please refer to the adapters' documentation.

Note: All wireless adapters currently support WPA.

Set a wireless security password for your network if you have selected a security option in the previous step. Click **Next**.

STEP 6: SECURE YOUR WIRELESS NETWORK

In order to protect your network from hackers and unauthorized users, it is highly recommended you choose one of the following wireless network security settings.

There are three levels of wireless security -Good Security, Better Security, or Best Security. The level you choose depends on the security features your wireless adapters support.

BEST : Select this option if your wireless adapters SUPPORT WPA2

BETTER : Select this option if your wireless adapters SUPPORT WPA

GOOD : Select this option if your wireless adapters DO NOT SUPPORT WPA

NONE : Select this option if you do not want to activate any security features

For information on which security features your wireless adapters support, please refer to the adapters' documentation.

Note: All wireless adapters currently support WPA.

The Internet connection has now been established. Click **Next** to register for a mydlink account or click **Connect** to complete the setup.

Step 8: SETUP mydlink

The Internet connection had been established. If you want to register mydlink account right now, please click Next. Or you can click "Connect" to skip and setup it later.

Ethernet Over ATM(RFC1483 Bridged) with NAT

If you select **Ethernet over ATM (RFC1483 Bridged) with NAT** as your Internet Connection, make these configurations.

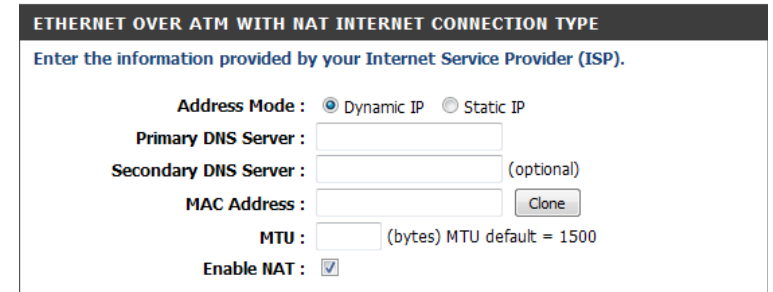
Address Mode Select **Static IP** if your ISP assigned you an IP address, subnet mask, gateway, and DNS server address. In most cases, select **Dynamic IP**.

Primary/Secondary DNS Server: Enter the Primary and secondary DNS server IP addresses assigned by your ISP.

MAC Address: If your ISP requires you to enter a MAC address, fill it in here. You can click the Clone MAC button to enter your current computer's MAC address.

MTU: If you experience connection issues, you may need to change the MTU setting for optimal performance with your specific ISP. 1500 is the default MTU.

Enable NAT: Check this to enable the router to use NAT to assign IP addresses for your devices.



ETHERNET OVER ATM WITH NAT INTERNET CONNECTION TYPE

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

Address Mode : Dynamic IP Static IP

Primary DNS Server :

Secondary DNS Server : (optional)

MAC Address :

MTU : (bytes) MTU default = 1500

Enable NAT :

IP over ATM(RFC 1483 Routed)

If you select **IP over ATM (RFC1483 Routed)** as your Internet Connection, make these configurations.

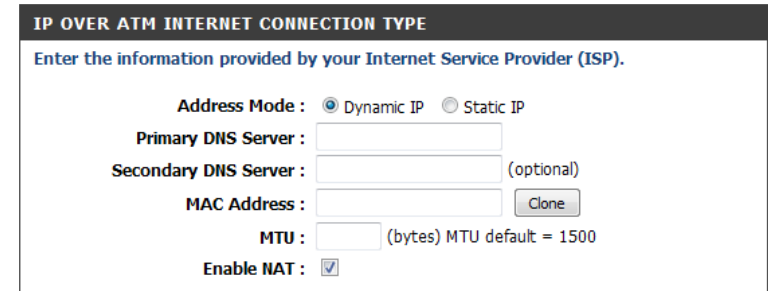
Address Mode Select **Static IP** if your ISP assigned you an IP address, subnet mask, gateway, and DNS server address. In most cases, select **Dynamic IP**.

Primary/Secondary DNS Server: Enter the Primary and secondary DNS server IP addresses assigned by your ISP.

MAC Address: If your ISP requires you to enter a MAC address, fill it in here. You can click the Clone MAC button to enter your current computer's MAC address.

MTU: If you experience connection issues, you may need to change the MTU setting for optimal performance with your specific ISP. 1500 is the default MTU.

Enable NAT: Check this to enable the router to use NAT to assign IP addresses for your devices.



IP OVER ATM INTERNET CONNECTION TYPE

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

Address Mode : Dynamic IP Static IP

Primary DNS Server :

Secondary DNS Server : (optional)

MAC Address :

MTU : (bytes) MTU default = 1500

Enable NAT :

PPP over Ethernet

If you select **PP over Ethernet** as your Internet Connection, make these configurations.

IPv6 Dualstack: Check this box to enable IPv6/IPv4 dualstack.

Username: Enter the username for your ADSL account.

Password/Verify Password: Enter the password for your ADSL account, then type it again in the Password: Verify Password box.

Service Name: You can enter a name for your service here.

IP Address: Enter the IP address assigned to you by your ISP.

Primary/Secondary DNS Server: Enter the Primary and secondary DNS server IP addresses assigned by your ISP.

MAC Address: If your ISP requires you to enter a MAC address, fill it in here. You can click the Clone MAC button to enter your current computer's MAC address.

MTU: If you experience connection issues, you may need to change the MTU setting for optimal performance with your specific ISP. 1500 is the default MTU.

Enable NAT: Check this to enable the router to use NAT to assign IP addresses for your devices.

The screenshot shows the PPPoE configuration page. At the top, it says "PPPOE" and "Enter the information provided by your Internet Service Provider (ISP)". Below this, there are several fields and checkboxes:

- IPv6 Dualstack:** Enable
- Username:** [Text input field]
- Password:** [Text input field]
- Verify Password:** [Text input field]
- Service Name:** [Text input field] (optional)
- IP Address:** [Text input field]
- Primary DNS Server:** [Text input field] (optional)
- Secondary DNS Server:** [Text input field] (optional)
- MAC Address:** [Text input field]
- MTU:** 0 (bytes) MTU default = 1492
- Enable NAT:**

PPP over ATM

If you select **PPP over ATM** as your Internet Connection, make these configurations.

Dualstack: Check this box to enable IPv6/IPv4 dualstack.

PPPoA Account: Enter the username for your ADSL account.

PPPoA Password/Verify PPPoA Password: Enter the password for your ADSL account, then type it again in the Verify PPPoA Password box.

Service Name: You can enter a name for your service here.

IP Address: Enter the IP address assigned to you by your ISP.

Primary/Secondary DNS Server: Enter the Primary and secondary DNS server IP addresses assigned by your ISP.

MTU: If you experience connection issues, you may need to change the MTU setting for optimal performance with your specific ISP. 1500 is the default MTU.

Enable NAT: Check this to enable the router to use NAT to assign IP addresses for your devices.

PPP OVER ATM INTERNET CONNECTION TYPE

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

Dualstack : Enable

PPPoA Account :

PPPoA Password :

Verify PPPoA Password :

Service Name : Clear

IP Address :

Primary DNS Server :

Secondary DNS Server :

MTU : (bytes) MTU default = 1492

Enable NAT :

RFC1483 Bridged

There are no extra settings to configure when you choose this option.
See the ADSL Interface page to configure the settings below.

INTERNET CONNECTION TYPE
Choose the mode to be used by the router to connect to the Internet. LAN4 could be assigned as Ethernet WAN if you enable Ethernet Interface to configure Internet access.

WAN Interface : PVC0 Active Inactive

My Internet Connection is : RFC 1483 Bridged

Host Name :

Data Encapsulation VCMux

Country: (Click to select)

ISP provider:

VPI Number : (range: 0~255)

VCI Number : (range: 1~65535)

Schedule type : UBR

Multicast : Disable

IGMP Snooping : Disable

VLAN TAG : Enable (range: 1~4094)

Ethernet WAN Interface

If you clicked the Setup button for Ethernet WAN Interface, you will see the following settings. You can click the **Setup Wizard** button to use a step-by-step wizard that guides you through configuration of your WAN settings. If you are not sure what settings to use, please contact your Internet Service Provider.

WAN Interface: Select the WAN interface to configure, and whether to enable or disable it.

My Internet Connection Is: Select Static IP, DHCP, PPOE, PPTP or L2TP. Based on the setting you choose, the following settings will be different.

Host Name: Enter a host name to use for your connection.

The settings displayed in the middle will vary depending on what you select for the **My Internet Connection Is** setting. See the following pages for details.

Multicast: Select what multicast mode to use (Auto/IGMP v1/IGMP v2/IGMP v3), or if you want to disable it.

IGMP Snooping: Check this box if you want to enable IGMP Snooping.

VLAN TAG: To set a VLAN tag, check this box, then enter the VLAN TAG to use.

D-Link

DSL-2770L // SETUP ADVANCED MAINTENANCE STATUS HELP

Internet Setup
Wireless Setup
LAN Setup
Time and Date
IPv6 Setup
USB Services
SharePort mobile
mylink Settings
LOGOUT
Internet Online
Reboot

INTERNET CONNECTION

Use this section to configure your Internet Connection type. There are several connection types to choose. If you are unsure of your connection method, please contact your Internet Service Provider.

Note: If using the PPOE option, you will need to remove or disable any PPOE client software on your computers.

INTERNET CONNECTION TYPE

Choose the mode to be used by the router to connect to the Internet.LAN4 could be assigned as Ethernet WAN if you enable Ethernet Interface to configure Internet access.

WAN Interface : Active Inactive

My Internet Connection is : Dynamic IP (DHCP)

Host Name :

DYNAMIC IP (DHCP) INTERNET CONNECTION TYPE

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

Primary DNS Server :

Secondary DNS Server : (optional)

MAC Address :

MTU : (bytes) MTU default = 1500

Enable NAT :

Connection control : Auto Reconnect (always-on)

Multicast :

IGMP Snooping :

VLAN TAG : Enable (range: 1~4094)

Helpful Hints...

First time users are recommended to run the Setup Wizard. Click the Setup Wizard button and you will be guided step by step through the process of setting up your ADSL connection.

Tick the Manual Setup box if you are a more advanced user and have the settings for your Internet Service Provider (ISP) available.

Please take care when entering your username and password as these are case sensitive. The majority of connection issues are caused by incorrect username or password combinations.

[More...](#)

Static IP

Only use Static IP if directed to by your Internet Service Provider.

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

IP Address: Enter the IP address assigned to you by your Internet Service Provider.

Subnet Mask: Enter the subnet mask assigned to you by your Internet Service Provider.

Default Gateway: Enter the default gateway assigned to you by your Internet Service Provider.

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

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

MTU: Maximum Transmission Unit - you may need to change the MTU for optimal performance with your specific ISP. 1500 is the default MTU. Enter the ISP Service Name (optional).

Enable NAT: Check this box if you want the router to use NAT to provide IP addresses for your computers and devices. If this is disabled, your devices will need to get IP addresses from your ISP or configured individually.

INTERNET CONNECTION TYPE

Choose the mode to be used by the router to connect to the Internet. LAN4 could be assigned as Ethernet WAN if you enable Ethernet Interface to configure Internet access.

WAN Interface : Active Inactive

My Internet Connection is : Static IP

Host Name :

STATIC IP ADDRESS INTERNET CONNECTION TYPE

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

IP Address :

Subnet Mask :

Default Gateway :

Primary DNS Server :

Secondary DNS Server :

MAC Address :

MTU : (bytes) MTU default = 1500

Enable NAT :

Dynamic IP (DHCP)

If you are unsure what method you use to connect to the Internet, try this first. Cable modems usually use this type of connection

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

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

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

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

Enable NAT: Check this box if you want the router to use NAT to provide IP addresses for your computers and devices. If this is disabled, your devices will need to get IP addresses from your ISP or configured individually.

INTERNET CONNECTION TYPE

Choose the mode to be used by the router to connect to the Internet. LAN4 could be assigned as Ethernet WAN if you enable Ethernet Interface to configure Internet access.

WAN Interface : Active Inactive

My Internet Connection is : Dynamic IP (DHCP)

Host Name :

DYNAMIC IP (DHCP) INTERNET CONNECTION TYPE

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

Primary DNS Server :

Secondary DNS Server : (optional)

MAC Address :

MTU : (bytes) MTU default = 1500

Enable NAT :

PPPoE (Username/Password)

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

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

Username: Enter your PPPoE username.

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

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

IP Address: Enter the IP address assigned to you by your Internet Service Provider.

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

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

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

Enable NAT: Check this box if you want the router to use NAT to provide IP addresses for your computers and devices. If this is disabled, your devices will need to get IP addresses from your ISP or configured individually.

INTERNET CONNECTION TYPE

Choose the mode to be used by the router to connect to the Internet. LAN4 could be assigned as Ethernet WAN if you enable Ethernet Interface to configure Internet access.

WAN Interface : Active Inactive

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

Host Name :

PPPOE

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

Username :

Password :

Verify Password :

Service Name : (optional)

IP Address :

Primary DNS Server : (optional)

Secondary DNS Server : (optional)

MAC Address :

MTU : (bytes) MTU default = 1492

Enable NAT :

PPTP

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

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

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

PPTP IP Address: Enter the IP address assigned to you by your Internet Service Provider.

PPTP Subnet Mask: Enter the subnet mask assigned to you by your Internet Service Provider.

PPTP Gateway IP Address: Enter the Gateway IP Address provided by your Internet Service Provider.

PPTP Server IP Address: Enter the Server IP provided by your Internet Service Provider.

Username: Enter your PPTP username.

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

INTERNET CONNECTION TYPE

Choose the mode to be used by the router to connect to the Internet.LAN4 could be assigned as Ethernet WAN if you enable Ethernet Interface to configure Internet access.

WAN Interface : Active Inactive

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

Host Name :

PPTP

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

Address Mode : Dynamic IP Static IP

PPTP IP Address :

PPTP Subnet Mask :

PPTP Gateway IP Address :

PPTP Server IP Address :

Username :

Password :

Verify Password :

L2TP

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

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

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

L2TP IP Address: Enter the IP address assigned to you by your Internet Service Provider.

L2TP Subnet Mask: Enter the subnet mask assigned to you by your Internet Service Provider.

L2TP Gateway IP Address: Enter the Gateway IP Address provided by your Internet Service Provider.

L2TP Server IP Address: Enter the Server IP provided by your Internet Service Provider.

Username: Enter your L2TP username.

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

INTERNET CONNECTION TYPE
Choose the mode to be used by the router to connect to the Internet. LAN4 could be assigned as Ethernet WAN if you enable Ethernet Interface to configure Internet access.
WAN Interface : <input checked="" type="radio"/> Active <input type="radio"/> Inactive
My Internet Connection is : L2TP (Username / Password) ▼
Host Name : <input type="text"/>
L2TP
Enter the information provided by your Internet Service Provider (ISP).
Address Mode : <input checked="" type="radio"/> Dynamic IP <input type="radio"/> Static IP
L2TP IP Address : <input type="text"/>
L2TP Subnet Mask : <input type="text"/>
L2TP Gateway IP Address : <input type="text"/>
L2TP Server IP Address : <input type="text"/>
Username : <input type="text"/>
Password : <input type="text"/>
Verify Password : <input type="text"/>

Wireless Settings

If you want to configure the wireless settings on your router using a guided wizard, click **Wireless Connection Setup Wizard**.

Click **Wi-Fi Protected Setup** if you want to add a wireless device using Wi-Fi Protected Setup (WPS).

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

D-Link

DSL-2770L // SETUP ADVANCED MAINTENANCE STATUS HELP

Internet Setup
Wireless Setup
LAN Setup
Time and Date
IPv6 Setup
USB Services
SharePort mobile
mydirlink Settings
LOGOUT
Internet Online
Reboot

WIRELESS SETUP

There are 2 ways to setup your wireless connection. You can use the Wireless Connection Setup wizard or you can manually configure the connection.

Please note that changes made on this section will also need to be duplicated to your wireless clients and PC.

WIRELESS CONNECTION SETUP WIZARD

If you would like to utilize our easy to use Web-based Wizard to assist you in connecting your Wireless Router to the Internet, click on the button below.

Wireless Connection Setup Wizard

Note: Before launching the wizard, please make sure you have followed all steps outlined in the Quick Installation Guide included in the package.

WI-FI PROTECTED SETUP

If you would like to configure the Wi-Fi Protected Setup of your Router, then click on the button below.

Wi-Fi Protected Setup

MANUAL WIRELESS CONNECTION OPTIONS

If you would like to configure the Internet settings of your Router manually, then click on the button below.

Manual Wireless Connection Setup

Helpful Hints...

Changing your Wireless Network Name (SSID) is the first step in securing your wireless network. Change it to a familiar name that does not contain any personal information.

Enable Auto Channel Scan so that the router can select the best possible channel for your wireless network to operate on.

Choosing to hide your wireless network also helps to secure your wireless network, it will mean that wireless clients will not see your network listed when they scan for available networks. To connect your wireless devices to the router you will need to manually enter the Wireless Network Name (SSID) on each device. (Please take a note of your SSID and keep it to hand).

If you have enabled wireless security, please make sure you take a note

Wireless Connection Setup Wizard

The Wireless Connection Setup Wizard is designed to guide you through a step-by-step process to configure your wireless network.

Type your desired wireless network name (SSID), then click **Next**.

Choose what level of wireless security you want to use. It is highly recommended that you select **BEST**. Click **Next** to continue.

Based on the level of wireless security you chose, you will need to enter a password for your wireless network. Click **Next** to continue.

Wireless setup is now complete. Click **Save** to save your settings and complete the setup process.

WELCOME TO THE WIRELESS SECURITY SETUP WIZARD

This wizard will guide you through a step-by-step process to setup your wireless network and make it secure.

- Step 1: Name your Wireless Network
- Step 2: Secure your Wireless Network
- Step 3: Set your Wireless Security Password

Prev Next Cancel Save

STEP 1: NAME YOUR WIRELESS NETWORK

Your wireless network needs a name so it can be easily recognized by wireless clients. For security purposes, it is highly recommended to change the pre-configured network name of [default].

Wireless Network Name (SSID) : DSL-2770L

Prev Next Cancel Save

STEP 2: SECURE YOUR WIRELESS NETWORK

In order to protect your network from hackers and unauthorized users, it is highly recommended you choose one of the following wireless network security settings.

There are three levels of wireless security - Good Security, Better Security, or Best Security. The level you choose depends on the security features your wireless adapters support.

- BEST** : Select this option if your wireless adapters SUPPORT WPA2
- BETTER** : Select this option if your wireless adapters SUPPORT WPA
- GOOD** : Select this option if your wireless adapters DO NOT SUPPORT WPA
- NONE** : Select this option if you do not want to activate any security features

For information on which security features your wireless adapters support, please refer to the adapters' documentation.

Note: All wireless adapters currently support WPA.

Prev Next Cancel Save

STEP 3: SET YOUR WIRELESS SECURITY PASSWORD

Once you have selected your security level - you will need to set a wireless security password. With this password, a unique security key will be generated.

Wireless Security Password : TKIP | 1234567890

Note: You will need to enter the unique security key generated into your wireless clients enable proper wireless communication - not the password you provided to create the security key.

Prev Next Cancel Save

SETUP COMPLETE!

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

Wireless Network Name (SSID) : DSL-2770L

Prev Next Cancel Save

Wi-Fi Protected Setup

If you clicked on the Wi-Fi Protected Setup button on the Wireless Setup page, you will see this screen. The Wi-Fi Protected Setup page allows you to create a wireless connection between your router and a device automatically by simply pushing a button or entering a PIN code.

