D-Link®

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User Manual

Wireless N300 4G LTE Router

DWR-920V

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	May 10, 2019	• Initial release

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Product Overview

Package Contents

D-Link DWR-920V Wireless N300 4G LTE Router

Power Adapter

3G/4G Antennas

RJ45 Cable

RJ11 Cable

If any of the above items are missing or damaged, please contact your reseller.

ErP Power Usage

This device is an Energy Related Product (ErP) with High Network Availability (HiNA), and automatically switches to a power-saving Network Standby mode within 1 minute of no packets being transmitted. It can also be turned off through a power switch to save energy when it is not needed.

Network Standby: 5.208 watts

Switched Off: 0.0036 watts

System Requirements

Network Requirements	• A compatible mini-SIM/UICC card with mobile data service[1]
Web-based Configuration Utility Requirements	**Computer with the following:** • Windows®, Macintosh, or Linux-based operating system **Browser Requirements:** • Internet Explorer 9 or higher • Firefox 12 or higher • Safari 4 or higher • Chrome 20 or higher **Windows® Users:** Make sure you have the latest version of Java installed. Visit www.java.com to download the latest version.

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

Introduction

The D-Link DWR-920V Wireless N300 4G LTE 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 in areas without wired Internet.

High-Speed Mobile Internet with LTE Connectivity

The DWR-920V Wireless N300 4G LTE 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 150 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-920V.

Mobile Internet for All of Your Devices

With the DWR-920V, you can get online with your notebook, smartphone, tablet, or any other wireless device using a single mobile connection. The DWR-920V 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-920V is truly plug-and-play, with drivers already on the router, so you can connect without needing to install anything. Open a browser, connect to the router, and you can set up your network right from the web interface. Once the device is set up, you can simply power it on to start up your portable mobile network without any configuration, meaning that you can share your mobile Internet connection without even needing a computer.

[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

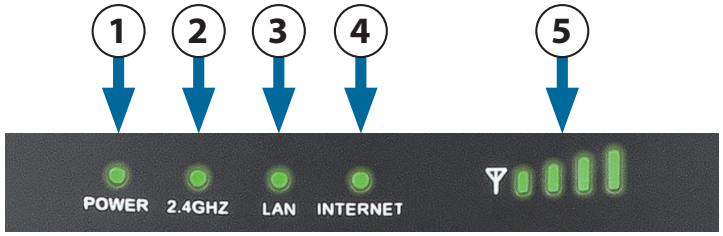
Overview

1	**SIM/UICC Card Slot**	Insert a SIM/UICC card to access the Internet and your SIM/UICC card contacts list.
2	**WPS Button**	Press this button to add new wireless devices quickly and easily using Wi-Fi Protected Setup (WPS).
3	**Reset Button**	Using a paper clip, press and hold this recessed button for 3 seconds to reset the device to default.
4	**LED Indicators**	Status display. Please refer to **LED Indicators** on page **6**.

5	**Power Button**	Press this button to power on/off the device.
6	**Power Input**	Receptacle for the included 12 V/1 A power adapter.
7	**LAN1**	Use a RJ-45 Ethernet cable to connect a device to the router to connect it to your network and the Internet.
8	**W/LAN**	Use a RJ-45 Ethernet cable to connect your modem to the router to access the Internet.
9	**Phone Port**	Connect a phone here that uses a regular phone line.

Hardware Overview

LED Indicators



Number	Name	Explanation	
1	**Power**	Solid Green	Powered on.
		Off	Powered off.
2	**2.4 GHz**	Solid Green	Wi-Fi is enabled.
		Blinking Green	Traffic is being transmitted over Wi-Fi.
		Flashing Green	WPS is activated. The LED will flash for 120 seconds or until a user connects.
		Off	Wi-Fi is disabled.
3	**LAN**	Solid Green	RJ-45 Ethernet cable connected.
		Off	RJ-45 Ethernet cable not connected.
4	**Internet**	Solid Blue	Connected to an LTE network.
		Blinking Blue	Traffic is being transmitted over LTE/Ethernet WAN.
		Solid Green	Connected to a 2G/3G network.
		Blinking Green	Traffic is being transmitted over 2G/3G.
		Solid Red	No SIM/UICC card inserted or no network service.
5	**Signal Strength**	Blinking Red	Indicates signal strength.

Installation

This section will guide you through the installation process. Placement of the router is very important. Do not place the router in an enclosed area such as a closet, cabinet, or in an attic or garage.

Initial Setup

Ensure that your DWR-920V Wireless N300 4G LTE Router is disconnected and powered off before performing the steps below.

1. Verify that your SIM/UICC card is installed and has been activated by your carrier. To install your SIM/UICC card, follow the diagram next to the slot. Push gently until it locks into place.

