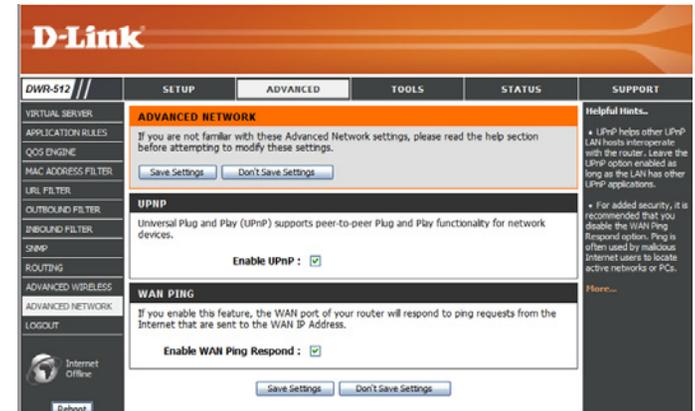


Advanced Network

Advanced Network 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.



Tools

The **TOOLS** pages allow you to adjust various system setting for your router, such as the system time, firmware, and custom schedules. To view the Tools pages, click on **TOOLS** at the top of the screen.



Admin

The **Admin** page allows you to change the Administrator password and enable Remote Management. The admin has read/write access while users only have read-only access. Only the admin has the ability to change both admin and user account passwords. After modifying any settings, click **Save Settings** to save your changes.

ADMINISTRATOR

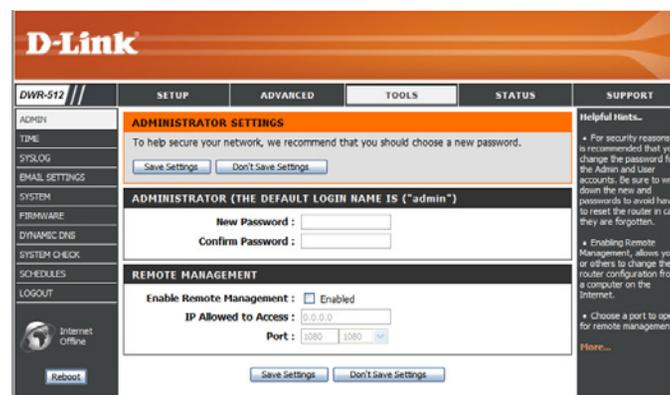
Admin Password: Enter and confirm the password that the admin account will use to access the router's management interface.

REMOTE MANAGEMENT

Remote Management: Tick this check box to enable remote management. Remote management allows the DWR-512 to be configured over the Internet through a web browser. A username and password will still be required to access the Web-Management interface.

IP Allowed to Access: Enter the Internet IP address of the PC that has access to the Broadband Router. If you enter an asterisk (*) in this field, then anyone will be able to access the Router. Adding an asterisk (*) into this field could present a security risk and is not recommended.

Port: This is the port number used to access the router. 8080 is the port usually used for the Web-Management interface.



Time

This section will help you set the time zone that you are in and an NTP (Network Time Protocol) server to use. Daylight Saving can also be configured to adjust the time when needed. After modifying any settings, click **Save Settings** to save your changes.

TIME AND DATE CONFIGURATION

Time Zone: Select the appropriate **Time Zone** from the drop-down box.

Enable Daylight Saving: Tick this checkbox to allow for daylight saving adjustments. Use the dropdown boxes to specify a start date and end date for daylight saving time adjustments.

AUTOMATIC TIME AND DATE CONFIGURATION

Tick the **Automatically synchronize with Internet time server** checkbox to allow the router to use an NTP server to update the router's internal clock.

NTP Server Used: Enter an NTP server to use for time synchronization, or use the dropdown box to select one. Click the **Update Now** button to synchronize the time with the NTP server.

The screenshot shows the D-Link web interface for a DWR-512 router. The main navigation bar includes 'DWR-512 //', 'SETUP', 'ADVANCED', 'TOOLS', 'STATUS', and 'SUPPORT'. The left sidebar lists various configuration options like ADMIN, TIME, SYSLOG, EMAIL SETTINGS, SYSTEM, FIRMWARE, DYNAMIC DNS, SYSTEM CHECK, SCHEDULES, and LOGOUT. The main content area is titled 'TIME AND DATE' and contains three sections:

- TIME AND DATE:** A descriptive paragraph about configuring the internal system clock, followed by 'Save Settings' and 'Don't Save Settings' buttons.
- TIME AND DATE CONFIGURATION:** Displays the current time as 'Fri Jan 01, 2010 08:17:48'. The 'Time Zone' is set to '(GMT -08:00) Pacific Time (US & Canada)'. There is an 'Enable Daylight Saving' checkbox (unchecked) with a 'Sync. your computer's time settings' link. Below are 'Start' and 'End' date pickers, both set to '0 / 1 / Jan' (Hour/Day/Month).
- AUTOMATIC TIME AND DATE CONFIGURATION:** Features a checked checkbox for 'Automatically synchronize with Internet time server'. Below it, the 'NTP Server Used' is set to 'time.nw.net.gov' with an 'Update Now' button.

At the bottom of the configuration sections are 'Save Settings' and 'Don't Save Settings' buttons.

Syslog

The DWR-512 keeps a running log of events and activities occurring on the router. You may send these logs to a syslog server on your network. After modifying any settings, click **Save Settings** to save your changes.

Enable Logging to Syslog Server: Tick this checkbox to send the router logs to a syslog server.

Syslog Server IP Address: Enter the IP address of the syslog server that the router will send the logs to.



E-mail Settings

E-mail Settings allow you to send the system log files, router alert messages, and firmware update notifications to an e-mail address. After modifying any settings, click **Save Settings** to save your changes.

Enable E-mail Notification: When this option is enabled, router activity logs will be e-mailed to the specified e-mail address.

SMTP Sever IP and Port: Enter the SMTP server IP address the router will use to send e-mails. Enter the complete IP address followed by a colon(:) and the port number. (e.g. 123.123.123.1:25).

SMTP Username: Enter the username for the SMTP account.

SMTP Password: Enter the password for the SMTP account.

Send E-mail Alert to: Enter the e-mail address where you would like the router to send e-mails to.

E-mail Subject: Enter a subject for the e-mail.

E-mail Log Now: Click this button to send the current logs to the specified e-mail address.

