D-Link®

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User Manual

4G LTE Mobile Router

DWR-933

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	03 August, 2016	• Initial release

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Table of Contents

Product Overview

Package Contents

D-Link DWR-933 4G LTE Mobile Router

Battery

USB Cable (Micro A type plug)

USB Power Adapter

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[1]
- A computer with a Windows®, Macintosh®, or Linux-based operating system
- Internet Explorer 9, Firefox 23, Chrome 28, or Safari 6 or higher

[1] Subject to services and service terms available from your carrier.

Introduction

The D-Link DWR-933 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-A and 3G DC-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-933 4G LTE Mobile Router gives you high-speed Internet wherever you are and lets you share it on the go. Using LTE technology, you can achieve download speeds of up to 300 Mbps and upload speeds of up to 50 Mbps[1]. 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-933.

Mobile Internet for All of Your Devices

With the DWR-933, you can get online with your notebook, smartphone, tablet, or any other wireless device using a single mobile connection. The DWR-933 provides high-speed Wireless AC 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-933 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.

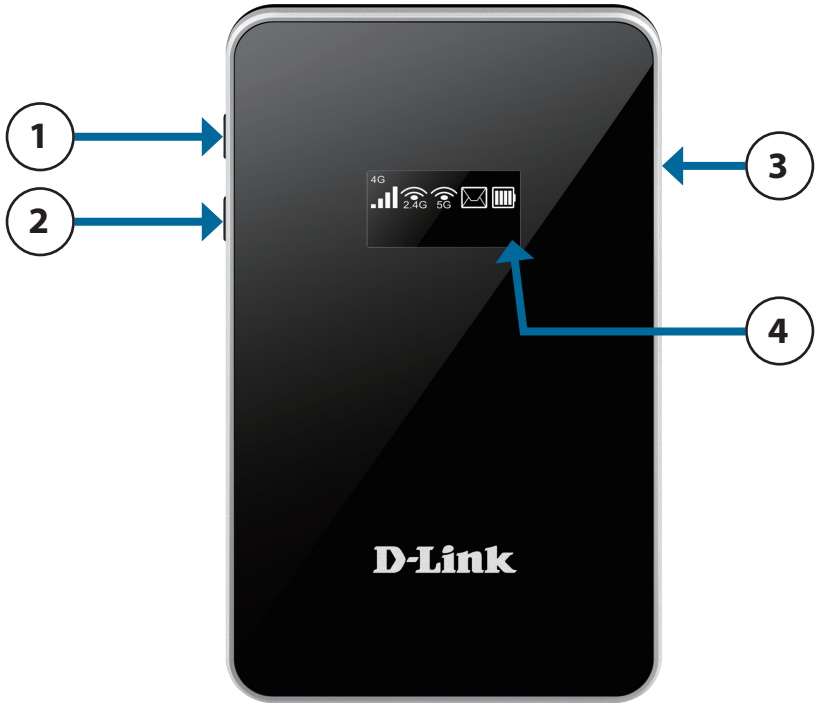
Designed for True Portability

The DWR-933 4G LTE Mobile Router is small and slim enough to carry around in your purse, bag, or pocket. The built-in 2800 mAh rechargeable Li-Ion 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.

[1] 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

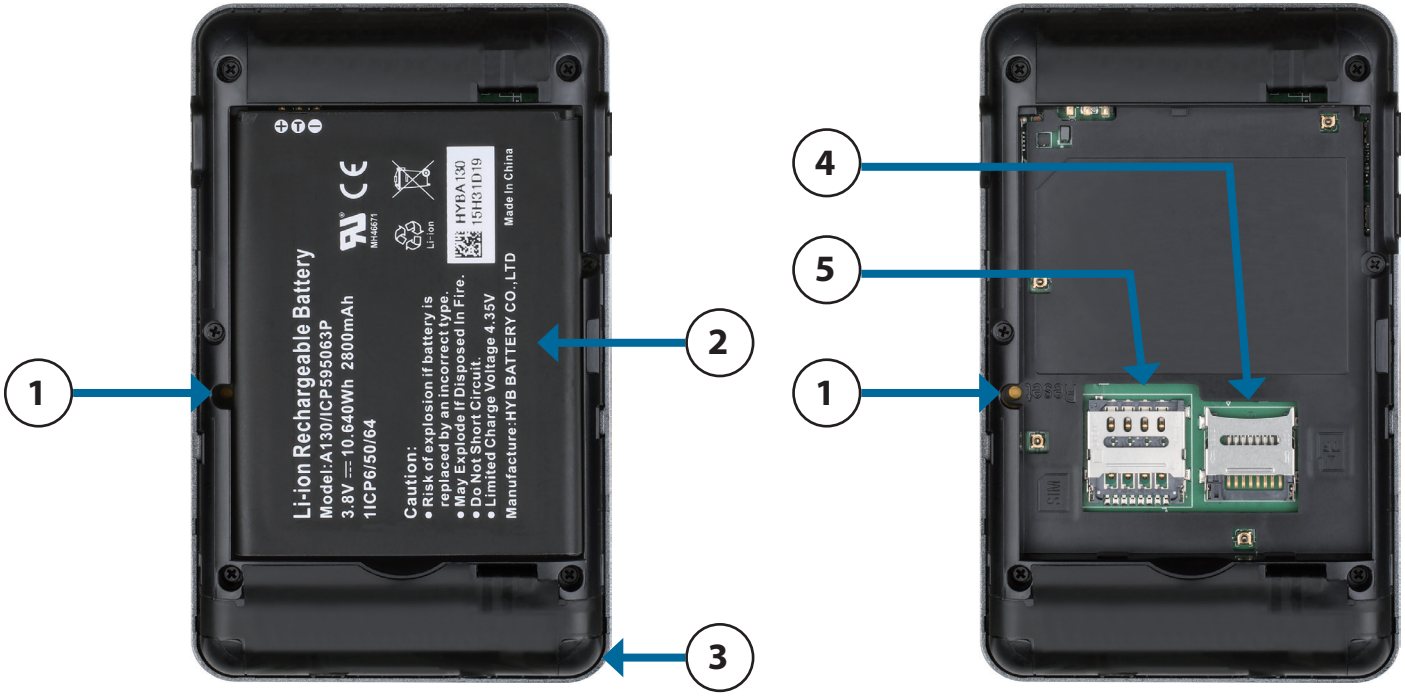
Front



1	Power Button ⏻	Hold this button for 6 seconds to power on/off the device.
2	Display/WPS Button	Press the button to cycle through the different information displays, or hold this button for 3 seconds to start/cancel WPS for connecting other wireless devices.
3	micro USB Port (Power)	Connect the supplied micro USB cable to the USB power adapter to charge the device.
4	Display	This display shows various information about the router.

Hardware Overview

Back - Cover Removed

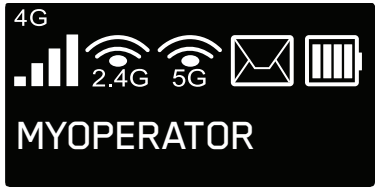


1	**Reset Button**	Using a paper clip, press and hold this button for 6 seconds to reboot the unit. **Note:** Ensure that the battery is inserted and the unit is powered on when pressing the reset button.
2	**Battery**	Rechargeable battery for the DWR-933. When inserting it, make sure the contacts on the battery are at the top left corner.
3	**Battery Cover**	You can remove the battery cover by lifting up on the bottom right corner.
4	**microSD Card Slot**	You can insert a microSD card to access files on it and use the file sharing feature.
5	**SIM Card Slot**	Insert a SIM card to access the Internet and your SIM card contacts list.

Hardware Overview

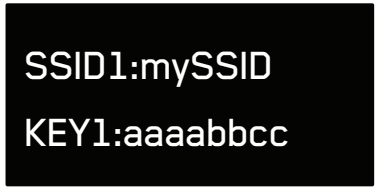
LCD Display

When you turn on the DWR-933, the D-Link logo will appear while the device is booting, then the home screen will appear. After a few seconds of inactivity the screen will power off. To wake up the display, press the Power Button (⏻) or Display/WPS Button.



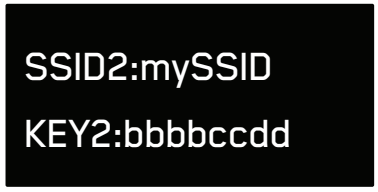
Signal/ Network	# Connected Clients 2.4 GHz	# Connected Clients 5 GHz	SIM Card Status/ SMS	Battery Status
Mobile Network Provider				

Press the Display/WPS Button to cycle through the **Wireless Network 1**, **Wireless Network 2**, and **Web Gui** information screens.



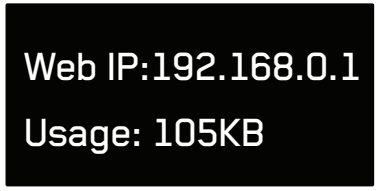
Wireless Network 1

Wireless Network SSID 1:	By default, the network name (SSID) of the DWR-933 will be in the format dlink_DWR-933_xxxx, where "**xxxx**" represents the last four characters of the DWR-933's MAC address.
Key:	The password required to join the above network.



Wireless Network 2

Wireless Network SSID 2:	By default, the network name (SSID) of the DWR-933 will be in the format dlink_DWR-933_xxxx, where "**xxxx**" represents the last four characters of the DWR-933's MAC address.
Key:	The password required to join the above network.



Web GUI

Web IP:	Your device's wireless configuration utility IP address.
Usage:	Your device's mobile data usage count.

Installation

This section will guide you through the installation process.

Initial Setup

1. Ensure that your DWR-933 is powered off.
2. Remove the battery cover by lifting up on the bottom right corner of it, then remove the battery.
3. Push the SIM card slot cover down to unlock it, then lift it open.

   Note: *Always unplug and turn off the router before installing or removing the SIM card. Never insert or remove the SIM card while the router is in use.*
4. Insert the SIM card, 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 downwards.
5. Lower the SIM card slot cover and push it up to lock it.
6. If you want to use a microSD card, you can insert it into the microSD card slot in the same manner as the SIM card.
7. Reinsert the battery and reattach the battery cover.
8. Fully charge the DWR-933 before use by connecting the supplied Micro USB cable to the USB charger. You may check the device's battery status while powered off by pressing the WPS button on the side of the device.
9. Press and hold the power button until the D-Link logo appears onscreen. After a few moments, the LCD will change to a home screen. The network name (SSID) and password of the DWR-933 can be accessed from the LCD screen by pressing the Display/WPS button. For more details on the LCD display, please refer to **LCD Display** on page **5**.

Wireless Installation Considerations

The DWR-933 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-933, as described in **Connecting via Wi-Fi** on page **9**. 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.

Connecting via USB

To connect to the router via USB, plug the provided micro USB cable into the micro USB port on the side of the router, then 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 **13** to continue the setup process.

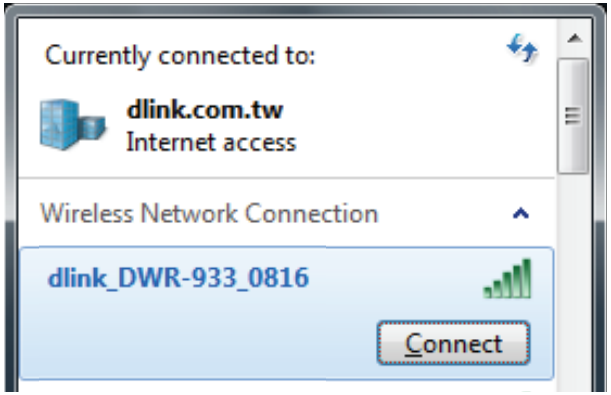
Connecting via Wi-Fi

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.*

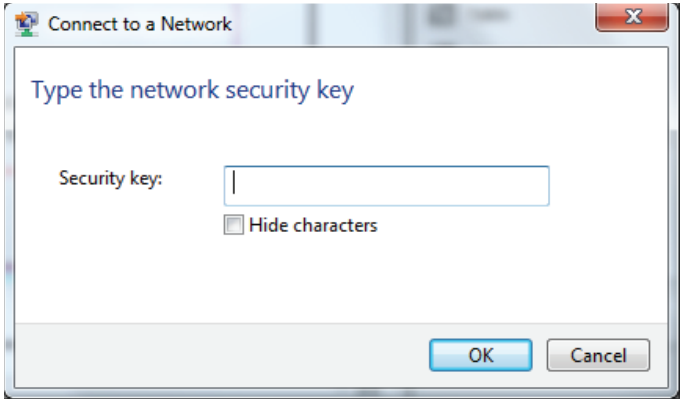
To connect to the router using Wi-Fi, open your operating system's wireless networking utility and scan for available networks to connect to. By default, the network name (SSID) of the DWR-933 will be in the format **dlink_DWR-933_xxxx**, where "**xxxx**" represents the last four characters of the DWR-933's MAC address.

Only the 2.4 GHz network is enabled by default. To enable the 5 GHz network, complete setup and refer to **Wi-Fi Settings** on page **34**.

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



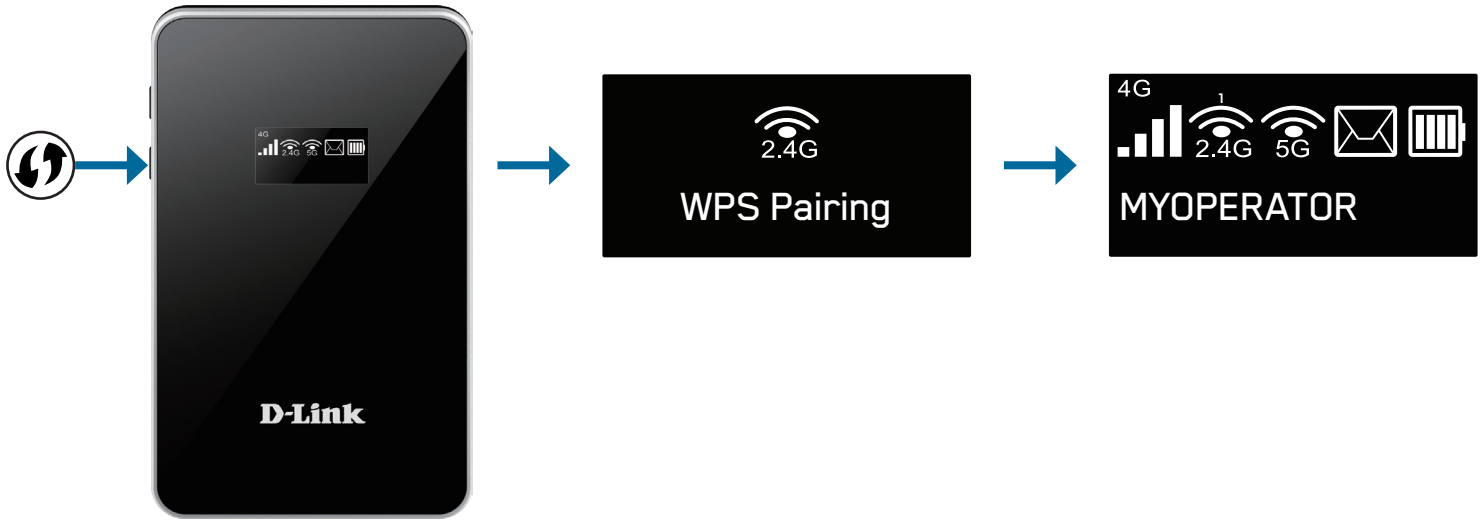
You will then be prompted to enter the network security key for your router. The unique security key for your router will be displayed on the DWR-933's screen. Enter the security key in the box provided and click **OK**. Your wireless connection utility will confirm that the connection is successful, and you can continue on to the next step of the configuration process.



Connect a Wireless Client to your DWR-933 Using WPS

The easiest way to connect your wireless devices to the router is with WPS (Wi-Fi Protected Setup). Most wireless devices such as wireless adapters, media players, Blu-ray DVD players, wireless printers and cameras will have a WPS button (or a software utility with WPS) that you can press to connect to the DWR-933 router. Please refer to your user manual for the wireless device you want to connect to make sure you understand how to enable WPS. Once you know, follow the steps below:

Step 1 - Press the WPS button on the DWR-933 for about 3 seconds. The message "WPS Pairing" will appear. To cancel the WPS pairing process, holding the WPS button for 3 seconds. The message "WPS Aborted" will appear.



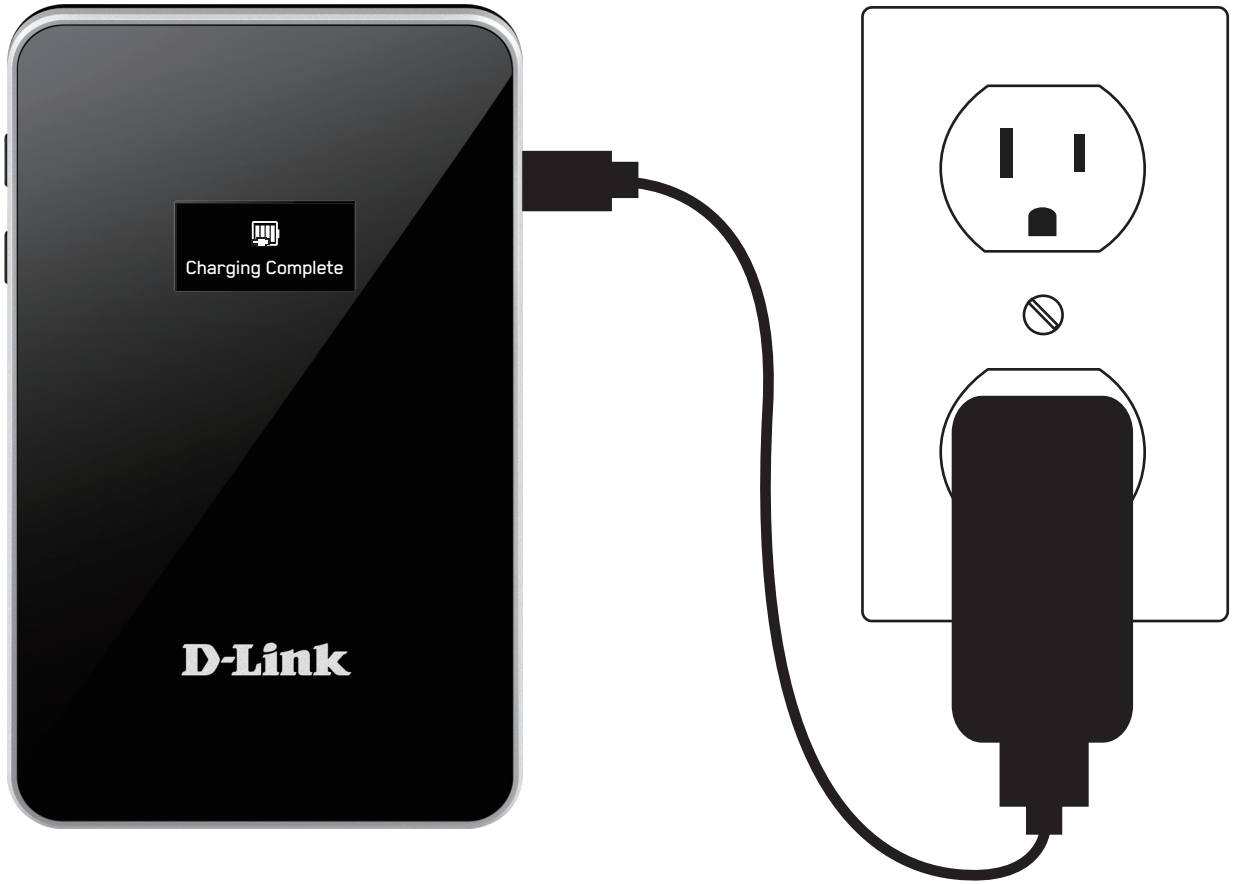
Step 2 - Within 2 minutes, press the WPS button on your wireless device (or launch the software utility and start the WPS process).