Caution: Always unplug/power down the router before installing or removing the SIM/UICC card. Never insert or remove the SIM/UICC card while the router is in use.

2. Attach the included antennas to the back of the router, screwing them in clockwise. Arrange them so that they point upwards.

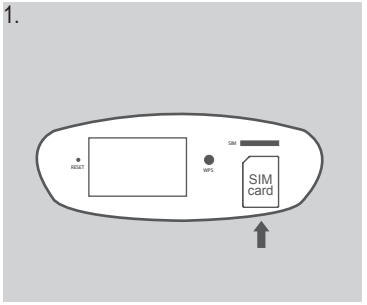
3. Connect the power adapter to the socket on the back panel of your DWR-920V. Plug the other end of the power adapter into the wall outlet or power strip. Press the power button to turn the device on.

4. Press the power button and wait for three seconds to turn on the device.

   a. The Power LED will light up green to indicate that power is being supplied to the router and the router is turned on.

   b. After a few moments, the LED indicators will show the current status of the router's various functions. For more information, please refer to **LED Indicators** on page 6

1.



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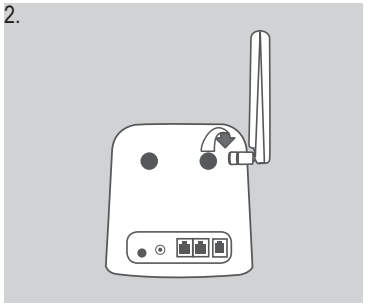

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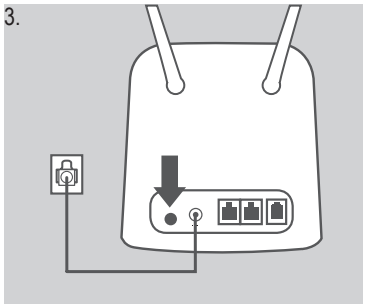


Wireless Installation Considerations

The DWR-920V 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 accessed via your web-browser.

Initial Connection to the Router

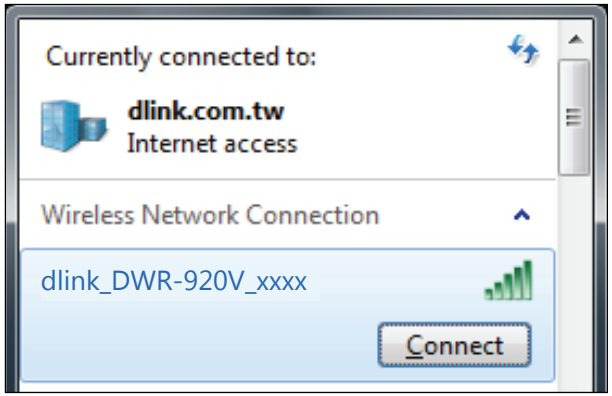
By default, the DWR-920V comes configured to work with most 4G SIM/UICC cards. If you wish to configure the router, you will need to establish a direct connection with the router in order to access the web-based configuration utility. For information please refer to **Connect via Wi-Fi on page 10**. Once you have configured your router, you will be able to connect using the Wi-Fi settings that you specified in the configuration 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.*

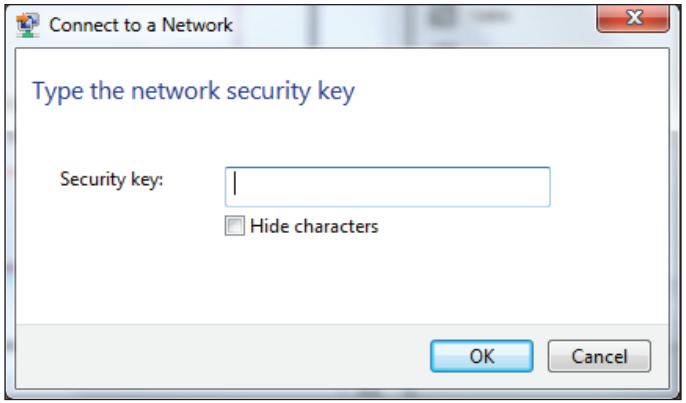
To connect to the router using Wi-Fi, open your operating system's wireless networking utility and scan for available networks to connect to. By default, the network name (SSID) of the DWR-920V will be in the format **dlink_DWR-920V_xxxx**, where "**xxxx**" represents the last four characters of the DWR-920V's MAC address. The default SSID and password can also be found on the product label attached to the battery cover. For more information on where to find this label refer to **Hardware Overview** on page 4.

Once you have located your DWR-920V's wireless network, select it and click **Connect**.



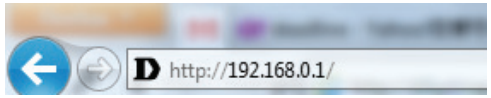
You will then be prompted to enter the network security key for your router. Enter the security key in the box provided and click **OK**. Your wireless connection utility will confirm that the connection is successful, and you can move to the next step to continue to the configuration process.