The screenshot shows the D-Link web interface for the DWR-512 router. The top navigation bar includes 'D-Link', 'DWR-512', and tabs for 'SETUP', 'ADVANCED', 'TOOLS', 'STATUS', and 'SUPPORT'. The left sidebar contains a menu with 'ADMIN', 'TIME', 'SYSLOG', 'EMAIL SETTINGS', 'SYSTEM', 'FIRMWARE', 'DYNAMIC DNS', 'SYSTEM CHECK', 'SCHEDULES', and 'LOGOUT'. The main content area is titled 'EMAIL SETTINGS' and contains the following fields and buttons:

- Enable Email Notification:** A checkbox that is currently unchecked.
- SMTP Server IP and Port:** A text input field.
- SMTP Username:** A text input field.
- SMTP Password:** A text input field.
- Send E-mail alert to:** A dropdown menu.
- E-mail Subject:** A text input field.
- Email Log Now:** A button located below the 'E-mail Subject' field.
- Save Settings / Don't Save Settings:** Two buttons at the bottom of the form.

At the bottom left of the page, there is an 'Internet Offline' indicator and a 'Reboot' button. On the right side, there is a 'Helpful Hints...' section with a note: 'You may want to make the email settings similar to those of your email client program.' and a 'More...' link.

System

Here, you can save the current system settings to a local hard drive. After modifying any settings, click **Save Settings** to save your changes.

Save Settings To Local Hard Drive Use this option to save your current router configuration settings to a file. Click **Save** to open a file dialog, and then 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. Click **Browse...** and select the saved file and then click the **Upload Settings** button to upload the settings to the router.

Restore To Factory Default Settings: This option will restore all settings back to their defaults. Any settings that have not been backed up will be lost, including any rules that you have created.



Firmware

Here, you can upgrade the firmware of your router. Make sure the firmware you want to use is on the local hard drive of the computer and then click **Browse** to upload the file. You can check for and download firmware updates at the D-Link support site at <http://support.dlink.com>. After modifying any settings, click **Save Settings** to save your changes.

Current Firmware Version: Displays your current firmware's version.

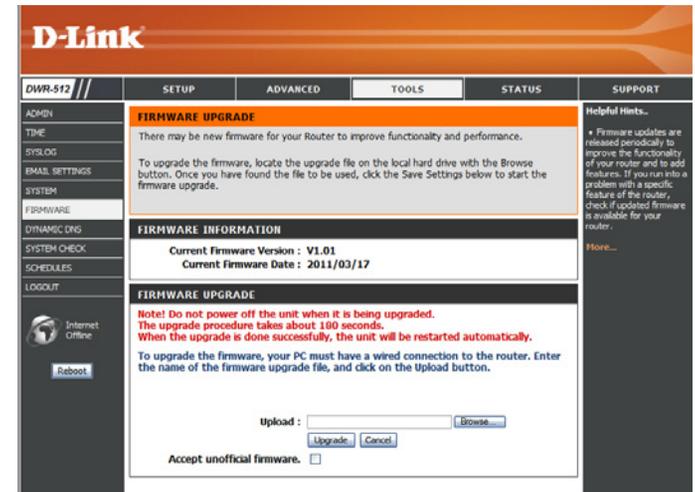
Current Firmware Date: Displays your current firmware's release date.

Browse: After you have downloaded a new firmware, click **Browse** to locate the firmware on your computer, then click **Upload** to start the firmware upgrade.

Warning: You must use a wired computer to upload the firmware file; do not use a wireless computer. During the upgrade process, do not power off your computer or router, and do not refresh the browser window until the upgrade is complete.

Accept Unofficial Firmware: If the firmware you want to install is not an official D-Link release, you will need to check this checkbox.

Warning: Unofficial firmwares are not supported, and may cause damage to your device. Use of unofficial firmwares is at your own risk.



Dynamic DNS

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.

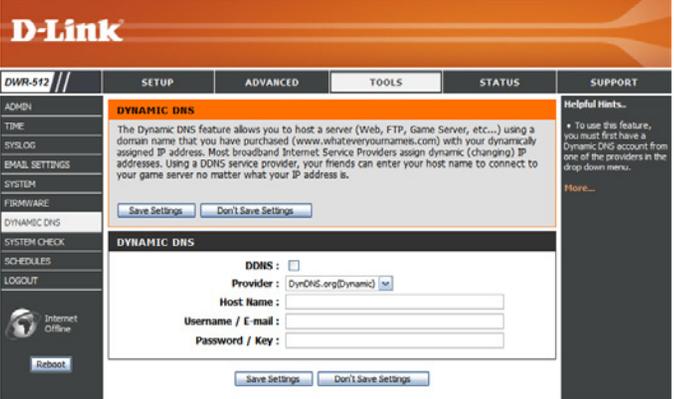
Enable Dynamic DNS: Tick this checkbox to enable the DDNS feature.

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 router's web interface for configuring Dynamic DNS. The page is titled "DYNAMIC DNS" and includes a "Helpful Hint..." section on the right. The main content area contains the following fields and options:

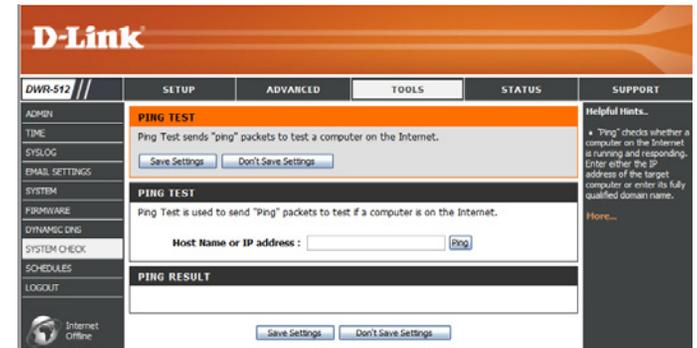
- DDNS:** A checkbox that is currently unchecked.
- Provider:** A dropdown menu with "DynDNS.org(Dynamic)" selected.
- Host Name:** A text input field.
- Username / E-mail:** A text input field.
- Password / Key:** A text input field.

There are two "Save Settings" buttons: one at the top of the configuration area and one at the bottom. The left sidebar contains navigation links for ADMIN, TIME, SYLOG, EMAIL SETTINGS, SYSTEM, FIRMWARE, DYNAMIC DNS, SYSTEM CHECK, SCHEDULES, LOGOUT, and Internet Office. The top navigation bar includes SETUP, ADVANCED, TOOLS, STATUS, and SUPPORT.

System Check

This useful diagnostic utility can be used to check if a computer is connected to the network. It sends ping packets and listens for responses from the specific host. After modifying any settings, click **Save Settings** to save your changes.

Host Name or IP Address: Enter a host name or the IP address that you want to ping and click the **Ping** button. The results of the ping attempt will be displayed in the **PING RESULT** section below.