Step 3 - Allow up to 1 minute for your connection to be configured. If successful, the number above the 2.4 GHz icon will increment by one. The message "WPS Fail" appears if the device was unable to find a wireless client to connect to. If multiple attempts are unsuccessful, we suggest trying to connect by manually inputting the SSID and password.

Charging the DWR-933

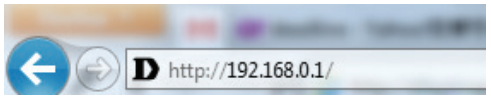
Fully charge the DWR-933 before use by connecting the supplied Micro USB cable to a powered USB port. You may check the device's battery status while connected via USB and powered off by pressing the WPS button on the side of the device. Battery life is dependent upon mobile data usage. If there is not enough power to boot, the LCD screen displays "Battery Low", please charge the device longer before attempting to power on.

Icon	Current Battery Capacity
	16-40%
	41-65%
	66-90%
	91-100%
	Charging Complete



Web-based Configuration

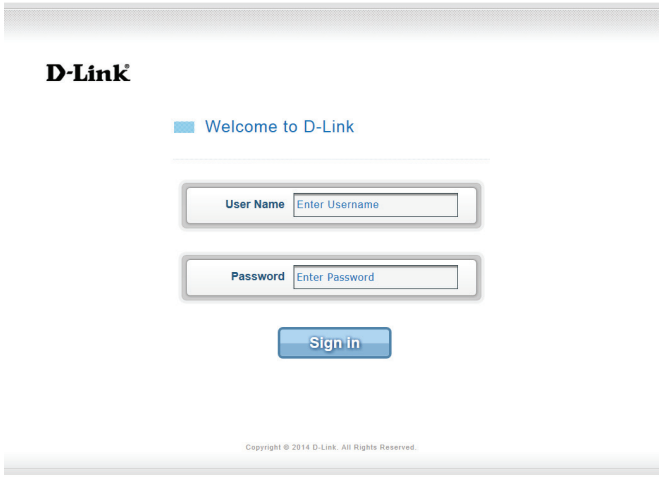
To access the configuration utility, open a web browser (such as Internet Explorer) and enter the IP address of the router, which is **192.168.0.1** by default.



Configuration Utility

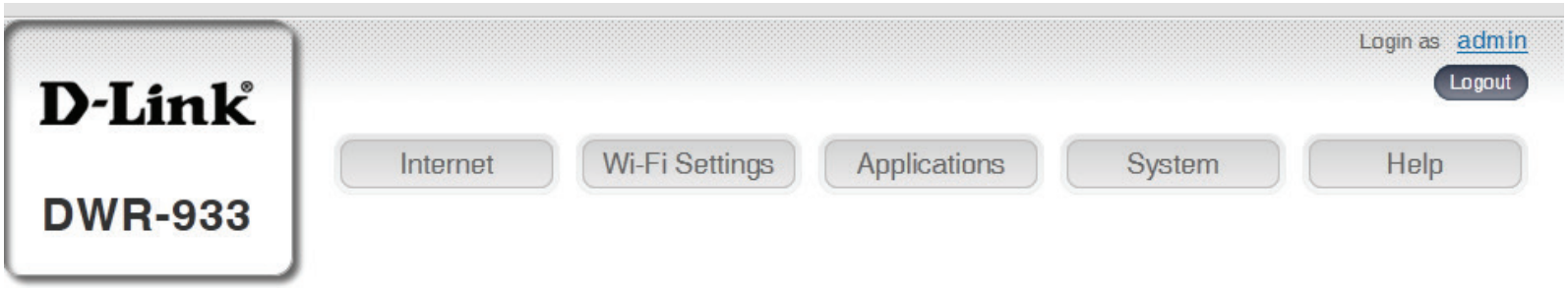
Once you have reached the configuration utility through your web browser, you will need to log in. Enter **admin** as the username, and then enter the password. By default, the password is blank.

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 Settings 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 the **Help** tab, you can access a general mobile router FAQ.

Quick Access

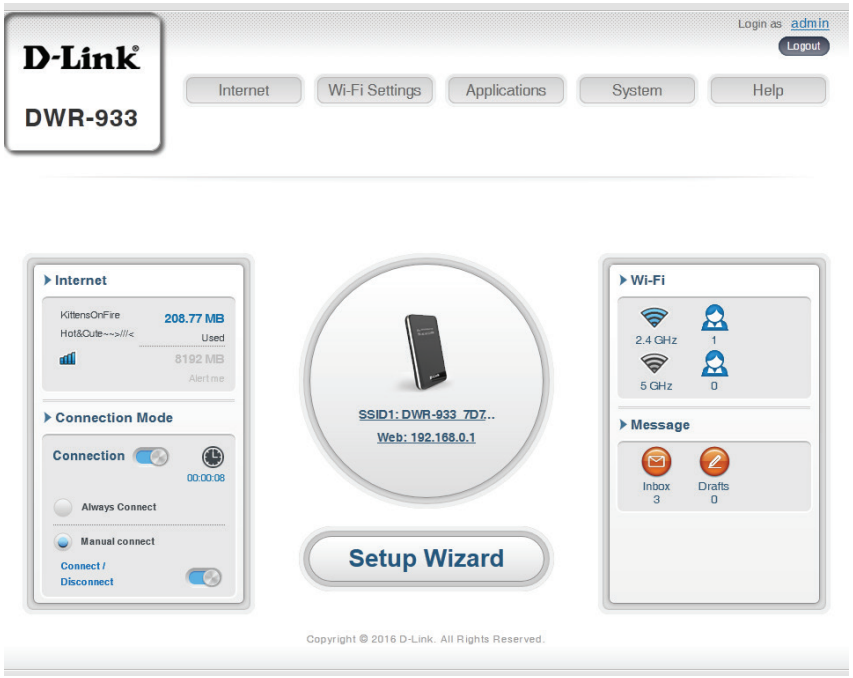
A quick access page will be displayed on the initial homepage for the DWR-933. The headings below link through to windows where you can alter settings in more detail.

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**. If **Manual Connect** is selected, you can use the **Connect/Disconnect** switch to toggle your connection on and off.

Wi-Fi The Wi-Fi section displays the number of devices currently connected to the router for your 2.4 GHz and 5 GHz wireless networks.

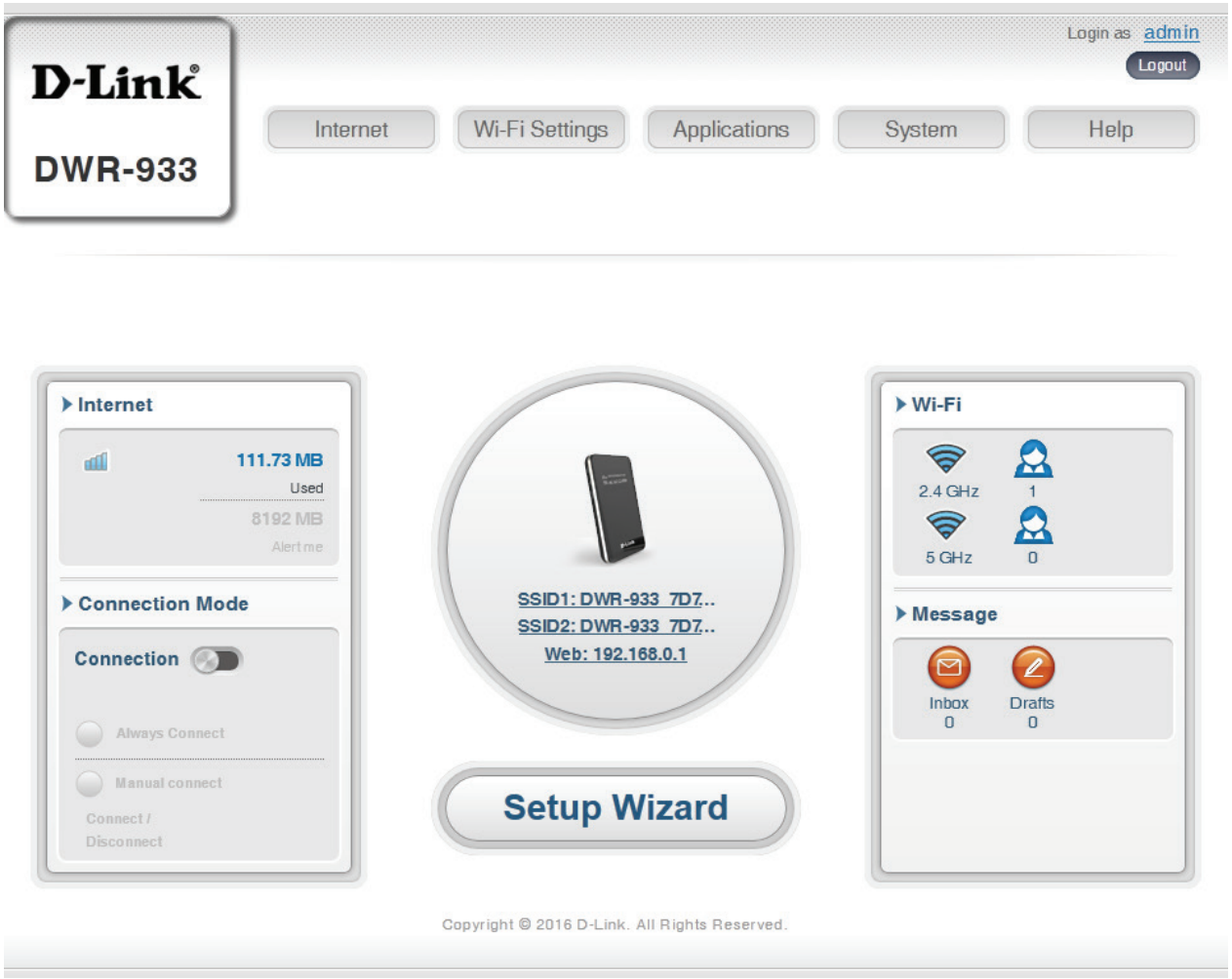
Message This area displays the number of SMS messages in your inbox and draft massages.



Network Setup

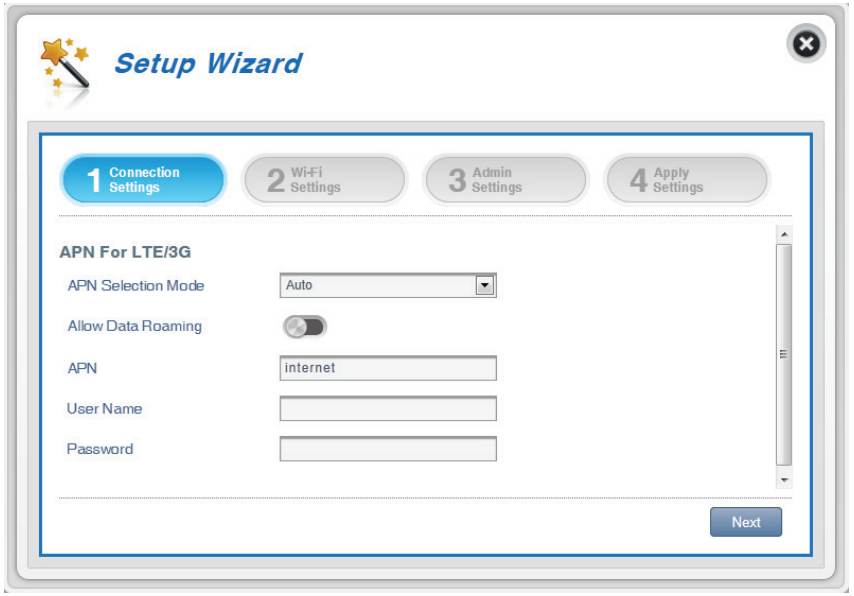
The **Wizard** page will guide you through the steps required to configure the basic settings of your router such as the IP address, network name (SSID), and password. Click on the **Setup Wizard** button at the bottom of the page to begin the quick setup wizard.

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.



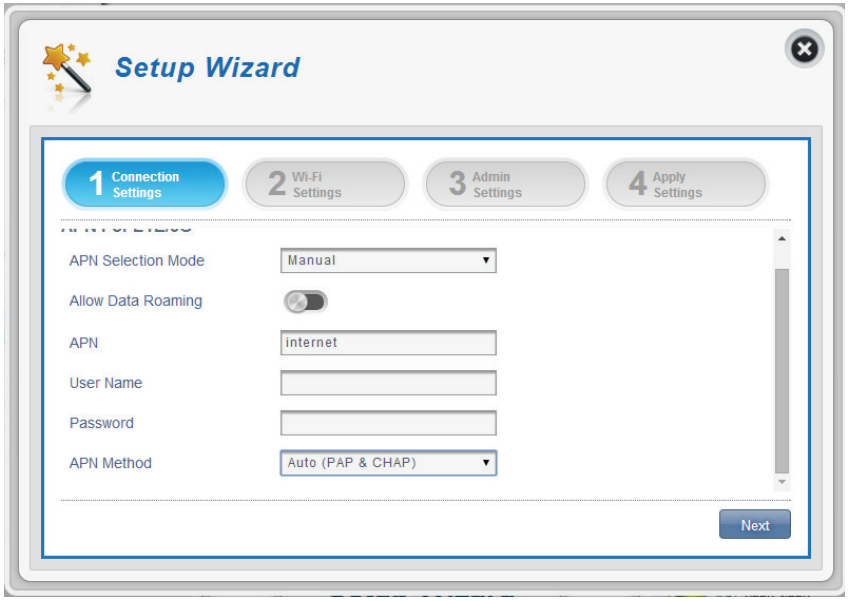
APN For LTE/3G

APN Selection Mode Choose to either automatically or manually select an APN.

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

APN Enter your service provider's APN.

User Name and Password (optional) Enter the username and password provided by your service provider.



If you choose to manually select your APN.

Auto (PAP & CHAP) Both PAP and CHAP combined.
Select this if your service provider uses this protocol.

PAP Password Authentication Protocol. Select this if your service provider uses this protocol.

CHAP Challenge Handshake Authentication Protocol.
Select this if your service provider uses this protocol.

Click N**ext** 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. Please note that there are different settings for your 2.4 GHz and 5 GHz wireless networks.

Wi-Fi 2.4 GHz Access Name

Access Name Wi-Fi 2.4 GHz Enter a name for your 2.4 GHz wireless network.

Encryption Mode By default, **Advanced Protection** is selected. You may also select **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 When using **Advanced Protection**, **AES/TKIP** will be used if the **WPA Mode** is set to **Auto**, and **AES** will be used if the **WPA Mode** is set to **WPA2**.

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.

Wi-Fi 5 GHz Access Name

Access Name Wi-Fi 5 GHz Enter a name for your 5 GHz wireless network.

Encryption Mode By default, **Advanced Protection** is selected. You may also select **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.

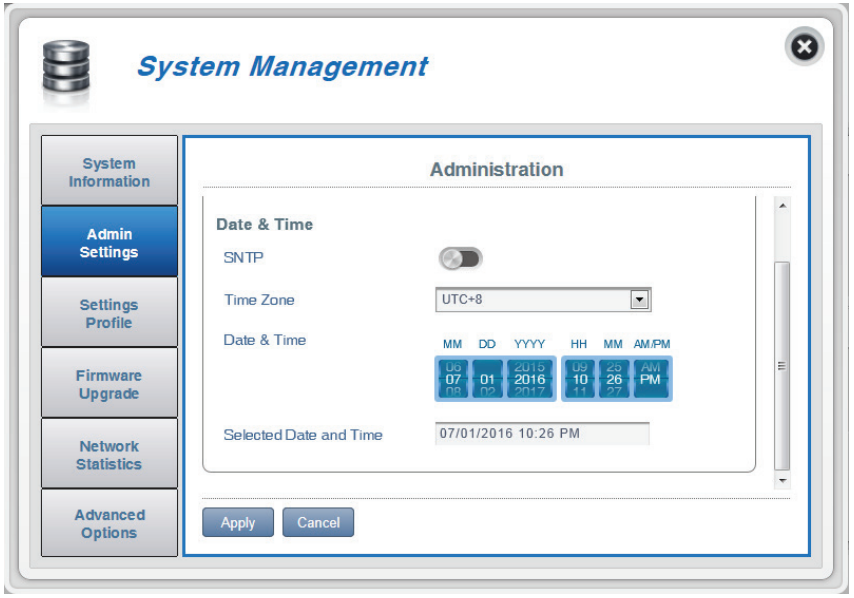
Cipher Type When using **Advanced Protection**, **AES/TKIP** will be used if the **WPA Mode** is set to **Auto**, and **AES** will be used if the **WPA Mode** is set to **WPA2**.

