## **D-Link**®



**User Manual** 

## **4G/LTE Mobile 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	October 24, 2014	• Initial release

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# **Table of Contents**

Product Overview	I
Package Contents	1
System Requirements	1
Introduction	2
Hardware Overview	3
Top Side	3
Bottom Side	4
LCD Display	5
Installation	6
Connect to Your Network	6
Driver Installation	7
Wireless Installation Considerations	8
Configuration	9
ConfigurationInitial Connection to the Router	
_	9
Initial Connection to the Router	9 9
Initial Connection to the Router Connect via USB	9 9 10
Initial Connection to the Router Connect via USB Connect via Wi-Fi	9 9 10
Initial Connection to the Router Connect via USB Connect via Wi-Fi Web-based Configuration	9 10 12
Initial Connection to the Router	9 10 12 12
Initial Connection to the Router  Connect via USB  Connect via Wi-Fi  Web-based Configuration  Configuration Utility  Navigation	9 10 12 13 14
Initial Connection to the Router Connect via USB Connect via Wi-Fi Web-based Configuration Configuration Utility Navigation Quick Access	910121314
Initial Connection to the Router Connect via USB Connect via Wi-Fi Web-based Configuration Configuration Utility Navigation Quick Access Network Setup Setup Wizard APN For LTE/3G	9101213141515
Initial Connection to the Router Connect via USB Connect via Wi-Fi Web-based Configuration Configuration Utility Navigation Quick Access Network Setup Setup Wizard	9101213141515

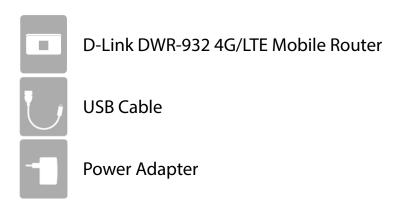
Wi-Fi Status	1
Admin Settings	18
Date & Time	18
Admin Settings	18
Apply Settings	20
Internet Settings	2
Network Status	2
Cellular Information	2
Network Status	2
APN Settings	22
Access Point Name (APN) Settings	22
APN Mode	2
Connect Mode Settings	24
Cellular Settings	24
SIM Card PIN Lock Settings	2
SIM	2
My Operator (PLMN)	20
Operator Mode (PLMN)	20
Available Operators	2
Router LAN Settings	28
LAN Setting	28
To DHCP Service Setting	28
DHCP Service	29
Wi-Fi Settings	30
Wi-Fi Status	30
General Information	30

Wi-Fi Status About DWR-932	
Wi-Fi Control Admin Settings Admin Settings	54
Wi-Fi 2.4 GHz31 Account	54
Wi-Fi WPS Language Language	55
Wi-Fi Clients	
Wi-Fi 2.4 GHz Clients List33 Settings Profile	58
Wi-Fi Security Settings34 Import1	58
Wi-Fi 2.4 GHz SSID34 Export Profiles	59
MAC Filter36 Export	
MAC Filter Settings36 Reset and Reboot36	
Application Settings	60
Contacts Settings37 Firmware Upgrade	61
Contacts On Device37 Upgrade My router	61
Contacts On SIM Card38 Network Statistics	
Short Messages	62
DHCP Settings42 StatisticsStatistics	63
USSD43 Advanced Options	64
DiagnosticsPower Saving	65
Ping / Traceroute44 Help44	66
Log	66
Firewall Settings46 General Mobile Router FAQs46	66
Firewall Settings46	
IP Filter	
Add IP Filter49 Using Windows 849	
Port Forwarding50 Using Windows 750	
Add Port Forwarding Configuring Wireless Security	
URL Filter52 Using Windows Vista™	74
System53 Configuring Wireless Security	75
System Information	77

#### **Table of Contents**

Configure WEP	78
Troubleshooting	80
Networking Basics	82
Check your IP address	82
Statically Assign an IP address	
Technical Specifications	84

# Product Overview Package Contents



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

# **System Requirements**

- A compatible (U)SIM card with mobile data service<sup>1</sup>
- A computer a with Windows, Macintosh, or Linux-based operating systems
- Internet Explorer 9, Firefox 12, Chrome 20, or Safari 4

<sup>&</sup>lt;sup>1</sup> Subject to services and service terms available from your carrier.

## Introduction

The D-Link DWR-932 4G/LTE Mobile Router lets you share a fast mobile Internet connection with multiple PCs and mobile devices letting you and your friends enjoy the advantages of a wireless network anywhere, anytime. It offers 4G LTE and 3G HSPA+ compatibility for fast downlink and uplink data rates, so you get fast upload and download speeds even when you're on the go.

#### **High-Speed Mobile Internet with LTE Connectivity**

The DWR-932 4G/LTE Mobile Router gives you high-speed access to the Internet wherever you are and lets you share it on the go. Using LTE technology, you can achieve download speeds of up to 150 Mbps and upload speeds of up to 50 Mbps¹. The built-in LTE antenna provides a reliable connection to your mobile service provider, and a separate internal Wi-Fi antenna gives extended coverage to the computers and mobile devices connected to the DWR-932.

#### Mobile Internet for All of Your Devices

With the DWR-932, you can get online with your notebook, smartphone, tablet, or any other wireless device using a single mobile connection. The DWR-932 provides high-speed Wireless N coverage, giving high-speed wireless access to everybody – whether you are with colleagues on a business trip, or travelling with friends and family.

#### **Built-in Software for Instant Access Anywhere**

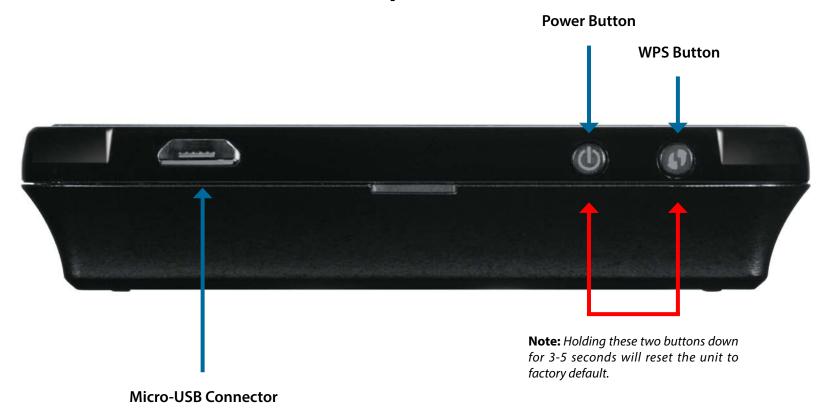
The DWR-932 is truly plug and play, with drivers already on the router, you can connect without needing to install anything. Open a browser, connect the router, and you can set up your network right from a web interface. This means that notebooks and netbooks without a CD-ROM drive can connect and get up and running in no time. Once the device is set up, you can simply power it on to start up your portable mobile network, meaning that you can share your mobile Internet connection without even needing a computer.

#### **Designed for True Portability**

The DWR-932 4G/LTE Mobile Router is small and slim enough to carry around in your purse, bag, or pocket. The built-in 2020 mAh rechargeable Li-lon battery can provide hours of mobile usage, meaning that you can share your mobile Internet connection in the car, in the park, or anywhere, and work or play longer without needing to recharge.

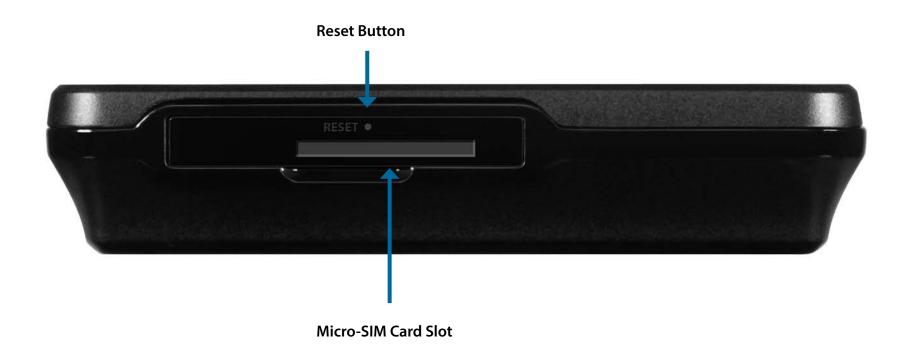
<sup>1</sup> All references to speed are for comparison purposes only. Actual speeds will vary depending on a range of factors including mobile network coverage, signal strength, network activity, and environmental conditions.