Schedules

This section allows you to manage schedule rules for various firewall and parental control features. After modifying any settings, click **Save Settings** to save your changes.

Enable Schedule: Tick this checkbox to enable schedules.

Edit: Click this button to edit the selected rule. (see below)

Delete: Click this button to delete the selected rule.

Previous Page: Click this button to go to the previous page of rules.

Next Page: Click this button to go to the next page of rules.
Click this button to specify the start time, end time, and name of the rule.

Add New Rule...: Click this button to create a new rule. (see below)

Name of Rule #: Enter a name for your new schedule.

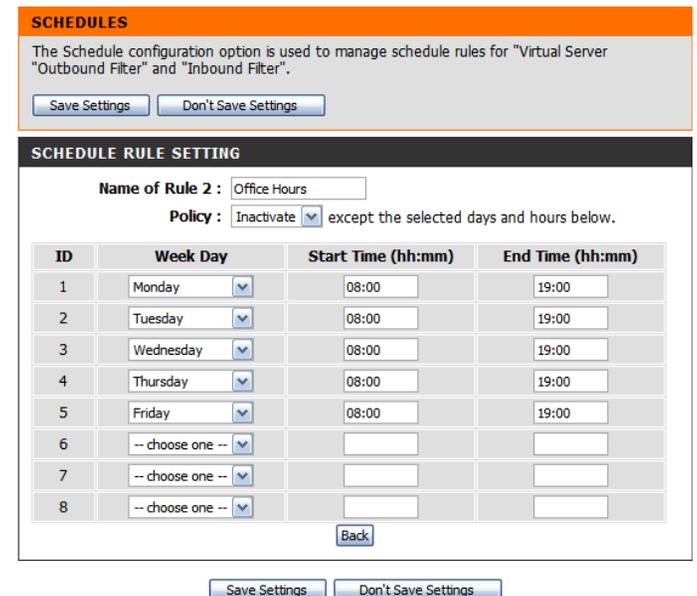
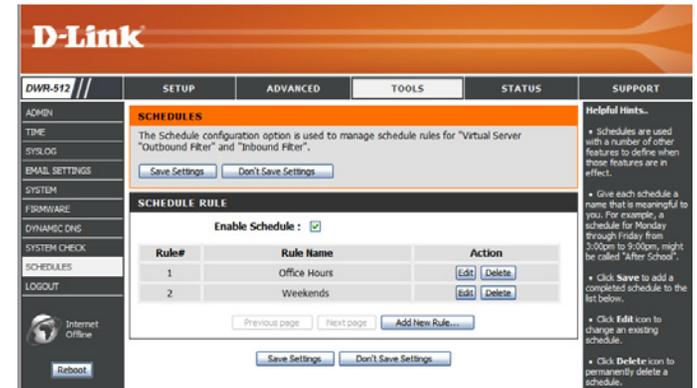
Policy: Select Activate or Inactivate to decide whether features that use the schedule should be active or inactive except during the times specified.

Week Day: Select a day of the week for the start time and end time.

Start Time (hh:mm): Enter the time at which you would like the schedule to become active.

End Time (hh:mm): Select the time at which you would like the schedule to become inactive.

After making your changes, click **Save Settings** to save the schedule.



Status

The **STATUS** pages allow you to see the current status of the router for various categories, including WAN, 3G, network, and wireless. To view the Status pages, click on **STATUS** at the top of the screen.

Device Info

All of your Internet and network connection details are displayed on this page. The firmware version is also displayed here.

General: Displays the current time and firmware version.

WAN: Displays the WAN connection details of the router.

3G Card: Displays the 3G connection details of the router.

LAN: Displays the LAN connection details of the router.

Wireless LAN: Displays the wireless LAN connection details of the router

LAN Computers: Displays the list of clients connected to the router.

The screenshot shows the D-Link DWR-512 web interface. At the top, there is a navigation bar with tabs for SETUP, ADVANCED, TOOLS, STATUS (selected), and SUPPORT. The main content area is titled 'DEVICE INFORMATION' and contains the following sections:

- GENERAL:** Time: Fri Jan 01, 2010 08:06:48; Firmware Version: V1.01, 2011/03/17
- WAN:** Connection Type: 3G; Network Status: Connecting...; Connection Time: N/A; Signal Strength: 75%; IP Address: 0.0.0.0; Subnet Mask: 0.0.0.0; Default Gateway: 0.0.0.0; DNS Server: 0.0.0.0, 0.0.0.0
- 3G CARD:** Card Info: MF210V; Link Status: Connecting...; Network Name:
- LAN:** MAC Address: F0:7D:68:E0:63:DB; IP Address: 192.168.0.1; Subnet Mask: 255.255.255.0; DHCP Server: Enabled
- WIRELESS LAN:** MAC Address: F0:7D:68:E0:63:DC; Wireless: Enabled; SSID: dlink-3; Security: Auto(None); Channel: 6; 802.11 Mode: B/G/N Mixed; Wi-Fi Protected Setup: Enabled
- LAN COMPUTERS:** A table showing connected clients:

IP Address	Name	MAC
192.168.0.50	06955pcwmp	00-19-89-43-71-1E

On the left side, there is a sidebar with links for DEVICE INFO, LOG, STATISTICS, WIRELESS, and LOGOUT. On the right side, there is a 'Helpful Hints...' section.

Log

Here, you can view and download the system log.

Previous: Click this button to go to the previous page of the log.

Next: Click this button to go to the next page of the log.

First Page: Click this button to skip to the first page of the log.

Last Page: Click this button to skip to the last page of the log.

Refresh: Click this button to refresh the system log.

Download: Click this button to download the current system log to your computer.

Clear Logs: Click this button to clear the system log.

Link To Log Settings: Click this button to go to the Log Settings page. For more, refer to “Log” on page 56.