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 in via 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.

If SNTP is disabled, you will see the following options:

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 or pointer to set the time and date.

Selected Date and Time Shows the current time and date based on your settings.

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

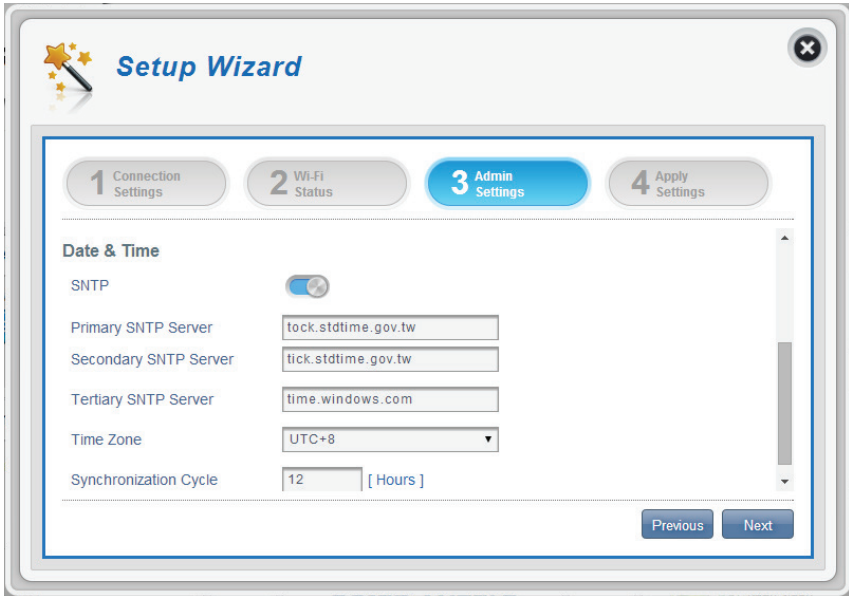
If SNTP is enabled, you will see the following options:

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

Time Zone Enter the time zone where you are currently using the DWR-933 to accurately set the time.

Synchronization Cycle You can specify in hours how frequently the DWR-933 will update the time from a SNTP server.

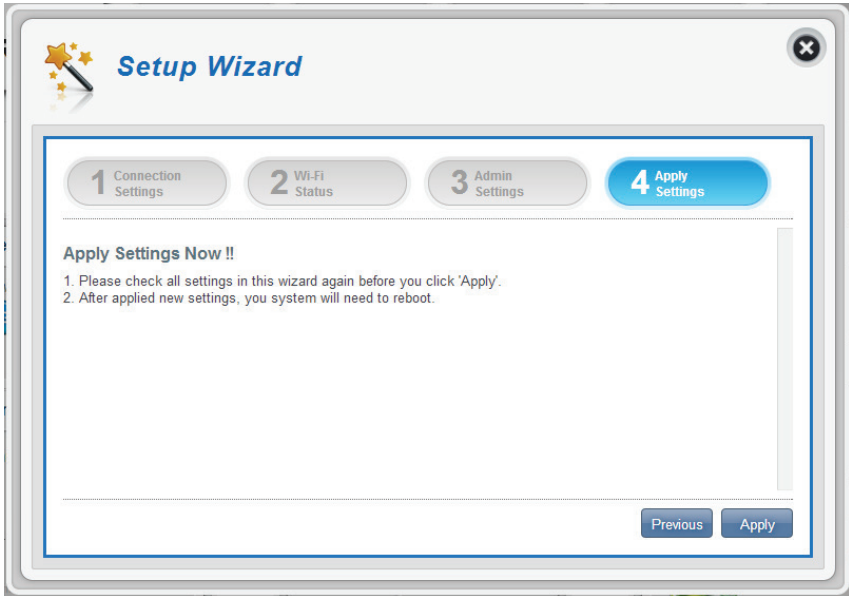
Click **Next** to move to the next section.



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

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

Network Status

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.

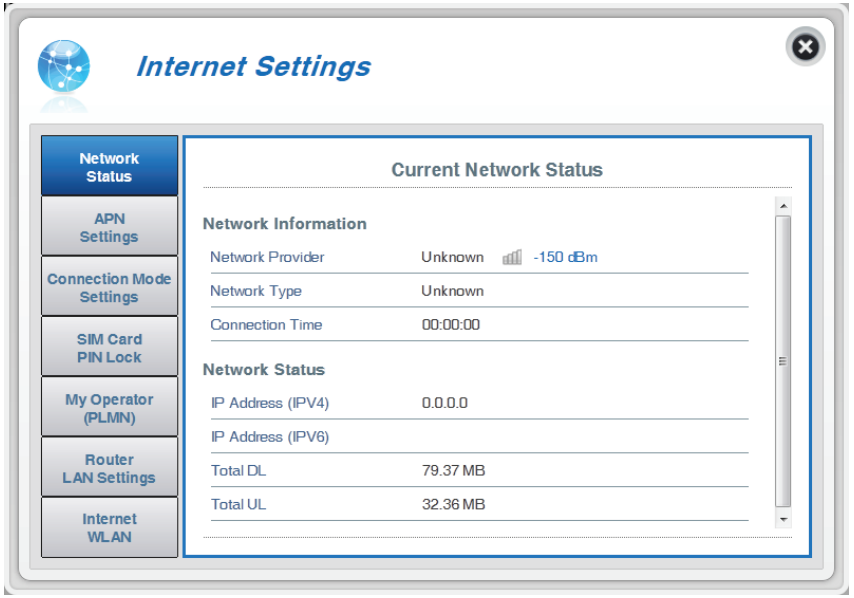
Network Status

IP Address (IPV4) Displays your current IPv4 address.

IP Address (IPV6) Displays your current IPv6 address.

Total DL Displays the total amount of data downloaded.

Total UL Displays the total amount of data uploaded.



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.

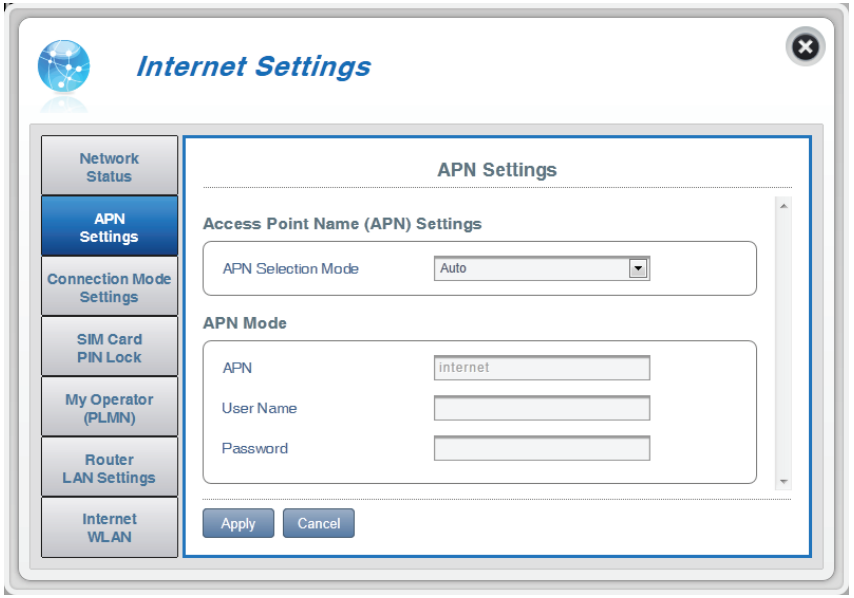
Access Point Name (APN) Settings

APN Selection Mode

Auto: Check this option if you want the DWR-933 to automatically connect to a mobile network after it has been powered on, or has been disconnected from its current mobile network.

Manual: Check this option if you want to configure the APN settings yourself. If you do not know this information, please contact your service provider.

Click **Apply** to save changes.



If your APN Selection Mode is set to Manual, you will see the following options:

APN Enter the APN name for your connection.

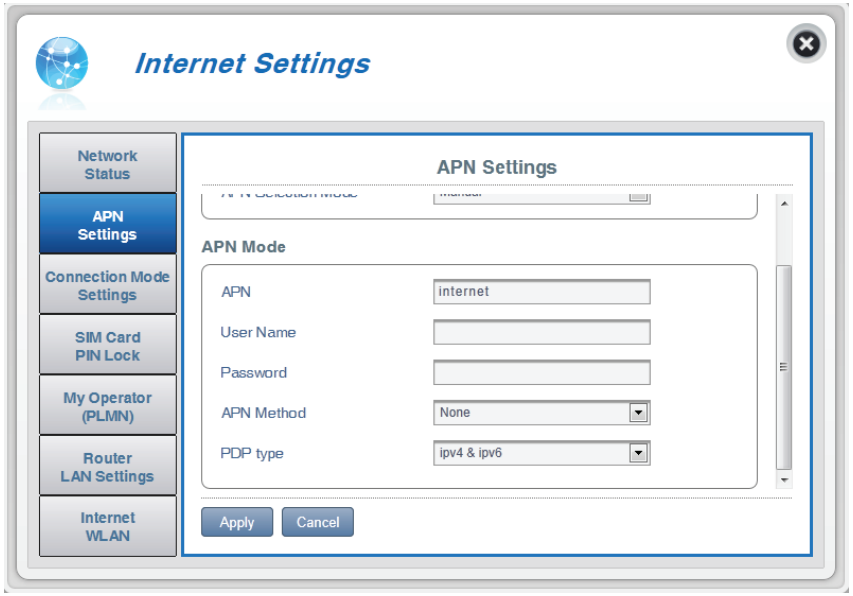
User Name Enter the username to be used for this connection.

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 **17**.

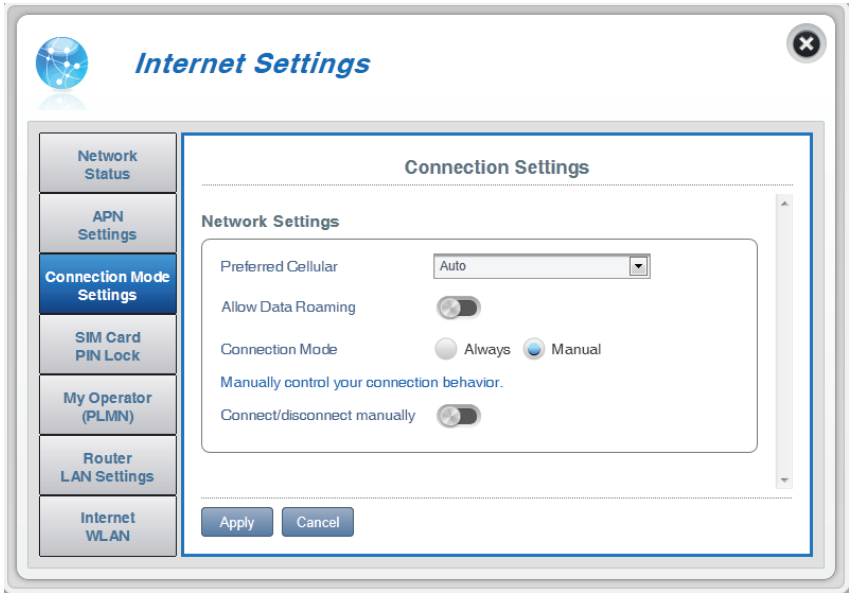
PDP Type Choose the Packet Data Protocol (PDP) to use for your connection.

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:

Connect/disconnect manually

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-933.

SIM

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

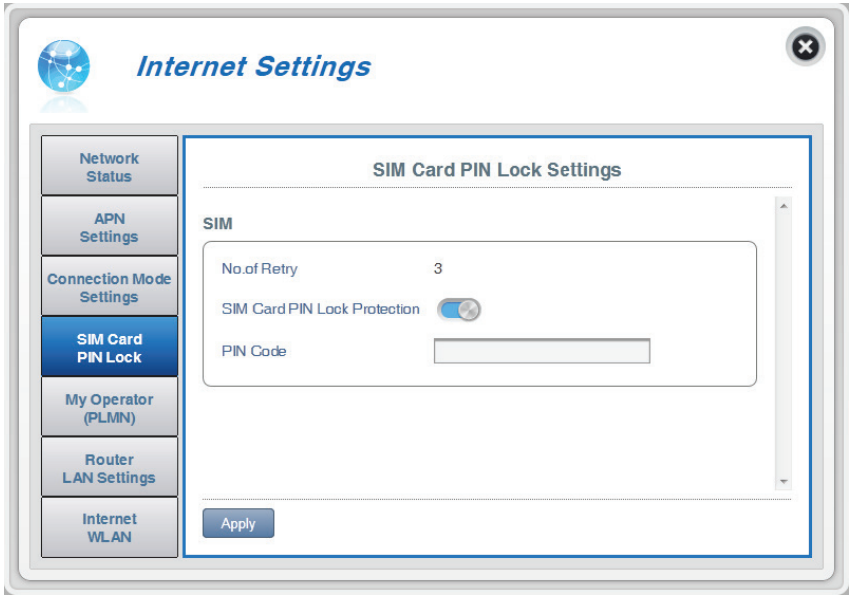
Note: *If you exceed the number of retries, you will be locked out from using your SIM and will need to contact your mobile provider for assistance.*

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

If SIM Card PIN Lock Protection is enabled, you will see these options:

PIN Code Type your SIM card'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.

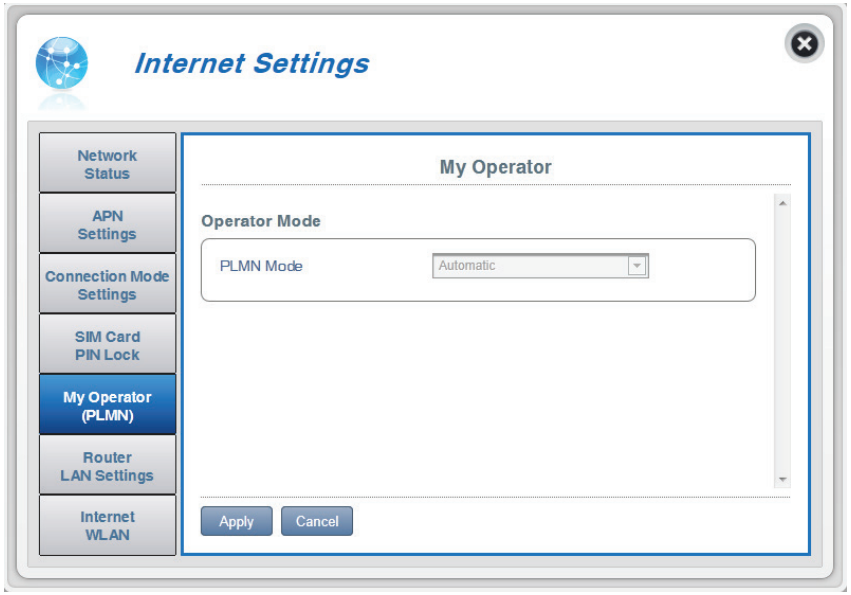
Operator Mode (PLMN)

PLMN Mode Displays the current mode the DWR-933 is operating in.

Select **Automatic** to allow the DWR-933 to automatically connect to the first available network when roaming.

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

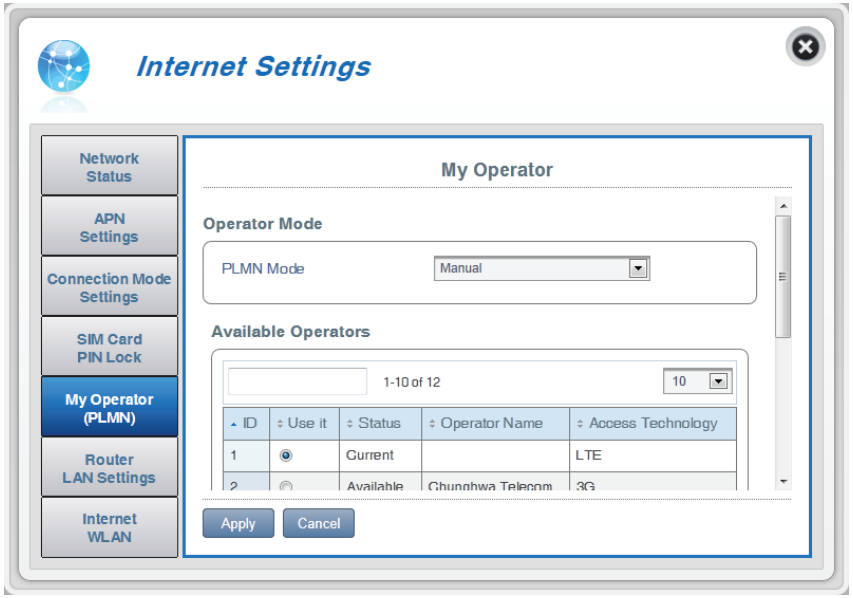
Click **Apply** to save changes.



If you selected Manual Mode, you will see these options:

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 Shows the ID number assigned to each available PLMN.

Use it Use this to select your desired network.

Status Shows whether the entry is the **Current** network, **Available**, or **Forbidden**.

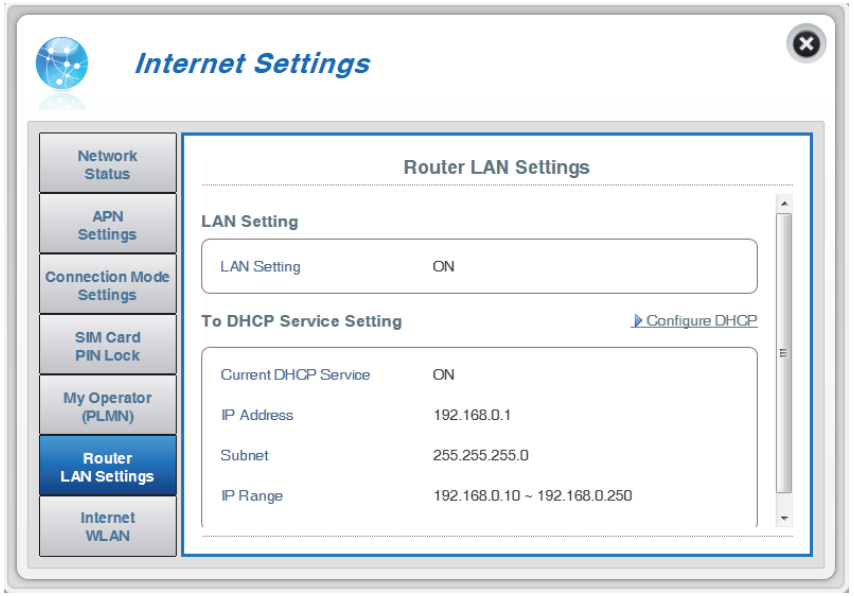
Operator Name Shows the name of the cellular network.