# Hardware Overview Top Side



Power Button	Press and hold this button for 6 seconds to power on/off the device.	
WPS Button  Press this button to add new wireless devices quickly and easily using Wi-Fi (WPS).		
INVICTO-LINE CONDECTOR	Use the included cable to connect to a powered USB port to charge the device, or to access the configuration utility.	
Reset to Factory Default	Holding these two buttons down for 3-5 seconds will reset the unit to factory default.	

# Hardware Overview Bottom Side



Reset Button	Using a paper clip, press and hold this button for 6 seconds to reboot the unit.	
Micro-SIM Card Slot	Insert a Micro-SIM Card to access the Internet and your SIM card contacts list.	

# Hardware Overview LCD Display

The current SSID and key code will be displayed on the DWR-932's LCD display. When connecting to the DWR-932 the SSID will be displayed in your device's wireless networking utility. By selecting SSID and entering in the key you will be able to connect to the DWR-932. Please refer to the table below explaining the icons displayed on the screen.



Number	Name	Explanation
1	SSID	By default, the network name (SSID) of the DWR-932 will be in the format dlink_DWR-932_xxxx, where "xxxx" represents the last four character's of the DWR-932's MAC address.
2	Key	Key code required to gain access to the DWR-932.

## Installation

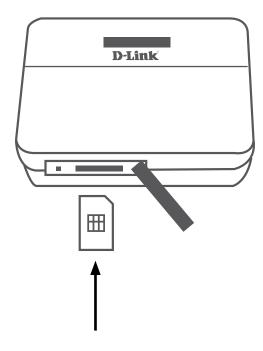
This section will guide you through the installation process.

## **Connect to Your Network**

- 1. Ensure that your DWR-932 4G/LTE Mobile Router is powered off.
- 2. On the bottom side of the router there is a slot for your Micro-SIM. Slide your Micro-SIM card into the slot provided, ensuring that the alignment is the same as indicated by the logo next to the slot. The gold contacts on the card should be facing upwards.

**Note:** Always unplug and turn off the router before installing or removing the Micro-SIM card. Never insert or remove the Micro-SIM card while the router is in use.

- 3. Press and hold the power button on the top side of the router.
  - a. "**D-Link**" will be displayed on the screen as the router performs its initialization processes.
  - b. After a few moments, the LCD display will show the device's SSID and key code. For more details on the LCD display, please refer to "**LCD Display**" on page 5.



## **Driver Installation**

When you plug the DWR-932 into your computer, any necessary drivers will immediately install (with your permission).

**Note:** These drivers are Windows-only. Mac and Linux users will still be able to configure the DWR-932 using the web configuration utility described in "Configuration Utility" on page 12.

## **Wireless Installation Considerations**

The DWR-932 can be accessed using a wireless connection from anywhere within the operating range of its wireless network. Keep in mind that the quantity, thickness, and location of walls, ceilings, or other objects that the wireless signals must pass through may adversely affect wireless signals. Ranges vary depending on the types of materials and background RF (radio frequency) noise in your home or office. The key to maximizing the wireless range is to follow these basic guidelines:

- 1. Minimize the number of walls and ceilings between the router and other network devices. Each wall or ceiling can reduce your adapter's range from 3 to 90 feet (1 to 30 meters).
- 2. Be aware of the direct line between network devices. A wall that is 1.5 feet thick (0.5 meters) appears to be almost 3 feet (1 meter) thick at a 45-degree angle. At a 2-degree angle it appears 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. Try to position access points, wireless routers, and computers so that the signal passes through open doorways. Materials such as glass, metal, brick, insulation, concrete, and water can affect wireless performance. Large objects such as fish tanks, mirrors, file cabinets, metal doors, and aluminum studs may also have a negative effect on range.
- 4. If you are using a 2.4 GHz cordless phone, make sure that the 2.4 GHz phone base is as far away from your wireless device as possible. The base transmits a signal even when the phone is not in use. In some cases, cordless phones, X-10 wireless devices, and electronic equipment such as ceiling fans, fluorescent lights, and home security systems may dramatically degrade wireless connectivity.

# Configuration

This section will show you how to configure your new D-Link mobile router using the configuration utility that can be obtained through a software interface or a web-based user interface.

## **Initial Connection to the Router**

When configuring the router for the first time, you will need to establish a direct connection with the router in order to access the web-based configuration utility. This can be done using the included USB cable, or by connecting wirelessly to the DWR-932. Once you have configured your router, you will be able to connect using the Wi-Fi settings that you have specified in the configuration process. Ensure that the router is powered on and has sufficient battery power before commencing the setup process.

### **Connect via USB**

To connect to the router via USB, plug the provided Micro-USB cable into the Micro-USB port on the bottom of the router, and plug the other end into an available USB port on your computer. Your router is now ready for configuration, please refer to the "**Configuration Utility**" on page 12 to continue the setup process.

### Connect via Wi-Fi

**Note:** The following example uses Windows 7's built-in wireless connection utility. If you are using a different operating system, or a third party connection utility, the process may be different. Please refer to the documentation that came with your operating system or wireless client for further information on how to connect to a wireless network.

To connect to the router using Wi-Fi, open your operating system's wireless networking utility and scan for available networks to connect to. By default, the network name (SSID) of the DWR-932 will be in the format **dlink\_DWR-932\_xxxx**, where "**xxxx**" represents the last four character's of the DWR-932's MAC address.



Once you have located this network with your wireless utility, connect to the network using the wireless networking utility.



You will then be prompted to enter the network security key for your router. The unique security key for your router will be displayed on the DWR-932's screen. Enter the security key in the box provided and click **OK**. Your wireless connection utility will confirm that the connection is successful, and you can move to the next step to continue to the configuration process.

You can also setup a connection using the Windows built in WPS feature. Please see "Connecting to a Wireless Network" on page 67.



# **Web-based Configuration**

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



## **Configuration Utility**

Once you have reached the configuration utility through the installed software or your web browser, you will need to log in. Enter **admin** as the username, and then enter the password. By default, the password is blank.

Click **Sign in** to continue.



# **Navigation**

On the homepage of the interface, you will find a menu bar at the top of the page which includes tabs for easy navigation, and a summary bar in the upper right corner with a quick view of essential information.



**Internet** The Internet tab allows you to configure your Internet settings.

Wi-Fi Setup The Wi-Fi Setting allows you to configure your Wi-Fi network, as well as add new devices using WPS.

**Applications** The **Applications** tab allows you to configure firewall and security settings to protect your network from WAN-side intrusions.

**System** The **System** tab allows you to view system information and alter your login password.

Help From this tab, you can access a general mobile router FAQ.

## **Quick Access**

A quick access page will be displayed on the initial homepage for the DWR-932. The headings below link through to a window where you can alter settings in more detail.

Internet This area displays your Internet provider, the type of Internet service you are using, the signal strength

and your current data usage.

Connection Mode This area displays the length of connection time and

allows you to change between Always Connect and

**Manual Connect.** 

Wi-Fi The Wi-Fi section displays the number of devices

currently connected to the router.

Messaging This area displays the number of SMS messages in

your inbox and draft massages.

**Power Saving** This area displays whether power saving features

have been selected, such as sleep mode.



# Network Setup Setup Wizard

The **Wizard** page will guide you through the steps required to configure the basic settings of your router such as the IP address, network name (SSID), and password. Click on the **Setup Wizard** button to begin the quick setup wizard.