You can also use Windows 7 to do initial configuration of your router by using the **Connect to a network** wizard in Windows, and entering the WPS PIN/AP PIN of the router when prompted. After modifying any settings, click **Save Settings** to save your changes.

WPS: Select whether you would like to enable or disable WPS features.

AP PIN (also known as WPS PIN): If you use Windows 7's **Connect to a network** wizard to do initial configuration of the router, you will need to enter the WPS PIN/AP PIN into the wizard when prompted. The factory default WPS PIN/AP PIN is printed on a label located on the bottom of the router. You can click the **Generate New PIN** button to change it to a randomly generated PIN.

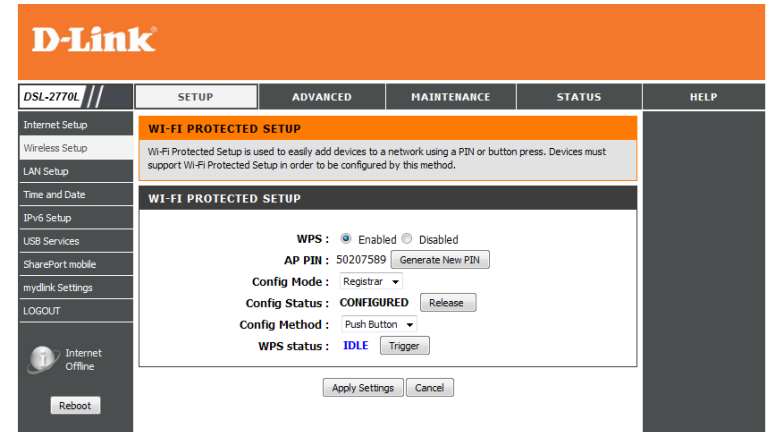
Config Mode: Select whether the WPS config mode should be set to **Registrar** or **Enrollee**. In most cases, this should be set to **Registrar** so that you can use WPS to connect new wireless clients.

Config Status: If this is set to **CONFIGURED**, the router will be marked as "already configured" to computers that try to use WPS configuration, such as Windows 7's **Connect to a network** wizard. You can click the **Release** button to change the status to **UNCONFIGURED** to allow for WPS configuration of the router.

Config Method: If this is set to **UNCONFIGURED**, you can click the **Set** button to change the status to **CONFIGURED** to block WPS configuration of the router.

WPS Status: This lets you choose whether to use the **Push Button** connection method (PBC) or **PIN** method to connect to a wireless client when the **Trigger** button is clicked. If you choose the **PIN** method, you will need to enter an 8-digit PIN number that the wireless client need to use to connect to your router.

This will show the current WPS connection process status. Click the **Trigger** button to initiate a WPS connection.



Manual Wireless Settings

If you clicked **Manual Wireless Network Setup** on the **Wireless Settings** page, you will see this screen. Here, you can configure the wireless network settings of your router. After making your changes, click the **Save Settings** button.

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

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

Auto Channel Scan: The **Auto Channel Scan** setting can be selected to allow the DSL-2770L to choose the channel with the least amount of interference.

Wireless Channel: Indicates the channel setting for the DSL-2770L. By default the channel is set to 6. The Channel can be changed to fit the channel setting for an existing wireless network or to customize the wireless network. If you enable **Auto Channel Scan**, this option will be greyed out.

802.11 Mode: Select one of the following:

- **B/G Mixed** - Select if you are using both 802.11g and 802.11b wireless clients.
- **N Only** - Select only if all of your wireless clients are 802.11n.
- **B/G/N Mixed** - Select if you are using a mix of 802.11n, 802.11g, and 802.11b wireless clients.

Transmission Rate: Select a transmission rate to use. It is recommended that you leave this at the default setting of **Best**.

Visibility Status: Select **Invisible** if you do not want the SSID of your wireless network to be broadcasted by the DSL-2770L. If Invisible is selected, the SSID of the DSL-2770L will not be seen by Site Survey utilities so your wireless clients will have to know the SSID of your DSL-2770L in order to connect to it.

AP Isolation: Enabling AP Isolation prevents wireless clients from being able to communicate with one another. This can be useful when providing an Internet connection for many wireless clients, but keeping their traffic and devices private from other users.

The screenshot shows the D-Link DSL-2770L wireless settings page. The page is titled "D-Link" and has a navigation bar with "SETUP", "ADVANCED", "MAINTENANCE", "STATUS", and "HELP". The "WIRELESS NETWORK" section is active, showing the following settings:

- Enable Wireless:** Always
- Wireless Network Name (SSID):** Whistles go whoo whoo
- Auto Channel Scan:**
- Wireless Channel:** 2.412 GHz - CH 1
- 802.11 Mode:** B/G/N mixed
- Transmission Rate:** Best
- Visibility Status:** Visible Invisible
- AP Isolation:**

The **WIRELESS SECURITY MODE** section shows:

- Security Mode:** None

At the bottom, there are "Apply Settings" and "Cancel" buttons. The page also includes helpful hints and a "Reboot" button.

Wireless Security Mode: Here, you can select between **None**, **WEP**, **WPA-Personal**, and **WPA-Enterprise**. Refer to the following pages for details on configuring the different security modes. Please note that using WEP encryption will limit wireless use to 802.11g/b only, as it is incompatible with 802.11n.

If you select **WEP** as your Security Mode:

Authentication: Choose what Authentication type to use.

WEP Encryption: Select an encryption level and key length to use. This will also set the type and length of the key you will need to enter.

Default WEP Key: Select which WEP key should be used as default.

WEP Key: Enter the password(key) for your wireless network. You can use the dropdown box to choose whether you want to create a password using **HEX** or **ASCII** characters. It will need to match the requirements for the WEP Key Length as shown.

If you select **WPA-Personal** as your Security Mode:

WPA Mode: Select whether to use **WPA**, **WPA2**, or both **WPA and WPA2** for your wireless network..

Cipher Type: Choose whether to use **TKIP**, **AES**, or both **TKIP and AES** ciphers for your wireless network.

Group Key Update Interval: You can set the Group Key Update Interval here, if necessary.

Pre-Shared Key: Enter the password(key) for your wireless network.

WIRELESS SECURITY MODE

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

Security Mode :

WEP

If you choose the WEP security option this device will ONLY operate in Legacy Wireless mode (802.11B/G). This means you will NOT get 11N performance due to the fact that WEP is not supported by the 11N specification.

WEP is the wireless encryption standard. To use it you must enter the same key(s) into the router and the wireless stations. For 64 bit keys you must enter 10 hex digits into each key box. For 128 bit keys you must enter 26 hex digits into each key box. A hex digit is either a number from 0 to 9 or a letter from A to F. For the most secure use of WEP set the authentication type to "Shared Key" when WEP is enabled.

You may also enter any text string into a WEP key box, in which case it will be converted into a hexadecimal key using the ASCII values of the characters. A maximum of 5 text characters can be entered for 64 bit keys, and a maximum of 13 characters for 128 bit keys.

Authentication :

WEP Encryption :

Default WEP Key :

WEP Key :
(5 ASCII or 10 HEX)

WPA

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

WPA Mode :

Cipher Type :

Group Key Update Interval : (seconds)

PRE-SHARED KEY

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

Pre-Shared Key :

If you select **WPA-Enterprise** as your Security Mode:

WPA Mode: Select whether to use WPA, WPA2, or both WPA and WPA2 for your wireless network.

Cipher Type: Choose whether to use TKIP, AES, or both TKIP and AES ciphers for your wireless network.

Group Key Update Interval: You can set the Group Key Update Interval here, if necessary.

Authentication Timeout: Enter the authentication timeout in seconds.

RADIUS Server IP Address: Enter your RADIUS server IP address.

RADIUS Server Port: Enter your RADIUS server port.

RADIUS Server Shared Secret: Enter your RADIUS server shared secret.

WPA

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

WPA Mode :

Cipher Type :

Group Key Update Interval : (seconds)

EAP (802.1X)

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

Authentication Timeout :

RADIUS Server IP Address :

RADIUS server Port :

RADIUS server Shared Secret :

LAN Setup

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

Router Settings

This section will allow you to configure the router settings.

Router IP Address: Enter the IP address of the router. The default IP address is 192.168.1.1.

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

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

The screenshot shows the D-Link DSL-2770L web interface. The top navigation bar includes tabs for SETUP, ADVANCED, MAINTENANCE, STATUS, and HELP. The left sidebar contains links for Internet Setup, Wireless Setup, LAN Setup, Time and Date, IPv6 Setup, USB Services, SharePort mobile, mydlink Settings, and LOGOUT. The main content area is titled "LAN SETUP" and contains the following sections:

- LAN SETUP:** A note stating, "This section allows you to configure the local network settings of your router. Please note that this section is optional and you should not need to change any of the settings here to get your network up and running."
- ROUTER SETTINGS:**
 - Router IP Address: 192.168.1.1
 - Subnet Mask: 255.255.255.0
- DHCP SERVER SETTINGS (OPTIONAL):**
 - Enable DHCP Server:
 - DHCP IP Address Range: 50 to 199
 - DHCP Lease Time: 86400 (Seconds)
 - DHCP Relay:
 - DHCP Server IP Address: [Empty field]
 - Apply Settings button
- DHCP RESERVATIONS LIST:**

Enable	MAC Address	IP Address
[Add]	[Edit]	[Delete]
- NUMBER OF DYNAMIC DHCP CLIENTS:**

Computer Name	MAC Address	IP Address	Expire Time
06955PCWIN7	00:16:41:3C:A7:7A	192.168.1.50	21:47:18
Android_357805040892052	18:87:96:B5:09:86	192.168.1.51	23:35:00

Additional elements include a "Reboot" button in the sidebar, "Helpful Hints..." on the right, and a "BROADBAND" section at the bottom with a copyright notice: "copyright © 2012-2014 D-Link Systems, Inc."

DHCP Server Settings (Optional)

DHCP stands for Dynamic Host Control Protocol. The DSL-2770L has a built-in DHCP server. The DHCP Server will automatically assign an IP address to the computers on the LAN/private network. Be sure to set your computers to be DHCP clients by setting their TCP/IP settings to "Obtain an IP Address Automatically." When you turn your computers on, they will automatically load the proper TCP/IP settings provided by the DSL-2770L. The DHCP Server will automatically allocate an unused IP address from the IP address pool to the requesting computer. You must specify the starting and ending address of the IP address pool.

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

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

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

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

DHCP Relay: Check the box to allow the DSL-2770L to act as a DHCP relay.

DHCP Server IP Address: If DHCP Relay is enabled, enter the IP address of the DHCP server to relay.

DHCP SERVER SETTINGS (OPTIONAL)

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

Enable DHCP Server :

DHCP IP Address Range : 50 to 199

DHCP Lease Time : 86400 (Seconds)

DHCP Relay :

DHCP Server IP Address :

Add DHCP Reservation

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

Note: This IP address must be within the DHCP IP Address Range.

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

Click **Add** to create a new DHCP reservation. Select an existing reservation and click **Edit** to change its settings, or click **Delete** to remove the reservation.

Enable: After clicking **Add** or **Edit**, the following settings are available:

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

MAC Address: Enter the MAC address of the computer or device. If you want to assign an IP address to the computer you are currently on, click the **Clone** button to automatically fill in the MAC address.

Dynamic DHCP Clients: Displays a list of clients currently using dynamic DHCP and their names, MAC addresses, IP addresses, and reservation time remaining.

DHCP RESERVATIONS LIST			
Enable	MAC Address	IP Address	

Add Edit Delete

ADD/EDIT DHCP RESERVATION (OPTIONAL)	
Enable :	<input type="checkbox"/>
IP Address :	<input type="text" value="0.0.0.0"/>
MAC Address :	<input type="text" value="00:00:00:00:00:00"/> <input type="button" value="Clone"/>

Apply Cancel

NUMBER OF DYNAMIC DHCP CLIENTS			
Computer Name	MAC Address	IP Address	Expire Time
06955pcwinxp	00:19:B9:43:71:1E	192.168.1.50	23:56:25

Time and Date

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

Automatically synchronize with Internet time server: When enabled, the router will automatically update its time by using an Internet time server. Alternatively, you can disable this option and manually set the time.

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

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

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

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

Date and Time: If Automatically synchronize with Internet time server is disabled, You can manually input the time. Enter the values in these fields for the Year, Month, Day, Hour, Minute, and Second and then click **Set Time**.

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

D-Link

DSL-2770L // SETUP ADVANCED MAINTENANCE STATUS HELP

TIME

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

AUTOMATIC TIME AND DATE CONFIGURATION

Automatically synchronize with Internet time server :

NTP Server Used : << Select NTP Server

TIME CONFIGURATION

Current Router Time : Wed Nov 28, 2012 12:00:08

Time Zone : (GMT +08:00) Beijing, Chongqing, Hong Kong, Urumqi

Enable Daylight Saving :

Daylight Saving Dates : DTS Start : Jan 1st 1am DTS End : Dec 1st 12pm

SET THE DATE AND TIME MANUALLY

Date And Time : Year 2012 Month Nov Day 28

Hour 12 Minute 00 Second 07

Copy Your Computer's Time Settings

Apply Settings Cancel

Helpful Hints...

Making sure you have the correct time and date will enable you to accurately set up the Time Restrictions in the Parental Control section.

Enable Daylight Saving to ensure the router maintains the correct time throughout the year.

More...

IPv6

On this page, you can configure the IPv6 Connection type and settings.

IPv6: Enable or disable IPv6 for your router.

IPv6 Connection: If you wish to use IPv6, choose your IPv6 connection type:

- Static IPv6
- DHCPv6
- PPPoE
- 6 to 4
- IPv6 in IPv4 Tunnel
- PPPoA

Based on the connection type you choose, the following settings will change. Refer to the following pages for more details.

The screenshot shows the D-Link DSL-2770L web interface. The main navigation bar includes 'DSL-2770L', 'SETUP', 'ADVANCED', 'MAINTENANCE', 'STATUS', and 'HELP'. The left sidebar contains links for 'Internet Setup', 'Wireless Setup', 'LAN Setup', 'Time and Date', 'IPv6 Setup', 'USB Services', 'SharePort mobile', 'mydlink Settings', and 'LOGOUT'. The main content area is titled 'IPv6' and contains the following sections:

- IPv6 Connection Type:** Includes radio buttons for 'Disable' (selected) and 'Enable', and a dropdown menu for 'IPv6 Connection' set to 'Static IPv6'.
- WAN IPv6 Address Settings:** Includes input fields for 'IPv6 Address', 'Subnet Prefix Length', 'Default Gateway', 'Primary DNS Address', and 'Secondary DNS Address'.
- LAN IPv6 Address Settings:** Includes input fields for 'LAN IPv6 Address' and 'LAN IPv6 Link-Local Address'.
- Address Autoconfiguration Settings:** Includes radio buttons for 'Disable' and 'Enable' (selected), a dropdown for 'Autoconfiguration Type' set to 'Stateless', and a 'Router Advertisement Lifetime' of 200 seconds.

Buttons for 'Apply Settings' and 'Cancel' are located at the bottom of the configuration area. A 'Reboot' button is visible in the left sidebar. A 'Helpful Hints...' section is visible on the right side of the page.

Static IPv6

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

Subnet Prefix Length: Enter a subnet prefix length.

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

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

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

LAN Link-Local Address: Displays the router's LAN Link-Local Address.

Autoconfiguration: Enable or disable the autoconfiguration feature.

Autoconfiguration Type: Choose either **Stateless** or **Stateful(DHCPv6)** from the drop-down menu.

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

IPv6 CONNECTION TYPE	
IPv6 :	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
IPv6 Connection :	Static IPv6
WAN IPv6 ADDRESS SETTINGS	
IPv6 Address :	<input type="text"/>
Subnet Prefix Length :	<input type="text"/>
Default Gateway :	<input type="text"/>
Primary DNS Address :	<input type="text"/>
Secondary DNS Address :	<input type="text"/>
LAN IPv6 ADDRESS SETTINGS	
LAN IPv6 Address :	<input type="text"/> /64
LAN IPv6 Link-Local Address :	<input type="text"/>
ADDRESS AUTOCONFIGURATION SETTINGS	
Autoconfiguration :	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
Autoconfiguration Type :	Stateless
Router Advertisement Lifetime :	200 Seconds

Apply Settings Cancel

DHCPv6

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

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

LAN Link-Local Address: Displays the router's LAN Link-Local Address.

Autoconfiguration: Enable or disable the autoconfiguration feature.

Autoconfiguration Type: Choose either **Stateless** or **Stateful(DHCPv6)** from the drop-down menu.

Router Advertisement Lifetime:Link-Local Address: Enter the IPv6 Address Lifetime (in minutes).

IPv6 CONNECTION TYPE	
IPv6 :	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
IPv6 Connection :	DHCPv6
IPv6 DNS SETTINGS	
DNS Setting :	<input checked="" type="radio"/> Obtain DNS Server address Automatically <input type="radio"/> Use the following DNS address
Primary DNS Address :	<input type="text"/>
Secondary DNS Address :	<input type="text"/>
LAN IPv6 ADDRESS SETTINGS	
LAN IPv6 Address :	<input type="text"/> /64
LAN IPv6 Link-Local Address :	<input type="text"/>
ADDRESS AUTOCONFIGURATION SETTINGS	
Autoconfiguration :	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
Autoconfiguration Type :	Stateless
Router Advertisement Lifetime :	200 Seconds
<input type="button" value="Apply Settings"/> <input type="button" value="Cancel"/>	

PPPoE

Username: Enter your PPPoE user name.

Password: Enter your PPPoE password.

Service Name: Enter the ISP Service Name.

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

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

LAN Link-Local Address: Displays the router's LAN Link-Local Address.

Autoconfiguration: Enable or disable the autoconfiguration feature.

Autoconfiguration Type: Choose either **Stateless** or **Stateful(DHCPv6)** from the drop-down menu.

Router Advertisement Lifetime:Link-Local Address: Enter the IPv6 Address Lifetime (in minutes).

IPv6 CONNECTION TYPE	
IPv6 :	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
IPv6 Connection :	PPPoE ▼
PPPOE SETTINGS	
Username :	<input type="text"/>
Password :	<input type="text"/>
Service Name :	<input type="text"/>
MTU :	<input type="text"/>
LAN IPv6 ADDRESS SETTINGS	
LAN IPv6 Address :	<input type="text"/> /64
LAN IPv6 Link-Local Address :	<input type="text"/>
ADDRESS AUTOCONFIGURATION SETTINGS	
Autoconfiguration :	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
Autoconfiguration Type :	Stateless ▼
Router Advertisement Lifetime :	<input type="text"/> Seconds
<input type="button" value="Apply Settings"/> <input type="button" value="Cancel"/>	

6 to 4

6 to 4 Address: Your 6 to 4 address will be shown here.

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

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

LAN Link-Local Address: Displays the router's LAN Link-Local Address.

Autoconfiguration: Enable or disable the autoconfiguration feature.

Autoconfiguration Type: Choose either **Stateless** or **Stateful(DHCPv6)** from the drop-down menu.

Router Advertisement Lifetime:Link-Local Address: Enter the IPv6 Address Lifetime (in minutes).