D-Link

DWR-512 // SETUP ADVANCED TOOLS STATUS SUPPORT

DEVICE INFO
LOG
STATISTICS
WIRELESS
LOGOUT

Internet Office
Reboot

VIEW LOG
View Log displays the activities occurring on the device.
Page: 1/2 (Log Number : 17)
Previous Next First Page Last Page
Refresh Download Clear logs Link To Log Settings

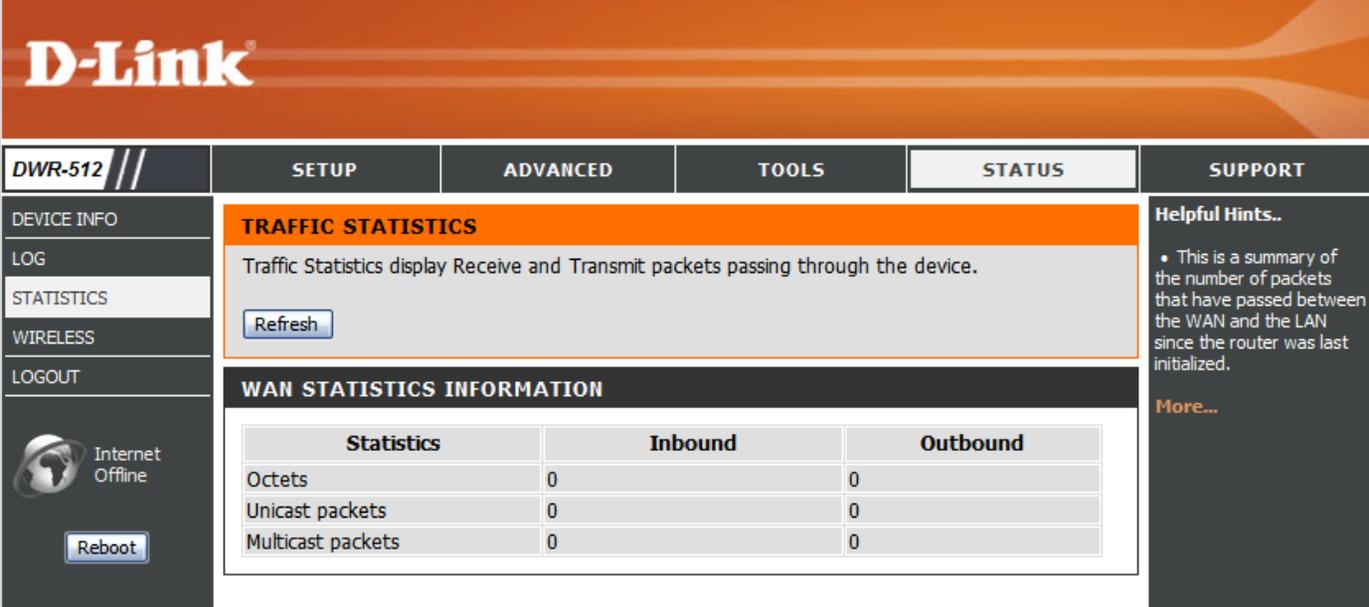
SYSTEM LOG

Time	Message
Dec 31 15:59:58	kernel: klogd started: BusyBox v1.3.2 (2011-03-16 10:16:11 CST)
Dec 31 16:00:06	commander: Init NAT Server ...
Dec 31 16:00:08	syslog: Unable to open /var/run/udhcpd.leases for reading
Dec 31 16:00:09	commander: Init UPnP Daemon !!
Dec 31 16:00:10	commander: Wirta fallover altered 0
Dec 31 16:00:11	commander: 3G phone supported
Dec 31 16:00:12	IChecksum: sec_id = 4; tmp_chksum = cf28; img_chksum = cf28
Dec 31 16:00:13	IChecksum: sec_id = 5; tmp_chksum = ab29; img_chksum = ab29
Dec 31 16:00:14	IChecksum: all_chksum = 7151
Dec 31 16:00:15	commander: STOP WANTYPE 3G
Dec 31 16:00:17	O3G/hotplug: 3G modem VendorID=19d2 ProductID=1300
Dec 31 16:00:18	O3G/hotplug: THIS IS USBSERIAL MODEM
Dec 31 16:00:19	commander: Start/Restart: httpd !
Dec 31 16:00:20	O3G/hotplug: link device node (/dev/ttyXXXXXX) to /dev/modem
Dec 31 16:00:21	O3G/hotplug: lib_3g.c: open_3g_connection() SIM not inserted!! Please check if SIM card is inserted

Helpful Hints...
• Check the log frequently to detect unauthorized network usage.
More...

Statistics

Here you can view the packets transmitted and received passing through your router on both WAN and LAN ports. The traffic counter will reset if the device is rebooted. Click the **Refresh** button to refresh the WAN statistics.



D-Link

DWR-512 // SETUP ADVANCED TOOLS STATUS SUPPORT

DEVICES INFO
LOG
STATISTICS
WIRELESS
LOGOUT

Internet Offline
Reboot

TRAFFIC STATISTICS

Traffic Statistics display Receive and Transmit packets passing through the device.

Refresh

WAN STATISTICS INFORMATION

Statistics	Inbound	Outbound
Octets	0	0
Unicast packets	0	0
Multicast packets	0	0

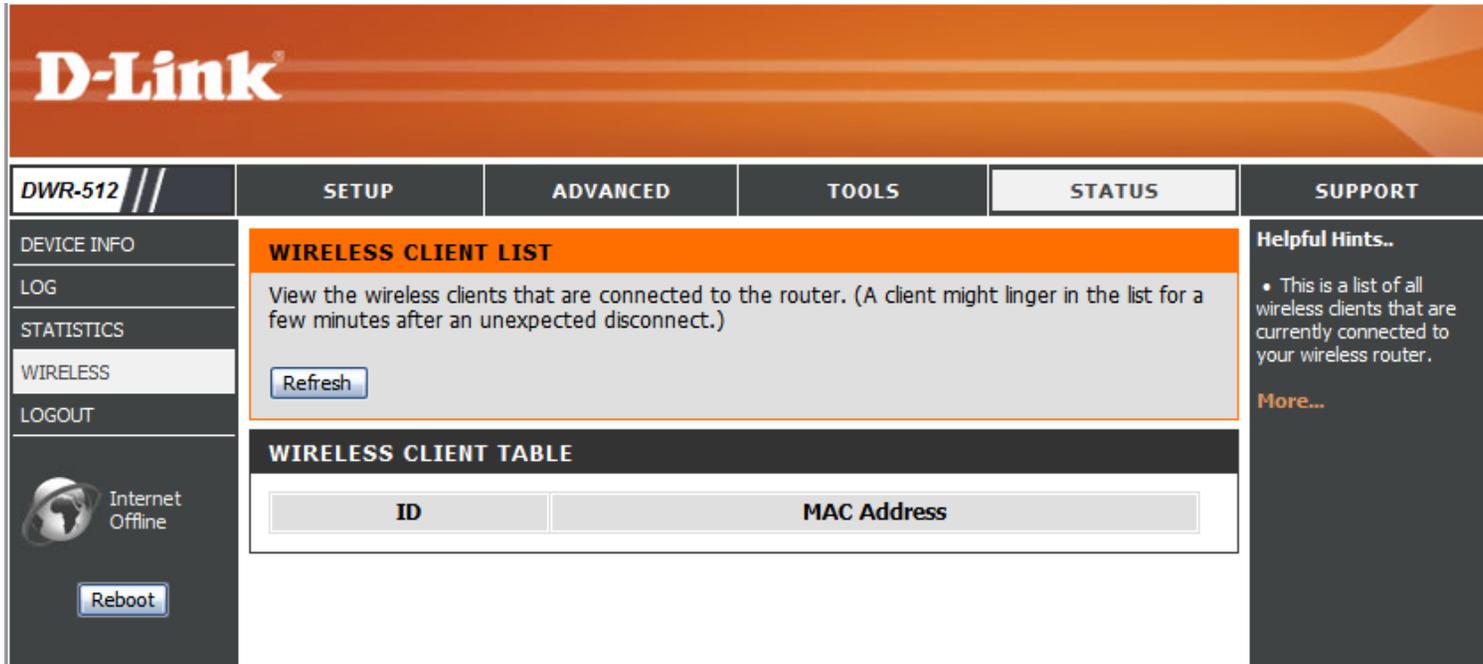
Helpful Hints..