## **Connection Settings**

In this section you can configure your connection settings. Depending on your mobile service provider, you may have to input optional settings before use, if so, you may need to contact your service provider regarding these details.

#### **APN For LTE/3G**

**APN Selection Mode** Choose to either automatically or manually select

an APN.

Allow Data Roaming Select this if you want to allow data roaming.

Enter your service provider's APN.

**User Name and Password** Enter the username and password provided by your (optional)

service provider.



#### If you choose to manually select your APN.

Both PAP and CHAP combined. Auto (PAP & CHAP)

Select this if your service provider uses this protocol.

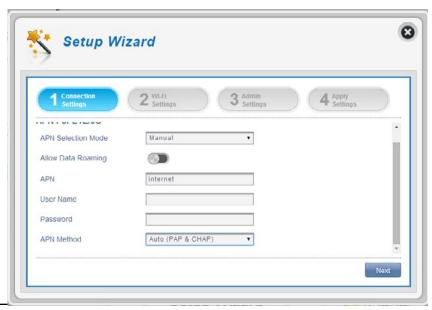
Password Authentication Protocol. Select this if your PAP

service provider uses this protocol.

CHAP Challenge Handshake Authentication Protocol.

Select this if your service provider uses this protocol.

Click **NEXT** to move to the next section.



### Wi-Fi Status

In this section you have the option of changing your Wi-Fi access name and password as well as security features, making your network extra secure for you and your friends.

#### Wi-Fi 2.4 GHz Access Name

Access Name Wi-Fi 2.4 The name of your wireless access point.

GHz

**Encryption Mode** By default advanced protection is selected. You

may also select between basic protection or no

protection.

**WPA Mode Auto (WPA or WPA2)** - The router will automatically

determine the version of WPA to be used based on

the client that is connecting to it.

**WPA2** - Clients will only be able to associate with the router using the WPA2 standard. Clients which do not support WPA2 will not be able to associate

with the router.

**Cipher Mode AES** - A newer cipher used by the WPA2 standard.

Use of this cipher type is required in order to

achieve 802.11 speeds.

**Pre -Shared Key** The pre-shared key is the password which clients

will require in order to connect to your network. Enter a password of between 8 and 63 characters in

length.

Click **NEXT** to move to the next section.



## **Admin Settings**

In this section, you can adjust your admin username and password for logging into your web browser to access the router settings, as well as the time and date.

#### **Admin Settings**

**Username** Enter your desired username here.

Password Enter your desired password here.

**Language** Select your desired language here.

#### **Date & Time**

SNTP Toggle the switch to **Enable** or **Disable** to automatically synchronize the time with a Simple

Network Time Protocol (SNTP) server.

**Time Zone** Select your current Coordinated Universal Time

zone (UTC).

Date & Time Adjust the dials on the screen with your mouse

curser to set the time and date.

Selected Date and Time Displays your new, dial adjusted time.

Click **NEXT** to move to the next section.



#### If you enabled automatically synchronize the time with a SNTP server.

**Tertiary SNTP** 

Enter a SNTP server address which will be used to **Secondary and** synchronize the router's system time and date.

**Server:** 

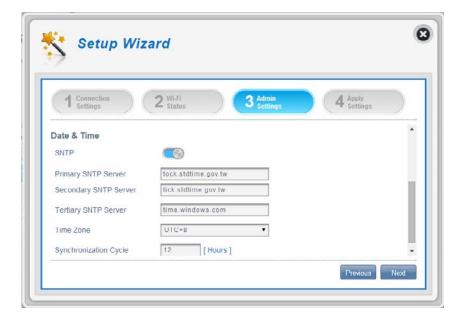
**Time Zone:** Enter the time zone where you are currently using

the DWR-932 to accurately set the time.

**Synchronization** You can specify in hours how frequently the

Cycle DWR-932 will update the time from a SNTP server.

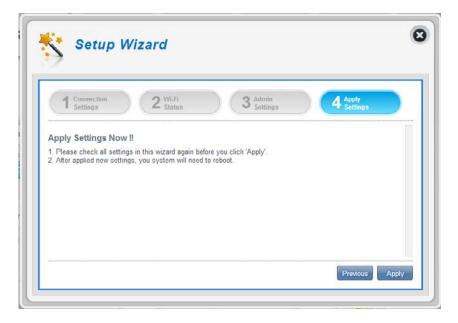
Click **NEXT** to move to the next section.



## **Apply Settings**

Check all settings in the wizard and click "**Apply**". After applying the new settings you will need to reboot your system.

Click **Apply** to save changes.



# Internet Settings Network Status

In this section you can check your current network status as well as your service provider and data usage.

#### **Cellular Information**

Network Provider Displays your current network provider and signal

strength.

Network Type Displays the type of network you are connected to,

such as 2G, 3G or 4G.

**Connection Time:** The length of time you have been connected to the

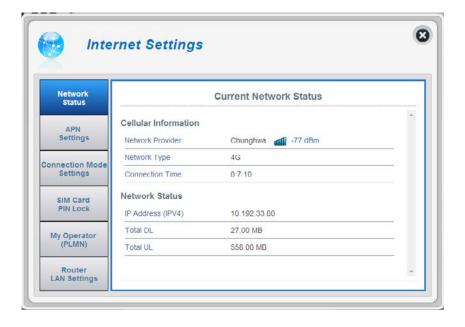
network.

#### **Network Status**

IP Address (IPV4) Displays your current IP address.

Total DL Displays your average download speed.

Total UL Displays your average upload speed.



## **APN Settings**

In this section you can configure your APN settings. Depending on your mobile service provider, you may have to input optional settings before use, if so, you may need to contact your service provider regarding these details.

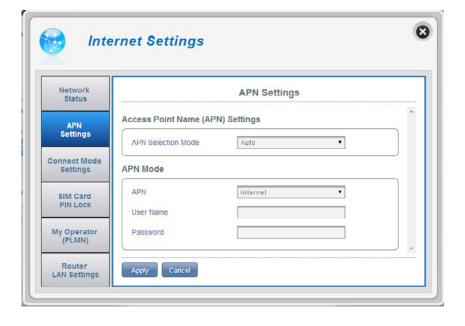
#### **Access Point Name (APN) Settings**

#### **APN Selection Mode Auto Connect**

Check this option if you want the DWR-932 to automatically connect to a mobile network after it has been powered on, or has been disconnected from its current mobile network.

#### Manual

Enter the Access Point Name (APN) for the connection. If you do not know this information, please contact your service provider.



#### If you choose to manually select your APN

#### **APN Mode**

**APN** If you are already connected to a mobile network, your ISP will provide the necessary APN which you

can select from the drop down list.

**User Name** Enter the username to be used for this connection.

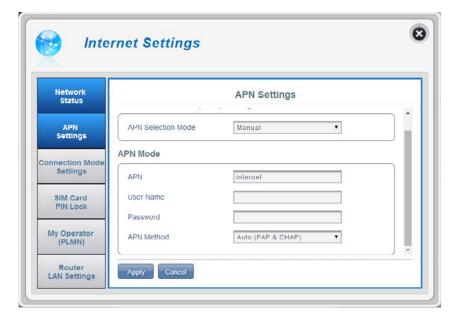
Password Enter the password to be used for this connection.

APN Method Choose the authentication method that your ISP uses to connect to its mobile network. If you do not

know this information, please contact your service provider. For more information refer to "Connection

Settings" on page 16.

Click **Apply** to save changes.



## **Connect Mode Settings**

This section allows you to choose your desired cellular network, allow data roaming and control your connection mode.

#### **Cellular Settings**

**Preferred Cellular** Auto - automatically connects to a mobile network.

**2G mode** - only connects to a 2G mobile network.

**3G mode** - only connects to a 3G mobile network.

**4G mode** - only connects to a 4G mobile network.

**Allow Data Roaming** 

Select this if you want to allow data roaming. Data roaming lets you use an Internet connection internationally outside of you Internet providers coverage. Enabling this feature can lead to very high data expenses.