IPv6 CONNECTION TYPE	
IPv6 :	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
IPv6 Connection :	6 to 4
6 TO 4 SETTINGS	
6 to 4 Address :	
Primary DNS Address :	
Secondary DNS Address :	
LAN IPv6 ADDRESS SETTINGS	
LAN IPv6 Address :	/64
LAN IPv6 Link-Local Address :	
ADDRESS AUTOCONFIGURATION SETTINGS	
Autoconfiguration :	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
Autoconfiguration Type :	Stateless
Router Advertisement Lifetime :	200 Seconds
<input type="button" value="Apply Settings"/> <input type="button" value="Cancel"/>	

IPv6 in IPv4 Tunneling

Remote IPv4 Address: Enter the IPv4 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.

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

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

LAN Link-Local Address: Displays the router's LAN Link-Local Address.

Autoconfiguration: Enable or disable the autoconfiguration feature.

Autoconfiguration Type: Choose either **Stateless** or **Stateful(DHCPv6)** from the drop-down menu.

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

IPv6 CONNECTION TYPE	
IPv6 :	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
IPv6 Connection :	IPv6 in IPv4 Tunnel
IPv6 IN IPv4 TUNNEL SETTINGS	
Remote IPv4 Address :	0.0.187.0
Local IPv4 Address :	0.0.255.3
Local IPv6 Address :	/64
Primary DNS Address :	
Secondary DNS Address :	
LAN IPv6 ADDRESS SETTINGS	
LAN IPv6 Address :	/64
LAN IPv6 Link-Local Address :	
ADDRESS AUTOCONFIGURATION SETTINGS	
Autoconfiguration :	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
Autoconfiguration Type :	Stateless
Router Advertisement Lifetime :	200 Seconds
<input type="button" value="Apply Settings"/> <input type="button" value="Cancel"/>	

PPPoA

Username: Enter your PPPoA user name.

Password: Enter your PPPoA password.

Service Name: Enter the ISP Service Name.

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

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

LAN Link-Local Address: Displays the router's LAN Link-Local Address.

Autoconfiguration: Enable or disable the autoconfiguration feature.

Autoconfiguration Type: Choose either **Stateless** or **Stateful(DHCPv6)** from the drop-down menu.

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

IPv6 CONNECTION TYPE	
IPv6 :	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
IPv6 Connection :	PPPoA
PPPOA SETTINGS	
Username :	<input type="text"/>
Password :	<input type="text"/>
Service Name :	<input type="text"/>
MTU :	<input type="text"/>
LAN IPv6 ADDRESS SETTINGS	
LAN IPv6 Address :	<input type="text"/> /64
LAN IPv6 Link-Local Address :	<input type="text"/>
ADDRESS AUTOCONFIGURATION SETTINGS	
Autoconfiguration :	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
Autoconfiguration Type :	Stateless
Router Advertisement Lifetime :	200 Seconds
<input type="button" value="Apply Settings"/> <input type="button" value="Cancel"/>	

USB Services

From this screen, you can set up various settings related to sharing files on a USB storage drive plugged into the DSL-2770L.

Disk Utility: Click the **Disk Utility** button for settings on formatting and checking a connected USB storage drive, and to view its current usage and capacity.

File Sharing: Click the **File Sharing** button for settings used for sharing a connected USB storage drive on your network through SAMBA.

Access Control: Click the **Access Control** button for settings on creating and modifying user accounts to control file access to the attached USB storage drive.

iTunes Server: Click the **iTunes Server** button for settings for the iTunes server function of the DSL-2770L.

Download Assistant: Click the **Download Assistant** button to add new automated download tasks.

Download Status: Click the **Download Status** button to manage your download tasks.

Web HDD: Click the **Web HDD** button to access and manage files stored on your USB storage drive through your web browser.

The screenshot displays the D-Link DSL-2770L web interface. The top navigation bar includes tabs for SETUP, ADVANCED, MAINTENANCE, STATUS, and HELP. The left sidebar contains a menu with options: Internet Setup, Wireless Setup, LAN Setup, Time and Date, IPv6 Setup, USB Services, SharePort mobile, mydlink Settings, and LOGOUT. The main content area is titled "USB Services" and contains several sections, each with a button to access its settings:

- NAS:** You could set NAS in this page.
- DISK UTILITY:** For disk format and size limitation. Button: Disk Utility.
- FILE SHARING:** For samba server naming. Button: File Sharing.
- ACCESS CONTROL:** Management for ftp / samba user list. Button: Access Control.
- ITUNES SERVER:** For enable iTunes server. Button: iTunes Server.
- DOWNLOAD ASSISTANT:** For download service. Button: Download Assistant.
- DOWNLOAD STATUS:** For Download Status. Button: Download Status.
- WEB HDD:** For guest and admin to check web hdd. Button: Web HDD.

At the bottom of the page, there is a "BROADBAND" section and a copyright notice: "copyright © 2012-2014 D-Link Systems, Inc."

Disk Utility

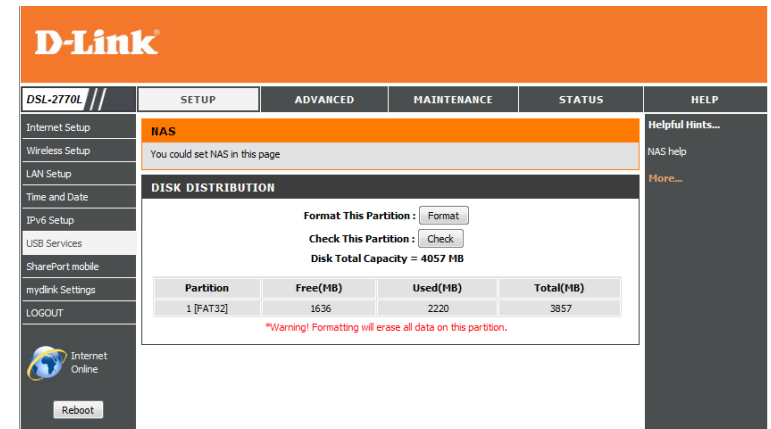
If you click Disk Utility on the NAS page, these settings will appear. Here, you can format and check a connected USB storage drive, and view its current usage and capacity.

Format This Partition: Click this button to format the attached USB storage drive and prepare it for use. The drive will be formatted using the EXT3 file system.

Warning: Formatting your drive will delete all files and folders stored on it.

Check This Partition: This will check the drive for errors. Please note that the drive must use the EXT3 file system in order to be checked.

Disk Total Capacity: This shows the full capacity of the USB storage drive.



The screenshot shows the D-Link web interface for a DSL-2770L device. The main content area is titled "DISK DISTRIBUTION" and contains the following information:

- Format This Partition:
- Check This Partition:
- Disk Total Capacity = 4057 MB

Partition	Free(MB)	Used(MB)	Total(MB)
1 [FAT32]	1636	2220	3857

A warning message is displayed below the table: ***Warning! Formatting will erase all data on this partition.**

File Sharing

If you click File Sharing on the NAS page, these settings will appear. Here you can adjust the settings for sharing your USB storage over a network through SAMBA. If you click the **FTP Service Configuration** button, you can adjust the FTP server settings.

Computer Name: Enter the name used to identify the USB drive on the network.

WorkGroup: Enter the network workgroup to join for the USB drive.

Server Comment: Enter a comment to identify the USB drive on the network.

The screenshot shows the D-Link web interface for the DSL-2770L. The main menu includes SETUP, ADVANCED, MAINTENANCE, STATUS, and HELP. The current page is titled 'NAS' and displays the 'BASIC SETTING' section. The settings are as follows:

- Computer Name: DSL-2770L
- WorkGroup: WORKGROUP
- Server Comment: samba server

Buttons at the bottom include 'Apply Settings', 'Cancel', and 'FTP Service Configuration'.

FTP: Select whether you want to enable or disable the FTP server function.

FTP Port: Set the port you want to use for the FTP server.

FTP Max Connection per IP: Set the maximum allowable connections per IP.

FTP MAX Clients: Set the maximum number of clients allowed to connect to the FTP server at one time.

Client Support UTF8: Select whether to support Unicode.

Codepage: Select which language to use for the FTP server.

The screenshot shows the 'FTP SETTING' page in the D-Link web interface. The settings are as follows:

- FTP: Enable Disable
- FTP Port: 21
- FTP Max Connection per IP: 2
- FTP MAX Clients: 5
- Client Support UTF8: Yes No
- Codepage: Arabic(CP864)

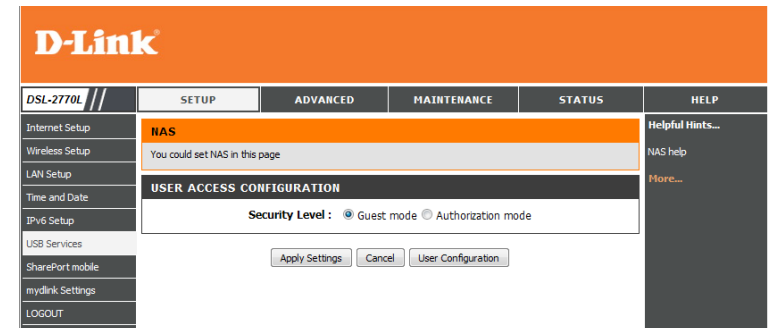
Buttons at the bottom include 'Apply Settings' and 'Cancel'.

Access Control

If you click Access Control on the NAS page, these settings will appear. Here you can adjust the settings for sharing your USB storage over a network through SAMBA.

Security Level: Selecting **Guest mode** will allow all users to access files on the USB storage drive. Selecting **Authorization mode** will require users to enter a username and password in order to access files on the USB drive.

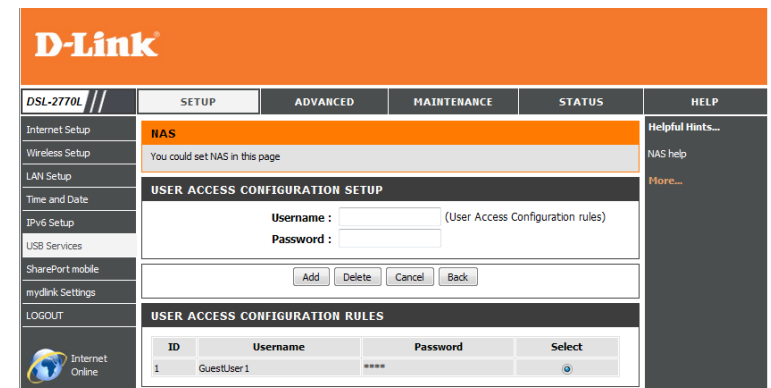
To set up user accounts for Authorization mode, click the **User Configuration** button.



After clicking the User Configuration button, these settings will appear:

Username/ Password: Enter a **Username** and **Password** for an account and click the **Add** button to create a new user.

You can also select an existing user and click **Delete** to remove it.



iTunes Server

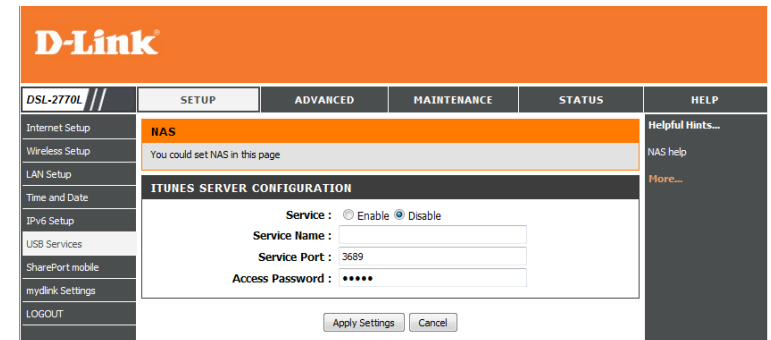
If you click iTunes Server on the NAS page, these settings will appear. Here you can adjust the settings for the iTunes server function.

Service: Select whether to enable or disable the iTunes server feature.

Service Name: Enter a name to identify your iTunes server.

Service Port: Enter which port to use for the service.

Access Password: If you wish to protect access your files with a password, enter it here.



The screenshot displays the D-Link DSL-2770L web interface. The top navigation bar includes 'DSL-2770L', 'SETUP', 'ADVANCED', 'MAINTENANCE', 'STATUS', and 'HELP'. The left sidebar lists various setup options: Internet Setup, Wireless Setup, LAN Setup, Time and Date, IPv6 Setup, USB Services, SharePort mobile, mydlink Settings, and LOGOUT. The main content area is titled 'iTUNES SERVER CONFIGURATION' and features a 'Service' toggle set to 'Disable', a 'Service Name' input field, a 'Service Port' field with the value '3689', and an 'Access Password' field with masked characters. 'Apply Settings' and 'Cancel' buttons are located at the bottom. A 'NAS' section above the configuration area contains a message: 'You could set NAS in this page'. A 'Helpful Hints...' sidebar on the right provides additional assistance.

Download Assistant

If you click Download Assistant on the NAS page, these settings will appear. Here you can set up download tasks for the DSL-2770L to run and download to the USB storage.

Download Type: Select which type of download you want to add. If you select **FTP**, you will see these settings.

Job Name: Enter a name to identify the download job.

URL: Enter the full FTP address and port of the file you want to download.

Save To: Enter the path you want to save the file to.

Login Method: Select whether to connect to the FTP server anonymously or to use a login account.

Username/ Password: If you select **Account** for your **Login Method**, enter the username and password for the FTP account.

Start Time: You can choose to start the download task immediately by selecting **At Once**, or you can select **Schedule** and select a date and time to start the download task.

Download Type: If you select **HTTP**, you will see these settings.

Job Name: Enter a name to identify the download job.

URL: Enter the full FTP address and port of the file you want to download.

Save To: Enter the path you want to save the file to.

Start Time: You can choose to start the download task immediately by selecting **At Once**, or you can select **Schedule** and select a date and time to start the download task.

The screenshot shows the D-Link DSL-2770L NAS web interface. The top navigation bar includes 'SETUP', 'ADVANCED', 'MAINTENANCE', 'STATUS', and 'HELP'. The left sidebar lists various setup options like 'Internet Setup', 'Wireless Setup', 'LAN Setup', etc. The main content area is titled 'DOWNLOAD ASSISTANT - FTP'. It features the following settings:

- Download Type:** FTP HTTP
- Job Name:** [Text input field]
- URL:** [Text input field] Port: 21
- Save To:** /C/Downloads/FTP
- Login method:** Anonymous Account
- Username:** [Text input field]
- Password:** [Text input field]
- Start Time:** Schedule At Once
- Time:** 2012 / Nov / 28 - 12 : 05

A red warning message at the bottom states: '*When you use the download service, please check if these files you downloaded are legal or not.' Buttons for 'Apply Settings', 'Cancel', and 'E-mail Alert Configuration' are located at the bottom right.

The screenshot shows the D-Link DSL-2770L NAS web interface for the 'DOWNLOAD ASSISTANT - HTTP' configuration page. It features the following settings:

- Download Type:** FTP HTTP
- Job Name:** [Text input field]
- URL:** [Text input field]
- Save To:** /C/Downloads/HTTP
- Start Time:** Schedule At Once
- Time:** 2012 / Nov / 28 - 12 : 05

A red warning message at the bottom states: '*When you use the download service, please check if these files you downloaded are legal or not.' Buttons for 'Apply Settings', 'Cancel', and 'E-mail Alert Configuration' are located at the bottom right.

Clicking the **E-mail Alert Configuration** button shows these settings:

HTTP/FTP download alert: Select whether you want to enable e-mail alerts when a file is transferred over HTTP/FTP.

SMTP Server Address: Enter the SMTP address of the e-mail account you want to send notifications from.

SMTP Server Port: Enter the SMTP port of the e-mail account you want to send notifications from.

SMTP UserName/ Password: Enter the username and password for the e-mail account you want to send notifications from.

Email Address: Enter the e-mail address you want your notifications to be sent to.

Email Subject: Enter the subject to use for your e-mail notifications.

The screenshot shows a web interface titled "E-MAIL ALERT CONFIGURATION". It contains the following fields and controls:

- HTTP download alert :** Radio buttons for "Enable" and "Disable", with "Disable" selected.
- FTP download alert :** Radio buttons for "Enable" and "Disable", with "Disable" selected.
- SMTP Server Address :** A text input field.
- SMTP Server Port :** A text input field.
- SMTP UserName :** A text input field.
- SMTP Password :** A text input field.
- Email Address :** A text input field.
- Email Subject :** A text input field.
- Test E-mail** button.

Apply Settings Cancel Back

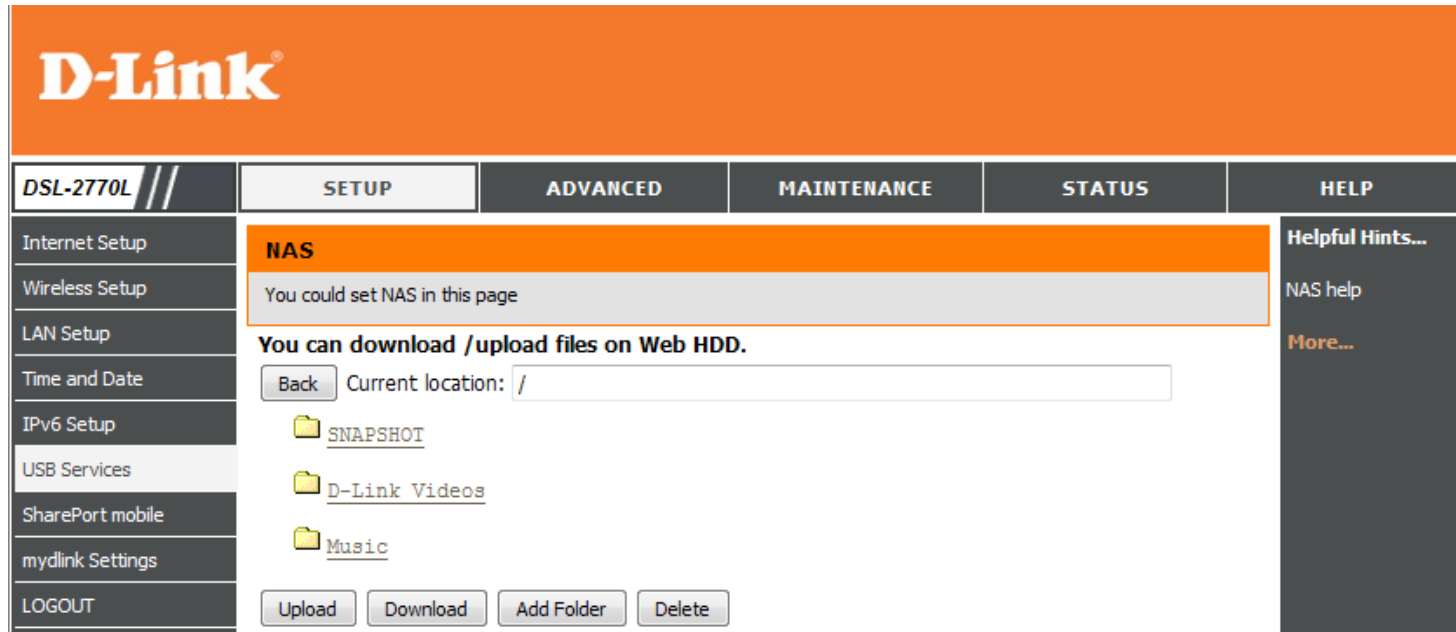
Download Status

If you click Download Status on the NAS page, these settings will appear. Here you can view and manage the download tasks of the DSL-2770L. After selecting a task, you can click **Pause/Resume** to pause and resume a download, or you can click **Start Now** to start the download task.