- This is a summary of the number of packets that have passed between the WAN and the LAN since the router was last initialized.

[More...](#)

Wireless

This table displays a list of wireless clients that are connected to your wireless router. It also displays the connection time and MAC address of the connected wireless clients. Click **Refresh** to refresh the list.



The screenshot shows the D-Link web interface for a DWR-512 router. The top navigation bar includes links for SETUP, ADVANCED, TOOLS, STATUS, and SUPPORT. The left sidebar contains links for DEVICE INFO, LOG, STATISTICS, WIRELESS, and LOGOUT, along with an Internet Offline indicator and a Reboot button. The main content area is titled "WIRELESS CLIENT LIST" and contains a description: "View the wireless clients that are connected to the router. (A client might linger in the list for a few minutes after an unexpected disconnect.)" Below this is a "Refresh" button. Underneath is a section titled "WIRELESS CLIENT TABLE" with a table header showing "ID" and "MAC Address". A "Helpful Hints.." section on the right explains that the list shows currently connected wireless clients and includes a "More..." link.

D-Link							
DWR-512	SETUP	ADVANCED	TOOLS	STATUS	SUPPORT		
DEVICE INFO	WIRELESS CLIENT LIST				Helpful Hints.. <ul style="list-style-type: none">This is a list of all wireless clients that are currently connected to your wireless router. More...		
LOG	View the wireless clients that are connected to the router. (A client might linger in the list for a few minutes after an unexpected disconnect.)						
STATISTICS	<input type="button" value="Refresh"/>						
WIRELESS	WIRELESS CLIENT TABLE						
LOGOUT	<table border="1"><thead><tr><th>ID</th><th>MAC Address</th></tr></thead></table>				ID	MAC Address	
ID	MAC Address						
 Internet Offline							
<input type="button" value="Reboot"/>							

Support

The **SUPPORT** pages provide help information for each section of the device's interface. To view the Support pages, click on **SUPPORT** at the top of the screen.



The screenshot displays the D-Link DWR-512 web interface. At the top, the D-Link logo is visible. Below it, a navigation bar contains tabs for SETUP, ADVANCED, TOOLS, STATUS, and SUPPORT. The SUPPORT tab is selected. On the left side, there is a vertical menu with options: MENU, SETUP, ADVANCED, TOOLS, STATUS, and LOGOUT. Below the menu, there is a status indicator for 'Internet Offline' and a 'Reboot' button. The main content area is titled 'SUPPORT MENU' and contains several sections of help links:

- SUPPORT MENU**
 - [Setup](#)
 - [Advanced](#)
 - [Tools](#)
 - [Status](#)
- SETUP HELP**
 - [Internet](#)
 - [Wireless Settings](#)
 - [Network Settings](#)
 - [Message Service](#)
- ADVANCED HELP**
 - [VIRTUAL SERVER](#)
 - [Application Rules](#)
 - [QoS Engine](#)
 - [MAC Address Filter](#)
 - [Website Filter](#)
 - [Outbound Filter](#)
 - [Inbound Filter](#)
 - [SNMP](#)
 - [Routing](#)
 - [Advanced Wireless](#)
 - [Advanced Network](#)
- TOOLS HELP**
 - [Admin](#)
 - [Time](#)
 - [SysLog](#)
 - [Email settings](#)
 - [System](#)
 - [Firmware](#)
 - [Dynamic DNS](#)
 - [System Check](#)
 - [Schedules](#)
- STATUS HELP**
 - [Device Info](#)
 - [Log](#)
 - [Statistics](#)
 - [Wireless](#)

At the bottom of the interface, there is a 'WIRELESS' section and a copyright notice: Copyright © 2004-2010 D-Link Systems, Inc.

Connecting to a Wireless Network Using Windows 7

Windows 7 users may use the built-in wireless utility to connect to a wireless network. If you are using another company's utility or Windows 2000, please refer to the user manual of your wireless adapter for help with connecting to a wireless network. Most utilities will have a "site survey" option similar to the Windows 7 utility as seen below.

If you receive the Wireless Networks Detected bubble, click on the center of the bubble to access the utility. You can also click on the wireless icon in your system tray (lower-right corner).

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



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

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



Configuring Wireless Security

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

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



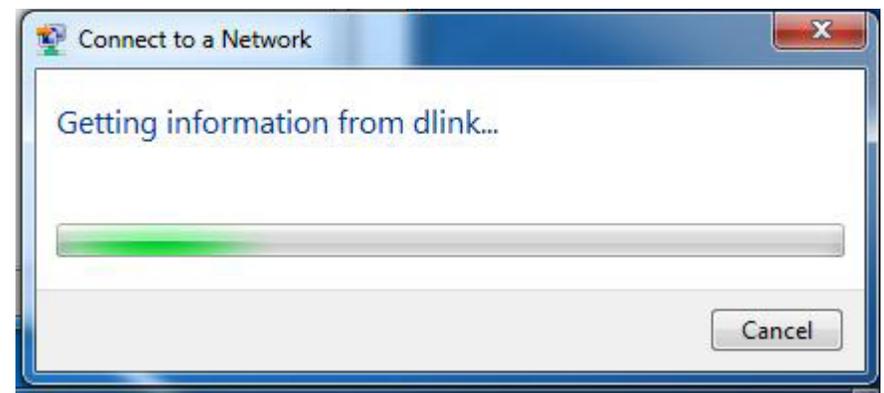
2. The utility will display any available wireless networks in your area.