You can also set up a connection using the Windows built-in WPS feature. Please see **Connecting to a Wireless Network on page 63**page 63.



Web-based Configuration

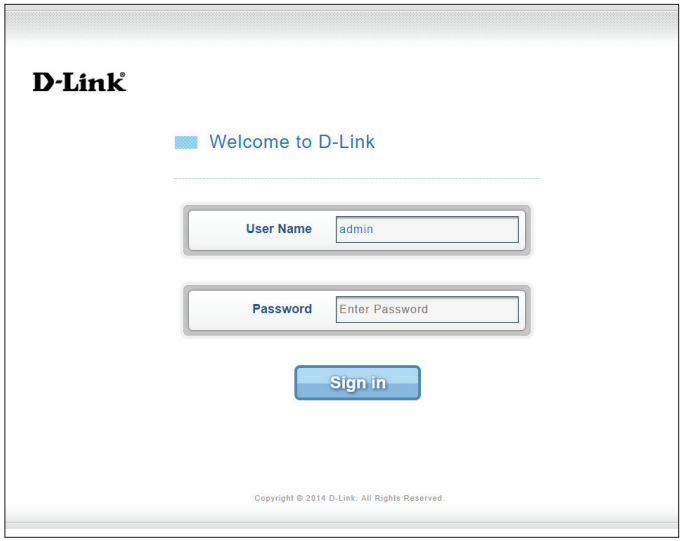
To access the configuration utility, open a web browser (such as Internet Explorer) and enter the IP address of the router, which is **192.168.0.1** by default in the address bar.



Configuration Utility

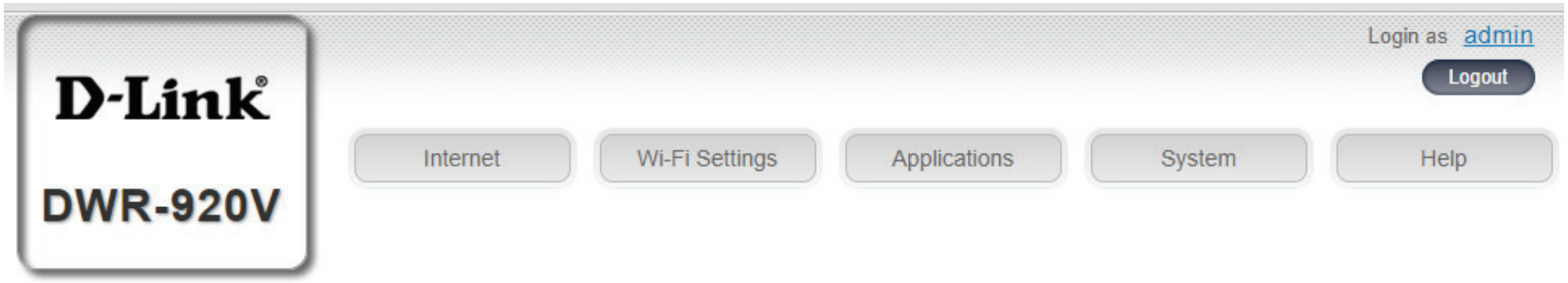
Once you have reached the configuration utility through your web browser, you will need to log in. Enter **admin** as the username, and then enter the password. By default, the password should be left blank.

Click **Sign in** to continue.



Navigation

On the home page of the interface, you will find a menu bar at the top of the page which includes tabs for easy navigation.



Internet The **Internet** tab allows you to configure your Internet settings, including details about your mobile operator.

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

Settings The **Settings** tab allows you to configure firewall and security settings.

System The **System** tab allows you to view system information, change your login information, and upgrade the firmware.

SMS From the **SMS** tab, you can sent and receive SMS text messages, as well as USSD (Unstructured Supplementary Service Data) codes, sometimes called "Quick Codes" or "Feature Codes."