The screenshot displays the D-Link DSL-2770L web interface. The top navigation bar includes the D-Link logo and tabs for SETUP, ADVANCED, MAINTENANCE, STATUS, and HELP. The left sidebar contains a menu with options: Internet Setup, Wireless Setup, LAN Setup, Time and Date, IPv6 Setup, USB Services, SharePort mobile, mylink Settings, and LOGOUT. The main content area is currently on the STATUS tab, showing the 'DOWNLOAD ASSISTANT - JOB LIST' section. This section indicates that there are 0 download jobs in the list and provides a 'View' dropdown menu set to 'Running (0 Jobs)'. Below the list is a table with columns for Type, Name, and Status. At the bottom of the main content area are buttons for Pause, Resume, Start Now, and Refresh. The right sidebar contains 'Helpful Hints...' with links for 'NAS help' and 'More...'.

Web HDD

If you click Web HDD on the NAS page, you can see the folders and files stored on your USB drive. Click on a folder to open it, or click the **Back** button to up a directory. Click **Upload** to upload a file to the current folder, or click a file to select it, then click **Download** to download the file to your computer, or click **Delete** to delete it from the storage drive. Click the **Add Folder** button and enter a folder name to create a new folder in the current folder.



The screenshot displays the D-Link Web HDD interface. At the top, the D-Link logo is visible. Below it, a navigation menu includes tabs for SETUP, ADVANCED, MAINTENANCE, STATUS, and HELP. The left sidebar contains a list of configuration options: Internet Setup, Wireless Setup, LAN Setup, Time and Date, IPv6 Setup, USB Services (highlighted), SharePort mobile, mylink Settings, and LOGOUT. The main content area is titled "NAS" and contains a message: "You could set NAS in this page". Below this, a heading states "You can download /upload files on Web HDD." followed by a "Back" button and a "Current location: /" input field. Three folders are listed: "SNAPSHOT", "D-Link Videos", and "Music". At the bottom of the main area are four buttons: "Upload", "Download", "Add Folder", and "Delete". On the right side, there is a "Helpful Hints..." section with links for "NAS help" and "More..."

SharePort Mobile

This page will allow you to set up access to files on an external USB storage drive¹ that is plugged into the router. You can do this through local network or from the Internet using either a web browser or an app on your smartphone or tablet. You can create users that can be allowed access to these files through SharePort Mobile services accessible through a web UI or on mobile devices using the SharePort Mobile app available for iOS and Android.

Enable SharePort Web Access Check this box if you wish to be able to access SharePort through a browser as well as the mobile app.

HTTP Access Port: Enter the port you want to use when accessing SharePort using a web browser.

Allow Remote Access: Check this box if you wish to be able to access SharePort through a web browser over the Internet.

User Creation: To give a new user access to your SharePort storage, enter a User Name and Password here. You can Add new users or choose existing users from the drop-down menu if you wish to Edit or Delete them.

Note: The Admin password is the same as the admin password for the router. The Guest password is **guest** and cannot be changed.

User List: This list displays all of the users with access to the SharePort Mobile content, what they can access, and their Read/Write Permissions. Click on the edit icon at the right to change home folder and access rights for the user.

Number of Devices: All devices you have set up for SharePort access will be listed here.

SharePort Web Access Link: This area will display the links to connect to your SharePort drive through a web browser from a device on your network.

D-Link

DSL-2770L // SETUP ADVANCED MAINTENANCE STATUS HELP

STORAGE

SharePort Web Access allows you to use a web browser to access files stored on an USB storage drive plugged into the router. To use this feature, check the **Enable SharePort Web Access** checkbox, then create user accounts to manage access to your storage devices or use the Guest account(guest/guest) to access the Guest Folder. After plugging in an USB storage drive, the new device will appear in the list with a link to it. You can then use this link to connect to the drive and log in with a user account.

SHAREPORT WEB ACCESS :

Enable SharePort Web Access :

HTTP Access Port : 8181

Allow Remote Access :

10 -- USER CREATION

User Name : << User Name

Password :

Verify Password : Add/Edit Delete

USER LIST

No.	User Name	Access Path	Permission
1	admin	/	Read/Write
2	guest	None	Read Only

NUMBER OF DEVICES : 1

Device	Total Space	Free Space
usb_01	4.0GB	1.7GB

SHAREPORT WEB ACCESS LINK

You can use this link to connect to the drive remotely after logging in with a user account.

<http://192.168.1.1:8181>

Apply Settings Cancel

BROADBAND

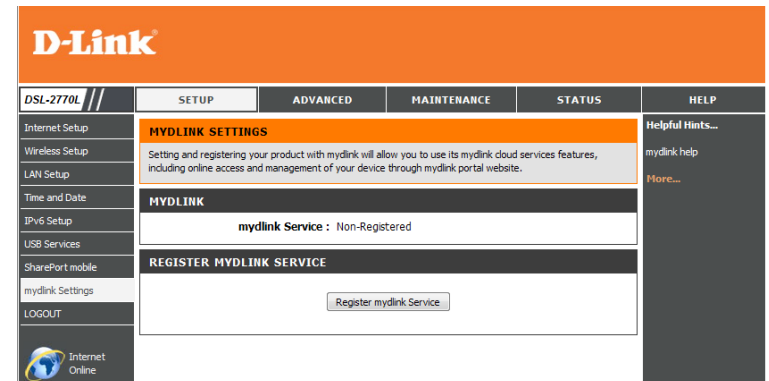
¹ Supports capacities of up to 1 TB for USB storage drives.

mydlink Settings

Devices that are mydlink-enabled can be accessed and managed through the mydlink website and by using mydlink mobile apps for iOS and Android. You cannot take advantage of these features without a mydlink account. If you have a mydlink account already, you can log in when you first set up the router, or by visiting this setup page.

mydlink Service: Displays whether your device is registered with a mydlink account or not.

Register mydlink Service: Click to go to open a wizard that will guide you through the process of registering your device to your mydlink account. If you don't have a mydlink account yet, you will be able to create one.



Advanced Virtual Server

This will allow you to forward a single port or a range of ports to a specific PC or device on your network.

You can automatically fill information required for some commonly used services by using the **Well known services** dropdown box at the top, selecting a rule **ID** to copy the information to, selecting a schedule rule if desired, then clicking the **Copy to** button.

Service Ports: Enter the external port(s) that you want to forward.

Server IP : Port: Enter the IP address and ports of the computer on your local network that you want to forward the specified (external) Service Ports to.

Enable: Check this box to enable the rule.

Schedule Rule#: Enter the schedule rule number that you want to apply to this port forwarding rule. You can create a new schedule by clicking the **Add New Rule...** button, or you can leave it blank to allow the rule to be always on.

For more details on creating schedule rules, refer to "Schedules" on page 83

D-Link

DSL-2770L // SETUP ADVANCED MAINTENANCE STATUS HELP

VIRTUAL SERVER

This is the ability to open ports in your router and re-direct data through those ports to a single PC on your network.

Well known services -- select one -- Copy to ID -- Use schedule rule --ALWAYS ON--

VIRTUAL SERVERS LIST

ID	Service Ports	Server IP : Port	Enable	Schedule Rule#
1			<input type="checkbox"/>	Add New Rule...
2			<input type="checkbox"/>	Add New Rule...
3			<input type="checkbox"/>	Add New Rule...
4			<input type="checkbox"/>	Add New Rule...
5			<input type="checkbox"/>	Add New Rule...
6			<input type="checkbox"/>	Add New Rule...
7			<input type="checkbox"/>	Add New Rule...
8			<input type="checkbox"/>	Add New Rule...

Internet Online

Reboot

Helpful Hints...
Check the Application Name drop down menu for a list of predefined applications. If not, you can still easily define a new rule.
More...

Application Rules

Some applications require multiple connections, such as Internet gaming, video conferencing, Internet telephony and others. These applications have difficulties working through NAT (Network Address Translation). Special Applications makes some of these applications work with the DSL-2770L. If you need to run applications that require multiple connections, specify the port normally associated with an application in the "Trigger Port" field, select the protocol type as TCP or UDP, then enter the firewall (public) ports associated with the trigger port to open them for inbound traffic.

You can automatically fill information required for some commonly used services by using the **Popular applications** dropdown box at the top, selecting a rule **ID** to copy the information to, then clicking the **Copy to** button.

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

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

Enable: Check this box to enable the rule.

The screenshot shows the D-Link DSL-2770L web interface. The main content area is titled "APPLICATION RULES" and contains the following text: "This option is used to pre-configure single or multiple trigger ports on your router that will automatically activate when the router senses data sent to the Internet from one of these applications." Below this text is a dropdown menu labeled "Popular applications" with a "Copy to ID" button next to it.

The "APPLICATION RULES" table is as follows:

ID	Trigger	Incoming Ports	Enable
1			<input type="checkbox"/>
2			<input type="checkbox"/>
3			<input type="checkbox"/>
4			<input type="checkbox"/>
5			<input type="checkbox"/>
6			<input type="checkbox"/>
7			<input type="checkbox"/>
8			<input type="checkbox"/>
9			<input type="checkbox"/>
10			<input type="checkbox"/>
11			<input type="checkbox"/>
12			<input type="checkbox"/>

At the bottom of the page, there are "Apply Settings" and "Cancel" buttons. On the right side, there is a "Helpful Hints..." section with the following text: "Use this feature if you are trying to execute one of the listed network applications and it is not communicating as expected. Check the Application Name drop down menu for a list of predefined applications. If you do not see your application listed you can still define a new rule. More..."

QoS Engine

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

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

WAN Interface: Select which WAN interface to adjust the QoS settings for.

Bandwidth of Upstream: Enter the upstream bandwidth for your Internet connection.

Bandwidth of Downstream: Enter the downstream bandwidth for your Internet Connection

WMM(Wi-Fi Multimedia) Select whether you wish to enable the WMM feature, then click the **Apply WMM Settings** button.

Wireless QoS: Click on this button to add a Wireless QoS rule.

LAN QoS: Click on this button to add a LAN QoS rule.

QoS Rules Table: This shows a list of your current QoS rules. You can check or uncheck a rule to enable or disable it, or you can click on the **X** next to the rule to delete it.

The screenshot displays the D-Link DSL-2770L web interface for QoS configuration. The main content area is titled 'QoS SETUP' and is divided into several sections:

- QoS SETUP:** A sub-header with a brief description: 'Quality of Service Setup can be used to improve data flow for different applications by prioritising the network traffic based on selected criteria.'
- ADAPTIVE BANDWIDTH CONTROL:** This section contains:
 - QoS:** A checkbox labeled 'Enable' which is currently unchecked.
 - WAN Interface:** A dropdown menu set to 'PVC0'.
 - Bandwidth of Upstream:** An input field for 'Kbps (Kilobits per second)'.
 - Bandwidth of Downstream:** An input field for 'Kbps (Kilobits per second)'.
 - A 'Save Setting' button.
- WIRELESS QoS SETUP:** This section contains:
 - WMM(Wi-Fi Multimedia):** A dropdown menu set to 'Enabled'.
 - An 'Apply WMM Settings' button.
- ADVANCED SETTING:** This section contains two buttons: 'Wireless QoS' and 'LAN QoS'.
- QoS RULES TABLE:** This section contains two buttons: 'Restart' and 'Reset QoS Rule'.

The left sidebar shows a navigation menu with options like 'VIRTUAL SERVER', 'Application Rules', 'QoS Setup', 'Outbound Filter', 'Inbound Filter', 'Wireless Filter', 'DDNS Setup', 'Firewall & DMZ', 'Advanced Internet', 'Advanced Wireless', 'Advanced LAN', 'Port Mapping', 'SNMP Setup', 'Remote Management', 'Routing', 'IPv6 Firewall', 'Budget Quota', and 'LOGOUT'. A 'Reboot' button is also visible at the bottom of the sidebar.

On the right side, there is a 'Helpful Hints...' section with the following text: 'QoS or Quality of Service allows your Router to help prioritise the data packet flow in your router and network. This is very important for time sensitive program as VoIP as it may result in dropped call. Large amounts of non-critical data can be scaled to not effect these sensitive real-time programs. D-link has setup some often used rules for the QoS, VoIP and H.323. QoS, VoIP and H.323. are often used for Internet calls.' Below this is a 'More...' link.

If you clicked on **Wireless QoS** or **LAN QoS**, you will see these settings. If you want to create a compound rule (for TCP/PORT, UDP/PORT, or TOS only), click the **Add A Conjunction (AND) Rule** button.

Rule: Check the box if you want the rule to be enabled.

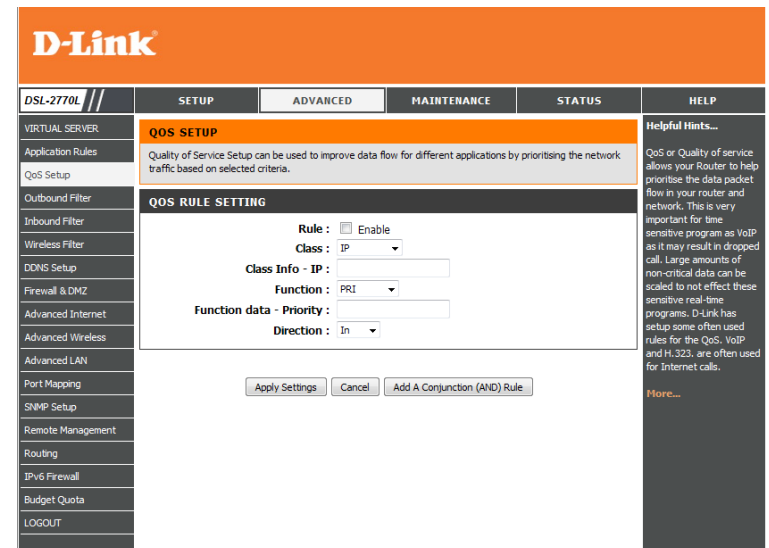
Class/Class Info: Select what criteria the rule should apply to, and enter the relevant criteria in the **Class Info** text box.

- **IP:** IP address
- **TCP/PORT:** TCP port
- **UDP/PORT:** UDP port
- **MAC:** MAC address
- **DSCP:** DSCP name
- **TOS:** Type of service

Function/Function data: Based on the Class selected, enter what you want the rule to apply to and enter the relevant information in the **Function data** text box. For example, for TCP/PORT, you should enter the TCP port the rule should apply to.

- **PRI:** Set priority level
- **MAXR:** Set maximum bandwidth rate
- **MINR:** Set minimum bandwidth rate
- **SESSION:** Set connection session
- **DROP:** Drop the packet
- **LOG:** Log the event
- **ALERT:** Create an alert event

Direction: Set which traffic direction the rule should apply to.



Outbound Filter

The Outbound Filter option is an advanced method of controlling data sent out to the Internet. With this feature you can configure outbound data filtering rules that control data based on an IP address range. Select whether to **Allow** all traffic specified by your rules to pass, or to **Deny** all traffic specified by your rules.

Source IP:Ports: Enter the starting IP address and ports from your network. Enter 0.0.0.0 if you do not want to specify an IP range.

Destination IP:Ports: Enter the ending IP address and ports outside your network. Enter 255.255.255.255 if you do not want to specify an IP range.

Enable: Check this box to enable the rule.

Schedule Rule#: Enter the schedule rule number that you want to apply to this port forwarding rule. You can create a new schedule by clicking the **Add New Rule...** button, or you can leave it blank to allow the rule to be always on.

For more details on creating schedule rules, refer to “Schedules” on page 83

D-Link

DSL-2770L // SETUP ADVANCED MAINTENANCE STATUS HELP

OUTBOUND IP FILTER

By default, all outgoing IP traffic from the LAN is allowed.

The Outbound Filter allows you to create a filter rule to block outgoing IP traffic by specifying a filter name and at least one condition below. All of the specified conditions in this filter rule must be satisfied for the rule to take effect.

OUTBOUND FILTER SETTING

Outbound Filter : Enable

Use schedule rule : ---ALWAYS ON--- Copy to ID --

OUTBOUND FILTER RULES LIST

Allow all to pass except those match the following rules.
 Deny all to pass except those match the following rules.

ID	Source IP:Ports	Destination IP:Ports	Enable	Schedule Rule#
1			<input type="checkbox"/>	Add New Rule...
2			<input type="checkbox"/>	Add New Rule...
3			<input type="checkbox"/>	Add New Rule...
4			<input type="checkbox"/>	Add New Rule...
5			<input type="checkbox"/>	Add New Rule...

Helpful Hints...

Give each rule a Name that is meaningful to you.

Each rule can Deny outgoing traffic from the LAN.

The Source IP addresses are LAN-side address and the Destination IP address are WAN-side address.

Click the Save button to store a finished rule in the Rules List.

Click the Remove checkbox in the Rules List then click on the Remove button to permanently remove a rule.

More...

Internet Online

Reboot

Inbound Filter

The Inbound Filter option is an advanced method of controlling data received from the Internet. With this feature you can configure inbound data filtering rules that control data based on an IP address range. Select whether to **Allow** all traffic specified by your rules to pass, or to **Deny** all traffic specified by your rules.

Source IP:Ports: Enter the starting IP address and ports from outside your network. Enter 0.0.0.0 if you do not want to specify an IP range.

Destination IP:Ports: Enter the ending IP address and ports inside your network. Enter 255.255.255.255 if you do not want to specify an IP range.

Enable: Check this box to enable the rule.

Schedule Rule#: Enter the schedule rule number that you want to apply to this port forwarding rule. You can create a new schedule by clicking the **Add New Rule...** button, or you can leave it blank to allow the rule to be always on.

For more details on creating schedule rules, refer to "Schedules" on page 83

D-Link

DSL-2770L // SETUP ADVANCED MAINTENANCE STATUS HELP

INBOUND IP FILTER

Note: This section only applies when the Firewall is enabled.

By default, all incoming IP traffic that does not originate from the internal network is blocked when the firewall is enabled. Normal outgoing Internet requests created by web browsing, email and other software you run will work as usual as the requests originate from inside your internal network.

The Inbound Filter allows you to create a filter rule to allow incoming IP traffic by specifying a filter name and at least one condition below. All of the specified conditions in this filter rule must be satisfied for the rule to take effect.

INBOUND FILTER SETTING

Inbound Filter : Enable

Use schedule rule : ---ALWAYS ON--- Copy to ID --

INBOUND FILTER RULES LIST

Allow all to pass except those match the following rules.
 Deny all to pass except those match the following rules.

ID	Source IP:Ports	Destination IP:Ports	Enable	Schedule Rule#
1	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/> Add New Rule...
2	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/> Add New Rule...
3	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/> Add New Rule...
4	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/> Add New Rule...

Helpful Hints...

Give each rule a Name that is meaningful to you.

Each rule can Deny outgoing traffic from the LAN.

The Source IP addresses are LAN-side address and the Destination IP address are WAN-side address.

Click the Save button to store a finished rule in the Rules List.

Click the Remove checkbox in the Rules List then click on the Remove button to permanently remove a rule.

More...

Internet Online

Reboot

Wireless Filter

The Wireless Filter feature allows you to limit wireless access to your network based on a device's MAC address.

Enable Wireless Mac Filtering: Check this box to enable wireless filtering by MAC address. Select whether to **Allow** access to all computers specified, or to **Deny** access to all computers specified.

Filter Name: Enter a name for the filter rule.

Wireless MAC Address: Enter the MAC address of the wireless device you want to filter.

Click the **Add/Apply** button to save your changes and apply your settings.

D-Link

DSL-2770L // SETUP ADVANCED MAINTENANCE STATUS HELP

WIRELESS FILTER
This page enables users to allow or deny specific wireless devices to connect to the wireless network by specifying the MAC address.