Access Technology Allows you to see what kind of network the entry uses.

Click **Apply** to save changes.

Router LAN Settings

This section lets you set up network settings for the device.



LAN Setting

LAN Setting Displays your current LAN status.

To DHCP Service Setting

The DWR-933 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-933 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 assign.

If you selected Configure DHCP, you will see these options:

DHCP Service

Here you can configure the IP address for the DWR-933, as well as the range of IP numbers that the DHCP will give out.

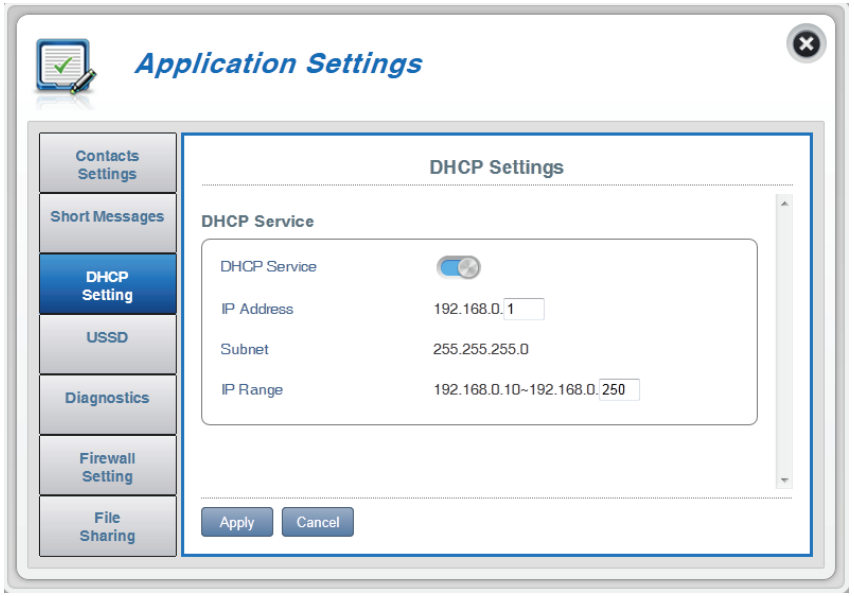
DHCP Service Enable/disable the DHCP service.

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.

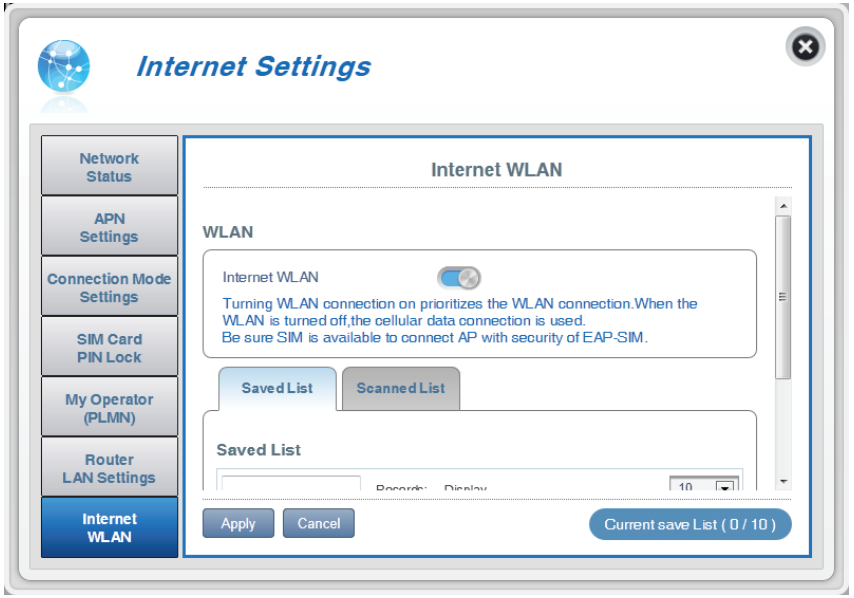


Internet WLAN

This section lets you use an existing wireless network as the primary Internet connection for the DWR-933. When it is unavailable, the DWR-933 will switch to the cellular data connection. Your router can remember up to 10 wireless networks to connect to.

WLAN

Internet WLAN Enable this option to use the Internet WLAN feature. After enabling Internet WLAN, you can use the **Saved List** and **Scanned List** tabs to manage which wireless networks your router will connect to.



Saved List

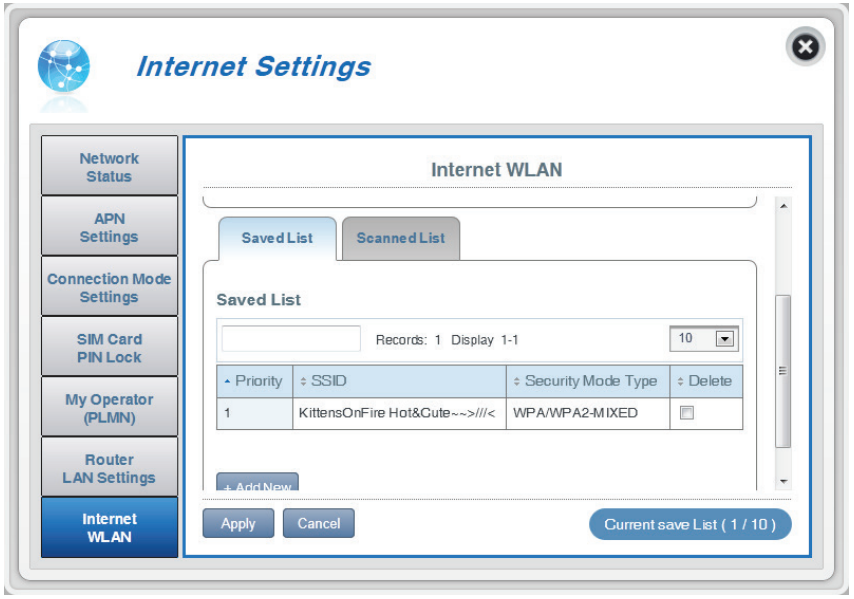
Priority This determines what priority this wireless network has. The router will try to connect to wireless networks with a higher priority (lower number) first.

SSID This shows the name of the wireless network.

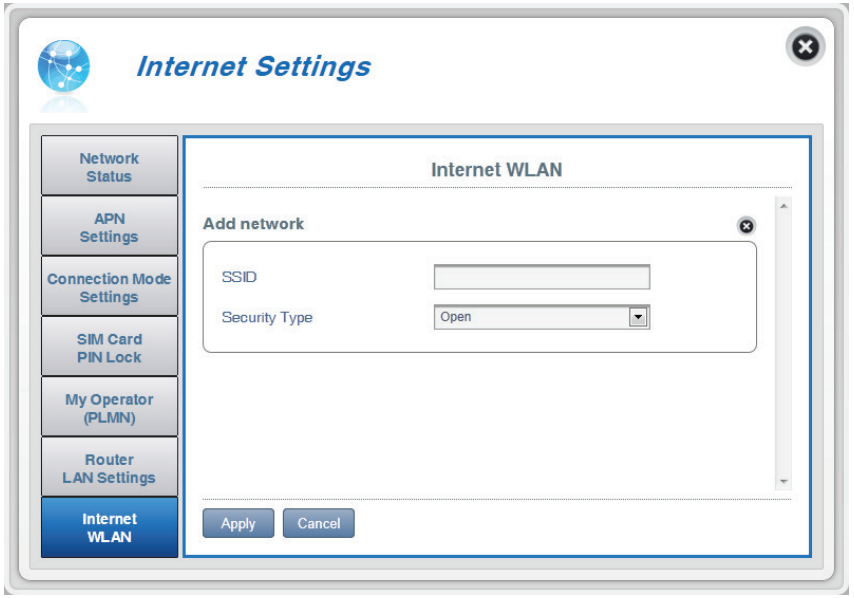
Security Mode Type This shows what kind of security the wireless network uses.

Delete To remove an entry, check the box next to it then click the **Apply** button.

Add New Click this button to manually add a wireless network.



If you clicked Add New, you will see these options:

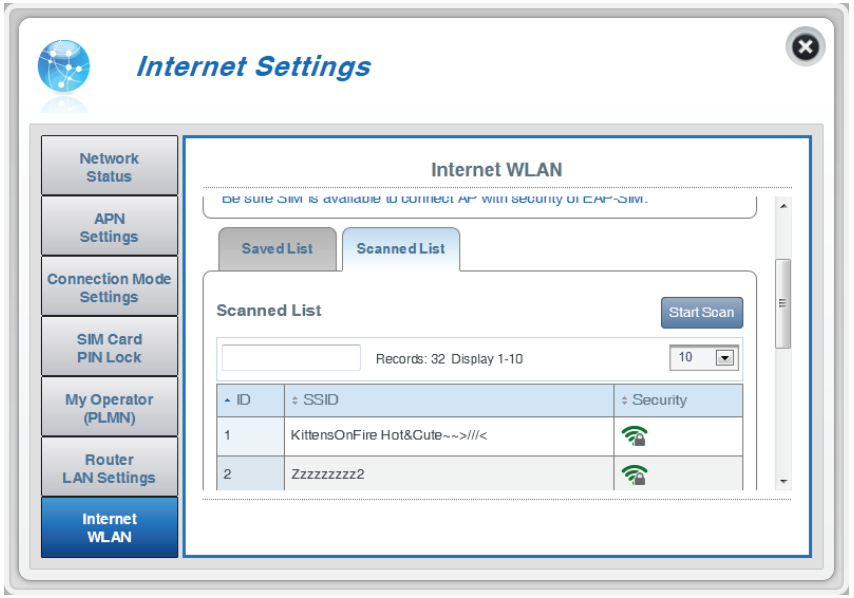


SSID Enter the name of the wireless network to connect to.

Security Type Select the type of security the wireless network uses, then enter the password for it.

Click **Apply** to save changes.

Scanned List



Start Scan Click this button to scan for available networks. You can then click on an entry to add it to your Saved List of wireless networks.

SSID This shows the name of the wireless network.

Security This shows what kind of security the wireless network uses.

Wi-Fi Settings

Wi-Fi Status

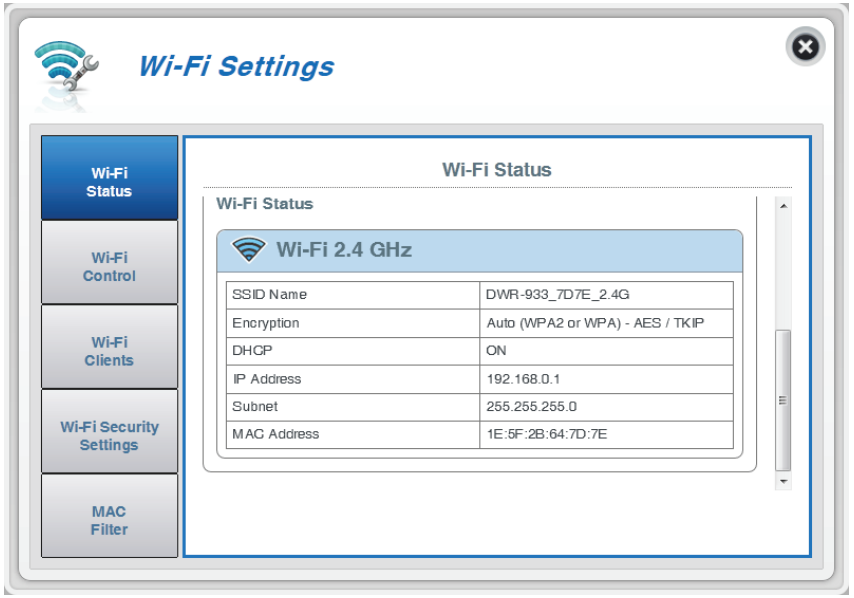
This page displays your current Wi-Fi status and Wi-Fi settings. You can view the status of your 2.4 GHz and 5 GHz networks by clicking on the tabs at the top of the page.

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 devices 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

This section lets you enable or disable your wireless networks, and also lets you manage the WPS feature of your router.

Wi-Fi 2.4 GHz / 5 GHz

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

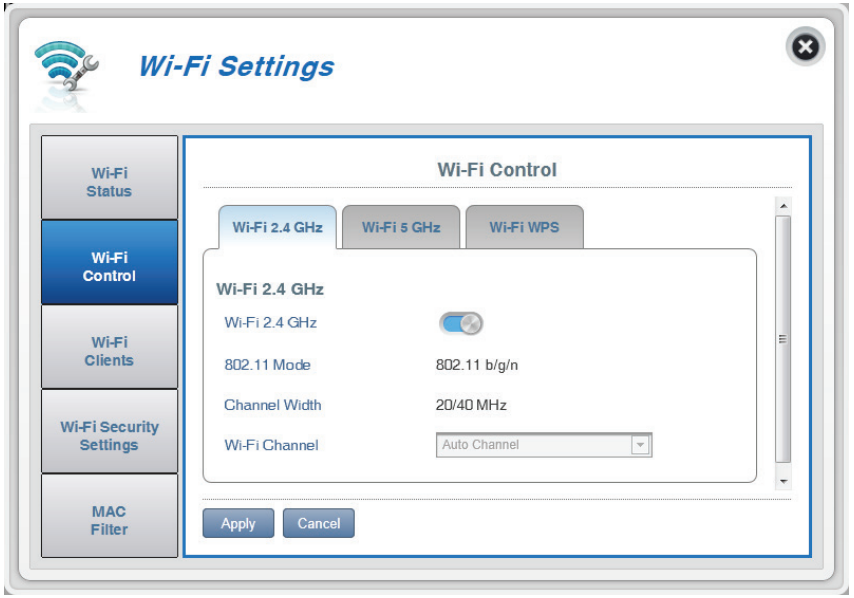
802.11 Mode The type of Wi-Fi connection currently being accepted by the wireless network.

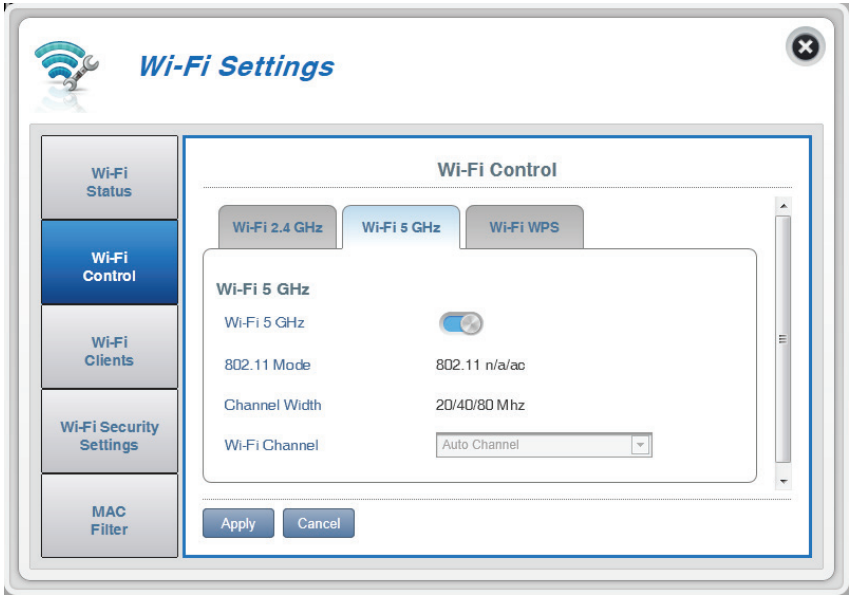
Channel Width The current channel width being used by your wireless network.

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.

If your 5 GHz wireless client cannot detect the 5 GHz wireless network, you may manually select a channel in band 1 (5.150-5.250 GHz) of 36, 40, 44, or 48. See **Troubleshooting** on page **63** for more information.

Click **Apply** to save changes.





Wi-Fi WPS

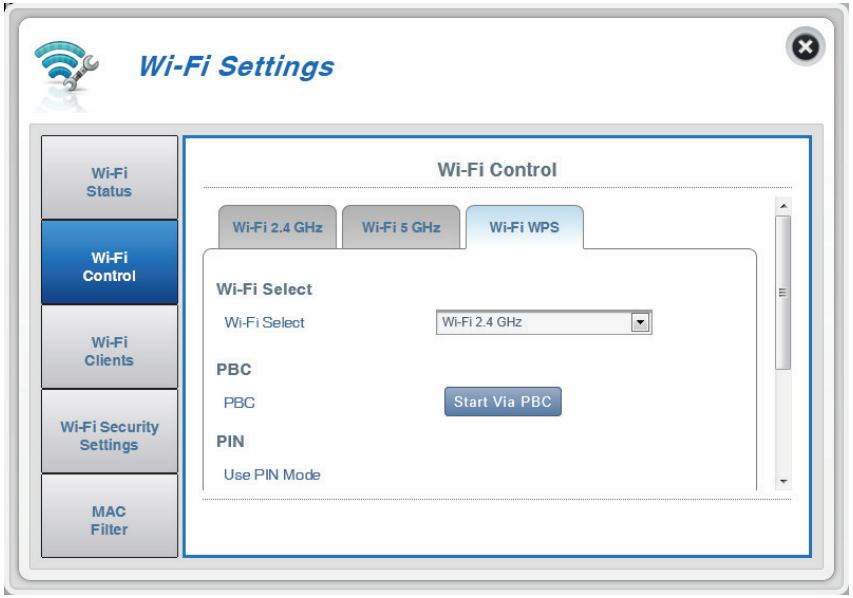
Wi-Fi Select Select whether you want to manage WPS for your 2.4 GHz or 5 GHz wireless network.