Quick Access

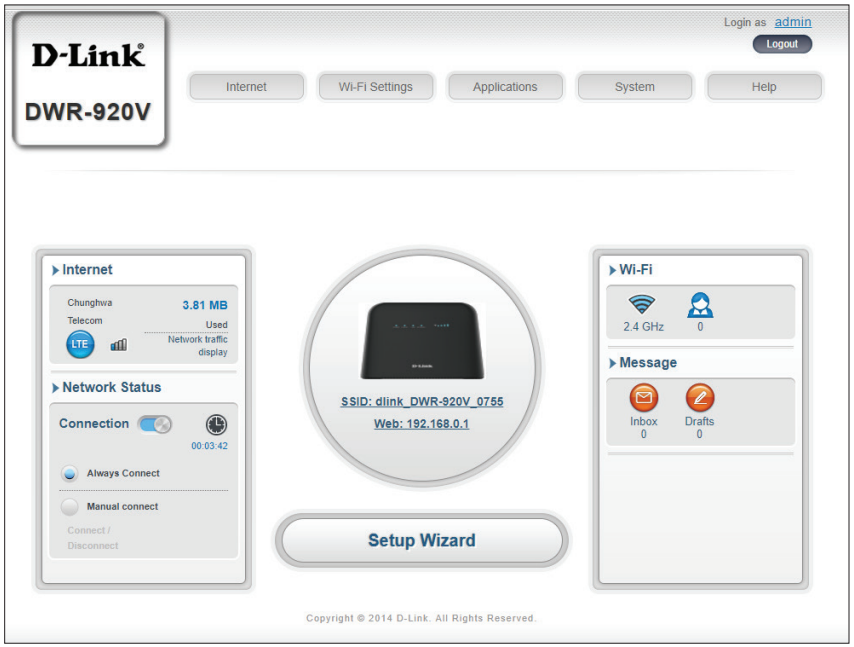
A quick access page will be displayed on the initial home page for the DWR-920V. The headings below link through to windows where you can alter settings in more detail.

Internet This area displays your Internet provider, the type of Internet service you are using, signal strength, and your current data usage.

Network Status This area displays the length of connection time and allows you to change between **Always Connect** and **Manual Connect**.

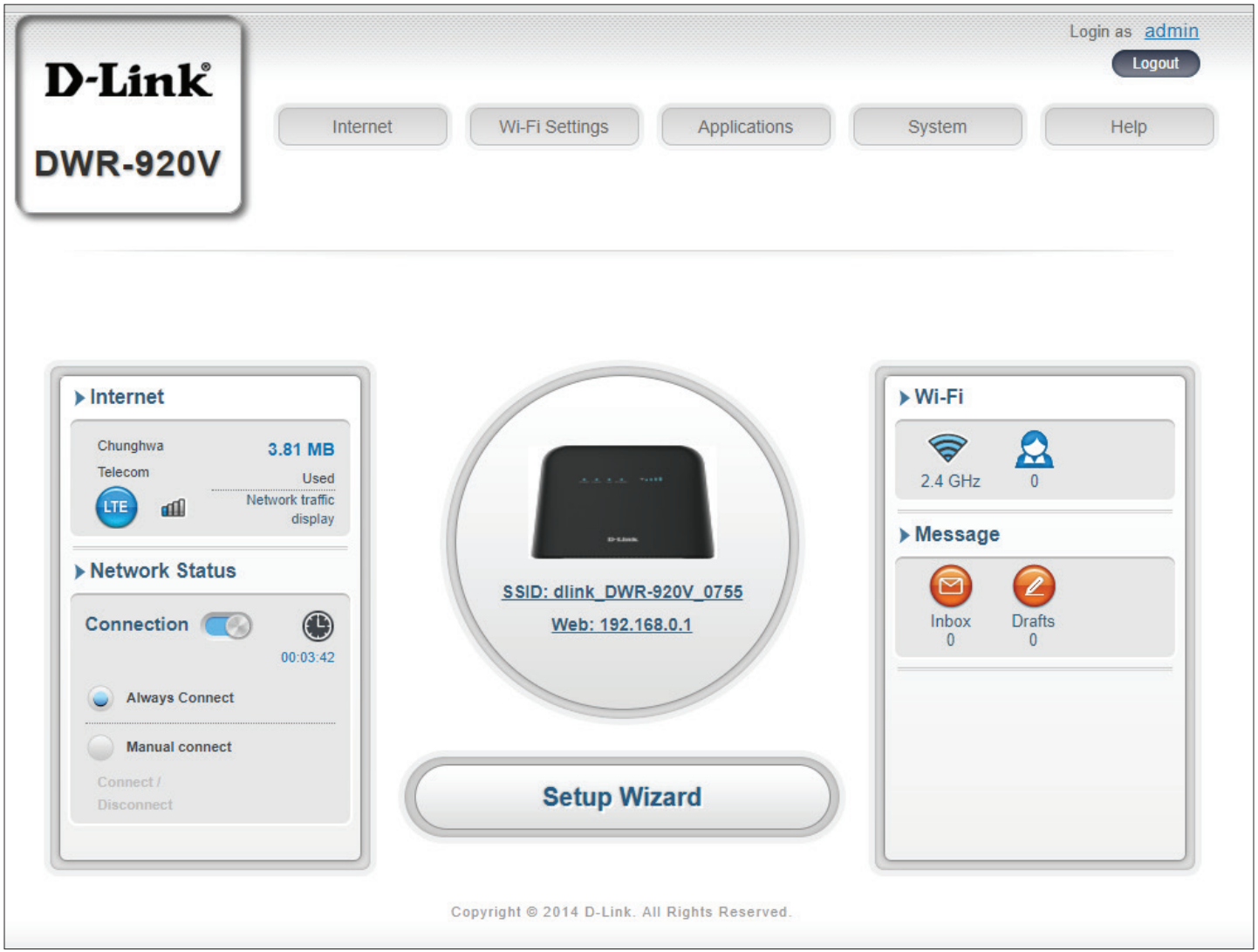
Wi-Fi The Wi-Fi section displays the number of devices currently connected to the router via Wi-Fi.