WIRELESS FILTER POLICY
You can change the global Wireless Filter Policy here.

Enable Wireless Mac Filtering

Only **DENY** computers listed to access the wireless network.

Only **ALLOW** computers listed to access the wireless network.

Change Policy

WIRELESS FILTER
Please enter the filter name, such as "My PC", and the MAC address of the wireless interface.

Filter Name :

Wireless MAC Address :

Add/Apply

WIRELESS FILTER - MAXIMUM 32 ENTRIES COULD BE ADDED.

Name	MAC	Edit	Remove

Helpful Hints...
Create a list of MAC addresses that you would either like to allow or deny users access to the wireless router. Click on Remove if you want to take out a MAC address from the MAC filter list.
More...

Internet Online
Reboot

DDNS Setup

The DDNS feature allows you to host a server (Web, FTP, or Game Server) using a domain name that you have purchased (such as www.exampledomain.com) with your dynamically assigned IP address. You can use one of the listed DDNS service, or you can sign up for D-Link's free DDNS service at www.dlinkddns.com. After modifying any settings, click **Save Settings** to save your changes.

DDNS: Tick this checkbox to enable the DDNS feature.

Provider: Select a DDNS service provider to use.

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

Username / E-mail: Enter the **Username** for your DDNS account.

Password / Key: Enter the **Password** for your DDNS account.

The screenshot shows the D-Link DSL-2770L web interface. The top navigation bar includes 'SETUP', 'ADVANCED', 'MAINTENANCE', 'STATUS', and 'HELP'. The 'ADVANCED' tab is selected, and the 'DDNS Setup' page is displayed. The page is divided into three main sections: 'DNS SETUP', 'DYNAMIC DNS', and 'Helpful Hints...'. The 'DNS SETUP' section contains a descriptive paragraph and a link to D-Link's free DDNS service. The 'DYNAMIC DNS' section features a 'DDNS' checkbox, a 'Provider' dropdown menu set to 'DyDNS.org(Dynamic)', and input fields for 'Host Name', 'Username / E-mail', and 'Password / Key'. Below these fields are 'Apply Settings' and 'Cancel' buttons. The 'Helpful Hints...' section on the right provides additional information about DNS and DDNS.

Firewall & DMZ

A firewall protects your network from the outside world. The DSL-2770L offers a firewall type functionality. The SPI feature helps prevent network attacks. Sometimes you may want a computer exposed to the outside world for certain types of applications. If you choose to expose a computer, you can enable DMZ. DMZ is short for Demilitarized Zone. This option will expose the chosen computer completely to the outside world.

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

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

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

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

The screenshot shows the D-Link DSL-2770L web interface. The top navigation bar includes tabs for SETUP, ADVANCED, MAINTENANCE, STATUS, and HELP. The left sidebar lists various configuration options, with 'Firewall & DMZ' selected. The main content area is divided into three sections:

- FIREWALL & DMZ:** Contains introductory text about the router's firewall and DMZ. It states: "The router already provides a simple firewall by virtue of the way NAT works. By default NAT does not respond to unsolicited incoming requests on any port, thereby making your LAN invisible to Internet cyberattackers. DMZ means 'Demilitarised Zone'. DMZ allows computers behind the router firewall to be accessible to Internet traffic. Typically, your DMZ would contain Web servers, FTP servers, and others."
- FIREWALL SETTINGS:** Includes a checkbox for 'Enable SPI' which is checked.
- DMZ HOST:** Contains text explaining the DMZ option: "The DMZ (Demilitarized Zone) option lets you set a single computer on your network outside of the router. If you have a computer that cannot run Internet applications successfully from behind the router, then you can place the computer into the DMZ for unrestricted Internet access." It also includes a note: "Note: Putting a computer in the DMZ may expose that computer to a variety of security risks. Use of this option is only recommended as a last resort." Below this text are controls for 'Enable DMZ' (unchecked) and 'DMZ IP Address' (set to 'Computer Name').

At the bottom of the main content area are 'Apply Settings' and 'Cancel' buttons. The left sidebar also features an 'Internet Online' indicator and a 'Reboot' button.

Advanced Internet

This screen lets you add or remove PVC settings and select your ADSL mode. It is recommended that you only change settings on this page as directed by your service provider.

Multiple PVC Settings: This shows you your current PVC settings. You can click the **Add** button to add a new PVC setting, click the **Edit** button for a PVC setting to edit it, or tick the checkbox next to a setting and click **Delete** to remove it.

Advanced ADSL Settings: Select which ADSL mode to use.

D-Link

DSL-2770L // SETUP ADVANCED MAINTENANCE STATUS HELP

ADVANCED ADSL

The Multiple PVC Settings allow you to **Add**, **Delete** or **Edit** multiple PVCs connection for advanced ADSL service.

The Advanced ADSL settings allow you to choose which ADSL modulation settings your modem router will support.

D-Link do not recommend that you change these settings unless directed to do so by your ISP.

MULTIPLE PVC SETTINGS

	VPI/VCI	Description	Protocol	IGMP	Nat	State	Edit
<input type="checkbox"/>	PVC0	0/33	EoA with NAT	Disabled	Enabled	Enabled	Edit
<input type="checkbox"/>	Ethernet	N/A	Dynamic IP	Disabled	Enabled	Enabled	Edit

Add Delete

ADVANCED ADSL SETTINGS

- G.Dmt Enabled
- G.lite Enabled
- T1.413 Enabled
- ADSL2 Enabled
- Annex2+ Enabled
- Auto

Apply Settings Cancel

Helpful Hints...

Do not change these settings unless directed by your ISP. By default the D-Link router will determine your best connection. You do not need to change any settings unless instructed by D-Link Technical Support.

More...

Internet Online

Reboot

Advanced Wireless

This page allows you to change some of the advanced wireless settings of the DSL-2770L. It is recommended that you only change these settings if you are familiar with their functions and proper settings, or are instructed to do so.

Beacon Interval: Specify a value for the beacon interval. Beacons are packets sent by an Access Point to synchronize a wireless network. 100 is the default setting and is recommended.

Transmit Power: Set the transmit power of the antennas.

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

Fragmentation: The fragmentation threshold, which is specified in bytes, determines whether packets will be fragmented. Packets exceeding the 2346 byte setting will be fragmented before transmission. 2346 is the default setting.

DTIM Interval: Set the interval for DTIM. A Delivery Traffic Indication Message (DTIM) is a countdown informing clients of the next window for listening to broadcast and multicast messages. The default interval is 3.

WMM Capable: WMM (Wi-Fi Multimedia) is a QoS (Quality of Service) system for your wireless network. Enable this option to improve the quality of video and voice applications for your wireless clients.

TX Rates: Select the basic transfer rates based on the speed of wireless adapters on your wireless network. It is strongly recommended to keep this setting to Auto.

Guest Wireless Settings: Here, you can set up a Wireless Guest Network, which will provide access to the Internet, but not to your network devices. To use this feature, tick the **Enable Wireless Guest Network** checkbox. For more details, refer to "Wireless Settings" on page 32.

D-Link

DSL-2770L // SETUP ADVANCED MAINTENANCE STATUS HELP

ADVANCE WIRELESS

These options are for users that wish to change the behaviour of their 802.11g wireless radio from the standard setting. D-Link does not recommend changing these settings from the factory default. Incorrect settings may impair the performance of your wireless radio. The default settings should provide the best wireless radio performance in most environments.

ADVANCED WIRELESS SETTINGS

Beacon Interval : 100 (msec, range:1~1000, default: 100)
 Transmit Power : 100%
 RTS Threshold : 2347 (1~2347)
 Fragmentation : 2346 (256~2346,default: 2346,even number only)
 DTIM Interval : 1 (range: 1~255)
 WMM Capable : Enable Disable
 TX Rates :

GUEST WIRELESS SETTINGS

Enable Wireless Guest Network :
 Wireless Network Name (SSID) : D-Link DSL-2770L_Gues
 Visibility Status : Visible Invisible
 AP Isolation : Off

WIRELESS SECURITY MODE

To protect your privacy you can configure wireless security features. This device supports three wireless security modes including: WEP, WPA, WPA2 and Auto.

The **WEP** mode is the original wireless encryption standard.WPA provides a higher level of security.

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

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

Security Mode : None

Apply Settings Cancel

BROADBAND

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Advanced LAN

Advanced LAN contains settings which can change the way the router handles certain types of traffic. We recommend that you do not change any of these settings unless you are already familiar with them or have been instructed to make the change by one of our support personnel. After modifying any settings, click **Save Settings** to save your changes.

Enable UPnP: Tick this checkbox to use the Universal Plug and Play (UPnP™) feature. UPnP provides compatibility with various networking equipment, software, and peripherals.

Enable WAN Ping Respond: Select the box to allow the WAN port to be “pinged.” Blocking WAN pings may provide some extra security from hackers.

The screenshot shows the D-Link DSL-2770L Advanced LAN configuration page. The page is divided into several sections:

- ADVANCED LAN:** This section contains a warning: "These options are for users that wish to change the LAN settings. D-Link does not recommend changing these settings from factory default. Changing these settings may affect the behaviour of your network."
- UPNP:** This section contains the text: "Universal Plug and Play (UPnP) supports peer-to-peer Plug and Play functionality for network devices." Below this text is the "Enable UPnP" checkbox, which is checked.
- BLOCK ICMP PING:** This section contains the text: "If you enable this feature, the WAN port of your router will respond to ping requests from the Internet that are sent to the WAN IP Address." Below this text is the "Enable WAN Ping Respond" checkbox, which is unchecked.

At the bottom of the page, there are two buttons: "Apply Settings" and "Cancel".

Port Mapping

This page allows you to configure port mapping settings for both the Ethernet ports and wireless APs.

LAN VLAN Settings: Enter the VID you want to use for each Ethernet port, as well as whether you want to apply Tx tagging for the port.

Wireless LAN VLAN Settings-AP: Enter the VID you want to use for each wireless AP, as well as whether you want to apply Tx tagging for the port.

WAN VLAN Settings: Click this button to configure settings for each VID.

PORT MAPPING SETTINGS

This section is used to configure the port mapping to support VLAN.

Port Mapping supports multiple ports to PVC and bridging groups. Each group will perform as an independent network. To support this feature, you must create mapping groups with appropriate LAN and WAN interfaces using the Add button. The Remove button will remove the grouping and add the ungrouped interfaces to the Default group if Remove is checked. Only the default group has IP interface.

LAN VLAN SETTINGS

Ethernet	WAN/LAN	VID	Tx TAG
Port1	LAN	1	<input type="checkbox"/>
Port2	LAN	1	<input type="checkbox"/>
Port3	LAN	1	<input type="checkbox"/>
Port4	WAN	1	<input type="checkbox"/>

WIRELESS LAN VLAN SETTINGS-AP

Wireless AP	VID	Tx TAG
1	1	<input type="checkbox"/>
2	1	<input type="checkbox"/>

SUMMARY

VLAN ID on LAN	LAN/Wireless LAN(Interface)	Tag	Type	Internet or ISP map	WAN(VLAN ID)
1	Port1, Port2, Port3, AP-1, AP-2	No	NAT		0

Buttons: WAN VLAN Settings, Apply Settings, Cancel

If you click on the **WAN VLAN Settings** button, these settings will appear:

VID: Enter the VID you want to edit.

Routing Type: Select what routing type to use, NAT or Bridge.

DHCP Setting: If you select NAT, this will be DHCP by default.

WAN Type: If you select Bridge, select which WAN to use.

WAN Map VLAN ID: If you select Bridge, enter the VLAN ID to use.

VLAN SETTINGS :

VID : 1

Routing Type : Bridge

WAN type : Ethernet

WAN Map VLAN ID : 0 (0 is untag)

Buttons: Apply Settings, Cancel

SNMP Setup

This page allows you to configure the SNMP settings for remote management of this device.

SNMP Local: Set whether you want to enable local SNMP access for the router.

SNMP Remote: Set whether you want to enable remote SNMP access for the router.

Get Community: Enter the community that the router will respond to for GetRequests.

Set Community: Enter the community that the router will accept for SetRequests.

IP 1/2/3/4: Enter the IP addresses of the PCs you will use for SNMP management.

SNMP Version: Enter the SNMP version to use.

WAN Access IP Address: If you want to limit SNMP access to a specific PC/IP address only, enter the IP address here. By default, this is set to 0.0.0.0 and allows any computer to have SNMP access.

The screenshot shows the D-Link DSL-2770L web interface. The top navigation bar includes tabs for SETUP, ADVANCED, MAINTENANCE, STATUS, and HELP. The left sidebar lists various configuration options, with 'SNMP Setup' selected. The main content area is titled 'SNMP' and contains the following configuration options:

- SNMP Local:** Radio buttons for Enabled and Disabled (Disabled is selected).
- SNMP Remote:** Radio buttons for Enabled and Disabled (Disabled is selected).
- Get Community:** Text input field.
- Set Community:** Text input field.
- IP 1:** Text input field.
- IP 2:** Text input field.
- IP 3:** Text input field.
- IP 4:** Text input field.
- SNMP Version:** Radio buttons for V1 and V2c (V1 is selected).
- WAN Access IP Address:** Text input field.

At the bottom of the main content area are 'Apply Settings' and 'Cancel' buttons. The right sidebar contains 'Helpful Hints...' and 'More...' links.

Remote Management

This page allows you to configure the remote management settings of this device.

Enable Remote Management: Tick this box to enable remote management. This will allow you to access the web configuration interface remotely through the Internet. This may require you to know your IP address or set up DDNS.

IP Allowed to Access: Enter the IP address you want to allow remote access from. By default, this is set to 0.0.0.0, which will allow access any computer on the Internet.

Port: Set which port you want to use for remote access.

The screenshot shows the D-Link DSL-2770L web configuration interface. The top navigation bar includes tabs for SETUP, ADVANCED, MAINTENANCE, STATUS, and HELP. The left sidebar lists various configuration options, with Remote Management selected. The main content area is titled 'REMOTE MANAGEMENT' and contains the following settings:

- Enable Remote Management:** Enabled
- IP Allowed to Access:**
- Port:** Manual

Buttons for 'Apply Settings' and 'Cancel' are located at the bottom of the form. A 'Helpful Hints...' section on the right provides additional information: 'Remote Management by default should be disabled. However if you wish to login and manage your Router from another Internet device than you can enable the router to accept such commands from the Internet port. This option may be useful if your network administrator is not onsite or Technical Support request such access. More...'

Routing

The Routing page allows you to specify custom routes that determine how data is moved around your network. After modifying any settings, click **Save Settings** to save your changes.

RIP: Select this box to enable routing, then select which routing protocol to use:

- **RIPv1:** Protocol in which the IP address is routed through the internet.
- **RIPv2:** Enhanced version of RIPv1 with added features such as Authentication, Routing Domain, Next Hop Forwarding, and Subnet-mask Exchange.

ID: This identifies the rule.

Destination: Enter in the IP of the specified network that you want to access using the static route.

Subnet Mask: Enter in the subnet mask to be used for the specified network.

Gateway: Enter in the gateway IP address for the specified network.

Hop: Enter in the amount of hops it will take to reach the specified network.

Note: In a transmission path, each link is terminated at a network device such as a router or gateway. The number of hops equals the number of routers or gateways that data must pass through before reaching the destination.

Enable: Select this box to enable the rule.

D-Link

DSL-2770L // SETUP ADVANCED MAINTENANCE STATUS HELP

ROUTING -- STATIC ROUTE

Enter the destination network address, subnet mask, gateway AND/OR available WAN interface then click "Apply" to add the entry to the routing table.

A maximum 32 entries can be configured

Allows you to configure RIP (Routing Information Protocol) in case wan is NAT and nat is disabled. To activate RIP for the device, select the 'Enabled' radio button for Global RIP Mode. To configure an individual interface, select the desired RIP version and operation, followed by placing a check in the 'Enabled' checkbox for the interface. Click the 'Apply' button to save the configuration, and to start or stop RIP based on the Global RIP mode selected.

RIP SETTING

RIP : Enable RIPv1 RIPv2

ROUTING RULES

ID	Destination	Subnet Mask	Gateway	Hop	Enable
1					<input type="checkbox"/>
2					<input type="checkbox"/>
3					<input type="checkbox"/>
4					<input type="checkbox"/>
5					<input type="checkbox"/>
6					<input type="checkbox"/>
7					<input type="checkbox"/>
8					<input type="checkbox"/>

Apply Settings Cancel

Internet Online

Reboot

Helpful Hints...
You can select what gateway to use, by interface or by specifying a gateway.
Enabling RIP provides a protocol that determines the best path to a target by estimating the distance in number of hops or intermediate routers.
More...

IPv6 Firewall

This page lets you adjust the IPv6 firewall settings to control IPv6 traffic allowed in and out of your network. After modifying any settings, click **Save Settings** to save your changes.

- Configure IPv6 Filtering Below:** Select whether to
- **Turn IPv6 Filtering OFF**
 - **Turn IPv6 Filtering ON and ALLOW computers listed to access the network** (all computers not specified will be denied access)
 - **Turn IPv6 Filtering ON and DENY computers listed to access the network** (all computers not specified will be allowed access)

For each rule, tick the checkbox on the left to enable the rule.

Name: Enter a name for the rule.

Schedule: Select whether to have the rule active **Always**, **Never**, or according to a schedule you have created. For more about creating schedules, refer to page 83.

Source: Enter the starting IP address of the traffic you want to filter.

Dest: Enter the ending IP address of the traffic you want to filter.

Protocol: Enter which protocol you want to filter.

Port Range: Enter the port range of the traffic you want to filter.

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DSL-2770L // SETUP ADVANCED MAINTENANCE STATUS HELP

IPv6 FIREWALL

The Firewall settings section is an advance feature used to allow or deny traffic from passing through the device. It works in the same way as ip filters with additional settings. You can create more detail rules for the device.

IPv6 FIREWALL RULES

Configure IPv6 Filtering below:
Turn IPv6 Filtering OFF

<input type="checkbox"/>	Name	Schedule
	Source IP Address	Always
	Dest IP Address	Protocol TCP
		Port Range
<input type="checkbox"/>	Name	Schedule
	Source IP Address	Always
	Dest IP Address	Protocol TCP
		Port Range
<input type="checkbox"/>	Name	Schedule
	Source IP Address	Always
	Dest IP Address	Protocol TCP
		Port Range
<input type="checkbox"/>	Name	Schedule
	Source IP Address	Always
	Dest IP Address	Protocol TCP
		Port Range

Internet Online

Reboot

Helpful hints...
More...

Budget Quota

This page lets you set quotas for how much traffic is allowed to pass through the network. This may be useful to control usage if there is a bandwidth cap in place.

Enable Limitation Quota: Tick this box to enable quotas.

Select Interface: Select which interface to apply the budget quota to.

Limit Time(Days): Enter the period of time to apply the budget quota to. After the time limit has passed, the quota will reset.

Enable Download Quota: Tick this box to enable download quotas.

Download Quota: Set the maximum allowed download amount in megabytes for the period of time specified in **Limit Time**.

Enable Upload Quota: Tick this box to enable upload quotas.

Upload Quota: Set the maximum allowed upload amount in megabytes for the period of time specified in **Limit Time**.

Traffic Information: This shows your current received and transmitted traffic totals so far. You can click the **Refresh** button to update the totals. Please note that the totals update every three minutes.