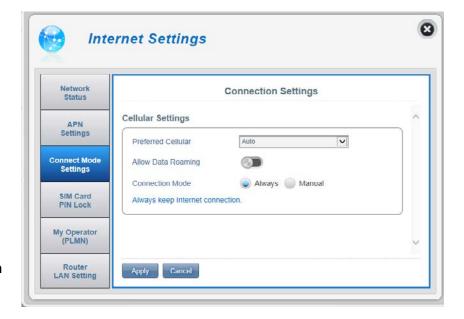
Connection Mode Choose between Always or Manual for connecting to the Internet.

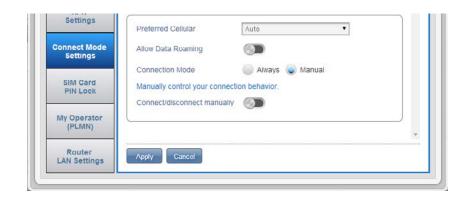
#### If you selected Manual Connection Mode

manually

**Connect/disconnect** Toggle the switch to enable/disable your Internet.

Click **Apply** to save changes.





## **SIM Card PIN Lock Settings**

This section allows you to lock the SIM card currently inserted into the DWR-932.

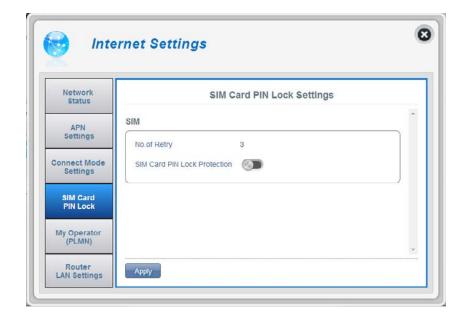
#### SIM

No. of Retry The number of retries left to access your SIM.

**Note:** If you exceed the number of retries, you will be locked from using your SIM.

locked from using your silvi.

SIM Card Move the toggle to enable SIM card PIN Lock
PIN Lock Protection. In order to use this function you need to know the PIN of the SIM chip.



#### If you enabled Manual Connection Mode

PIN Code Type your SIM's pin code here.

Click **Apply** to save changes.



## My Operator (PLMN)

This page allows you to view available Public Land Mobile Networks (PLMN). This page can also be used to select a preferred network when you are roaming outside of your home network.

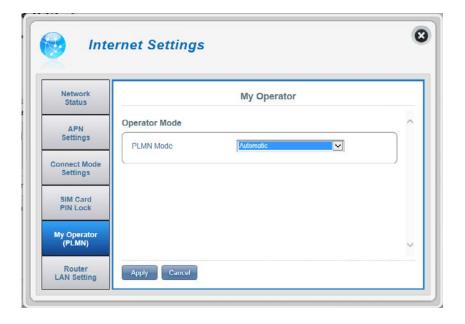
#### **Operator Mode (PLMN)**

**PLMN Mode** Displays the current mode the DWR-932 is operating in.

> Select **Automatic** to allow the DWR-932 to automatically connect to the first available network when roaming.

Select **Manual** to choose your preferred roaming. network from the list below.

Click **Apply** to save changes.



#### If you selected Manual Mode

Click on your preferred network to select it, or type in the **Search** box to find your desired network.

**Note:** You will need to manually disconnect from the current mobile data service before selecting a network using PLMN.

#### **Available Operators**

ID ID number assigned to each available PLMN.

**Use it** Check the box to select your desired network.

**Status** The network's current status.

**Operator Name** The name of the cellular network.

Access Technology Allows you to see what the cellular network's access technology is.

Click **Apply** to save changes.



## **Router LAN Settings**

This section lets you setup network settings for the device.

#### **LAN Setting**

LAN Setting Displays your current LAN status.

#### **To DHCP Service Setting**

The DWR-932 has a built-in DHCP server which can assign IP addresses to connected clients. This section shows your current settings and allows you to configure the IP address for the DWR-932 as well as configure its DHCP settings.

**Configure DHCP** This button takes you through to DHCP Settings where

you can configure your IP address and IP range.

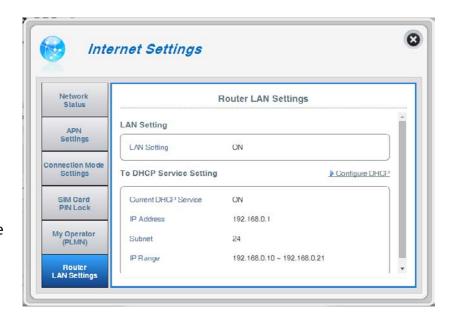
**Current DHCP Service** Shows if you are using the DHCP Service.

IP Address Router's current IP address.

**Subnet** The subnet number that your router is using.

**IP Range** The range of numbers that the DHCP server will give

out.



#### If you selected Configure DHCP

#### **DHCP Service**

Here you can configure the IP address for the DWR-932, as well as the range of IP numbers that the DHCP will give out.

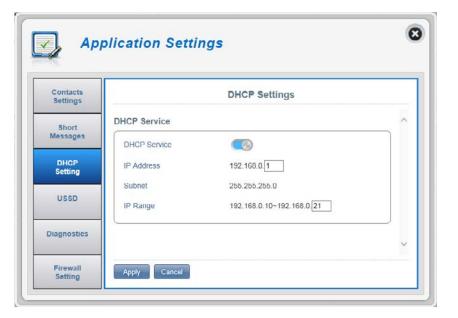
**DHCP Service** Enable/disable the DHCP Service.

IP Address Click on the last digit to alter your router's current IP address.

**Subnet** The subnet number that your router is currently using.

IP Range Click on the last digits to alter the range of numbers that the DHCP server will give out.

Click **Apply** to save changes.



# Wi-Fi Settings Wi-Fi Status

This page displays your current Wi-Fi status and Wi-Fi settings.

#### **General Information**

Wi-Fi WPS Displays whether Wi-Fi Protected Setup (WPS) is

enabled and the configuration method used.

Wi-Fi 2.4 GHZ Displays whether Wi-Fi is enabled.

Current Wi-Fi Clients Displays the number of people connected to your Wi-Fi

network.

#### Wi-Fi Status

**SSID Name** Displays the name of your Wi-Fi network.

**Encryption** Displays your current Wi-Fi security encryption mode.

**DHCP** Displays whether you are using a DHCP server or not.

**IP Address** Your router's IP address.

Subnet Your router's subnet number.

MAC Address Your router's MAC address..



### **Wi-Fi Control**

#### Wi-Fi 2.4 GHz

Wi-Fi 2.4 GHz Toggle the switch to enable/disable Wi-Fi functionality on your router.

**802.11 Mode** The type of Wi-Fi connection currently being accepted by the router.

**Channel Width** The current channel width being used by your router.

Wi-Fi Channel Choose the clearest channel to help optimize the performance and coverage of your wireless network. By default the channel is set to **Auto Channel**. This can be changed to fit the channel setting for an existing wireless network or to customize your wireless network.

Click **Apply** to save changes.



#### Wi-Fi WPS

PBC (Push Button Configuration) enables you to easily connect your devices to the DWR-932 by pushing a PBC button on both devices. Simultaneously click **Start Via PBC**, as well as your device's PBC button, to begin the Wi-Fi Protected Setup feature.

**Use PIN Mode** Move the toggle to enable PIN protection for use with the Wi-Fi Protected Setup feature.

PIN The PIN is a unique number that can be used to configure your router.

Click **Apply** to save changes.



## **Wi-Fi Clients**

This page shows your current client list and allows you to filter clients by host name, IP address and MAC address. This filtering option enables you to allow or deny access to specific wireless clients.

#### Wi-Fi 2.4 GHz Clients List

**Host Name** A unique name for each wireless client that is connected

to your router.

IP address The network address of the wireless client that is

connected to your router.

MAC address The hardware address of the client's wireless adaptor.