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



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

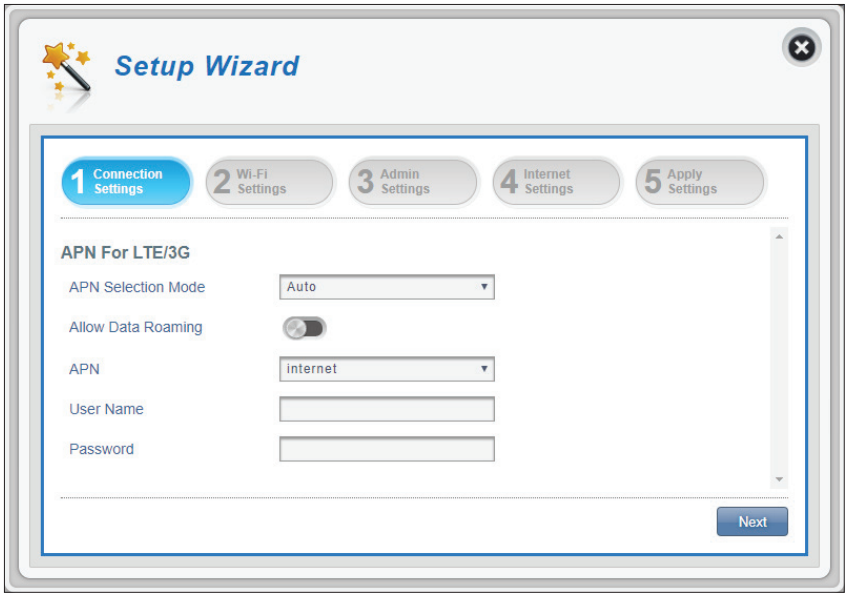
APN For LTE/3G

APN Selection Mode Choose to either automatically or manually select an APN (Access Point Name).

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.



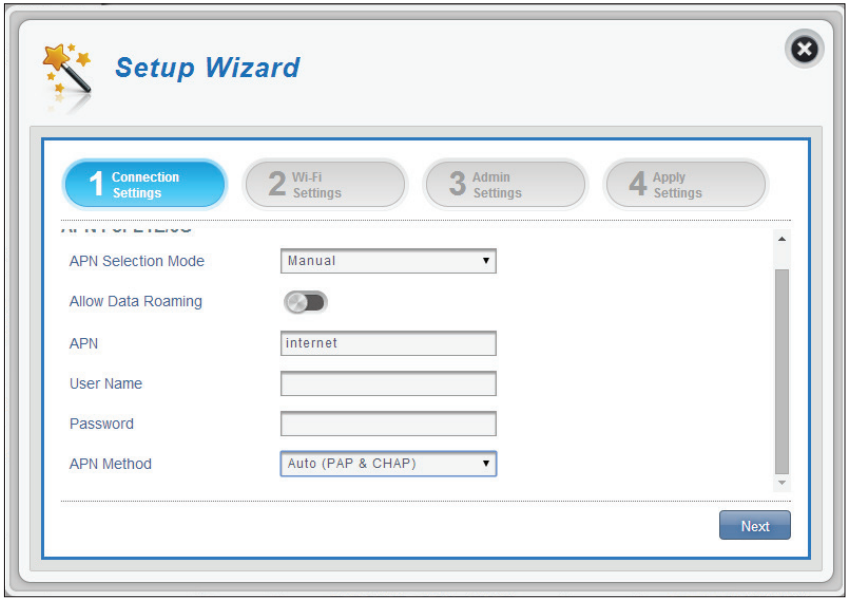
If you choose to manually select an APN, a drop down menu for the APN Method will be available for selection.

Auto (PAP & CHAP) Detect the correct combination of authentication. 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.