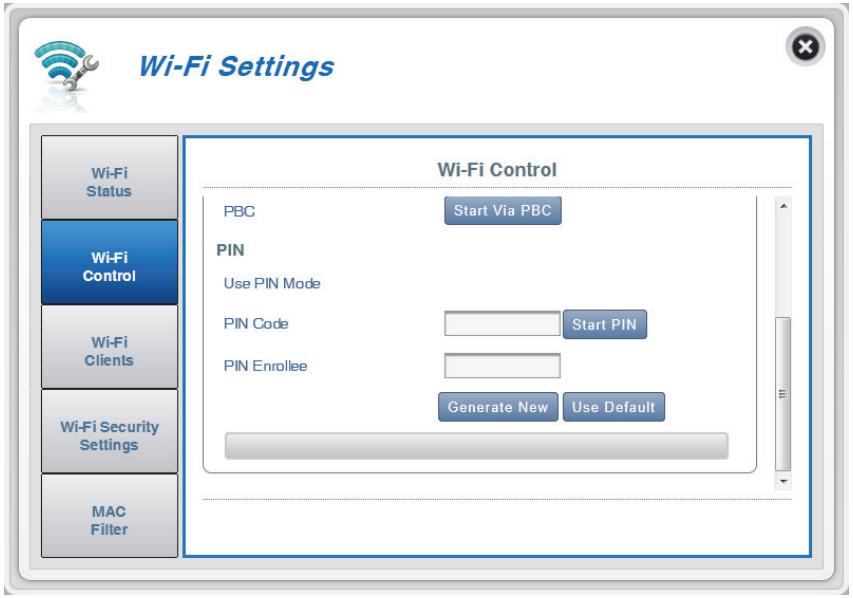
PBC PBC (Push Button Configuration) enables you to connect a wireless client automatically by pressing the WPS button on a device. To connect another device, click the **Start Via PBC** button, then press or click the WPS button on your device within one minute.

Use PIN Mode Click this to enable WPS connection through PIN codes for devices that support it. This allows you to enter your device's WPS PIN code to automatically connect it, or you can enter the router's WPS PIN code into your wireless device instead.

PIN Code To connect another device, enter its PIN code here, then click the **Start PIN** button.

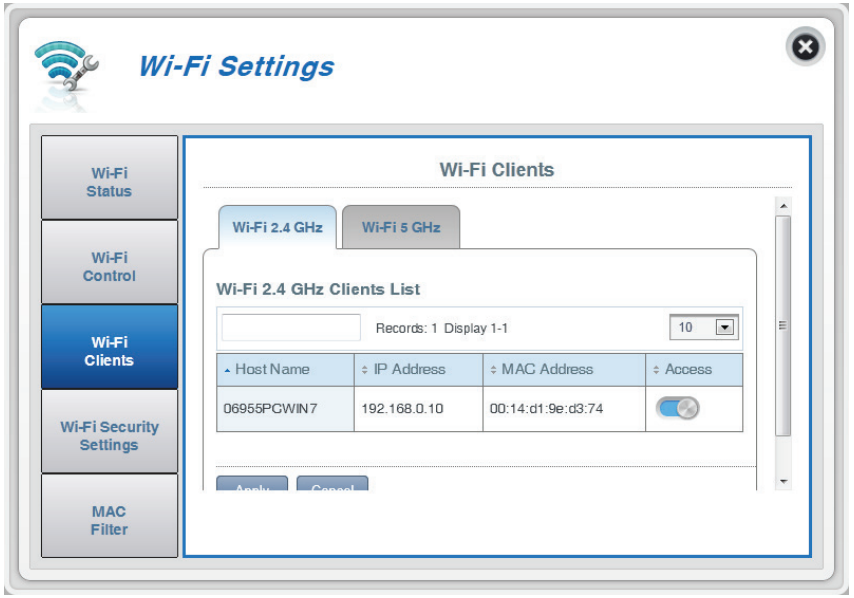
PIN Enrollee This shows the router's current PIN code that you can enter into another device to connect it. Click **Generate New** to create a new PIN code, or click **Use Default** to use the default PIN code.





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. You can manage Wi-Fi clients on both your 2.4 GHz and 5 GHz wireless networks by clicking on the tabs at the top of the page.



Wi-Fi 2.4 GHz / 5 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 adapter.

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 **39**. *You can re-allow access to the client there.*

Click **Apply** to save changes.

Wi-Fi Security Settings

From this page you can view your Wi-Fi security settings and alter things like your SSID name, SSID visibility and Wi-Fi security features. You can switch between settings for your 2.4 GHz and 5 GHz wireless networks by clicking on the tabs at the top of the screen.

SSID For Wi-Fi 2.4 GHz / 5 GHz Displays the name of your 2.4 GHz/5 GHz Wi-Fi network. Click in the box to edit.

SSID Visibility Click the toggle to change your SSID visibility to clients. If this is disabled, clients will have to type in the SSID to connect to your network.

Protection By default, **Advanced Protection** is selected. You may also select **No Protection**.

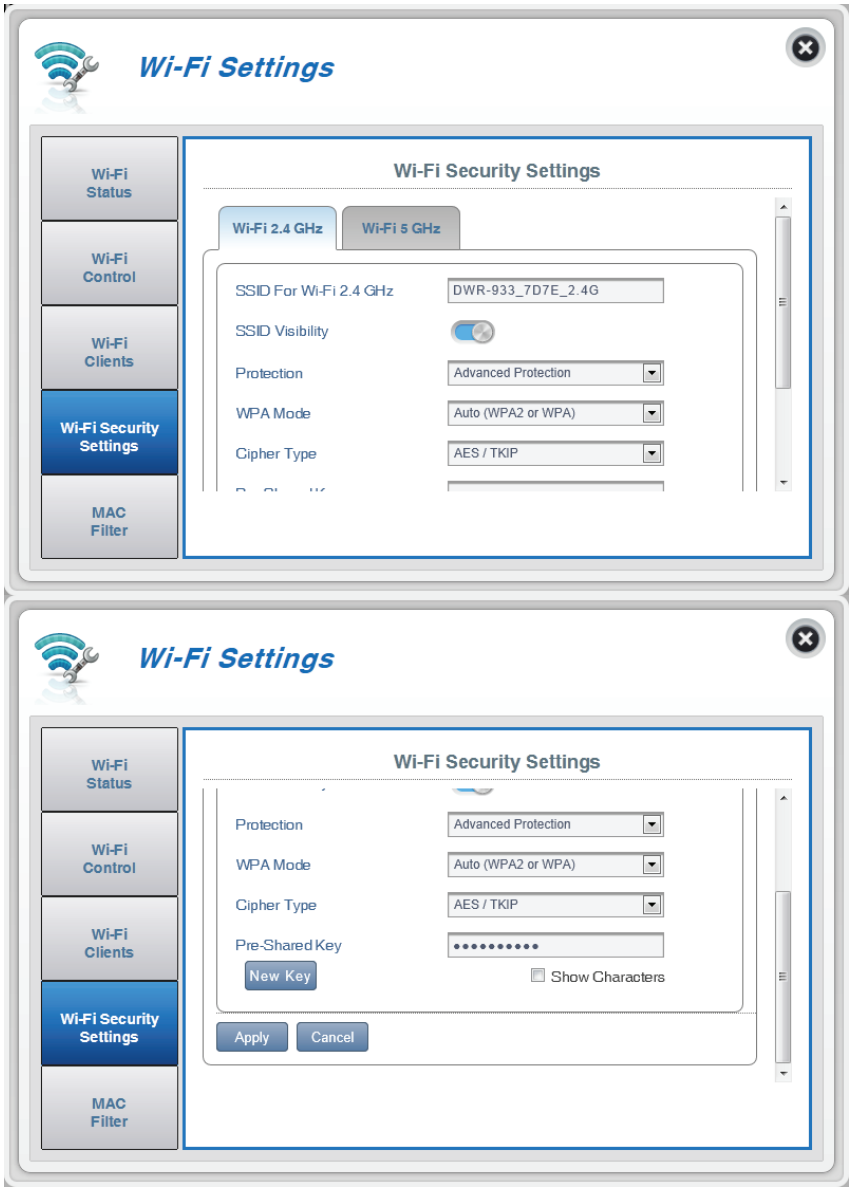
WPA Mode **Auto (WPA or WPA2)** - The router will automatically determine the version of WPA to be used based on the client that is connecting to it.

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 When using **Advanced Protection**, **AES/TKIP** will be used if the **WPA Mode** is set to **Auto**, and **AES** will be used if the **WPA Mode** is set to **WPA2**.

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. You can also click **New Key** to generate a password.

Click **Apply** to save changes.



MAC Filter

This page allows you to block up to 10 devices from your network based on their MAC address. You can manage MAC filtering for both your 2.4 GHz and 5 GHz wireless networks by clicking on the tabs at the top of the page.

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

MAC Filter For Black List This is a list of client MAC addresses that have been denied access to your network.

ID ID number given to blacklisted clients by your router.

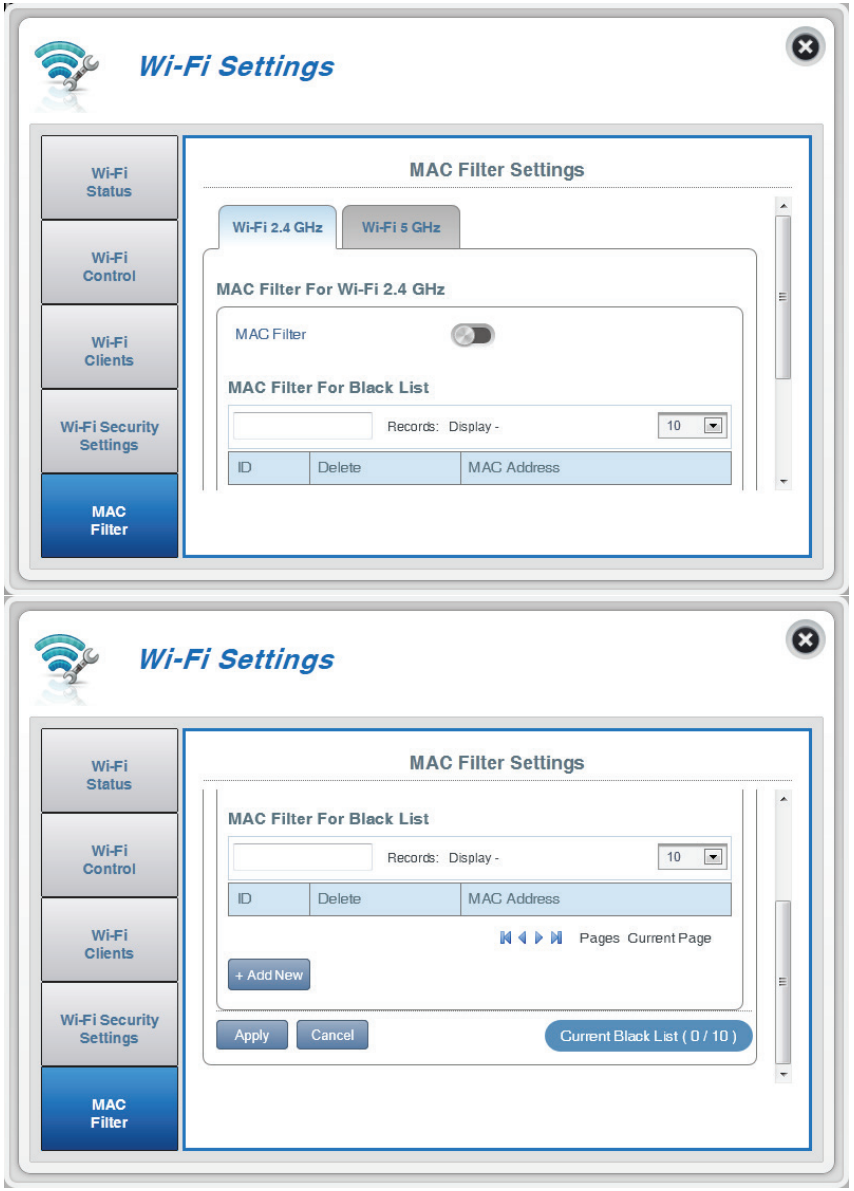
Delete To delete a client from the blacklist, click the checkbox next to it then click the **Apply** button.

MAC Address This shows the MAC address of the computer to be filtered.

Add New Click 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 **37**.

Click **Apply** to save changes.



Application Settings

Contacts Settings

This page lets you manage the contacts stored on your device. You can also view contacts that are saved on the SIM card. You can switch between contacts on your device and your SIM card by clicking on the tabs at the top of the screen.

Contacts On Device / SIM Card

ID A number given to each contact.

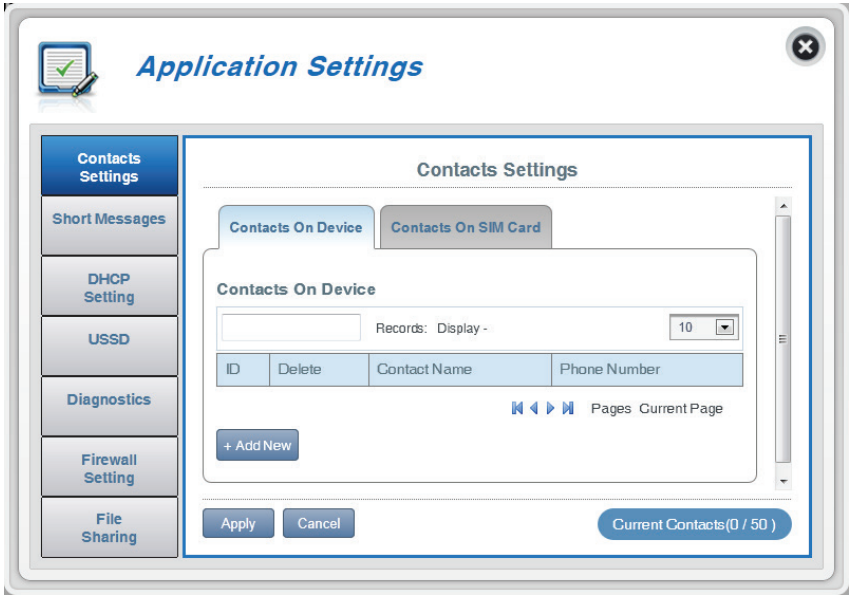
Delete To delete a contact, click the checkbox next to it then click the **Apply** button. You can only delete contacts stored on the device.

Contact Name The name of the contact.

Phone Number The phone number of the contact.

Add New Click this button to add a new contact.

Click **Apply** to save changes.



Short Messages

On the Short Messages Settings page, you can organize, send, and receive Short Message Service (SMS) messages. These messages can either be saved to the DWR-933 4G LTE Mobile Router directly or on the SIM card itself.

Setup

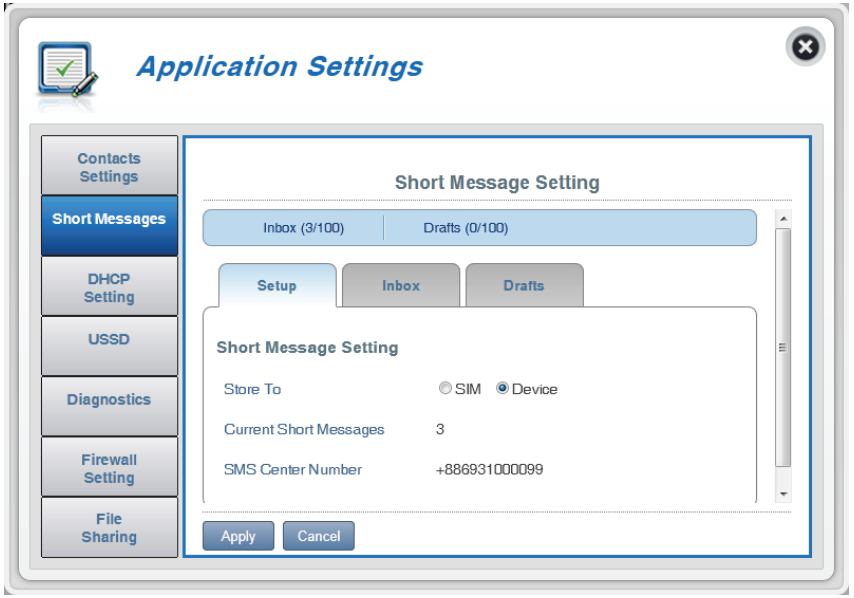
Short Message Setting

Store To Choose between storing SMS messages to your SIM card or the router.

Current Short Messages The current number of messages received.

SMS Center Number Your SIM card's contact number.

Click **Apply** to save changes.



Inbox

ID A chronological number given to each message

Delete To delete a message, click the checkbox next to it then click the **Apply** button.

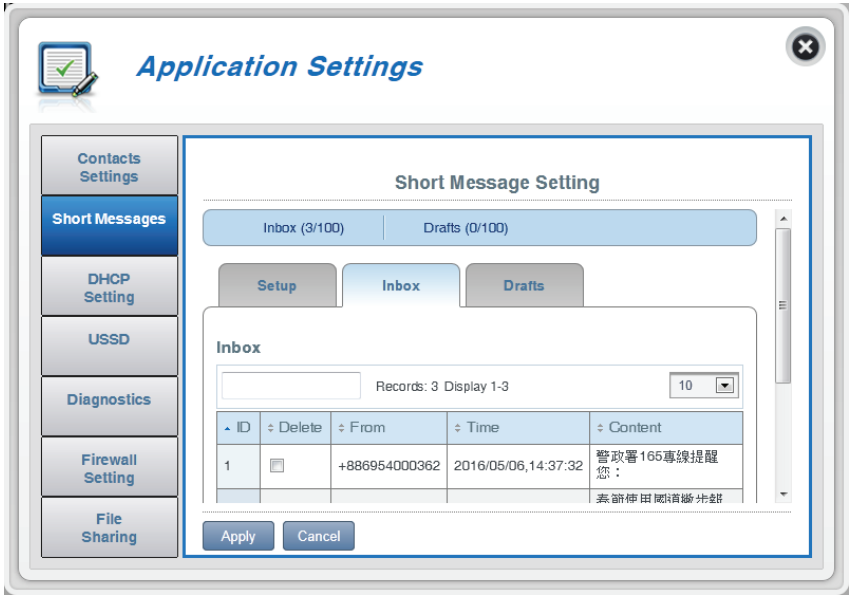
From The SMS sender's number.