Access Toggle this switch to allow or deny access to specific clients.

**Note:** If you deny access to a Wi-Fi client you will see their MAC address in "**MAC Filter**" on page 36. You can re-

allow access to the client there.

Click **Apply** to save changes.



## **Wi-Fi Security Settings**

In this page you can view your Wi-Fi security settings, here you can alter things like your SSID name, SSID visibility and access Wi-Fi security features.

#### Wi-Fi 2.4 GHz SSID

SSID For Wi-Fi 2.4 GHz Displays the name of your Wi-Fi network. Click in the

box to edit.

SSID Visibility Click the toggle to change your SSID visibility to

clients.

Max Client Number The maximum amount of clients allowed on your

network.

**Protection** By default advanced protection is selected. You

may also select between basic protection or no

protection.

WPA Mode Auto (WPA or WPA2) - The router will automatically

determine the version of WPA to be used based on

the client that is connecting to it.

**WPA2** - Clients will only be able to associate with the router using the WPA2 standard. Clients which do not support WPA2 will not be able to associate

with the router.

**Cipher Type AES** - A newer cipher used by the WPA2 standard.

Use of this cipher type is required in order to

achieve 802.11 speeds.



**Pre-Shared Key** The pre-shared key is the password which clients require in order to connect to your network. Enter a password of between 8 and 63 characters in length.

Click **Apply** to save changes.

### **MAC Filter**

This page allows you to set MAC filters (Media Access Control) which allow or deny LAN (Local Area Network) computers from accessing the network. A MAC address is a unique ID assigned by the manufacturer for devices that connect to a network. You can either manually add a MAC address or select the MAC address from the list of clients that are currently connected to the router.

#### **MAC Filter Settings**

MAC Filter Toggle this switch to enable/disable the MAC filter.

MAC Filter For Black Here is a list of clients' MAC addresses that have been denied access to your network.

ID ID number given to black listed clients by your router.

**Delete** Check this box to delete clients from the black list.

MAC Address Specify the MAC address of the computer to be filtered.

Add New Select the **Add New** button and manually enter the MAC address of the client that you wish to deny access to your network.

**Note:** You can view the current list of clients connected to your network and their MAC addresses in "Wi-Fi Clients" on page 33.

Click **Apply** to save changes.



## **Application Settings Contacts Settings**

This page lets you view, add and organize contacts stored on your SIM card and DWR-932.

#### **Contacts On Device**

D A number given to each contact on your SIM card.

**Contact Name** The name of contacts on your SIM card.

**Phone Number** SIM card contacts phone numbers.

Add New Click Add New to add a new contact to your SIM

card.

Click **Apply** to save changes.



#### **Contacts On SIM Card**

ID A number given to each contact on your SIM card.

**Delete** Check this box to select and delete a contact on

your SIM.

**Contact Name** The name of contacts on your SIM card.

**Phone Number** SIM card contacts phone number.

Add New Click Add New to add a new contact to your SIM

card.

Click **Apply** to save changes.



## **Short Messages**

On the Short Messages Settings page you can organize, send and receive Short Message Service (SMS) messages by selecting between a setup, inbox and drafts tab. These messages can either be saved to the DWR-932 4G/LTE Mobile Router directly or on the SIM card itself.

#### **Short Message Settings**

#### Setup

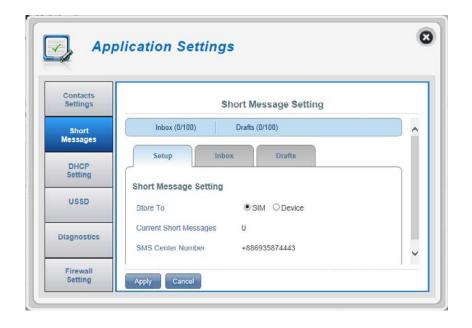
**Store To** Choose between storing contact numbers on your SIM card or the DWR-932 device.

**Current Short** The current amount of messages received. **Messages:** 

SMS Center Your SIM card's contact number.
Number

Click **Add New** to add a new contact to your SIM card.

Click **Apply** to save changes.



#### Inbox

**ID** A chronological number given to each message you receive.

**Delete** Check this box to select and delete a message in your inbox.

From The SMS sender's number.

Time The time the message was received.

**Content** The SMS message's content.

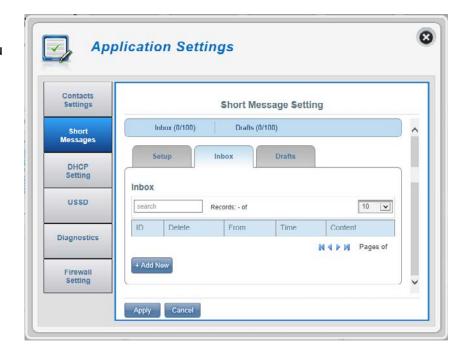
**Add New** Click **Add New** to send a new message.

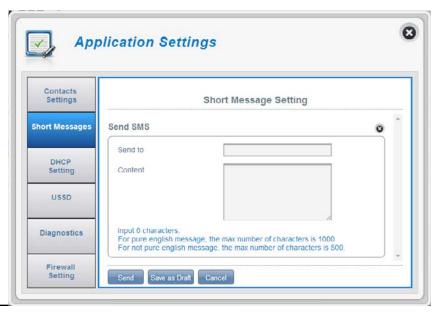
Click **Apply** to save changes.

#### If you clicked Add New:

**Send to** The number or contact name of the person you wish to send the message to.

**Content** Type your message content here.





#### **Drafts**

ID A chronological number given to each message you save to draft.

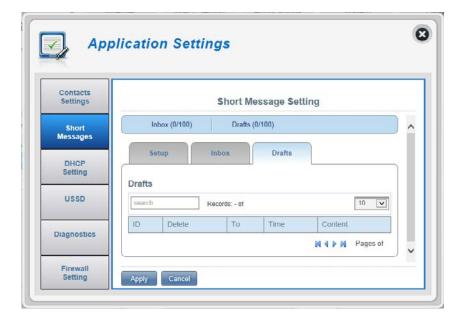
**Delete** Check this box to select and delete a message in your drafts folder.

To The SMS sender's number.

**Time** The time the message was last edited.

**Content** The SMS message's content.

Click **Apply** to save changes.



## **DHCP Settings**

Here you can enable your router's DHCP Service, configure the IP address for the DWR-932 as well as the IP range of numbers that the DHCP will give out.

#### **DHCP Service**

**DHCP Service** Enable/disable the DHCP Service.

IP Address Click on the last digit to alter your router's current IP

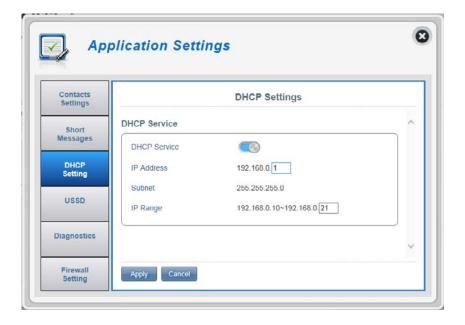
address.

**Subnet** The subnet number that your router is using.

**IP Range** Click on the last digits to alter the range of numbers

that the DHCP server will give out.

Click **Apply** to save changes.

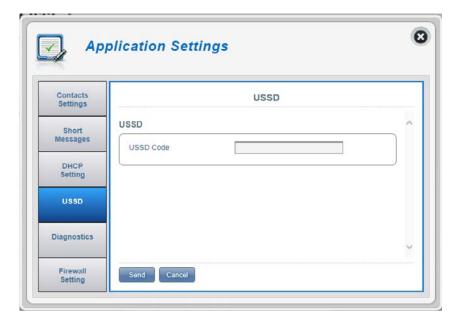


## **USSD**

Unstructured Supplementary Service Data (USSD) allows ISP specific applications to be activated with a SMS message.

#### **USSD**

USSD Code Enter an application activation code and click the **Send** button. This will allow you to activate applications by sending an SMS to your ISP.