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

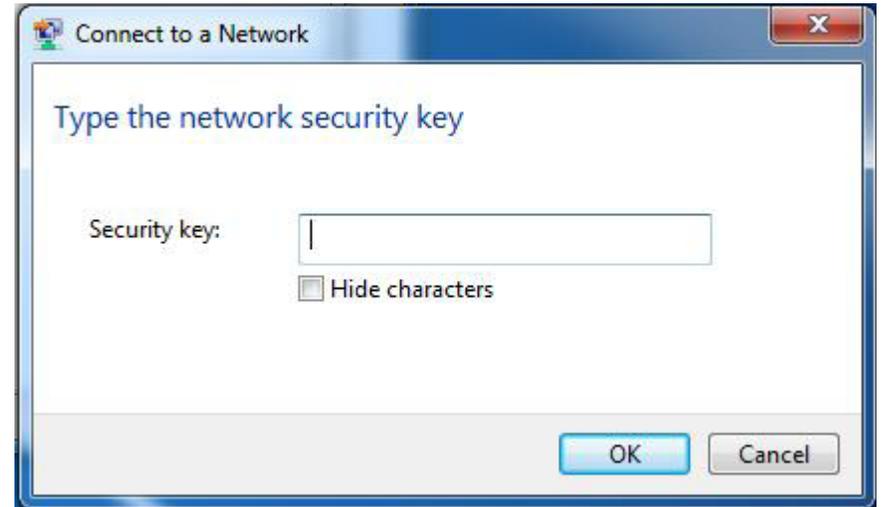


4. The following window appears while your computer tries to connect to the router.



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

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.



Using Windows Vista™

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

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

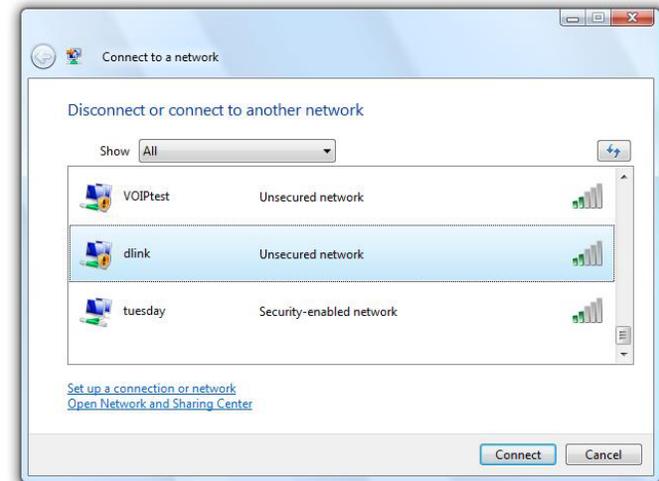
or

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



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

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



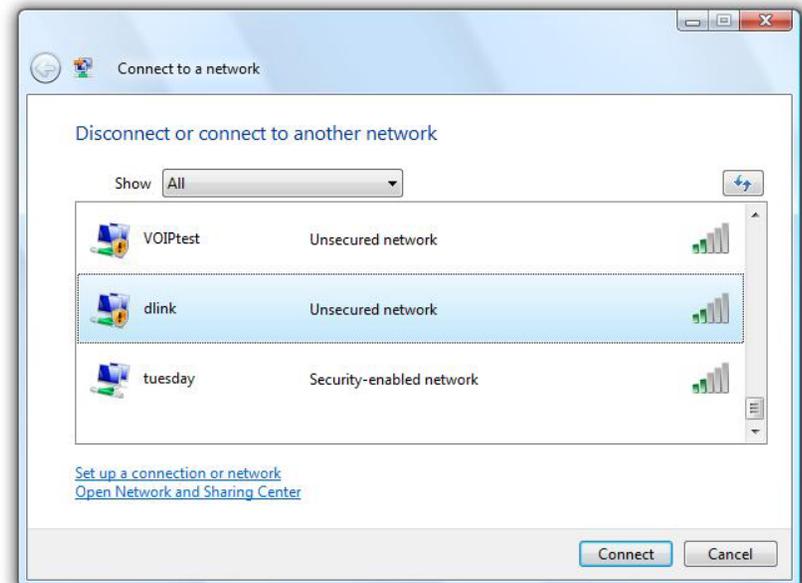
Configuring Wireless Security

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

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



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



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

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



Connect to a Wireless Network Using 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 or Windows® 2000, please refer to the user manual of your wireless adapter for help with connecting to a wireless network. Most utilities will have a "site survey" option similar to the Windows® XP utility as seen below.

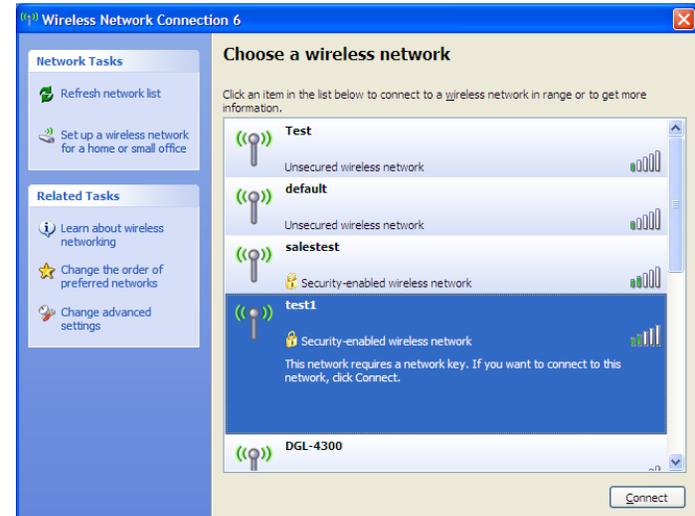
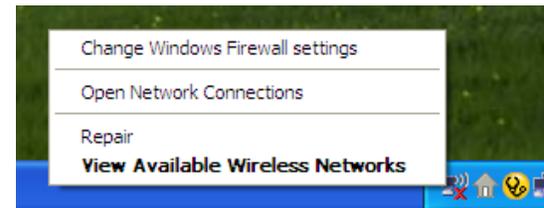
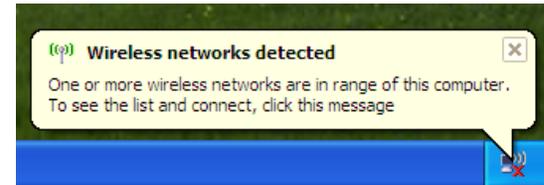
If you receive the **Wireless Networks Detected** bubble, click on the center of the bubble to access the utility.