Time The time the message was received.

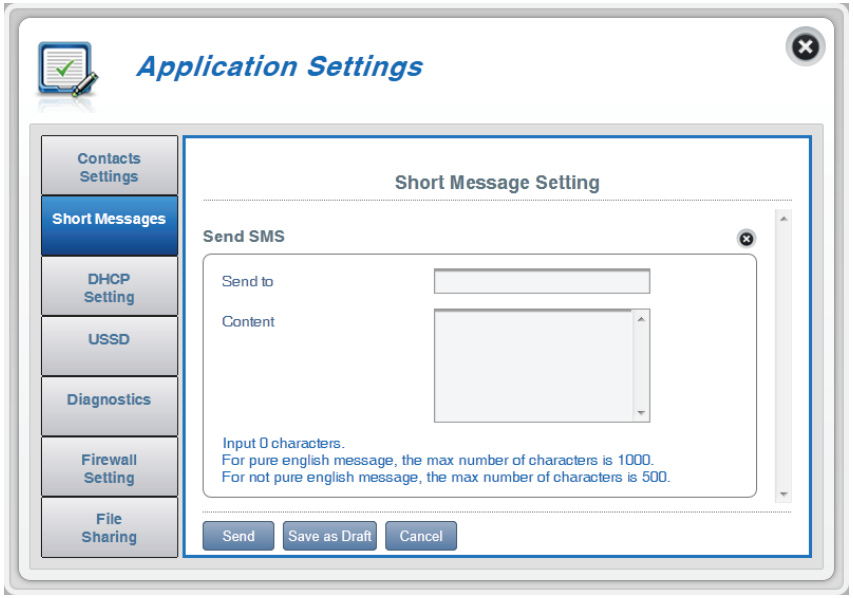
Content The SMS message's content.

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

Click **Apply** to save changes.



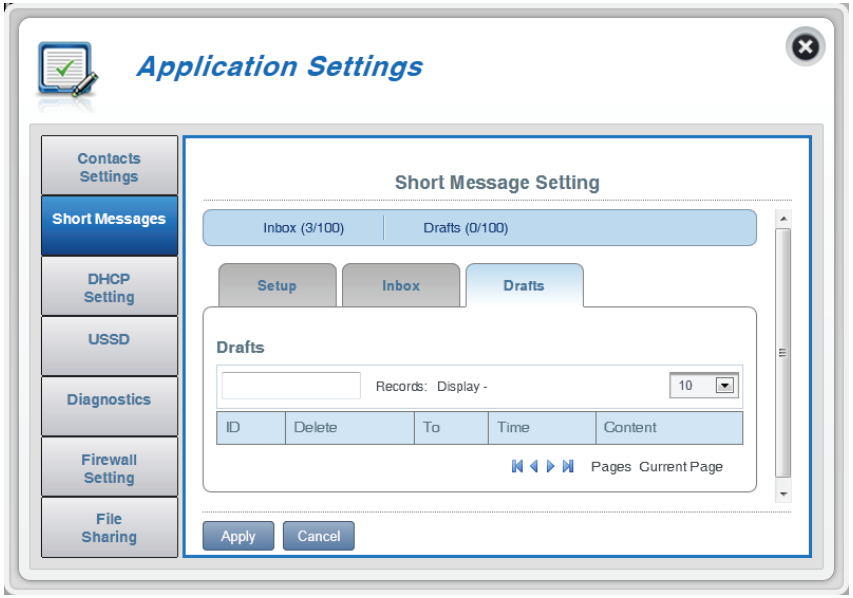
If you clicked Add New, you will see these options:



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

Content Type your message content here. After you are done, click **Send** to send the SMS. You can click **Save as Draft** to save the current message in your Drafts.

Drafts



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

Delete To delete a message, click the checkbox next to it then click the **Apply** button.

To The number the SMS will be sent to.

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-933 as well as the range of IP addresses that the DHCP will give out.

DHCP Service

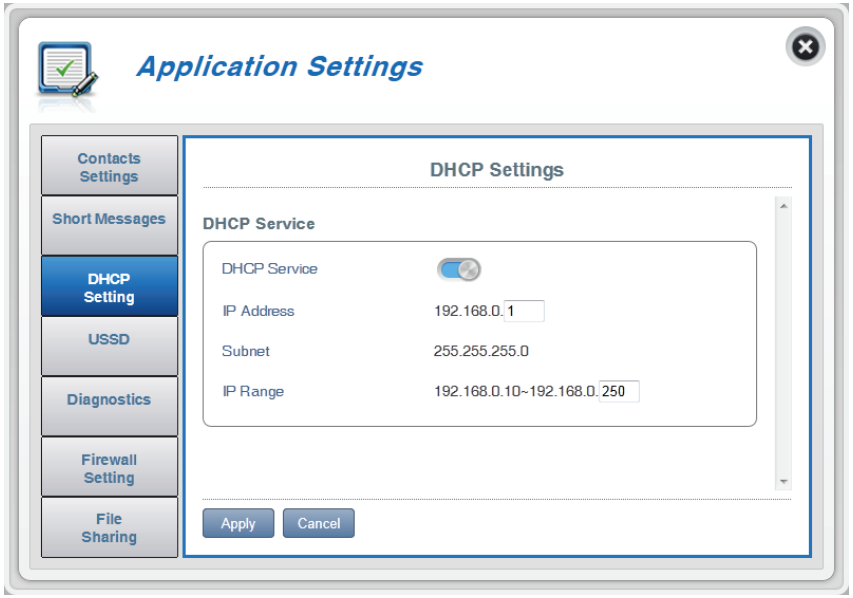
DHCP Service Enable/disable the DHCP Service.

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.

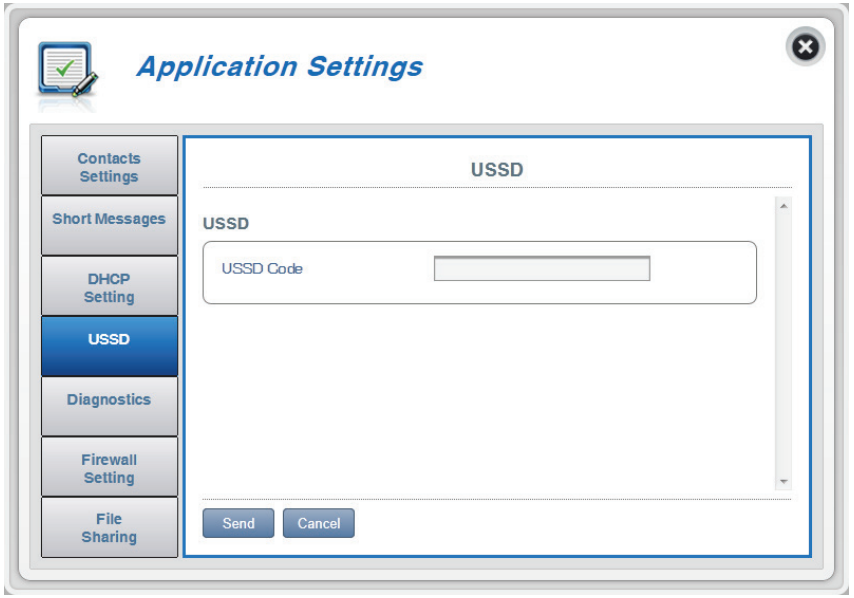


USSD

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

USSD

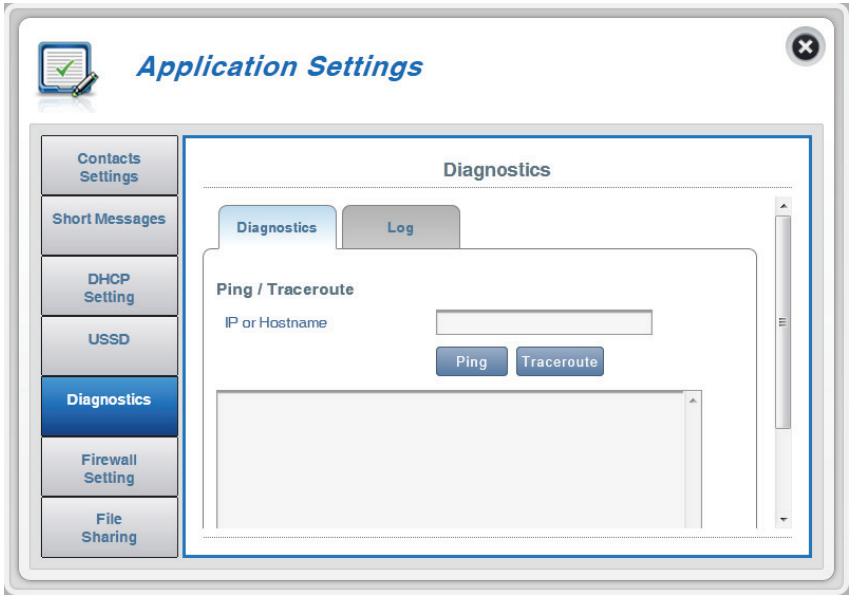
USSD Code Enter an application activation code and click the **Send** button. This will allow you to activate applications by sending an SMS to your ISP.



Diagnostics

This page lets you check on your router by letting you run ping and traceroute tests, and also lets you see the system log.

Diagnostics

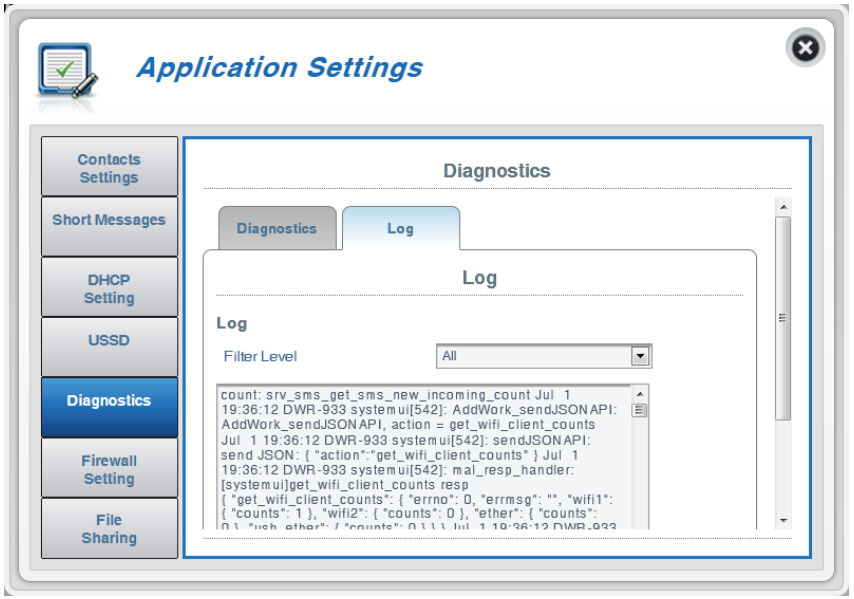


IP or Hostname Enter the IP address that you wish to check and click either **Ping** or **Traceroute**.

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.

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.

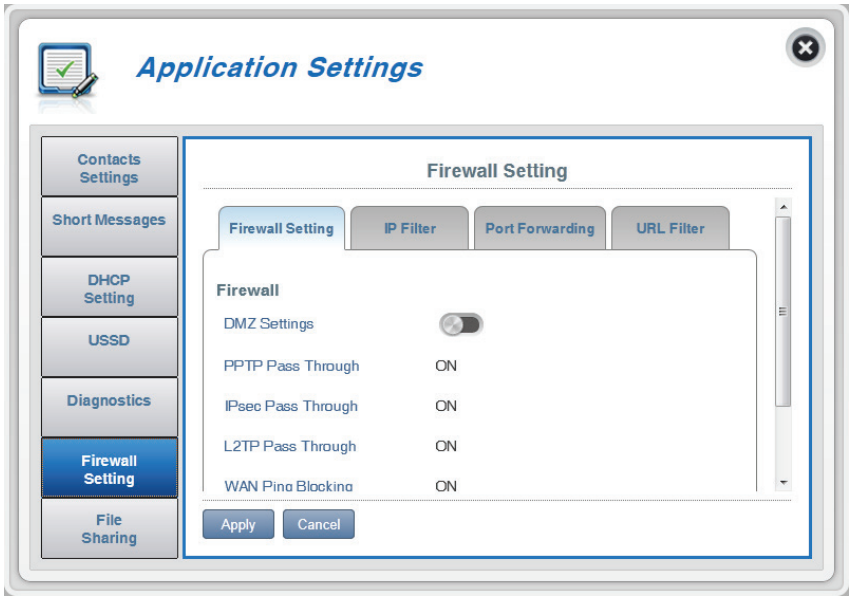
Save Log File Click this button to download the log file to your computer.

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 Setting



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 for it. If you enable this, type in the IP address of the computer you wish to disable firewall protection on.

Note: *Only recommended for advanced users, enabling this option will potentially expose your 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.

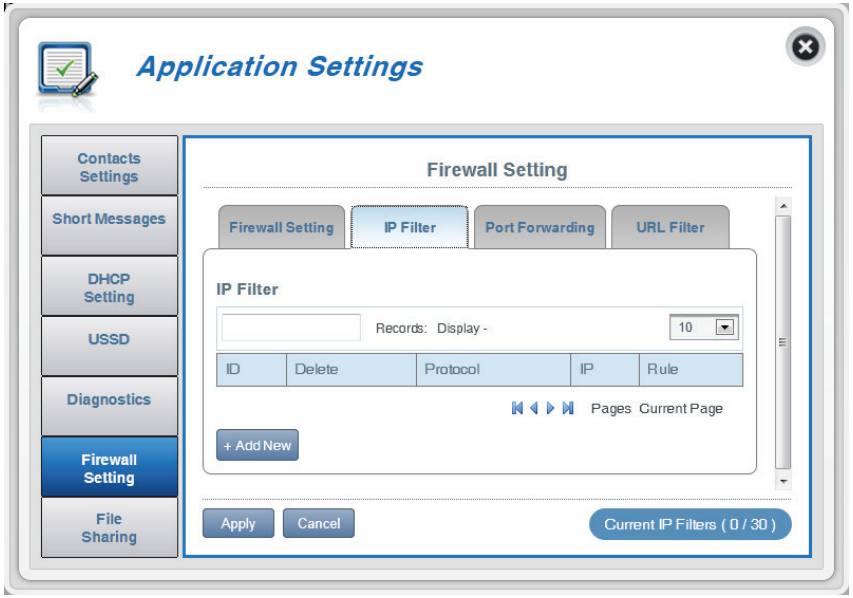
WAN Ping Blocking The DWR-933 will not respond to pings.

Access from WAN Clicking this toggle allows access to the router from the WAN side. If you enable this, enter the port number used to access the router from the WAN.

Click **Apply** to save changes.

IP Filter

The DWR-933 can filter certain IP addresses and ports. IP filtering will help to protect your network from outside intrusions and malicious attacks.



ID ID number given to new IP filters.

Delete To delete a rule, click the checkbox next to it then click the **Apply** button.

Protocol The protocol for the IP filter rule.

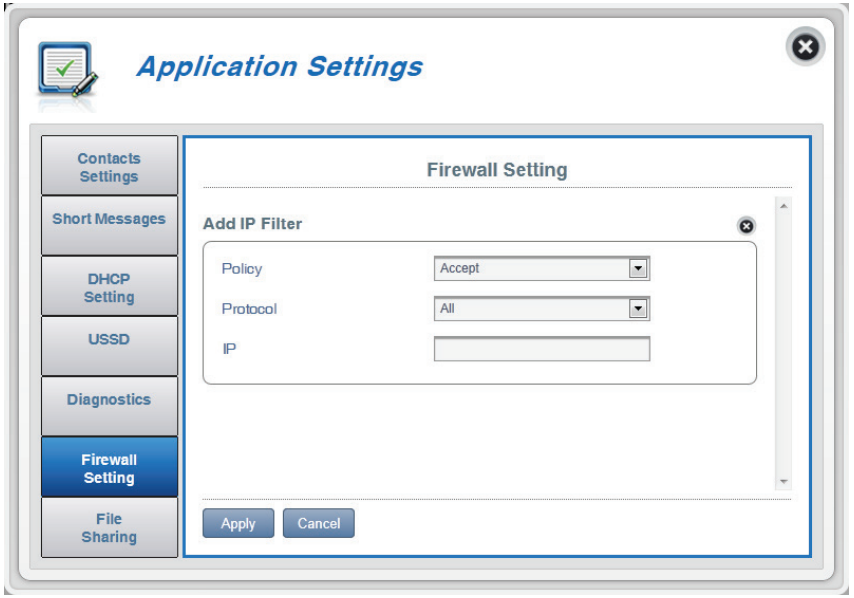
IP The IP address to be filtered.

Rule This shows whether the rule will drop or allow traffic from this IP address.

Add New Click this button to add a new filtering rule.

Click **Apply** to save changes.

If you selected Add New IP Filter, you will see these options:



Add IP Filter

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

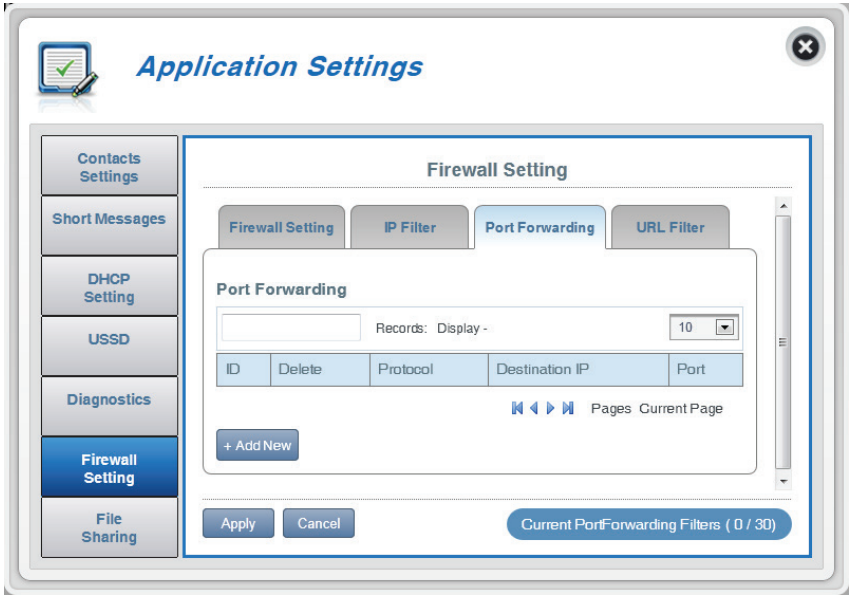
Protocol Select the protocol that you want to allow or deny access to.