The screenshot displays the D-Link DSL-2770L web interface. The top navigation bar includes 'D-Link', 'DSL-2770L', and tabs for 'SETUP', 'ADVANCED', 'MAINTENANCE', 'STATUS', and 'HELP'. The 'ADVANCED' tab is selected, and the 'BUDGET QUOTA' page is active. The left sidebar lists various configuration options, with 'Budget Quota' highlighted. The main content area shows the 'LIMITATION QUOTA SETTINGS' section with the following fields:

- Enable limitation quota:
- Select interface: br0 (dropdown menu)
- Limit time(days):
- Enable download quota:
- Download quota(Max, MB):
- Enable limitation quota:
- Upload quota(Max, MB):

At the bottom of the settings section are buttons for 'Traffic Info', 'Save/Apply', and 'Reset'. On the right side, there is a 'Helpful hints...' section with text explaining the function of the limitation quota and a 'More...' link.

Maintenance

Password

This page will allow you to change the password used to log in to the web configuration interface.

Current/ New/Confirm Password: To change the password, enter the current password, then the new password you want to use, then enter it again to confirm it, then click **Apply Settings** to save your changes.

Session Idle Time Out: Set the idle time in seconds that are allowed before the web configuration interface automatically logs out the user.

Enable 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.

The screenshot shows the D-Link DSL-2770L web configuration interface. The top navigation bar includes tabs for SETUP, ADVANCED, MAINTENANCE (selected), STATUS, and HELP. The left sidebar contains links for Password, Save/Restore Settings, Firmware Update, Ping Test, System Log, Schedules, LOGOUT, and Reboot. The main content area is titled "PASSWORD" and contains the following sections:

- PASSWORD:** A message stating: "The factory default password of this router is 'admin'. To help secure your network, D-Link recommends that you should choose a new password."
- SET PASSWORD (OPTIONAL):** A section with the instruction: "To change the router password, please type in the current password, then the new password twice." It includes input fields for:
 - Current Password :
 - New Password :
 - Confirm Password :
 - Session Idle Time Out : 300 (Seconds)
- GRAPHIC LOG-IN AUTHENTICATION (CAPTCHA):** A section with the instruction: "To enhance your router login security." It includes a checkbox for "Enable CAPTCHA" and a "Reboot" button.

On the right side, there is a "Helpful Hints..." section with text: "This page allows you to modify your router password needed to access the Web management interface. For security reasons, it is recommended that you change your device password from the factory default. Please make sure to choose a password you can remember or write it down and keep in a safe and separate location for future reference. If you forget your device password, the only solution is to reset your router to factory default settings and you will lose all your device configuration settings." A "More..." link is also present.

Save/Restore Settings

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

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

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

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

The screenshot shows the D-Link DSL-2770L web interface. The top navigation bar includes tabs for SETUP, ADVANCED, MAINTENANCE, STATUS, and HELP. The main content area is titled "SAVE/RESTORE SETTINGS" and contains the following sections:

- SAVE/RESTORE SETTINGS:** A text box stating: "Once the router is configured you can save the configuration settings to a configuration file on your hard drive. You also have the option to load configuration settings, or restore the factory default settings."
- SAVE/RESTORE CONFIGURATION:**
 - Save Settings To Local Hard Drive:** Includes a "Save" button.
 - Load Settings From Local Hard Drive:** Includes a "Browse..." button and an "Update Settings" button.
 - Restore To Factory Default Settings:** Includes a "Restore Device" button.

On the left side, there is a sidebar menu with options: Password, Save/Restore Settings (highlighted), Firmware Update, Ping Test, System Log, Schedules, LOGOUT, and Internet Online (with a "Reboot" button below it). On the right side, there is a "Helpful Hints..." section with a warning: "This page allows you to save your router configuration to a file on your computer as a precaution in case you have to reset your router to factory default settings. You will be able to restore your router settings from a previously saved configuration file. There is also a function to allow you to reset your router to factory default settings. Resetting your router to factory default settings will erase your current configuration."

Firmware Update

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

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

Accept Unofficial Firmware: Tick this box to allow unofficial firmware to be loaded onto the device. Please note that this is not recommended, and any damage caused by an unofficial firmware may invalidate your product warranty.

The screenshot shows the D-Link DSL-2770L web interface. The top navigation bar includes 'DSL-2770L', 'SETUP', 'ADVANCED', 'MAINTENANCE', 'STATUS', and 'HELP'. The left sidebar contains links for 'Password', 'Save/Restore Settings', 'Firmware Update', 'Ping Test', 'System Log', 'Schedules', and 'LOGOUT', along with 'Internet Online' and 'Reboot' buttons. The main content area is titled 'FIRMWARE UPDATE' and contains the following sections:

- FIRMWARE UPDATE:** A note stating: "Note: Please do not update the firmware on this router unless instructed to do so by D-Link technical support or your ISP."
- FIRMWARE INFORMATION:** Displays "Current Firmware Version : EU_1.00" and "Current Firmware Date : 11232012".
- FIRMWARE UPGRADE:** A note stating: "Note: Some firmware upgrades reset the configuration options to factory defaults. Before performing an upgrade, be sure to save the current configuration from the Maintenance -> Save/Restore Settings screen." Below this, it says: "To upgrade the firmware, your PC must have a wired connection to the router. Enter the name of the firmware upgrade file, and click on the Upload button." There is an "Upload:" field with a "Browse..." button, an "Upgrade" button, and an "Accept unofficial firmware:" checkbox.

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

Ping Test

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

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

The screenshot displays the D-Link DSL-2770L web management interface. The top navigation bar includes tabs for SETUP, ADVANCED, MAINTENANCE, STATUS, and HELP. The left sidebar contains various system management options such as Password, Save/Restore Settings, Firmware Update, Ping Test, System Log, Schedules, LOGOUT, and Internet Online. The main content area is titled "PING TEST" and contains the following text: "Ping Test sends 'ping' packets to test a computer on the Internet." Below this, a sub-section explains: "Ping Test is used to send 'Ping' packets to test if a computer is on the Internet." A form field labeled "Host Name or IP address :" is followed by a "Ping" button. A "PING RESULT" section below the form contains the instruction "Enter a host name or IP address above and click Ping." and two buttons: "Apply Settings" and "Cancel". On the right side of the interface, there is a "Helpful Hints..." section with explanatory text and a "More..." link.

System Log

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

Log Types: Tick the checkboxes to indicate whether you want to log events related to the **System**, **Attacks**, **Dropped** packets or connections, or **Debug** information.

Enable E-mail Notification: Tick this box if you want to send event notifications to your e-mail address.

To E-mail Address: Enter the e-mail address you want to send notifications to.

E-mail Subject: Enter the e-mail subject to be used for the e-mail notifications.

SMTP Server/IP Address: Enter the SMTP server to use, or the IP address of the SMTP server.

SMTP Server Port: Enter the port of the SMTP server to use.

Enable Authentication: If your SMTP server requires authentication, tick this checkbox.

Account Name: Enter your SMTP account name.

Account/Verify Password: Enter your SMTP account password, then enter it again to verify it.

D-Link

DSL-2770L // SETUP ADVANCED MAINTENANCE STATUS HELP

Internet Online
Reboot

SYSTEM LOG
The system Log allows you to configure local, remote and email logging, and to view the logs that have been created.

REMOTE LOG SETTING
Log Types : System Attacks Drop Debug

ENABLE EMAIL NOTIFICATION
Enable Email Notification :

EMAIL SETTINGS
To E-mail Address :
E-mail Subject :
SMTP Server / IP Address :
SMTP Server Port :
Enable Authentication
Account Name :
Account Password :
Verity Password :

EMAIL LOG WHEN FULL
On Log Full :

SYSTEM LOG

Time	Message
------	---------

Helpful Hints...
This page allows you to enable, configure and view your router system log. The system log will keep a record of your router activity. Depending on the amount of detail you include in the log, your router can only keep a limited number of log entries due to router memory constraints. If you have an external SYSLOG server, you may choose to configure external logging and all log entries will be sent to your remote server.
You may also configure the router to email the system log to a specific email address but you will need to have the email server information provided to you by your ISP.
[More...](#)

Schedules

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

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

Name: Enter a name for your new schedule.

Day(s): Select a day, a range of days, or All Week to include every day.

Time Format: Choose a 24 hour or 12 hour clock-style.

Start Time: Enter a start time for your schedule.

End Time: Enter an end time for your schedule.

The screenshot shows the D-Link DSL-2770L web interface. The top navigation bar includes tabs for SETUP, ADVANCED, MAINTENANCE, STATUS, and HELP. The main content area is titled "SCHEDULE" and contains the following sections:

- SCHEDULE:** A section with a description: "Schedule allows you to create scheduling rules to be applied for your firewall. Maximum of 16 entries."
- SCHEDULE RULE:** A section with input fields for Name, Day(s), and Time Frame.
- 10 - ADD SCHEDULE RULE:** A section for configuring a new rule. It includes:
 - Name:** A text input field.
 - Day(s):** Radio buttons for "All Week" and "Select Day(s)". Under "Select Day(s)", there are checkboxes for Sun, Mon, Tue, Wed, Thu, Fri, and Sat.
 - Time Format:** A dropdown menu set to "24-hour".
 - Start Time:** A time selection field showing "00 : 00 (hour minute)".
 - End Time:** A time selection field showing "00 : 00 (hour minute)".

At the bottom of the "10 - ADD SCHEDULE RULE" section, there are "Apply Settings" and "Cancel" buttons. The sidebar on the left includes links for Password, Save/Restore Settings, Firmware Update, Ping Test, System Log, Schedules, and LOGOUT. The "Internet Online" status is shown as "Reboot".

Status

Device Info

This page displays the current information for the DSL-2770L. It will display the LAN, WAN (Internet), and Wireless information. If your Internet connection is set up for a Dynamic IP address, then a **Release** button and a **Renew** button will be displayed. Use **Release** to disconnect from your ISP and use **Renew** to connect to your ISP. If your Internet connection is set up for PPPoE, a **Connect** button and a **Disconnect** button will be displayed. Use **Disconnect** to drop the PPPoE connection and use **Connect** to establish the PPPoE connection.

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

Select IPv4 Multi WAN Type: Use this dropdown box to select a connection to show information about.

WAN: Displays the MAC address and the public IP settings of the currently selected WAN type.

Wireless LAN: Displays the wireless MAC address and your wireless settings such as SSID and Channel.

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

D-Link

DSL-2770L // SETUP ADVANCED MAINTENANCE STATUS HELP

Device Info

ROUTING INFO

IPv6 Status

LOGOUT

Internet Online

Reboot

DEVICE STATUS

This Device Status page allows you to check the status of your Internet connection, Wireless LAN and LAN.

Refresh

GENERAL

Time : Wed Nov 28, 2012 12:44:21
Firmware Version : EU_1.00
Release Date : 11232012

SELECT IPV4 MULTI WAN TYPE - ETHERNET WAN

WAN - ETHERNET

Connection Type : DHCP Client
Network Status : Established
Remaining Lease Time : 4 Hour 45 Min 23 Sec
Release

MAC Address : 84:C9:B2:E5:32:D5
IP Address : 172.17.5.108
Subnet Mask : 255.255.255.0
Default Gateway : 172.17.5.254
DNS Server : 192.168.168.249 , 192.168.168.201

WIRELESS LAN

MAC Address : 84:C9:B2:E5:32:D6
Wireless : Enabled
SSID : Whistles go whoo whoo
Security : Auto(None)
Channel : Auto
802.11 Mode : B/G/N Mixed
Wi-Fi Protected Setup : Enabled

LAN

MAC Address : 84:C9:B2:E5:32:D6
IP Address : 192.168.1.1
Subnet Mask : 255.255.255.0
DHCP Server : Enabled

BROADBAND


Helpful Hints...


This page shows a summary overview of your router status, including device software version, Internet configuration as well as wireless and Ethernet status.

More...

Routing Info

This page will display your current routing table.



DSL-2770L //	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP																														
Device Info Routing Info IPv6 Status LOGOUT  Internet Online <input type="button" value="Reboot"/>	ROUTING TABLE LIST				Helpful Hints... The routing info shows the static routing table which include destination, subnet mask and gateway. More...																														
ROUTING -- STATIC ROUTE																																			
<table border="1" style="width: 100%; border-collapse: collapse; background-color: #f9f9f9;"> <thead> <tr> <th style="width: 20%;">Destination</th> <th style="width: 20%;">Netmask</th> <th style="width: 20%;">Gateway</th> <th style="width: 10%;">Flags</th> <th style="width: 30%;">Interface</th> </tr> </thead> <tbody> <tr> <td>192.168.1.0</td> <td>255.255.255.0</td> <td>0.0.0.0</td> <td></td> <td>br0</td> </tr> <tr> <td>172.17.5.0</td> <td>255.255.255.0</td> <td>0.0.0.0</td> <td></td> <td>eth0.3</td> </tr> <tr> <td>239.0.0.0</td> <td>255.0.0.0</td> <td>0.0.0.0</td> <td></td> <td>br0</td> </tr> <tr> <td>127.0.0.0</td> <td>255.0.0.0</td> <td>0.0.0.0</td> <td></td> <td>lo</td> </tr> <tr> <td>0.0.0.0</td> <td>0.0.0.0</td> <td>172.17.5.254</td> <td>G</td> <td>eth0.3</td> </tr> </tbody> </table>						Destination	Netmask	Gateway	Flags	Interface	192.168.1.0	255.255.255.0	0.0.0.0		br0	172.17.5.0	255.255.255.0	0.0.0.0		eth0.3	239.0.0.0	255.0.0.0	0.0.0.0		br0	127.0.0.0	255.0.0.0	0.0.0.0		lo	0.0.0.0	0.0.0.0	172.17.5.254	G	eth0.3
Destination	Netmask	Gateway	Flags	Interface																															
192.168.1.0	255.255.255.0	0.0.0.0		br0																															
172.17.5.0	255.255.255.0	0.0.0.0		eth0.3																															
239.0.0.0	255.0.0.0	0.0.0.0		br0																															
127.0.0.0	255.0.0.0	0.0.0.0		lo																															
0.0.0.0	0.0.0.0	172.17.5.254	G	eth0.3																															
Total numbers of routes : 5 Flags Meaning : G:Gateway D:Dynamic H:Host																																			

IPv6 Status

The IPv6 page displays a summary of the Router's IPv6 settings and lists the IPv6 address and host name of any IPv6 clients.

D-Link

DSL-2770L // SETUP ADVANCED MAINTENANCE STATUS HELP

Device Info
Routing Info
IPv6 Status
LOGOUT

Internet Online
Reboot

IPv6 NETWORK INFORMATION

All of your IPv6 Internet and network connection details are displayed on this page.

IPv6 CONNECTION INFORMATION

IPv6 Connection Type :
Network status :
Wan IPv6 Address : /64
Primary IPv6 DNS Server :
Secondary IPv6 DNS Server :
LAN IPv6 Link-Local Address :
LAN IPv6 Address :

Helpful Hints...
All of your WAN and LAN connection details are displayed here.
More...

Support

The Support pages let you jump to descriptions of the settings and their functions.

The screenshot displays the D-Link DSL-2770L web interface. At the top, there is an orange header with the D-Link logo. Below the header is a navigation bar with tabs for SETUP, ADVANCED, MAINTENANCE, STATUS, and HELP. The main content area is divided into several sections:

- Menu:** A vertical sidebar on the left contains links for Menu, Basic, Advanced, Maintenance, Status, and LOGOUT. There is also an "Internet Online" indicator and a "Reboot" button.
- HELP MENU:** A section with an orange header containing links for Setup, Advanced, Maintenance, and Status.
- SETUP HELP:** A section with a dark header containing links for Internet Setup, Wireless Setup, LAN Setup, Time and Date, and IPv6.
- ADVANCED HELP:** A section with a dark header containing a list of links including VIRTUAL SERVER, Application Rules, QoS Setup, Outbound Filter, Inbound Filter, Wireless Filter, DDNS Setup, Firewall & DMZ, Advanced Internet, Advanced Wireless, Advanced LAN, SNMP Setup, Remote Management, Routing, and IPv6 Firewall.
- MAINTENANCE HELP:** A section with a dark header containing links for Password, Save/Restore Settings, Firmware Update, Ping Test, System Log, and Schedules.
- STATUS HELP:** A section with a dark header containing links for Device Info, Connected Clients, Statistics, and Routing Info.

At the bottom of the interface, there is a dark grey bar with the word "BROADBAND" in white text.

D-Link Link'n Print


Introduction

D-Link Link'n Print allows you to share USB devices such as external storage drives and multifunction printers with other users across your network by simply connecting the device to select D-Link routers. This allows you to use an external storage drive or printer located across your network as if it were connected to your local PC.



System Requirements

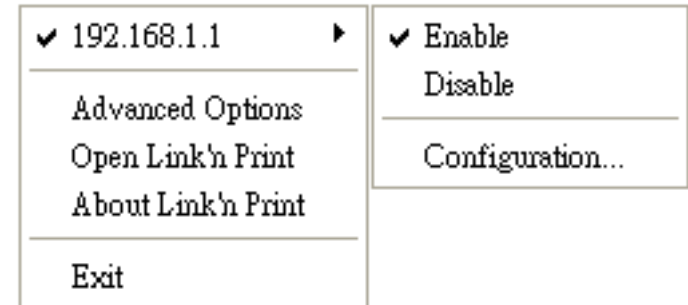
- Windows® 2000 / 2003 / XP / Vista / 7 / 8 (32-bit / 64-bit)
- Pentium 3 800 MHz or better
- 256 MB RAM or higher
- CD-ROM drive
- A compatible D-Link router

Installation

1. Insert the CD-ROM into your computer.
2. Follow the on-screen instructions.
3. The  icon should appear in the System Tray at the lower-right corner on your desktop.

Set Up the D-Link Router

1. Connect the D-Link Router to the network.
2. Power on the D-Link Router.
3. Double-click on the  icon to open D-Link Link'n Print.
4. Right-click on the  icon in the System Tray at the lower-right corner on your Windows Desktop. A window will pop up to display the D-Link Router.



Enable Network USB on the D-Link Router

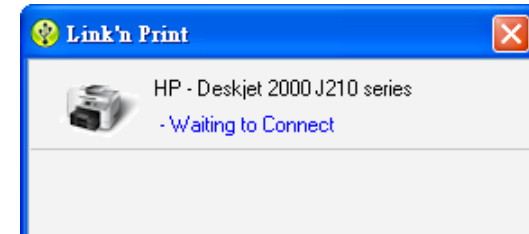
1. Click on the D-Link Router in D-Link Link'n Print.
2. Click **Enable**.




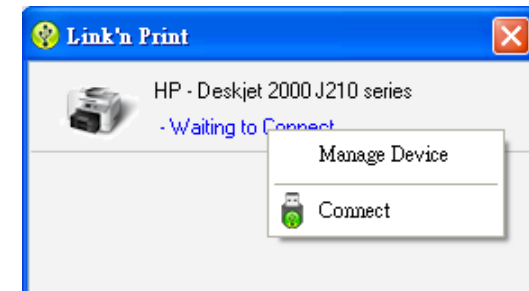
3. The  icon in the Windows System Tray should change to a  icon.