## **Diagnostics**

#### **Ping / Traceroute**

**Diagnostics** Click this tab to access the **Ping/Traceroute** function

of your router.

**Ping** This test is used to send ping packets to test if your

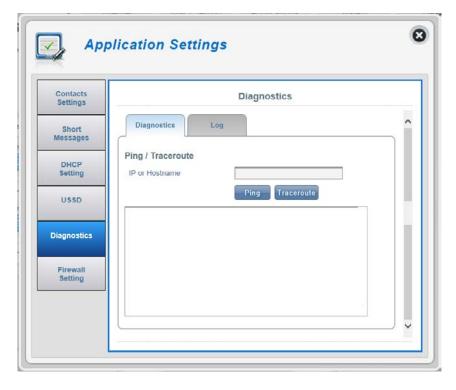
computer is on the Internet.

**Traceroute** This test displays how many IP addresses are between

your router and the IP address you wish to check.

**IP or Hostname:** Enter the IP address that you wish to check and click

either **Ping** or **Traceroute**.



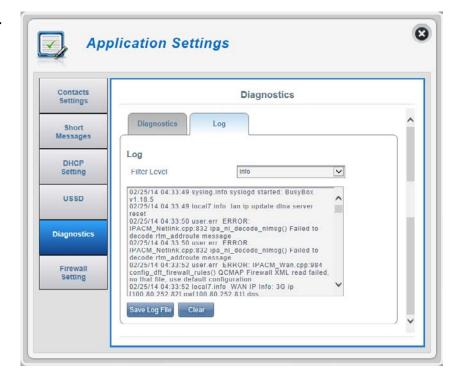
#### Log

Log The router keeps a running log of events and activities. You may view these in the display below.

Filter Level Select your desired filter level.

**Save Log File** Click this button to download the log file to your computer.

**Clear** Click this button to clear the current displayed data.



## **Firewall Settings**

A firewall protects your network from the outside world, helping to prevent cyber attacks. This page allows you to alter your router's firewall settings.

#### **Firewall Settings**

**DMZ Settings** DMZ is short for Demilitarized Zone. Clicking this toggle will expose a chosen computer to the outside world by completely disabling all firewalls.

> **Note:** Only recommend for advanced users, enabling this option will potentially expose you computer to cyber attacks over the Internet.

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

**IPsec Pass Through** 

Allows multiple machines on the LAN to connect to

their corporate network using IPsec protocol.

**L2TP Pass Through** 

Allows multiple machines on the LAN to connect to their corporate network using L2TP protocol.

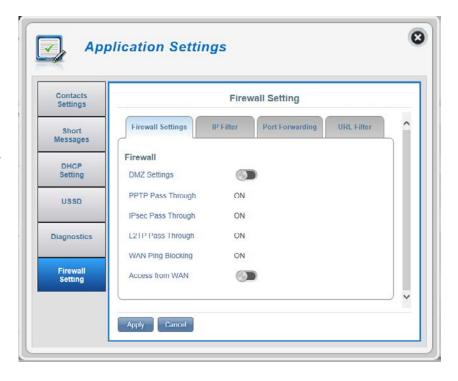
**WAN Ping Blocking** 

The DWR-932 will not respond to pings.

Access from WAN

Clicking this toggle allows access from WAN.

Click **Apply** to save changes.



#### If you selected DMZ Settings:

**DMZ IP Address** Type in the IP address of the computer you wish to disable firewall protection on.



#### If you selected Access from WAN:

**Port Number** 

The port number used to access the router from the WAN.

Click **Apply** to save changes.



#### **IP Filter**

The DWR-932 can filter certain IP addresses and ports. IP filtering will help to protect your network from outside intrusions and malicious attacks.

Click **Add New** to add a new filtering rule.

ID ID number given to new IP filters

**Delete** Click here to select the filters you wish to delete.

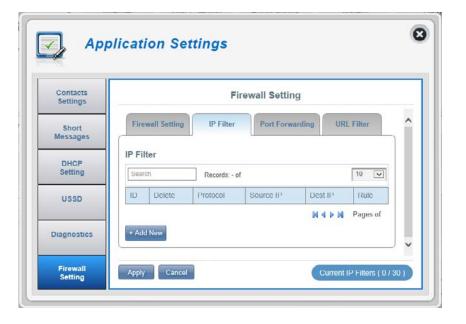
**Protocol** The protocol for the IP filter rule.

Source IP The source IP address to be filtered.

**Dest IP** The destination IP address to be filtered.

Rule The filtering rule for that filter.

Click **Apply** to save changes.



#### If you selected Add New IP Filter:

#### **Add IP Filter**

**Policy** Select whether the filter will **Drop** or **Accept** the source IP address.

Protocol Select the protocol for ports that you want to allow or deny access to. Choose between **TCP, UDP** or **ICMP** or all of the above.

Source IP Enter a single port or a range of ports that you wish to apply the changes to. Separate port numbers with a comma.

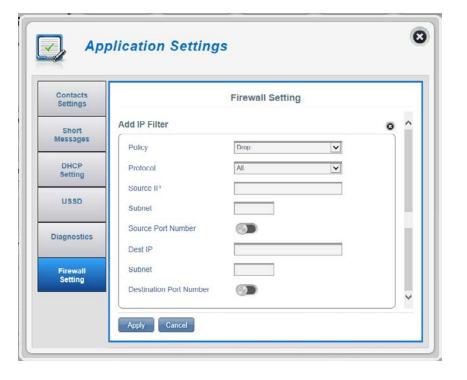
**Subnet** Enter a two digit subnet number.

Source Port Number Click the toggle if you wish to enter a range of port numbers to allow or deny access to.

**Dest IP** Type in the destination IP address.

**Subnet** Enter a two digit subnet number.

**Destination Port** Click the toggle if you wish to enter a range of port numbers to allow or deny access to.



#### **Port Forwarding**

This page will allow you to open a single port or a range of ports to specific IP addresses.

Click **Add New** to add a new port.

D ID number given to the new rule.

**Delete** Click here to select the rules you wish to delete.

**Protocol** The selected protocol for the IP filter rule.

**Destination IP** The IP address that will be port forwarded to.

Port The port number that incoming traffic will be forwarded from.



#### If you selected Add New IP Filter:

#### **Add Port Forwarding**

**Destination IP Address** The IP Address you want to allow port forwarding on.

**Protocol** Select the protocol for ports that you want to allow or

deny access to. Choose between  $\ensuremath{\textit{TCP}}, \ensuremath{\textit{UDP}}$  or  $\ensuremath{\textit{Other}}$  .

Click the toggle to enter the ports you want port

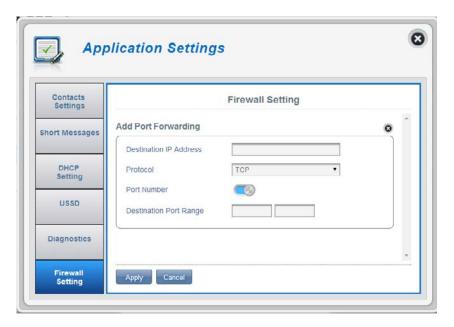
Port Number forwarding on.

**Destination Port Range** Enter a single port or a range of ports that you wish

to allow port forwarding on. Separate port numbers

with a comma.

Click **Apply** to proceed.



#### **URL Filter**

**URL Filter** Click the toggle to enable URL filtering

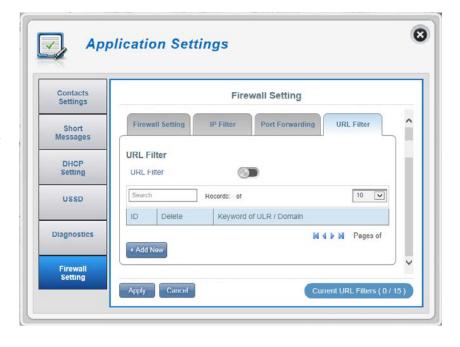
ID ID number given to the new rule.