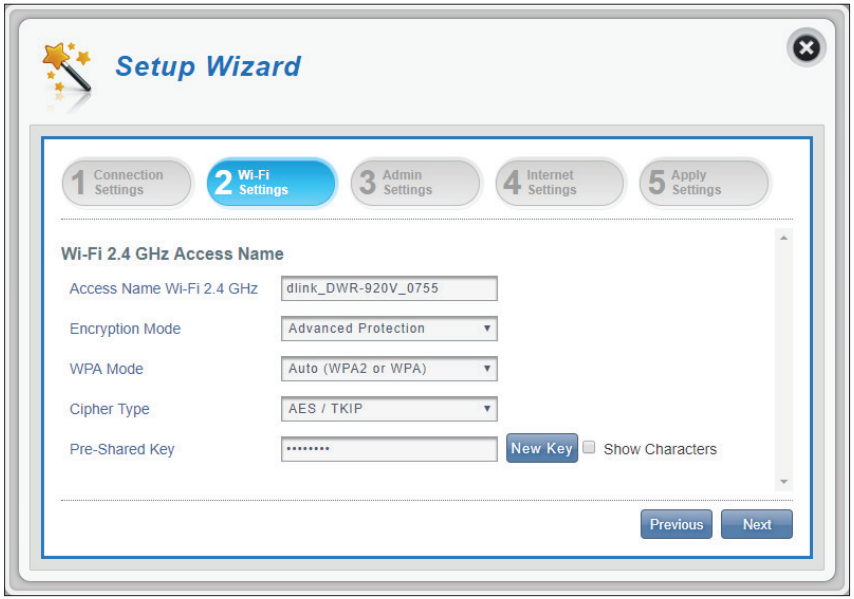
Click **Next** to move to the next section.



Wi-Fi Status

In this section you have the option of changing your Wi-Fi access name and password as well as security features, which help protect your network from unwanted intruders.

Wi-Fi 2.4 GHz Access Name



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

Encryption Mode By default encryption mode is set to **Advanced Protection**. You may change this to **Basic Protection** or **No Protection** but it is not recommended.

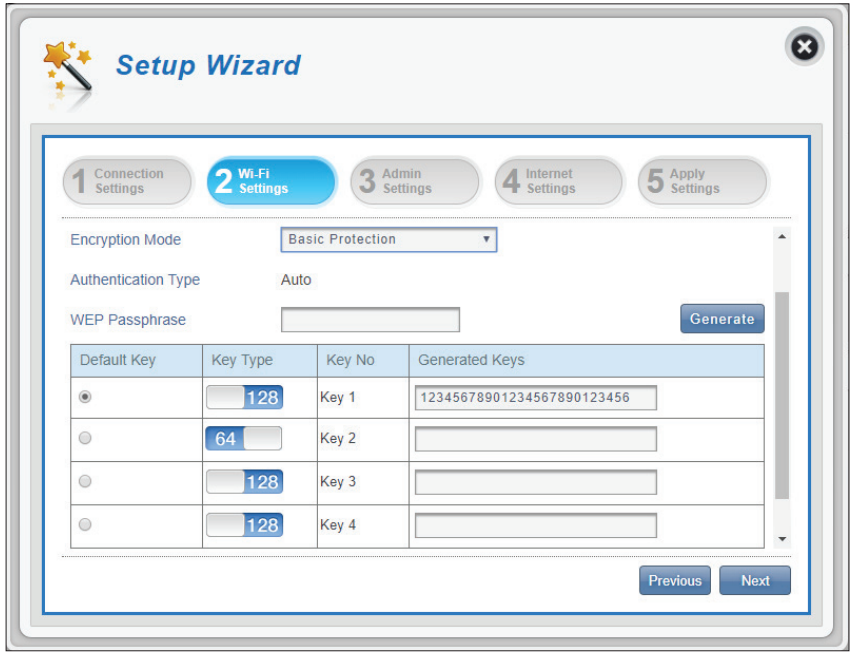
WPA Mode **Auto (WPA or WPA2)** - The router will automatically determine the version of WPA to be used based on the client that is connecting to it.
WPA2 - Clients will only be able to associate with the router using the WPA2 standard. Clients which do not support WPA2 will not be able to associate 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 best speeds and maximum security.

AES/TKIP - TKIP is an encryption method commonly used by older devices. Select this option for greater compatibility with old and new devices.

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.

If you selected Basic Protection Encryption Mode:



Authentication Type: **Shared** - The encryption key is used for authentication as well as to encrypt data packets.

WEP Passphrase: Enter your passphrase to be used when connecting to the router. Once you have entered a passphrase, click **Generate** to create keys automatically, or enter them manually below.