Connect a USB Printer to the D-Link Router

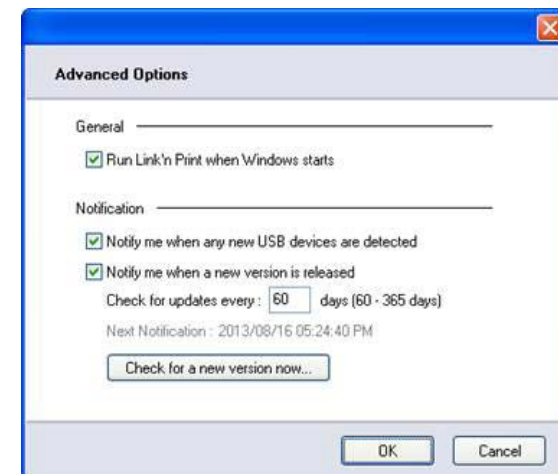
The D-Link Link'n Print automatically detects for each connected USB device. A window will pop up for each detected USB device.



1. Right-click the  icon.
2. Click on Open D-Link Link'n Print.
3. The D-Link Link'n Print displays the connected USB devices on the network.

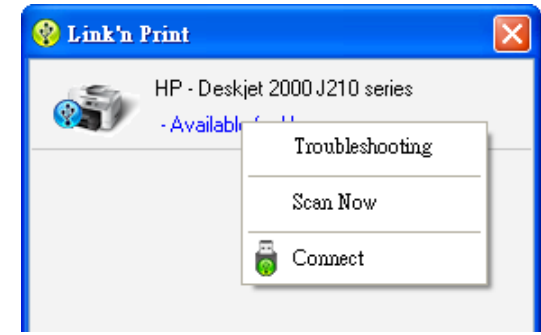


4. Advanced Options can be set by clicking on Advanced Options.

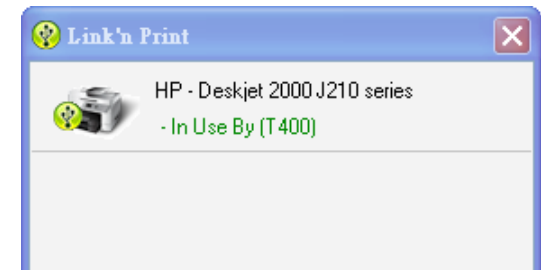


Virtually Connect and Disconnect a USB Device

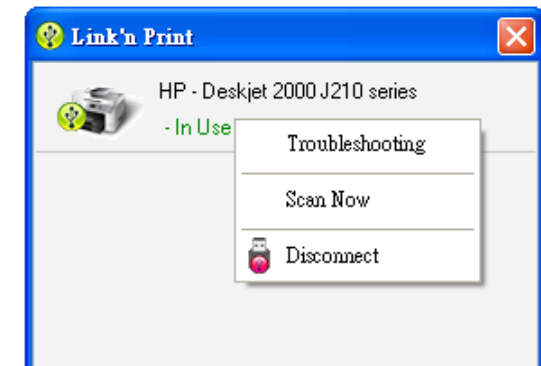
1. Move the cursor to Waiting to Connect and click on Connect to virtually connect a USB device.



2. The D-Link Link'n Print displays which user is virtually connecting this USB device.



3. Move the cursor to In Use By (Owner) and click on Disconnect to virtually disconnect the USB device.

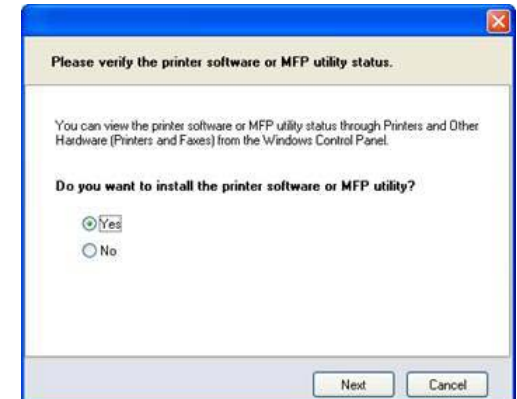


When the USB Device is a Multifunction Printer

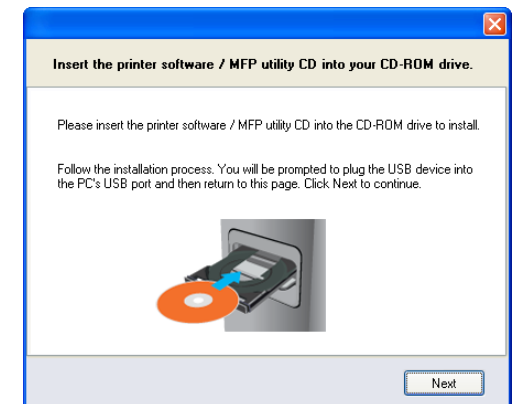
1. Move the cursor to Waiting to Connect and click on Manage Device.



2. Click Yes on the question "Do you want to install the printer software or MFP utility?"



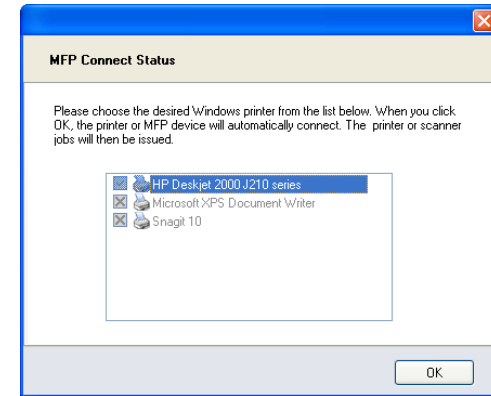
3. Insert the CD-ROM of the multifunction printer and follow the instructions to install the multifunction printer's driver. When the installation process prompts you to connect the multifunction printer to your PC, click Next.



4. The D-Link Link'n Print virtually connects to this multifunction printer. Click Next

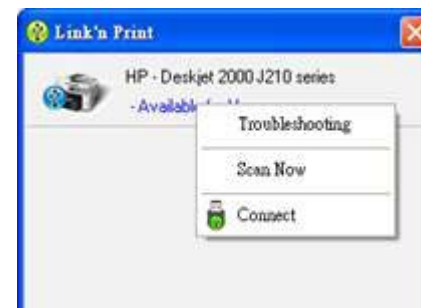


5. Choose the printer driver that you want D-Link Link'n Print to auto-connect when you print.



When You Want to Scan

1. Move the cursor to Available for Use and click on Scan Now.



Connect a Wireless Client to your Router

WPS Button

The easiest and most secure way to connect your wireless devices to the router is WPS (Wi-Fi Protected Setup). Most wireless devices such as wireless adapters, media players, Blu-ray DVD players, wireless printers and cameras will have a WPS button (or a software utility with WPS) that you can press to connect to the DSL-2770L 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 DSL-2770L 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 client (or launch the software utility and start the WPS process).

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

Windows® 7

WPA/WPA2

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

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



Wireless Icon

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

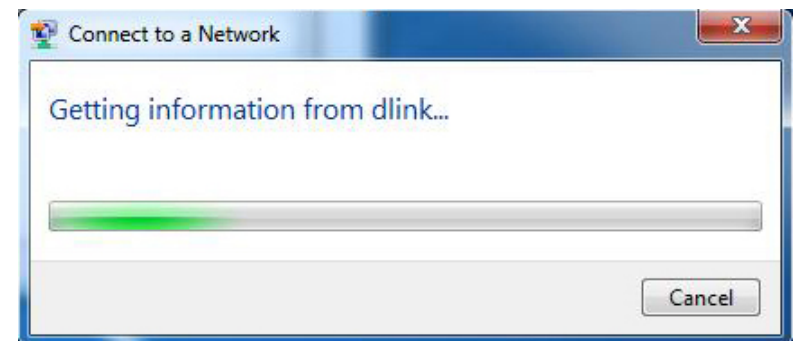


3. Highlight the wireless connection with Wi-Fi name (SSID) you would like to connect to and click the **Connect** button.

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.

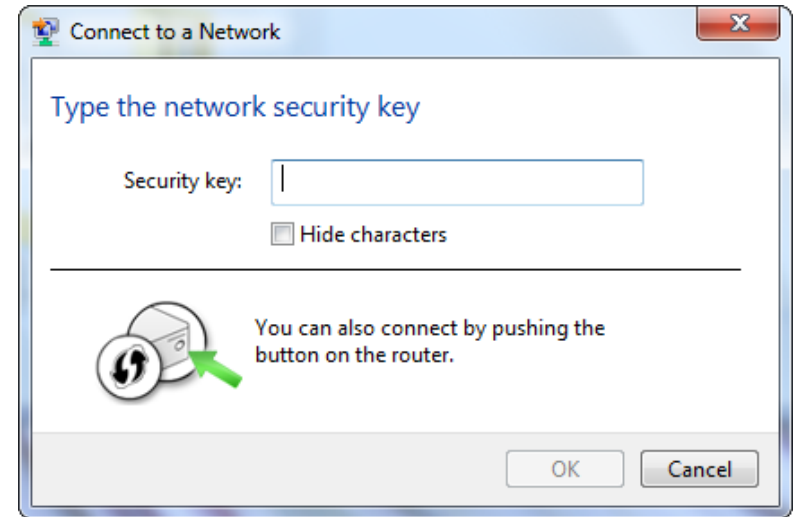


4. The following window appears while your computer tries to connect to the router.



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.

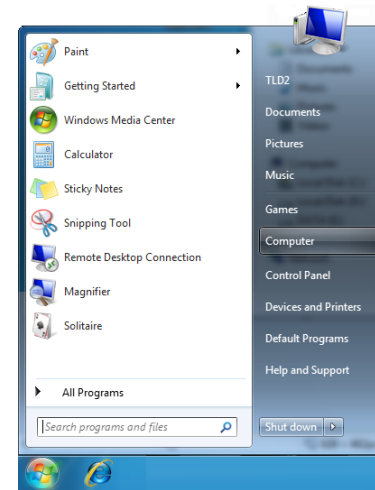
It may take 20-30 seconds to connect to the wireless network. If the connection fails, please verify that the security settings are correct. The key or passphrase must be exactly the same as on the wireless router.



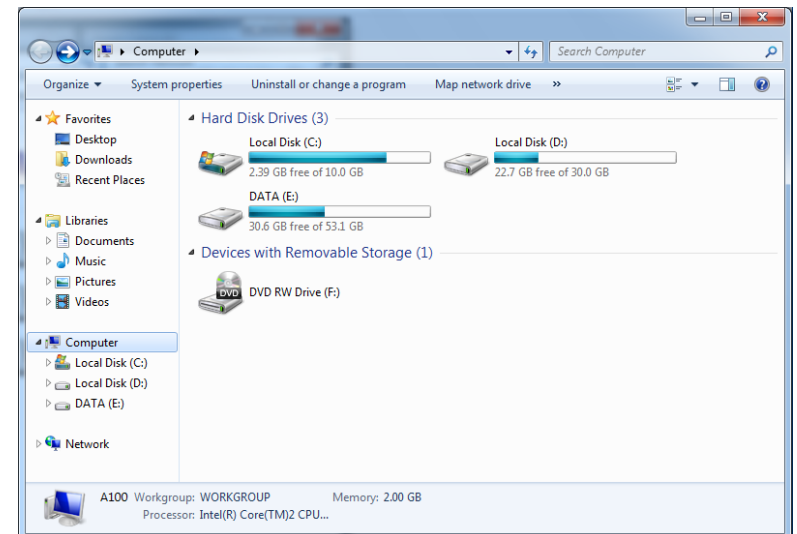
WPS

The WPS feature of the DSL-2770L can be configured using Windows® 7. Carry out the following steps to use Windows® 7 to configure the WPS feature:

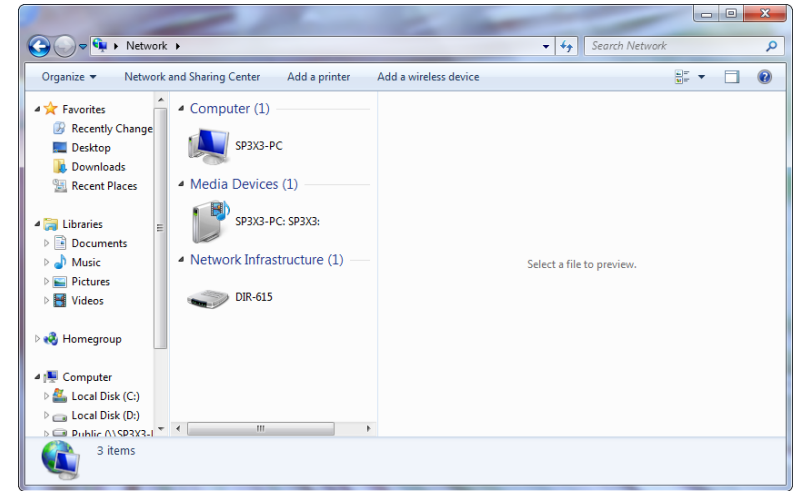
1. Click the **Start** button and select **Computer** from the Start menu.



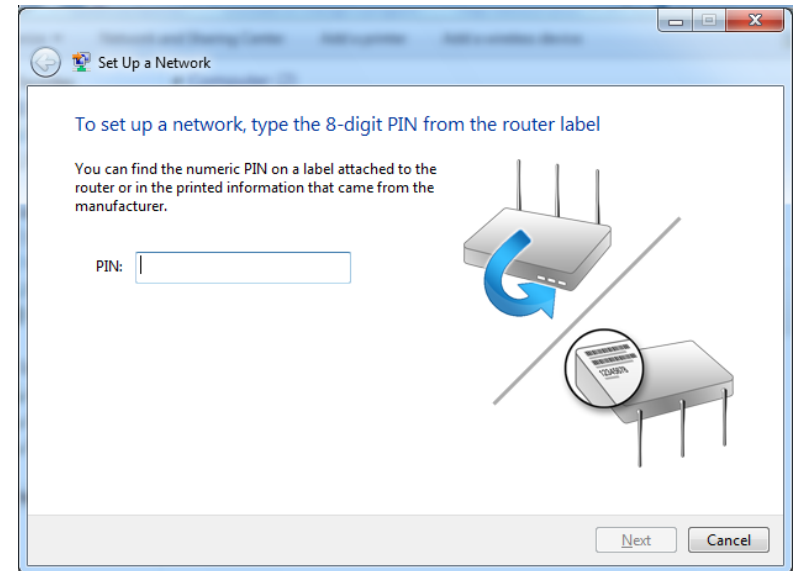
2. Click **Network** on the left side.



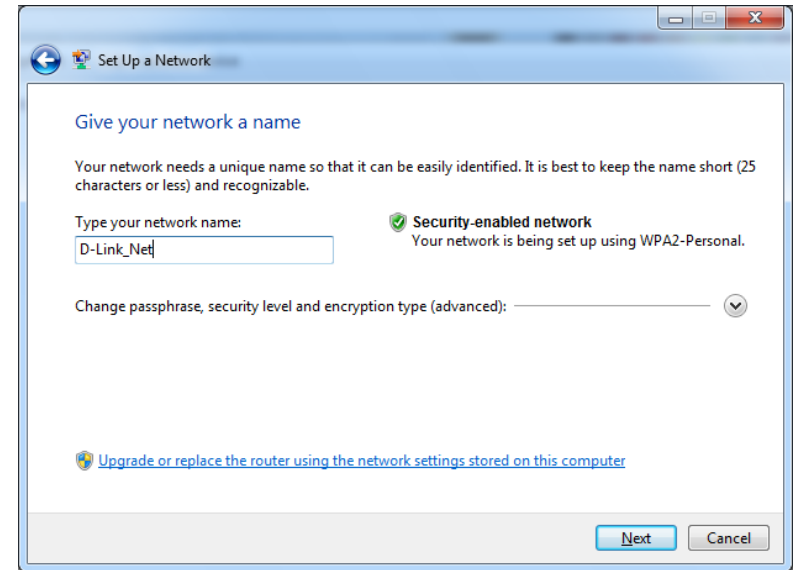
3. Double-click the DSL-2770L.




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

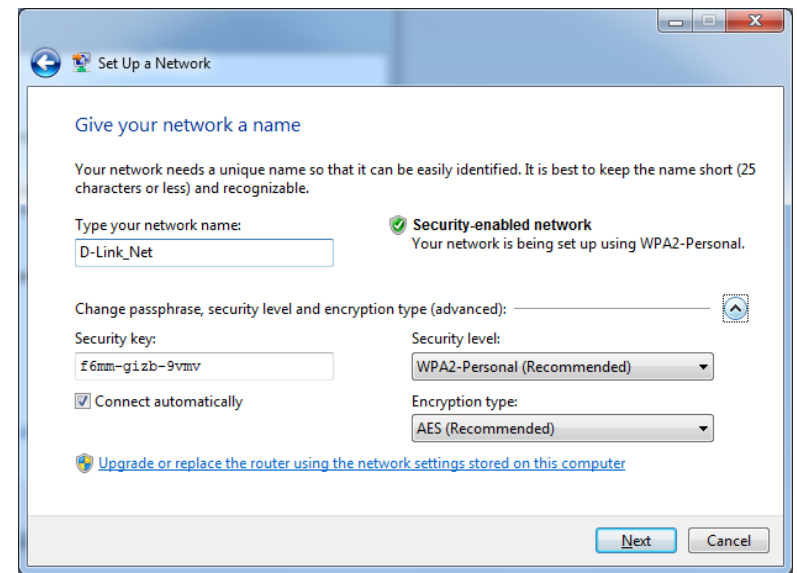


5. Type a name to identify the network.



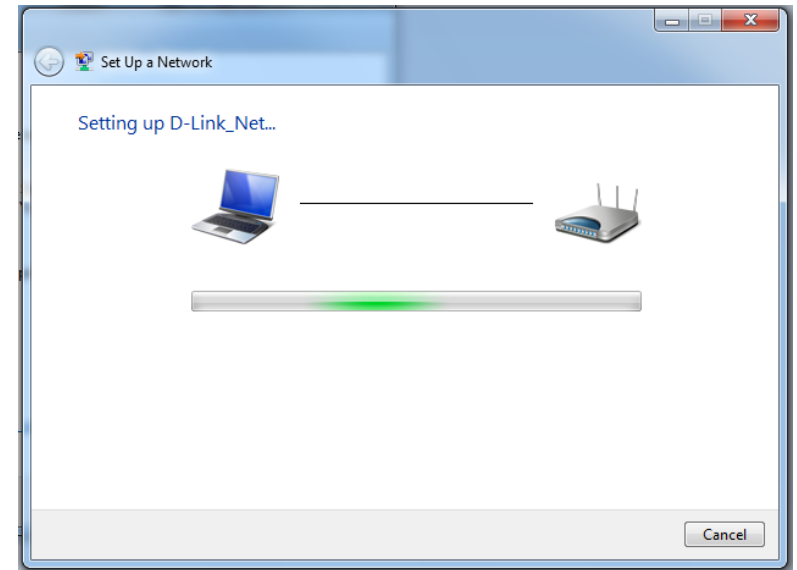
6. To configure advanced settings, click the  icon.

Click **Next** to continue.



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

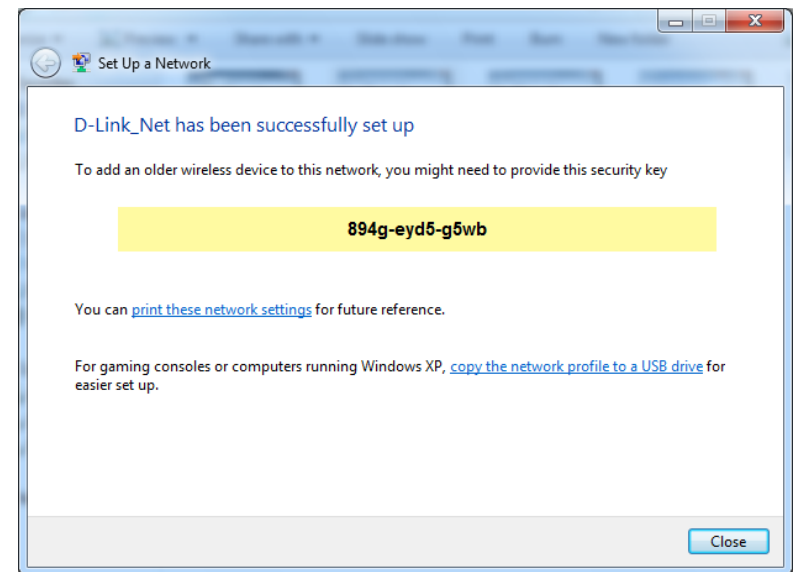
Wait for the configuration to complete.