or

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

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

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



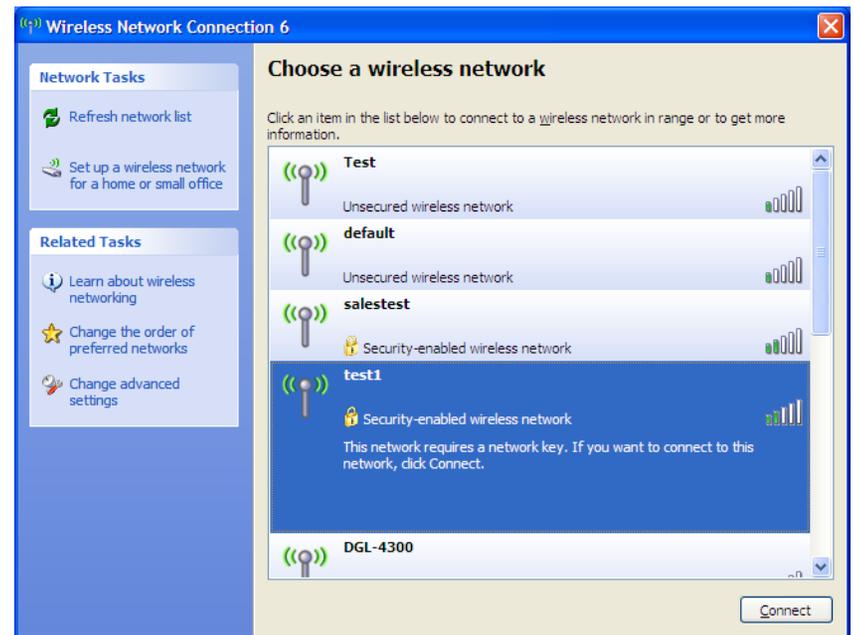
Configure WEP

It is recommended to enable WEP 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 WEP key being used.

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

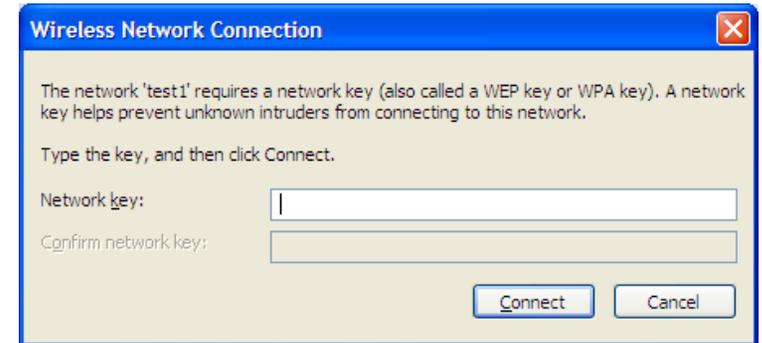


2. Highlight the wireless network (SSID) you would like to connect to and click **Connect**.



3. The **Wireless Network Connection** box will appear. Enter the same WEP key that is on your router and click **Connect**.

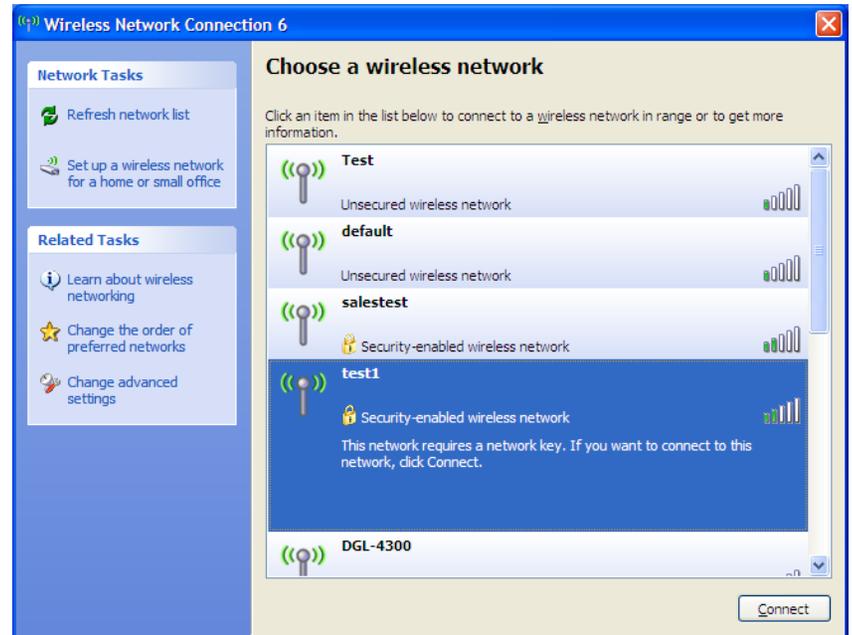
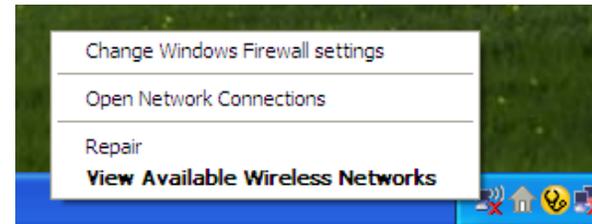
It may take 20-30 seconds to connect to the wireless network. If the connection fails, please verify that the WEP settings are correct. The WEP key must be exactly the same as on the wireless router.



Configure WPA-PSK

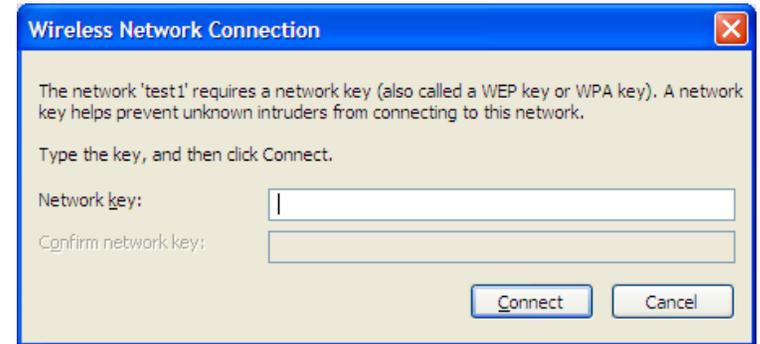
It is recommended to enable WPA on your wireless router or access point before configuring your wireless adapter. If you are joining an existing network, you will need to know the WPA key being used.