**Delete** Click here to select the rules you wish to delete.

**Keyword of URL/Domain** The name of the URL or domain that you wish to filter.

Add New Click Add New to create a new URL filter.

Click **Apply** to proceed.



## **System**System Information

#### **About DWR-932**

**FW Version** The DWR-932's current firmware version.

Modem Version The DWR-932's current modem version.

Hardware Version The DWR-932's current hardware version.

IMEI International Mobile Equipment Identity is a unique number assigned to every mobile device.

SIM IMSI The Subscriber Identification Module or SIM card

has a unique number called International Mobile Subscriber Identity (IMSI). This is used to identify and

authenticate users on cellular devices.

Model Name The model name of your Dlink router.

**Battery Capacity** Your router's current battery life.

**System Uptime** The length of time your system has been running for.

**Note:** The FW version number and Modem Version number displayed on the image above will not be the same as your router's.



## **Admin Settings**

#### **Account**

This tab allows you to customize your own username and password as well as adjust the auto logout timer.

**Username** Adjust your login username here.

Password Change new password here.

Confirm Password Confirm new password here.

Auto logout after Click on the blue text to adjust the automatic logout

timer.

Click **Apply** to proceed.

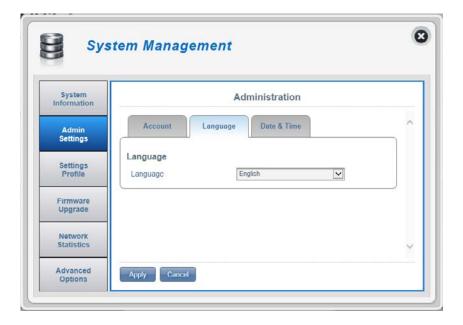


### Language

This tab allows you to change the default language of the router webpage interface.

**Language** Select your desired language here.

Click **Apply** to proceed.



#### **Date & Time**

In this section, you can adjust the date and your current international time zone.

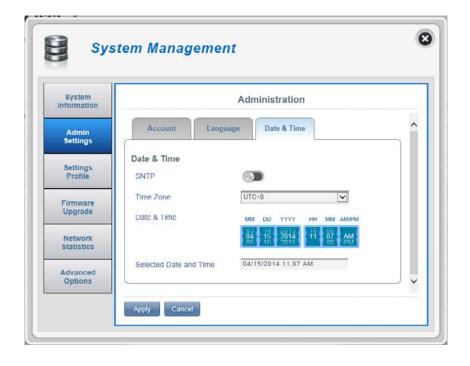
**SNTP** Click the toggle to **Enable** or **Disable** automatically synchronize the time with a Simple Network Time Protocol (SNTP) server.

**Time Zone** Select your current Coordinated Universal Time zone (UTC).

**Date & Time** Adjust the dials on the screen with your mouse curser to set the date and time.

Selected Date and Time Displays your new, dial adjusted time.

Click **Apply** to proceed.



#### If enabled automatically synchronize the time with a SNTP server.

**Tertiary SNTP** 

Enter a SNTP server address which will be used to **Secondary and** synchronize the router's system time and date.

Server

**Time Zone** Enter the time zone where you are currently using

the DWR-932 to correctly set the time offset.

**Synchronization** You can specify in hours how frequently the

Cycle DWR-932 will update the time from a SNTP server.



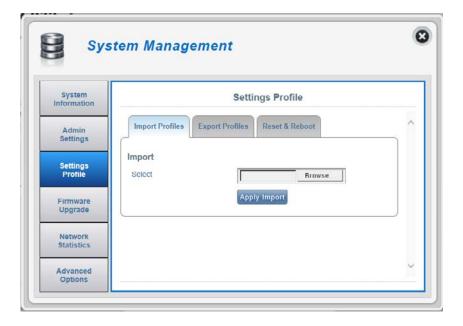
## **Settings Profile**

In the **Import Profiles** tab, you can import previously configured settings for the router.

#### **Import**

**Select** Browse your computer for previously exported settings.

Click **Apply Import** to proceed.



#### **Export Profiles**

In the **Export Profiles** tab you can export your currently configured settings to a computer.

#### **Export**

**To Get Current** Select the **Click Me** button to download the current settings of your DWR-932.



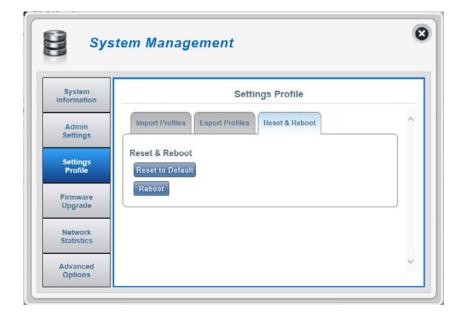
#### **Reset and Reboot**

In the **Reset and Reboot** tab you can reboot your router or reset it to factory default. You can also manually reset your router to factory default by pressing the WPS button and power button simultaneously for 5~10 seconds.

#### **Reset and Reboot**

Reset to Default Select the Reset to Default button to reset the DWR-932 to factory default.

**Reboot** Select the **Reboot** button to reboot the DWR-932.



## Firmware Upgrade

This page allows you to manually upgrade your router's firmware.

### **Upgrade My router**

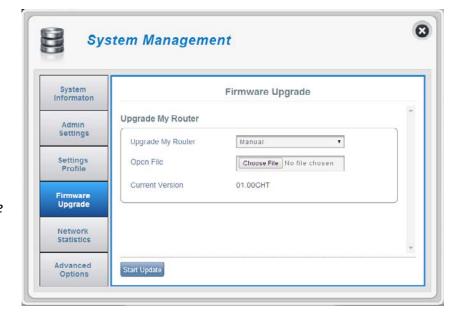
**Upgrade My Router** Manually upgrade the firmware of your router.

**Open File** Select the appropriate file for the upgrade.

**Current Version** The current version of your firmware.

**Note:** The FW version number displayed on the image to the right will not be the same as your router's.

Click the **Start Update** button.



## **Network Statistics**

#### **Packet Data Usage**

This page allows you to manage your routers packet data usage.

#### **Notification Setting for Packet Data Usage**

Maximum Packet Data Allows you to set the maximum amount of data usage

**Limitation** for the DWR-932.

Data Usage Reminder Allows you to set a reminder when your data usage

goes over the specified percentage.



#### **Statistics**

This page allows you to view your routers packet data usage.

#### **Total Packet Data**

**Uploads** 



Your total amount of uploaded data.

**Downloads** 



Your total amount of downloaded data.

**Clear All Data** 

Click this button to clear data records.



## **Advanced Options**

On this page you can enable and disable a Universal Plug and Play (UPnP) feature. UPnP devices can easily view and interact with other compatible networking equipment, software and peripherals.

#### **UPNP**

**UPnP** Click the toggle to use the Universal Plug and Play (UPnP) feature.



#### **Power Saving**

On this page you can configure power saving settings, to help give your DWR-932 longer battery life when you don't have easy access to a charger..

Suspend Allows you to set the length of time before the DWR-932 goes to sleep when no Wi-Fi clients are connected.

**Deep Sleep** Allows you to set the length of time before the DWR-932 goes to sleep when it has no Internet access.

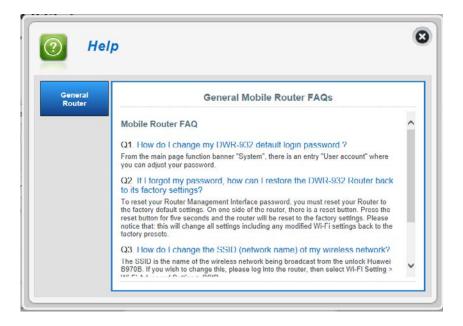
Click **Apply** to proceed.



## Help General Router

#### **General Mobile Router FAQs**

On this page you can find answers to some frequently asked questions.