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

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

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



Windows Vista®

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

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

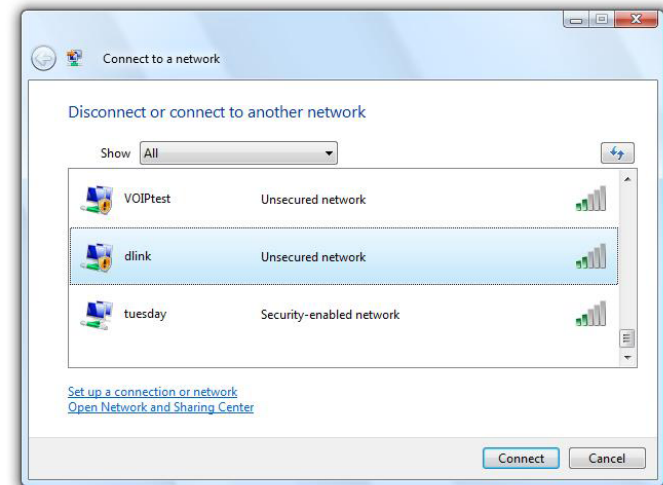
or

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



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

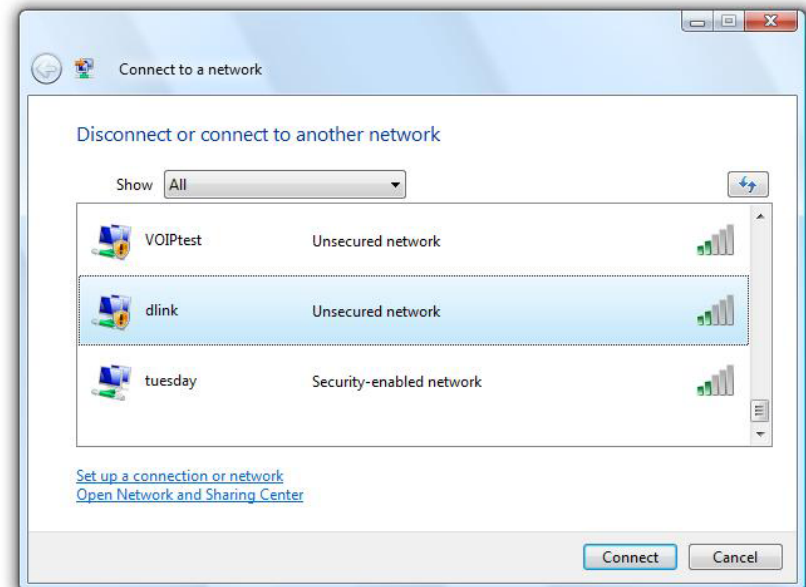
If you get a good signal but cannot access the Internet, check you TCP/IP settings for your wireless adapter. Refer to the **Networking Basics** section in this manual for more information.



WPA/WPA2

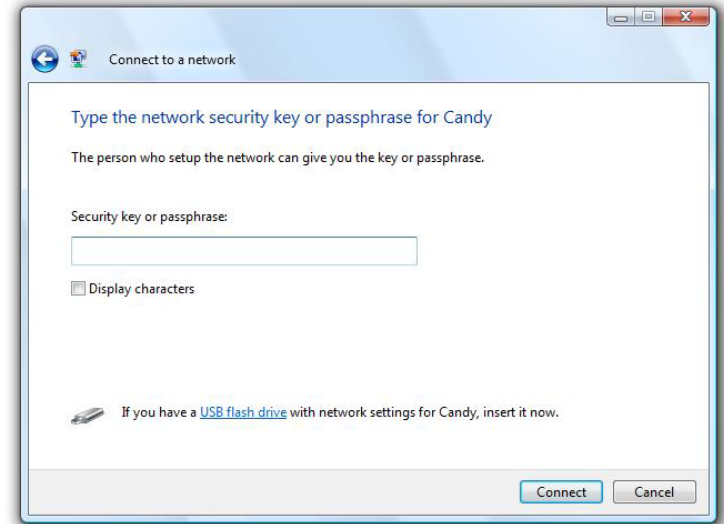
It is recommended to enable wireless security (WPA/WPA2) on your wireless router or access point before configuring your wireless adapter. If you are joining an existing network, you will need to know the security key or passphrase being used.

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

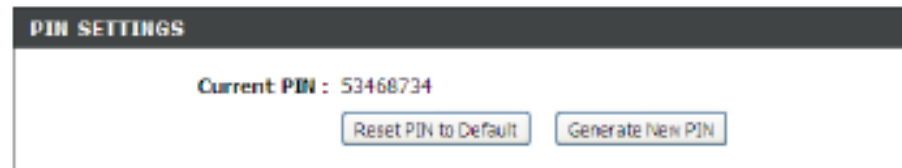


WPS/WCN 2.0

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

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

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



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

Windows® XP

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

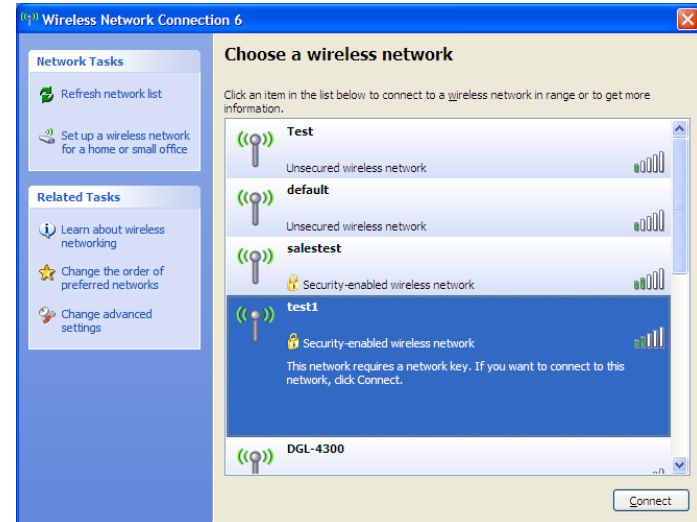
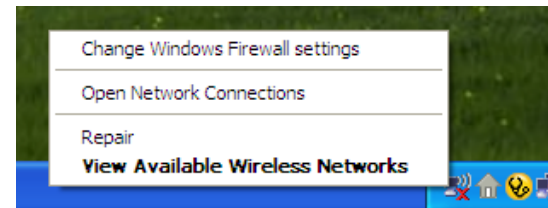
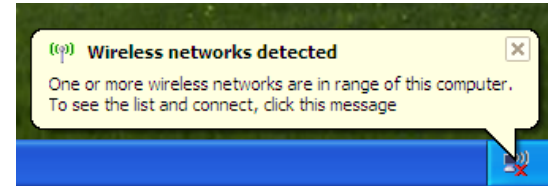
If you receive the **Wireless Networks Detected** bubble, click on the center of the bubble to access the utility.

or

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

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

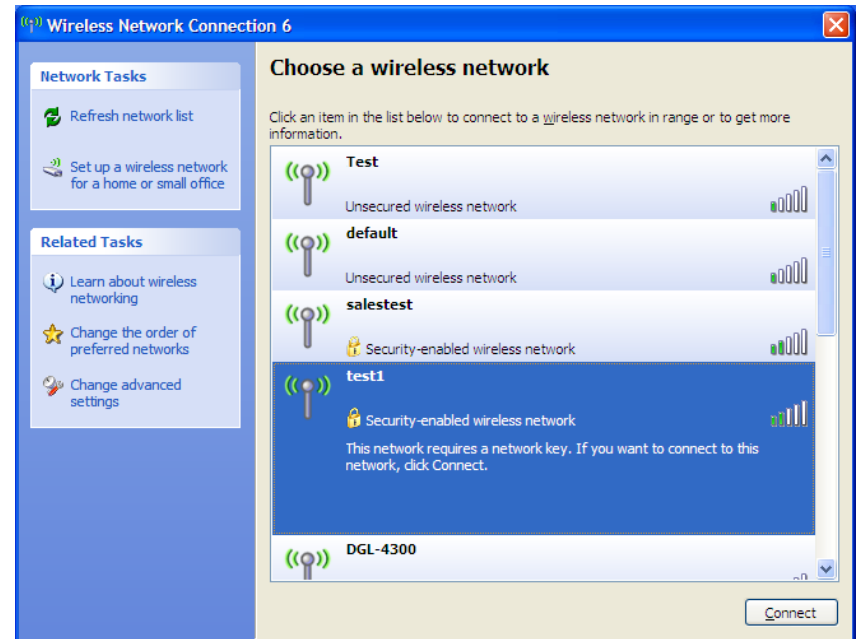
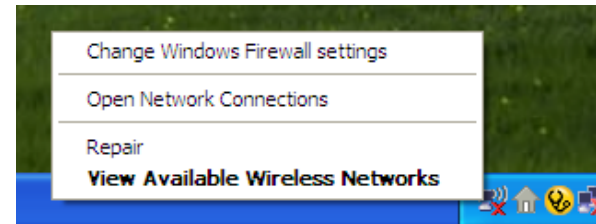
If you get a good signal but cannot access the Internet, check you TCP/IP settings for your wireless adapter. Refer to the **Networking Basics** section in this manual for more information.



WPA/WPA2

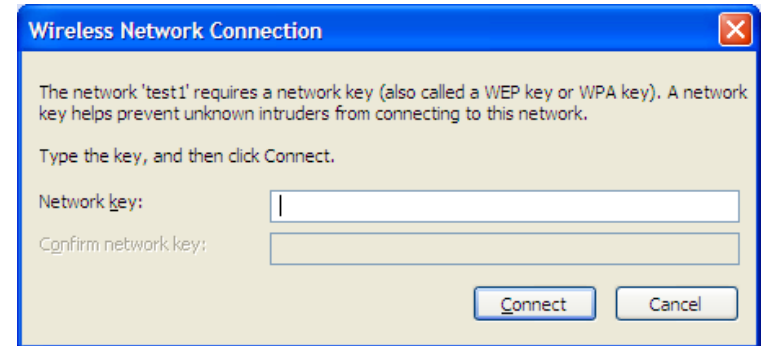
It is recommended to enable WPA on your wireless router or access point before configuring your wireless adapter. If you are joining an existing network, you will need to know the WPA key being used.

1. Open the Windows® XP Wireless Utility by right-clicking on the wireless computer icon in your system tray (lower-right corner of screen). Select **View Available Wireless Networks**.
2. Highlight the 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 DSL-2770L. Read the following descriptions if you are having problems. The examples below are illustrated in Windows® XP. If you have a different operating system, the screenshots on your computer will look similar to the following examples.

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

When entering the IP address of the D-Link router (192.168.1.1 for example), you are not connecting to a website nor do you have to be connected to the Internet. The device has the utility built-in to a ROM chip in the device itself. Your computer must be on the same IP subnet to connect to the web-based utility.

- Make sure you have an updated Java-enabled web browser. We recommend the following:
 - Microsoft Internet Explorer® 7 and higher
 - Mozilla Firefox 3.5 and higher
 - Google™ Chrome 8 and higher
 - Apple Safari 4 and higher
- Verify physical connectivity by checking for solid link lights on the device. If you do not get a solid link light, try using a different cable or connect to a different port on the device if possible. If the computer is turned off, the link light may not be on.
- Disable any Internet security software running on the computer. Software firewalls such as Zone Alarm, Black Ice, Sygate, Norton Personal Firewall, and Windows® XP firewall may block access to the configuration pages. Check the help files included with your firewall software for more information on disabling or configuring it.

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

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

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

To reset the router, locate the reset button (hole) on the rear panel of the unit. With the router powered on, use a paperclip to hold the button down for 10 seconds. Release the button and the router will go through its reboot process. Wait about 30 seconds to access the router. The default IP address is 192.168.1.1. When logging in, the username is **admin** and leave the password box empty.

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

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

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

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

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

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

```
C:\>ping yahoo.com -f -l 1482
Pinging yahoo.com [66.94.234.13] with 1482 bytes of data:
Packet needs to be fragmented but DF set.
Packet needs to be fragmented but DF set.
Packet needs to be fragmented but DF set.
Packet needs to be fragmented but DF set.
Ping statistics for 66.94.234.13:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
C:\>ping yahoo.com -f -l 1472
Pinging yahoo.com [66.94.234.13] with 1472 bytes of data:
Reply from 66.94.234.13: bytes=1472 time=93ms TTL=52
Reply from 66.94.234.13: bytes=1472 time=109ms TTL=52
Reply from 66.94.234.13: bytes=1472 time=125ms TTL=52
Reply from 66.94.234.13: bytes=1472 time=203ms TTL=52
Ping statistics for 66.94.234.13:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 93ms, Maximum = 203ms, Average = 132ms
C:\>
```

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

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

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

- Open your browser, enter the IP address of your router (192.168.1.1) and click **OK**.
- Enter your username (admin) and password (blank by default). Click **OK** to enter the web configuration page for the device.
- Click on **Setup** and then click **Manual Configure**.
- To change the MTU enter the number in the MTU field and click **Save Settings** to save your settings.
- Test your email. If changing the MTU does not resolve the problem, continue changing the MTU in increments of ten.

Wireless Basics

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

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

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

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

What is Wireless?

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

Why D-Link Wireless?

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

How does wireless work?

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

Wireless Local Area Network (WLAN)

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

Wireless Personal Area Network (WPAN)

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

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

Who uses wireless?

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

Home

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

Small Office and Home Office

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

Where is wireless used?

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

Using a D-Link Cardbus Adapter with your laptop, you can access the hotspot to connect to Internet from remote locations like: Airports, Hotels, Coffee Shops, Libraries, Restaurants, and Convention Centers.

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

Tips

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

Centralize your router or Access Point

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

Eliminate Interference

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

Security

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

Wireless Modes

There are basically two modes of networking:

- **Infrastructure** – All wireless clients will connect to an access point or wireless router.
- **Ad-Hoc** – Directly connecting to another computer, for peer-to-peer communication, using wireless network adapters on each computer, such as two or more DSL-2770L 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

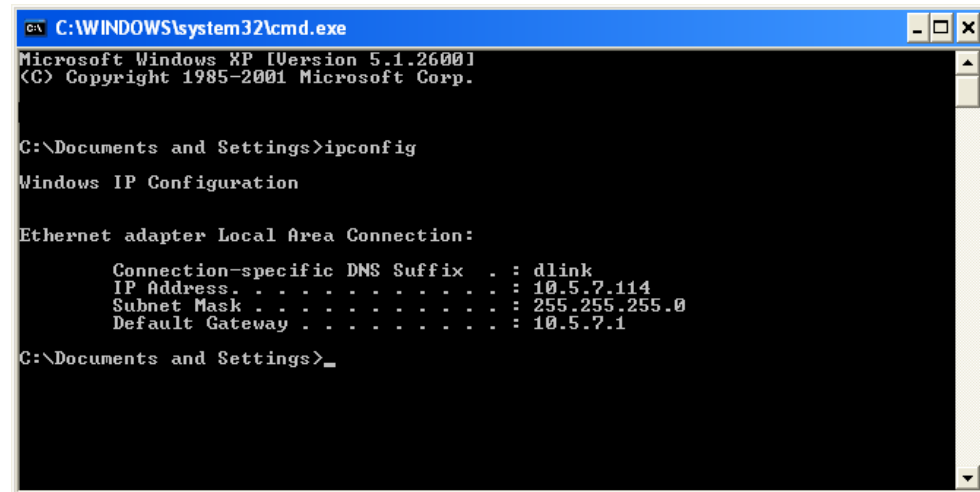
After you install your new D-Link adapter, by default, the TCP/IP settings should be set to obtain an IP address from a DHCP server (i.e. wireless router) automatically. To verify your IP address, please follow the steps below.

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 192.168.1.1, 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.**

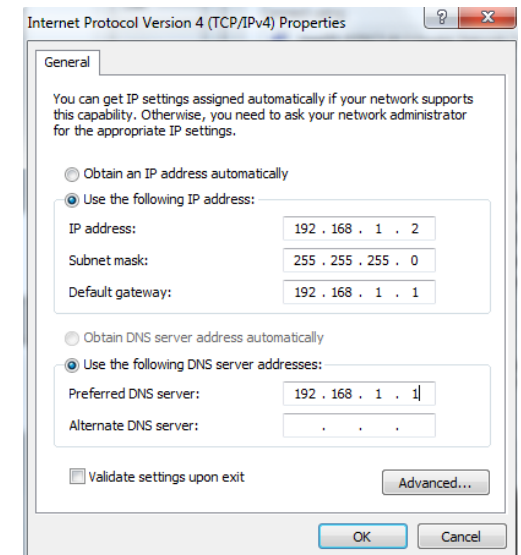
Step 3
Highlight **Internet Protocol (TCP/IP)** and click **Properties.**

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 192.168.1.1, make your IP address 192.168.1.X where X is a number between 2 and 254. 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. 192.168.1.1).

Set Primary DNS the same as the LAN IP address of your router (192.168.1.1). The Secondary DNS is not needed or you may enter a DNS server from your ISP.

Step 5
Click **OK** twice to save your settings.



Technical Specifications

Standards

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

Wireless Signal Rates¹

IEEE 802.11n 2.4GHz(HT20/40):

- 144.4 Mbps (300)
- 115.6 Mbps (240)
- 72.2 Mbps (150)
- 57.8 Mbps (120)
- 28.9 Mbps (60)
- 14.4 Mbps (30)
- 130 Mbps (270)
- 86.7 Mbps (180)
- 65 Mbps (135)
- 43.3 Mbps (90)
- 21.7 Mbps (45)
- 7.2 Mbps (15)

IEEE 802.11g:

- 54 Mbps
- 24 Mbps
- 11 Mbps
- 5.5 Mbps
- 48 Mbps
- 18 Mbps
- 9 Mbps
- 2 Mbps
- 36 Mbps
- 12 Mbps
- 6 Mbps
- 1 Mbps

Security

- WPA™ - Personal/Enterprise
- WPA2™ - Personal/Enterprise

Frequency Range²

- 2.412 GHz to 2.462 GHz (802.11g/n)
- 2.4 GHz to 2.483 GHz

Power Consumption

- 12 V/1.5 A

Operating Temperature

- 32 °F to 104 °F (0 °C to 40 °C)

Humidity

- 95% maximum (non-condensing)

Safety & Emissions

- CE
- C-Tick
- UL

Dimensions

- L: 11.1 cm (4.37 inches)
- W: 9.3 cm (3.66 inches)
- H: 14.5 cm (5.71 inches)

¹ Maximum wireless signal rate derived from IEEE Standard 802.11a, 802.11g, and 802.11n specifications. Actual data throughput will vary. Network conditions and environmental factors, including volume of network traffic, building materials and construction, and network overhead, lower actual data throughput rate. Environmental factors will adversely affect wireless signal range.

² Frequency Range varies depending on each country's regulations.