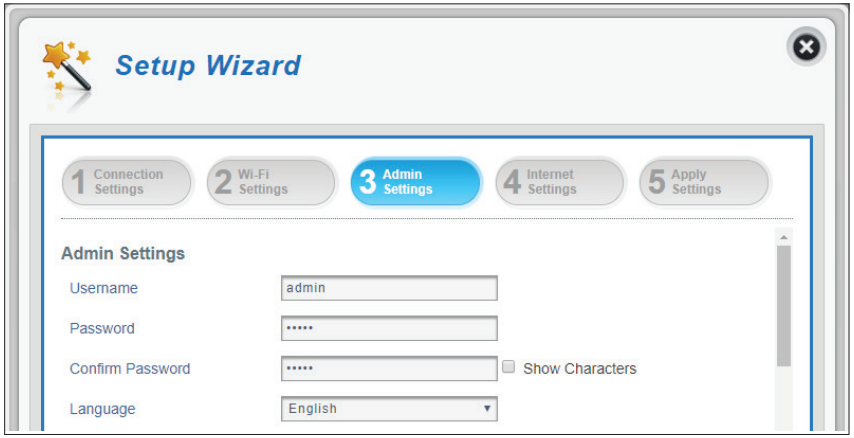
Default Key 1-4: You can predetermine up to 4 WEP keys. Select the WEP key you wish to use by clicking on the radial buttons next to the keys. Select whether you wish to use **64 bit** or **128 bit** characters in your key using the slider menu. Enter the desired key in the field provided.

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, as well as the time and date.

Admin Settings



Username Enter your desired username here.

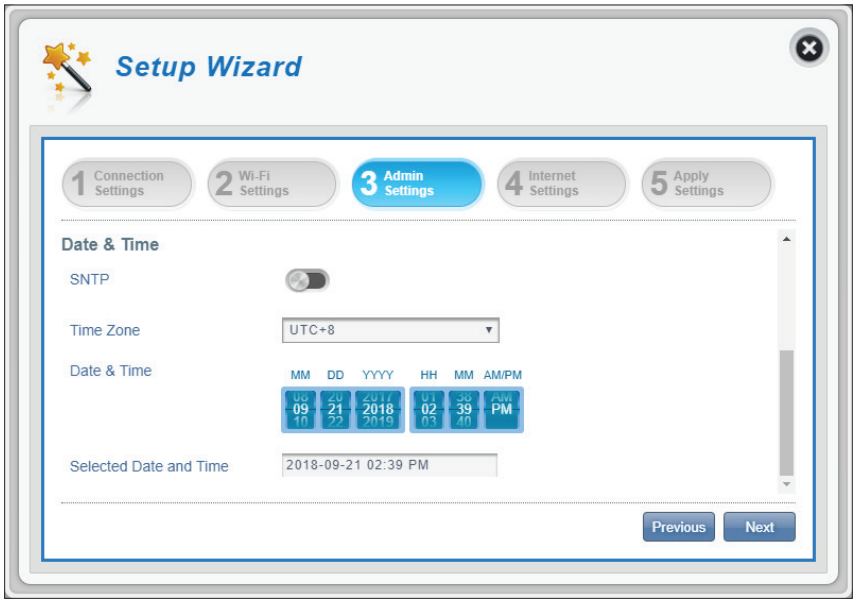
Password Enter your desired password here.

Confirm Password: Re-enter your password to confirm.

Language Select your desired interface 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:

Time Zone Select your current time zone relative to UTC (Coordinated Universal Time).

Date & Time Adjust the dials on the screen with your mouse cursor or pointer to set the time and date.

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

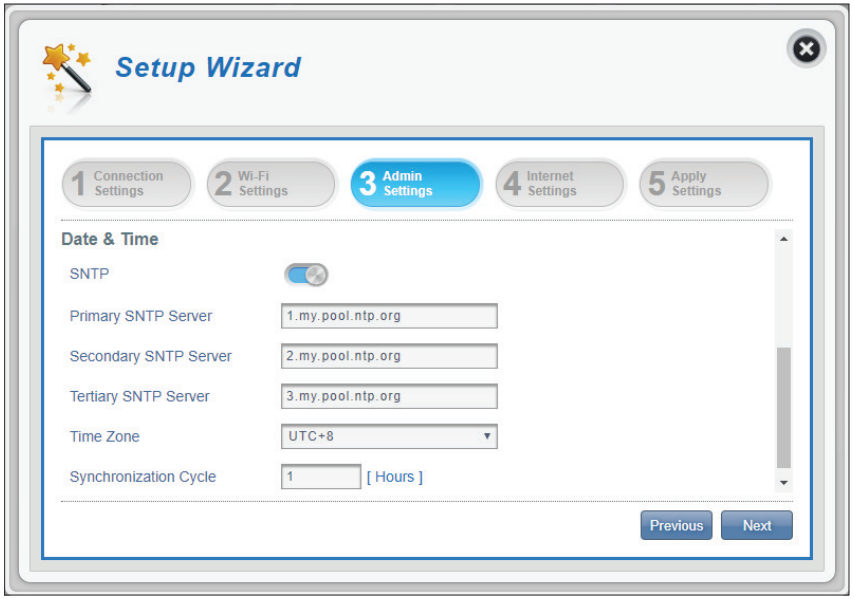
If SNTP is Enabled:

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

Time Zone Select your current time zone relative to UTC (Coordinated Universal Time).