1. Open the Windows® XP Wireless Utility by right-clicking on the wireless computer icon in your system tray (lower-right corner of screen). Select **View Available Wireless Networks**.
2. Highlight the wireless network (SSID) you would like to connect to and click **Connect**.



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

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



Troubleshooting

This chapter provides solutions to problems that can occur during the installation and operation of the DWR-512. Read the following descriptions if you are having problems. (The examples below are illustrated in Windows® XP. If you have a different operating system, the screenshots on your computer will look similar to the following examples.)

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

When entering the IP address of the D-Link router (192.168.0.1 for example), you are not connecting to a website on the Internet or have to be connected to the Internet. The device has the utility built-in to a ROM chip in the device itself. Your computer must be on the same IP subnet to connect to the web-based utility.

- Make sure you have an updated Java-enabled web browser. We recommend the following:
 - Internet Explorer 6 or higher
 - Netscape 8 or higher
 - Mozilla 1.7.12 (5.0) or higher
 - Opera 8.5 or higher
 - Safari 1.2 or higher (with Java 1.3.1 or higher)
 - Camino 0.8.4 or higher
 - Firefox 1.5 or higher
- Verify physical connectivity by checking for solid link lights on the device. If you do not get a solid link light, try using a different cable or connect to a different port on the device if possible. If the computer is turned off, the link light may not be on.
- Disable any internet security software running on the computer. Software firewalls such as 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 the web management.
- If you still cannot access the configuration, unplug the power to the router for 10 seconds and plug back in. Wait about 30 seconds and try accessing the configuration. If you have multiple computers, try connecting using a different computer.

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

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

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

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 e-mail, instant message, and 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 you next-door neighbors or intruders connect to your wireless network. Secure your wireless network by turning on the WPA or WEP security feature on the router. Refer to product manual for detail information on how to set it up.

Wireless Modes

There are basically one modes of networking:

- • **Infrastructure** – All wireless clients will connect to an access point or wireless router.

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.

Networking Basics

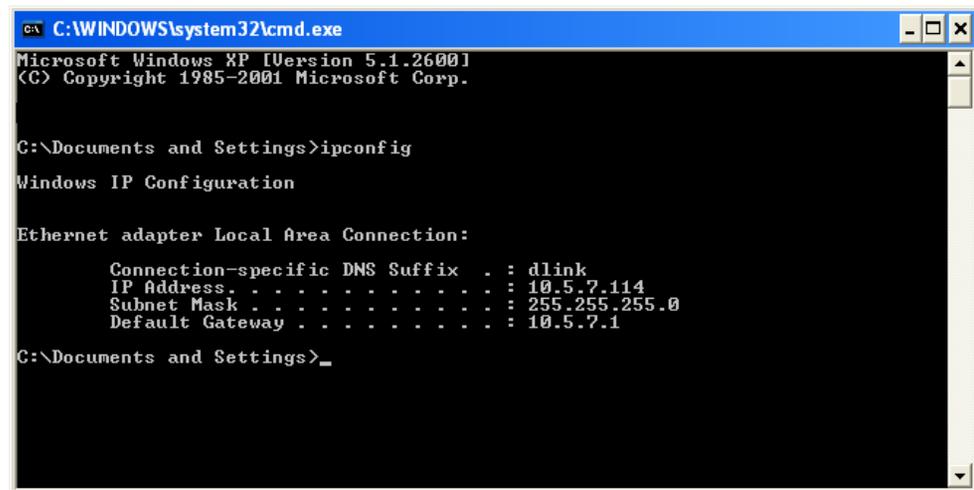
Check your IP address

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® 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.



```
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>_
```

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

Statically Assign an IP address

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

Step 1

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

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

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

Step 2

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

Step 3

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

Step 4

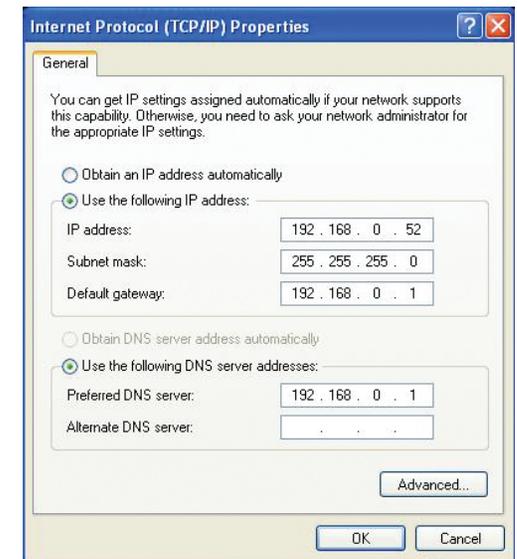
Click **Use the following IP address** and enter an IP address that is on the same subnet as your network or the LAN IP address on your router.

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

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

Step 5

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



Technical Specifications

GSM Band (GSM/GPRS/EDGE)

- 850 / 900 / 1800 / 1900 MHz
- Power Class 4 (850 / 900 MHz)
- Power Class 1 (1800 / 1900 MHz)

UMTS/HSDPA Band ¹

- 850 / 1900 / 2100 MHz
- Power Class 3

Data Rates ²

- 1/2/5.5/11 Mbps in 802.11b mode
- 6/9/11/12/18/24/36/48/54 Mbps in 802.11g mode
- Up to 300 Mbps in 802.11n mode

Standards

- 802.11b
- 802.11g
- 802.11n

Wireless Security

- 64/128-bit WEP (Wired Equivalent Privacy)
- WPA & WPA2 (Wi-Fi Protected Access)

Firewall

- Network Address Translation (NAT)
- Stateful Packet Inspection (SPI)

Antenna

- 1 External antenna

Ports

- 4 x LAN (RJ-45)
- 1 x WAN (RJ-45)
- 1 x Phone (RJ-11)

USIM Slot

- Standard 6-pin SIM card interface

LED Status Indicators

- Status
- WPS
- WAN
- LAN
- WLAN
- 2G
- 3G
- SMS
- Signal

Dimensions (L x W x H)

- 190 x 119 x 22 mm

Operating Temperature

- 0 to 40 °C (32 to 104 °F)

Operating Humidity

- 10% to 90% (Non-condensing)

Certifications

- CE
- FCC

¹ Supported frequency band is dependent upon regional hardware version.

² Maximum wireless signal rate derived from IEEE Standard 802.11g specifications. Actual data throughput will vary. Network conditions and environmental factors, including volume of network traffic, building materials and construction, and network overhead, lower actual data throughput rate. Environmental factors will adversely affect wireless signal range.