# Connecting to a Wireless Network Using Windows 8

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

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

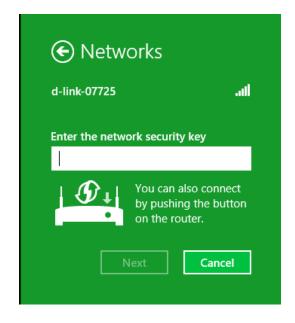


Clicking on this icon will display a list of wireless networks which are within connecting proximity of your computer. Select the desired network by clicking on the network name.

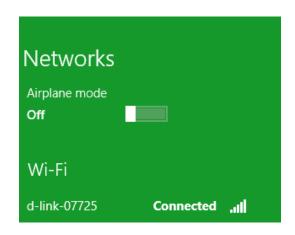


You will then be prompted to enter the network security key (Wi-Fi password) for the wireless network. If this is the first time connecting to your router, a unique security key for your router will be displayed on a sticker in the router's battery bay. Enter the password into the box and click Next.

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



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



# 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 "Networking Basics" on page 82 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).



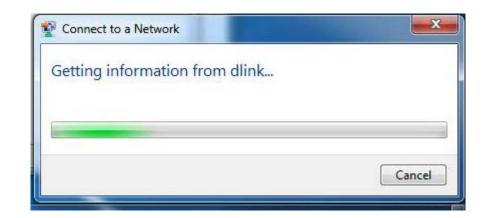
2. The utility will display any available wireless networks in your area.



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 pass phrase 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 "Networking Basics" on page 82 for more information.



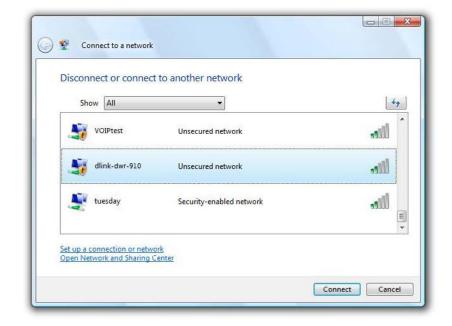
## **Configuring Wireless Security**

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 pass phrase 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.



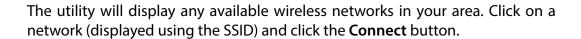
# Connect to a Wireless Network Using Windows® XP

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.

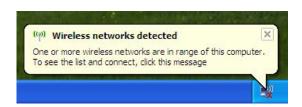
If you receive the **Wireless Networks Detected** bubble, click on the center of the bubble to access the utility.

or

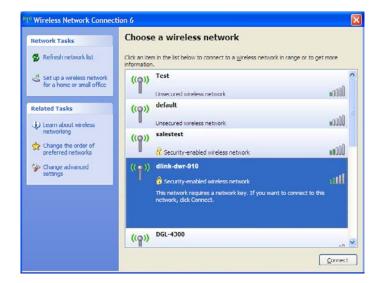
Right-click on the wireless computer icon in your system tray (lower-right corner next to the time). Select **View Available Wireless Networks**.



If you get a good signal but cannot access the Internet, check the TCP/IP settings for your wireless adapter. Refer to "Networking Basics" on page 82 for more information.



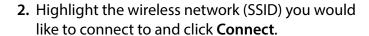




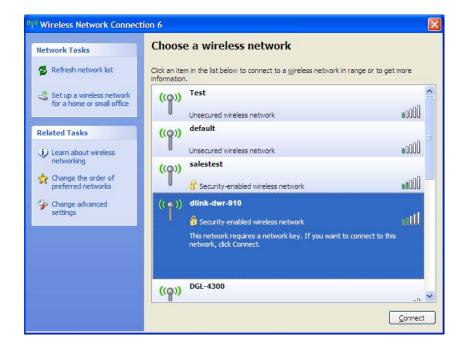
## **Configure WEP**

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.

 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.







**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.



# **Troubleshooting**

This chapter provides solutions to problems that can occur during the installation and operation of the DWR-932. Read the following descriptions if you are having problems.

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

When entering the IP address of your 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.

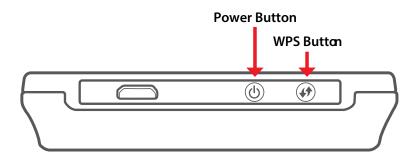
- Make sure you have an updated Java-enabled web browser. We recommend the following:
  - Internet Explorer 9 or higher, Chrome 20.0, Firefox 12.0, or Safari 4.
- If attempting to connect wirelessly, ensure that the wireless icon on the LCD display is showing. Also, ensure that you are connected to the correct SSID for your mobile router.
- Make sure that the computer you are using is not connected to any other devices (such as routers or switches) which might have the same IP address as the DWR-932, as this may cause an IP address conflict. If you have a conflict, temporarily unplug any other devices from your computer while you configure the DWR-932. You can also change the IP address of the DWR-932 in the Network section of the configuration utility. You may also need to renew your computer's IP address configuration. To do this, start the Command utility: Click on Start > Run. In the run box type cmd and click OK. (Windows Vista users type cmd in the Start Search box.) This will bring up a black screen with white text. At the command prompt, type ipconfig /release and wait for the process to be completed. Next, type ipconfig /renew which will renew your computer's IP address configuration.
- Disable any Internet security software running on the computer. Software firewalls such as ZoneAlarm, BlackICE, Sygate, Norton Personal Firewall, and Windows\* XP firewall may block access to the configuration pages. Check the help files included with your firewall software for more information on disabling or configuring it.

- Configure your Internet settings:
  - Go to **Start** > **Settings** > **Control Panel**. Double-click the **Internet Options** Icon. From the **Security** tab, click the **Default Level** 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 re-open it.

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

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

To reset the router, press the WPS button and Power button simultaneously for 5~10 seconds The DWR-932 will restore the factory default settings. Wait about 30 seconds for the router to restart before you attempt to reconnect to it. The default IP address is 192.168.0.1, and the default username is **admin** and the password should be left blank.



# **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<sup>®</sup> Vista<sup>™</sup> users type *cmd* in the **Start Search** box.)

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

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

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

### **Statically Assign an IP address**

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

#### Step 1

Windows® 8 Click on Start > Control Panel > Network and Internet Connections > Network Connections > Configure your Internet

Protocol (IP) settings.

Windows 7 Click on Start > Control Panel > Network and Internet > Network and Sharing Center > Manage Network Connections.

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.

#### 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

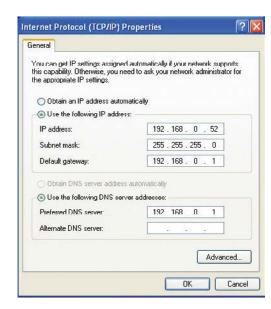
Click **Use the following IP address** and enter an IP address that is on the same subnet as your network or the LAN IP address on your router.

**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**

#### **Radio Frequency Bands**

- FDD-LTE: Band 1,3,7,8,20
- TDD-LTE Band: 38
- UMTS: B1-2100 MHz / B8-900 MHz
- GSM: 850/900/1800/1900 MHz
- LTE output power class: 23 dBm (class3)

#### **Cellular Access**

- Downlink: 150 Mbps
- Uplink: 50 Mbps

#### **Wi-Fi Access Point**

- 802.11n
- 802.11g
- 802.11b

#### **Antenna**

- DL MIMO (2x2)
- · One internal diversity antenna

#### **USB Interface**

• micro USB port

#### **USIM Slot**

• Standard 6-pin SIM card interface

#### **Status Indicators**

• 1.44 inch TFT LCD display

#### **Wireless Security**

WPA & WPA2 (Wi-Fi Protected Access)

#### **Firewall**

- Port Range Forward
- DMZ
- UPnP

#### Dimensions (L x W x H)

• 73 x 73 x 15.0 mm (2.87 x 2.87 x 0.59 inches)

#### Weight

• 70 g (2.46 ounces)

#### **Operating Temperature**

• 0 to 40 °C (14 to 131 °F)