IP Enter the IP address you want to filter.

Click **Apply** to save changes.

Port Forwarding

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



ID ID number given to the new rule.

Delete To delete a rule, click the checkbox next to it then click the **Apply** button.

Protocol The selected protocol for the port forwarding rule.

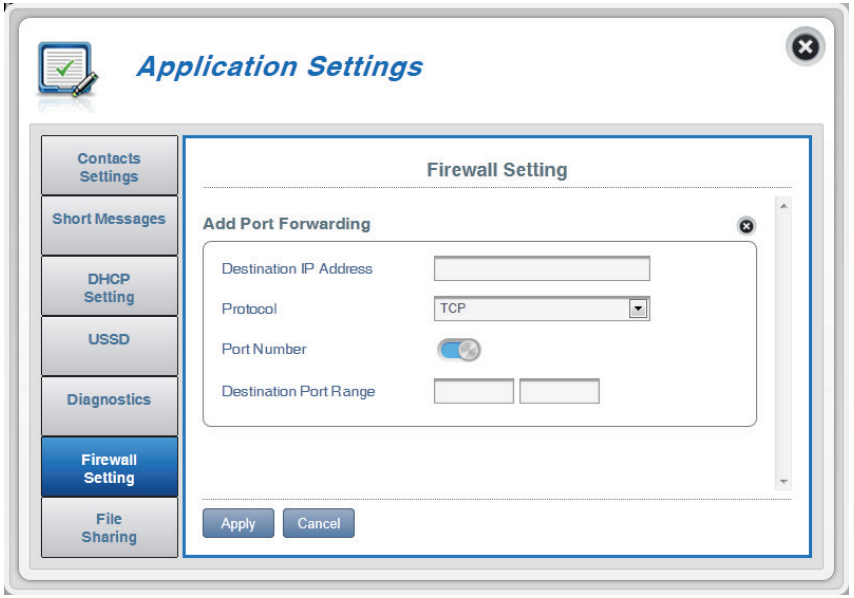
Destination IP The local IP address that traffic for the selected port will be forwarded to.

Port The port that incoming traffic will be forwarded from.

Add New Click this button to add a new forwarding rule.

Click **Apply** to save changes.

If you selected Add New, you will see these options:



Add Port Forwarding

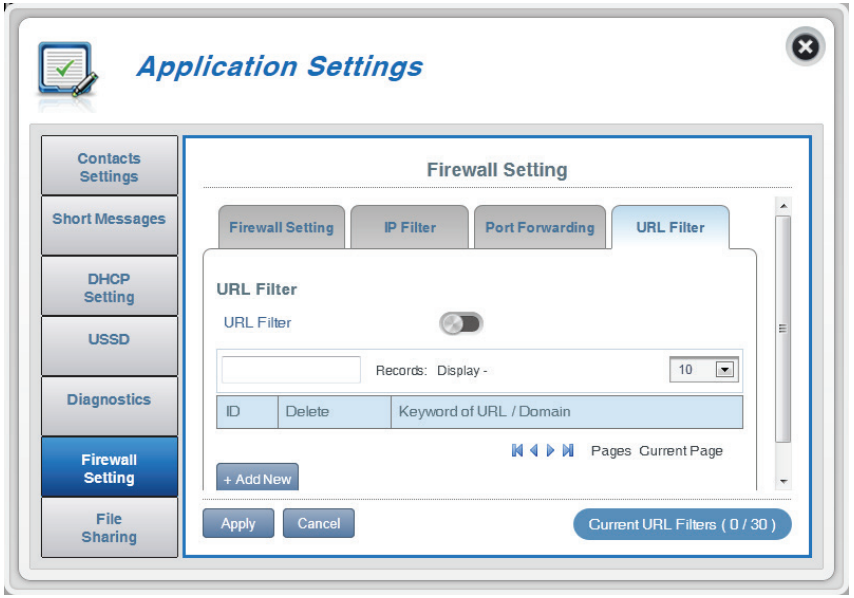
Destination IP Address Enter the IP address you want to forward traffic to.

Protocol Select the protocol for the traffic you want forwarded.

Port Number Click the toggle to enter the ports you want port 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 save changes.



URL Filter

This page allows you to block access to specific sites that have a keyword in their URL or domain name.

URL Filter Click the toggle to enable URL filtering.

ID ID number given to the new filter.

Delete To delete a rule, click the checkbox next to it then click the **Apply** button.

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 save changes.

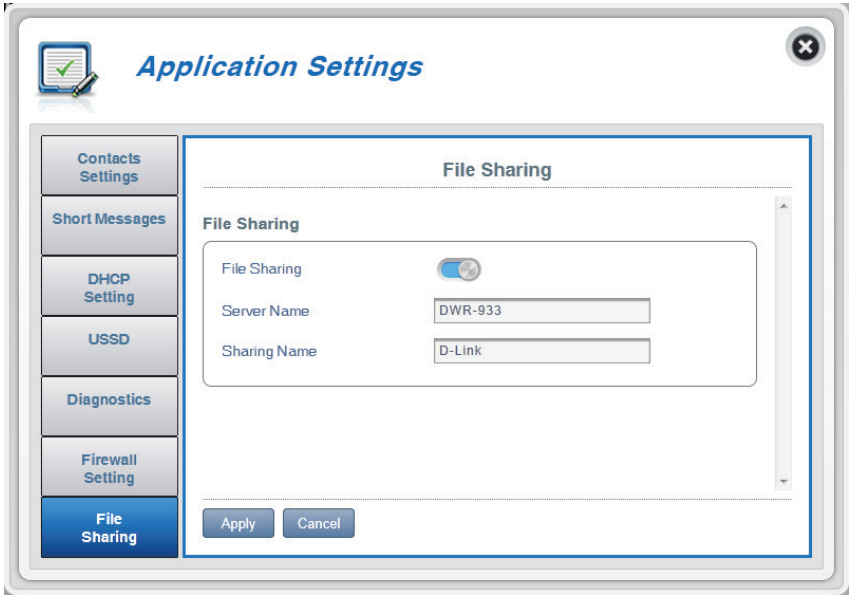
File Sharing

File sharing provides a place for you to manage, upload, and share files on your microSD card.

File Sharing This lets you enable the file sharing feature.

Server Name Enter a server name to use for file sharing.

Sharing Name Enter the sharing name to use for file sharing.



System

System Information

This page shows you various information about your router.

About DWR-933

FW Version The DWR-933's current firmware version.

Hardware Version The DWR-933's current hardware version.

IMEI The 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 D-Link router.

Battery Capacity Your router's current battery life.

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

Admin Settings

This page lets you change various administrative settings for your router.

Account

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

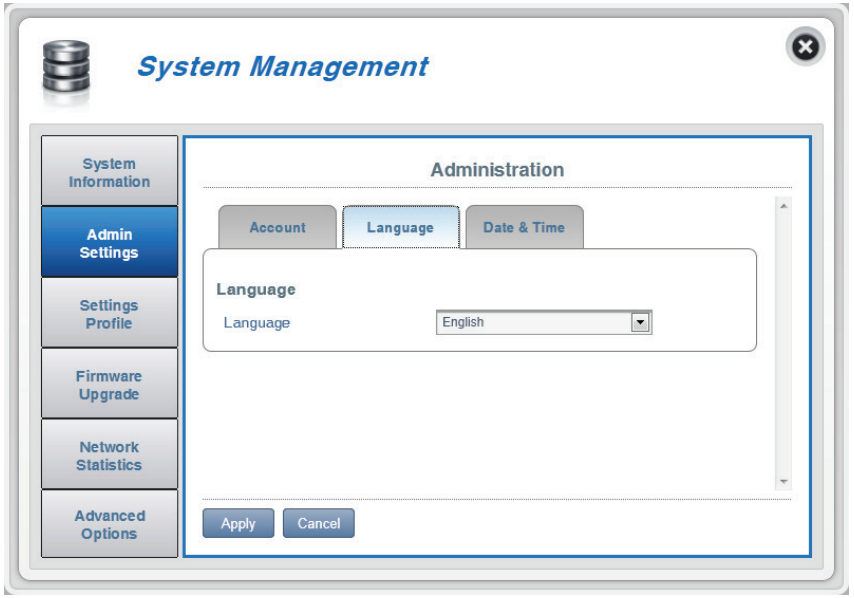
Username Adjust your login username here.

Password / Confirm Password If you want to change your password, enter the new password here, then enter it again in the **Confirm Password** text box.

Auto logout after Click on the blue text to adjust the amount of time before the device automatically logs you out.

Click **Apply** to save changes.

Language



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

Language Select your desired language here.

Click **Apply** to save changes.

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.

If SNTP is disabled, you will see these options:

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 pointer to set the date and time.

Selected Date and Time Displays your new adjusted time.

Click **Apply** to save changes.

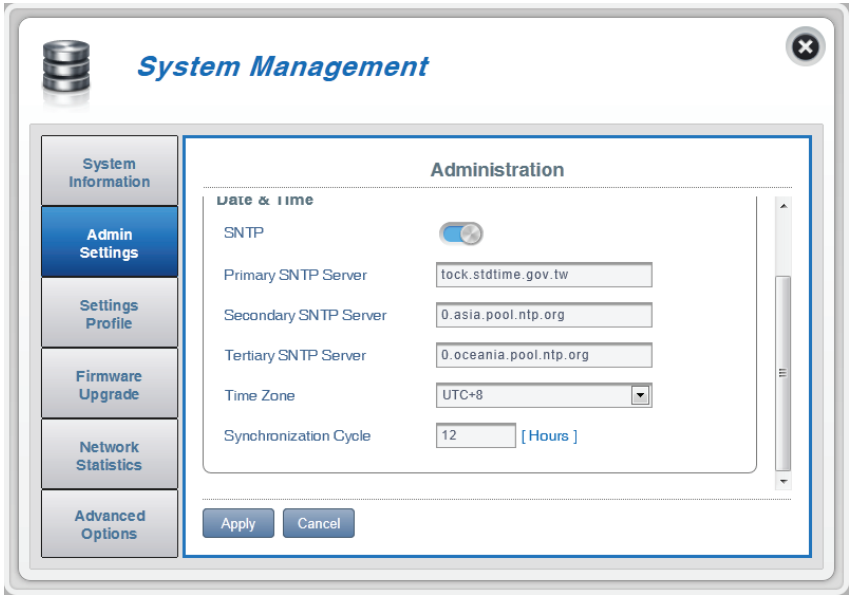
If SNTP is enabled, you will see these options:

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

Time Zone Enter the time zone where you are currently using the DWR-933 to correctly set the time offset.

Synchronization Cycle You can specify in hours how frequently the DWR-933 will update the time from a SNTP server.

Click **Apply** to save changes.

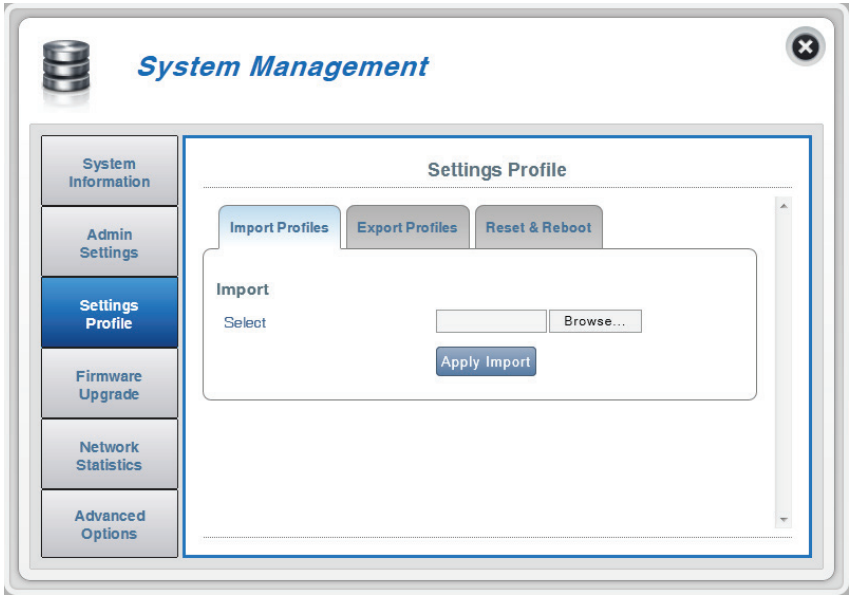


Settings Profile

This page lets you import and export your router settings, and you can reboot the router or reset it back to the factory defaults.

Import Profiles

This tab lets you import previously configured settings for the router. To import settings, click **Browse...** and select a file to import, then click the **Apply Import** button.



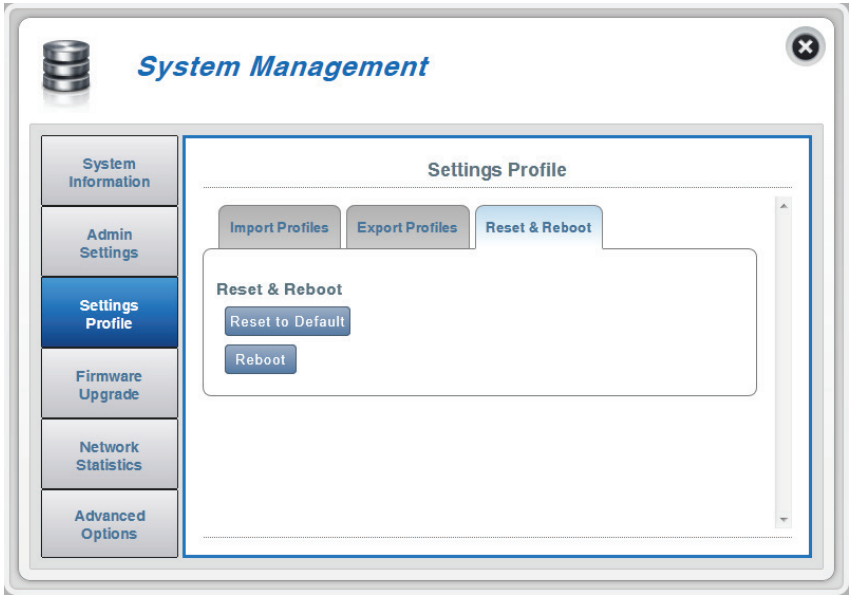
Export Profiles

This tab lets you export the current router settings to a computer. To export settings, click the **Click me** button and select a location to save the file to.

Reset and Reboot

This tab lets you reboot your router or reset it to the factory defaults. Click **Reset to Default** to reset your router's settings to the factory defaults, or click **Reboot** to reboot the router.

You can also manually reset your router to the factory defaults by pressing the WPS button and power button simultaneously for 10 seconds.



Firmware Upgrade

This page allows you to upgrade your router's firmware manually or through a remote server.

Upgrade My Router

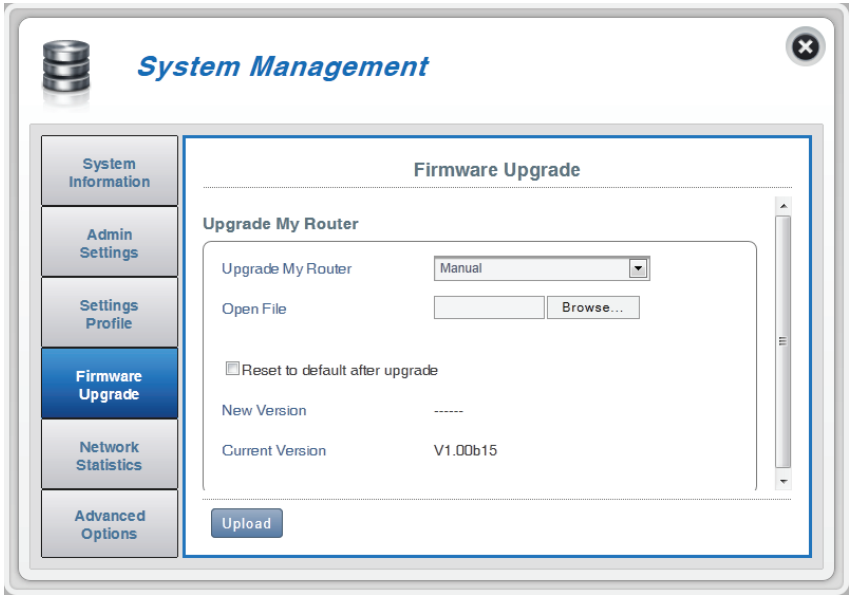
Upgrade My Router Choose whether you want to do a **Manual** upgrade of the firmware or if you want to use a **Remote Server**.

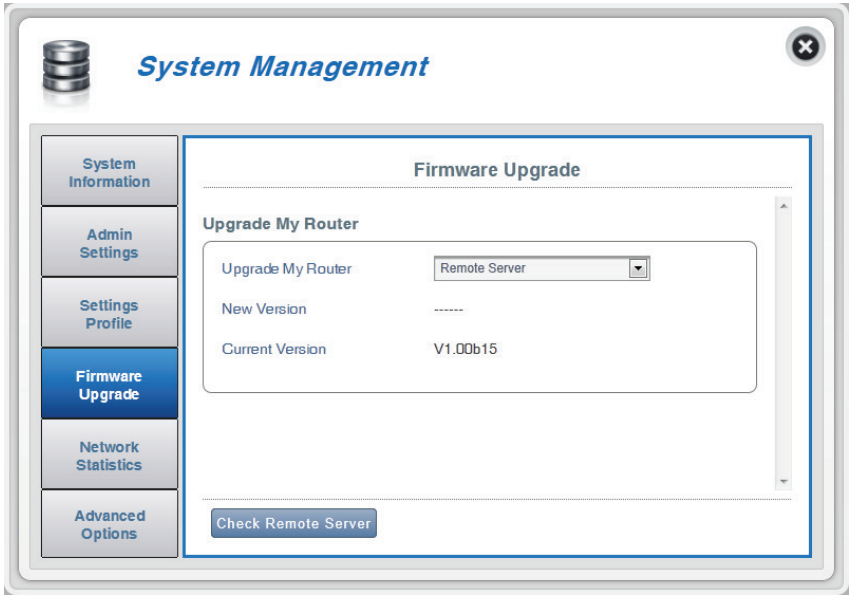
Open File If you chose to do a **Manual** upgrade, click **Browse...** and select your firmware file, then click **Upload**. Check the box next to **Reset to default after upgrade** if you want to reset all settings back to the factory defaults.

New Version This shows the version of the firmware to upgrade to.

Current Version The current version of your firmware.

Check Remote Server If you chose to upgrade using a **Remote Server**, you can click this to check for new firmware.





Network Statistics

This page lets you view various network statistics about your router and data usage.

Packet Data Usage

This tab allows you to manage your router's packet data usage.

Notification Setting for Packet Data Usage

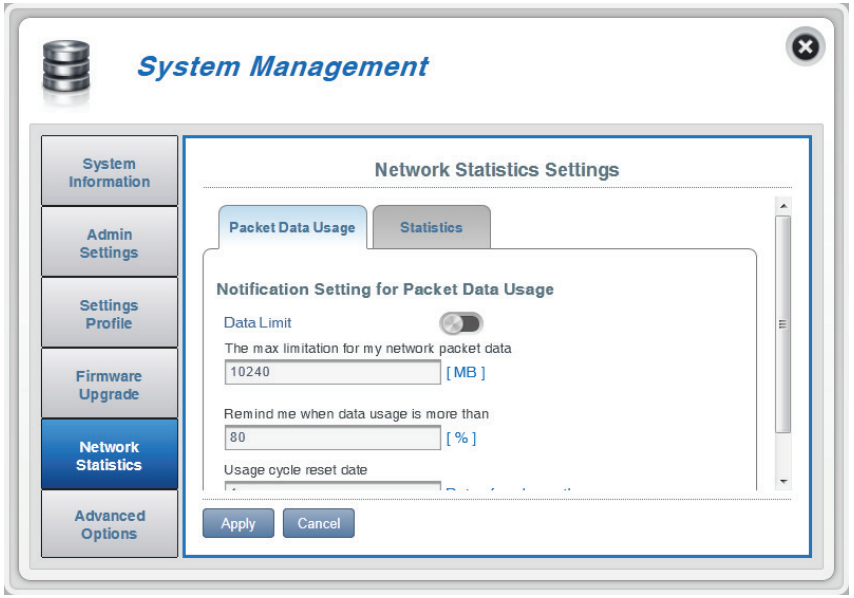
Data Limit Enable this to set a data limit for your router.

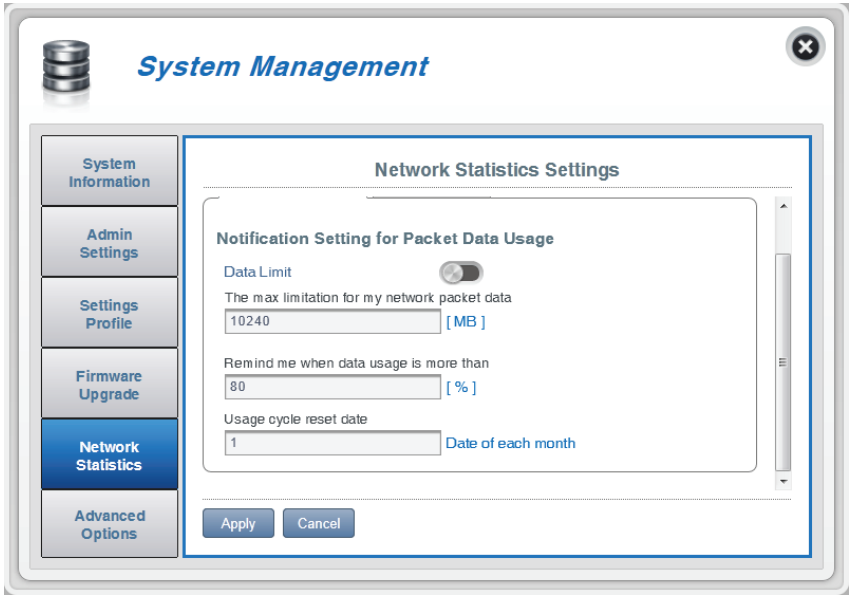
Maximum Packet Data Limitation Set the maximum amount of data usage for the DWR-933.

Data Usage Reminder Set a reminder when your data usage goes over the specified percentage.

Usage Cycle Reset Date Set which day of the month you want the data limit to reset itself.

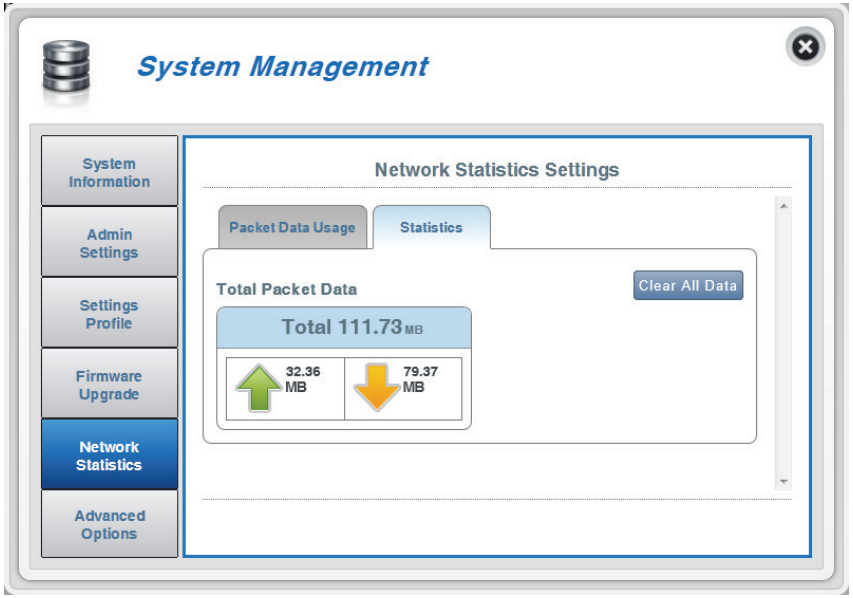
Click **Apply** to save changes.





Statistics

This page allows you to view your router's packet data usage. You can see your total data transferred as well as total data uploaded and downloaded. To reset the usage back to zero, click **Clear All Data**.

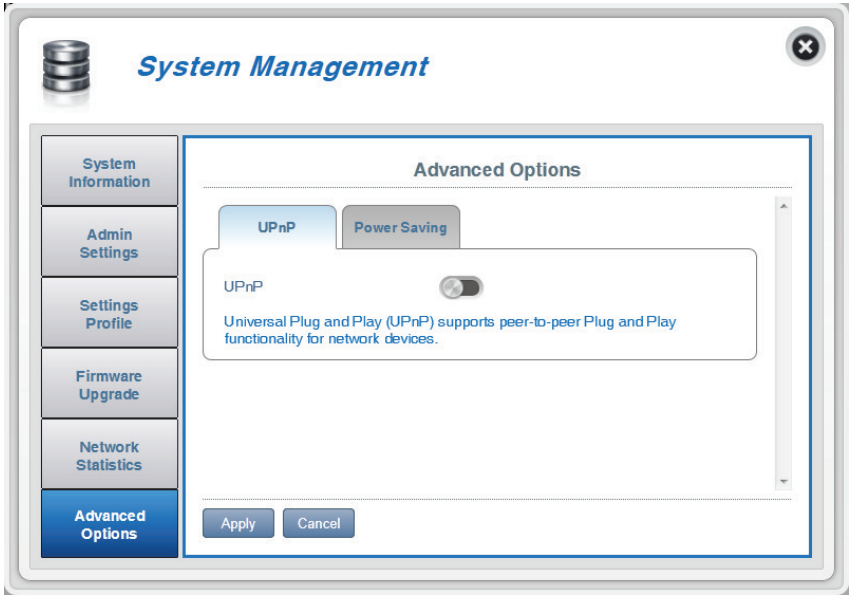


Advanced Options

On this page you can enable or disable the Universal Plug and Play (UPnP) feature. Devices using UPnP 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.



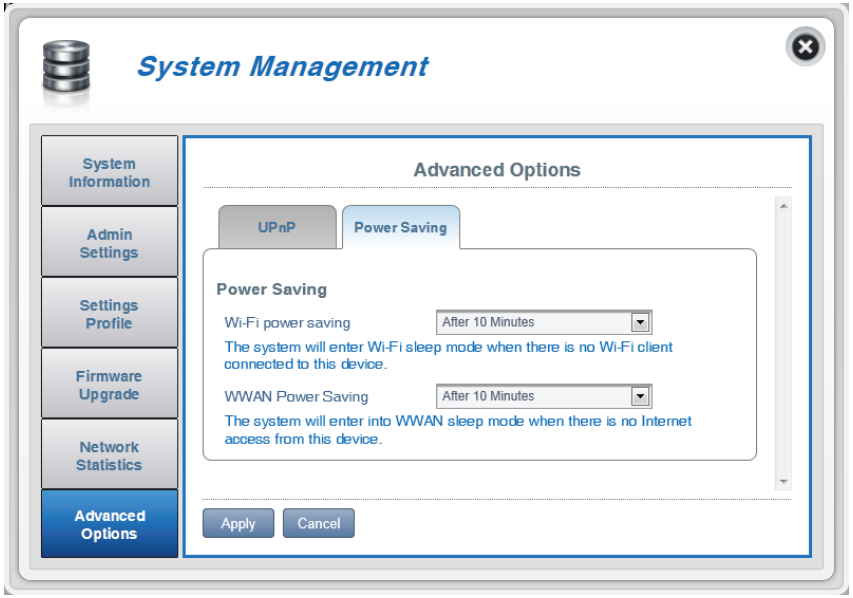
Power Saving

On this page you can configure power saving settings to help give your DWR-933 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-933 goes to sleep when no Wi-Fi clients are connected.

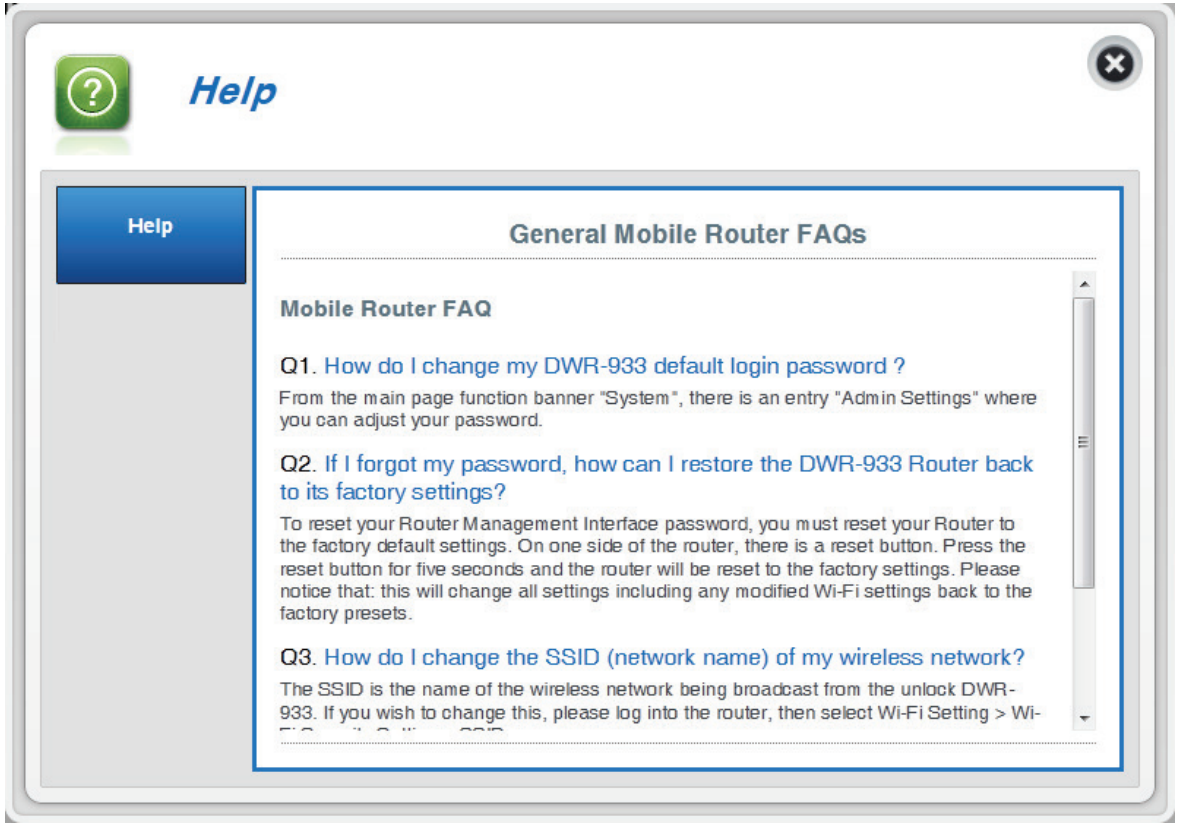
Deep Sleep Allows you to set the length of time before the DWR-933 goes to sleep when it has no Internet access.

Click **Apply** to save changes.



Help

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



Troubleshooting

This chapter provides solutions to problems that can occur during the installation and operation of the DWR-933. 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 28.0, Firefox 23.0, or Safari 6.

- 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-933, 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-933. You can also change the IP address of the DWR-933 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, open the battery cover and using a paper clip, press and hold this button for 6 seconds to reboot the unit. The DWR-933 will restore the factory default settings. Replace the battery and turn the power on 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.

3. Why can't my wireless client detect the 5 GHz network?

Due to changing regional wireless regulations, your older 5 GHz wireless client may have trouble detecting and connecting to the DWR-933's 5 GHz wireless network using its default settings.

For Taiwan region, this product defaults to band 1 (5.150-5.250 GHz), channels (36, 40, 44, and 48) operation. You may enable band 4 (5.725-5.825 GHz) channels (149, 153, 157, 161, or 165) by navigating to the Wi-Fi Settings section of the web based configuration utility described earlier in this document and selecting a band 4 channel.

Technical Specifications

Radio Frequency Bands[1,2]

LTE Mode:

- Category 6: Band 1/3/7/8/20/28/38
- CA: B1+B8, B1+B20, B3+B8, B3+B20, B3+B7, B7+B20, B38+B38, B3+B3, B7+B7, B3+B28

WCDMA/HSPA/HSPA+/DC-HSPA Mode:

- Band 1/8
- Downlink: 42 Mbps
- Uplink: 5.76 Mbps

GSM/GPRS/EDGE Mode:

- 900 MHz/1800 MHz

Internal Antenna

- LTE: 1T2R
- Wi-Fi: 2T2R

Wi-Fi Standards[1,2]

- 802.11ac/n/g/b
- 2.4 GHz / 5 GHz
- Up to 867 Mbps in 802.11ac (2x2) mode
- Up to 300 Mbps in 802.11n (2x2) mode
- Up to 54 Mbps in 802.11g mode
- Up to 11 Mbps in 802.11b mode

Wireless Security

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

Firewall

- Port Range Forwarding
- DMZ
- UPnP
- RO

External Interface

- Micro-USB port (DC 5 V 1 A external power adapter and USB to Micro USB cable)
- Standard 6 pin micro-SIM/USIM card interface
- microSD Card Slot (Up to 64 GB)

Status Indicators

- 0.96 inch OLED display
- Resolution: 128 x 64 Pixels

Battery

- Capacity: 2800 mAh

Dimensions (L x W x H)

- 105 x 64 x 14 mm (4.13 x 2.52 x .55 in)

Weight

- 140 g (.3 lb)

Operating Conditions

- Operating Temperature: -10 to 45 ˚C (14 to 113 ˚F)
- Operating Humidity: 5 % to 95% (Non-condensing)

Certifications

- NCC
- BSMI
- RoHS

[1] Supported frequency band is dependent upon regional hardware version.

[2] Data rates are theorhetical. Data transfer rate depends on network capacity and signal strength.

Regulatory Information

NCC 警語:

以下警語適用台灣地區
依據 低功率電波輻射性電機管理辦法

第十二條: 經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。

第十四條: 低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。前項合法通信，指依電信法規定作業之無線電通信。低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

無線傳輸設備 (UNII)

在 5.25-5.35 秭赫頻帶內操作之無線資訊傳輸設備，限於室內使用。無線資訊傳輸設備忍受合法通信之干擾且不得干擾合法通信；如造成干擾，應立即停用，俟無干擾之虞，始得繼續使用。無線資訊傳設備的製造廠商應確保頻率穩定性，如依製造廠商使用手冊上所述正常操作，發射的信號應維持於操作頻帶中。

「減少電磁波影響，請妥適使用」

WLAN：

電磁波曝量MPE標準值1mW/ cm^2，送測產品實測值為： 0.0408 mW/ cm^2

電池警語

廢電池請回收。

廢電池請回收

LTE (4G):

LTE 2600MHz:
電磁波曝量MPE標準值1.0mW/cm^2，送測產品實測值為：0.1262 mW/ cm^2

分頻雙工(FDD)：
本設備- LTE 700(Band 28)FDD支援LTE上行703MHz -748MHz\下行758MHz -803MHz。
本設備- LTE 900(Band 8)FDD支援LTE上行885MHz -915MHz\下行930MHz -960MHz。
本設備- LTE 1800(Band 3)FDD支援LTE上行1710MHz -1770MHz\下行1805MHz -1865MHz。
本設備- LTE 2600(Band 7)FDD支援LTE上行2500MHz～2570MHz\下行2620MHz～2690MHz)。

分時雙工(TDD)：
本設備- LTE 2600(Band 38)TDD支援頻段(2570MHz～2620MHz)。

警告使用者:

此為甲類的資訊技術設備，在居住環境中使用時，可能會造成射頻擾動，在這種情況下，使用者會被要求採取某些適當的對策。

Warning: This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.