Synchronization Cycle You can specify in hours how frequently the DWR-920V will synchronize with the SNTP server.

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



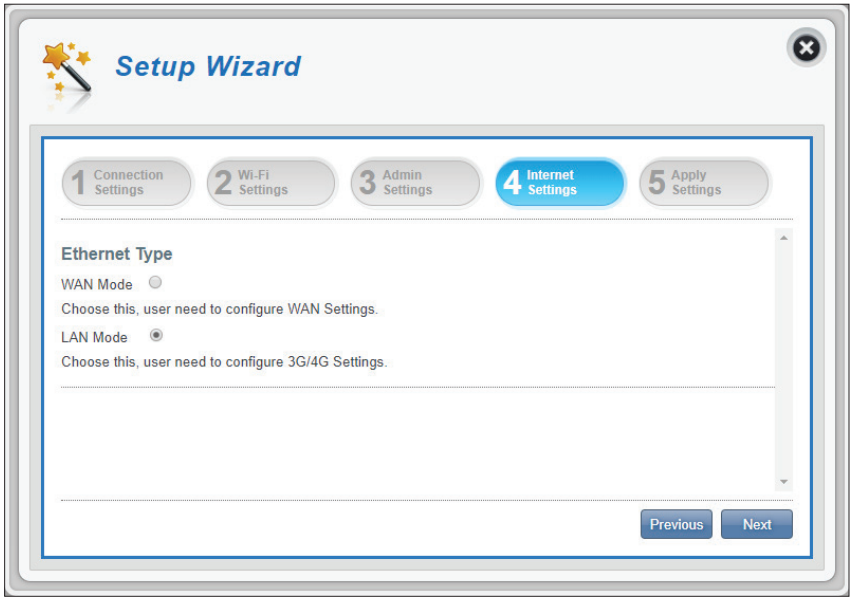
Internet Settings

On this page you can configure your Ethernet connection. This would be used if you have an Internet connection from a DSL, Cable, or other external source. Note that by default, the 4G connection is used as your primary connection. If you are not sure which settings to use, please contact your Internet Service Provider (ISP).

Ethernet Type

WAN Mode Choose this to utilize and configure WAN Settings.

LAN Mode Choose this to utilize 3G/4G.



WAN Mode

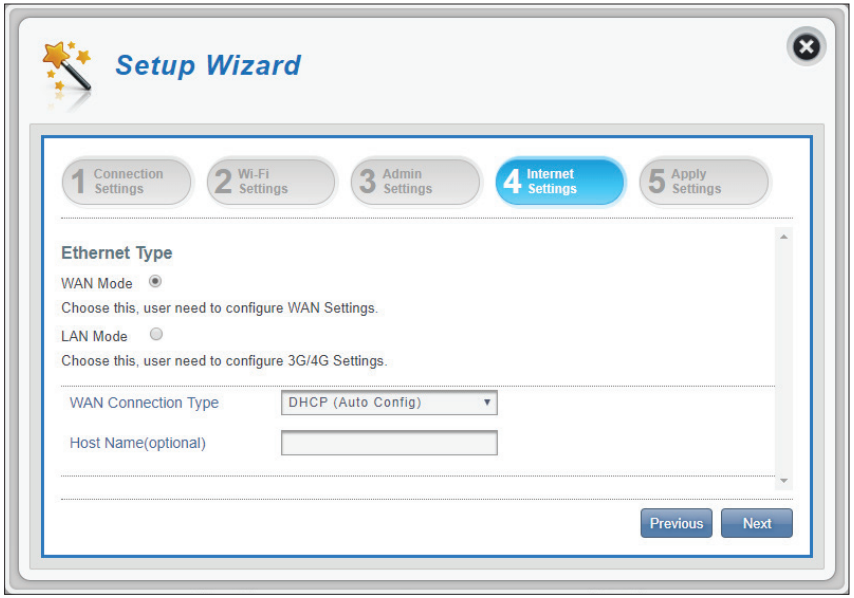
Select an Internet connection type for your Ethernet WAN. This information should be provided by your ISP.

If you have chosen Dynamic IP, see **WAN Connection Type - DHCP (Auto Config) on page 22**.
If you have chosen Static IP, see **WAN Connection Type - Static IP Address Connection on page 22**.
If you have chosen PPPoE, see **WAN Connection Type - PPPoE (ADSL) on page 23**.

WAN Connection Type - DHCP (Auto Config)

Choose this if your Internet connection automatically provides you with an IP Address. Most cable modems use this type of connection.

Host Name (optional) Enter the host name for your router or computer. This is optional.



WAN Connection Type - Static IP Address Connection

Choose this if your Internet Setup Provider provided you with IP Address information that has to be manually configured.

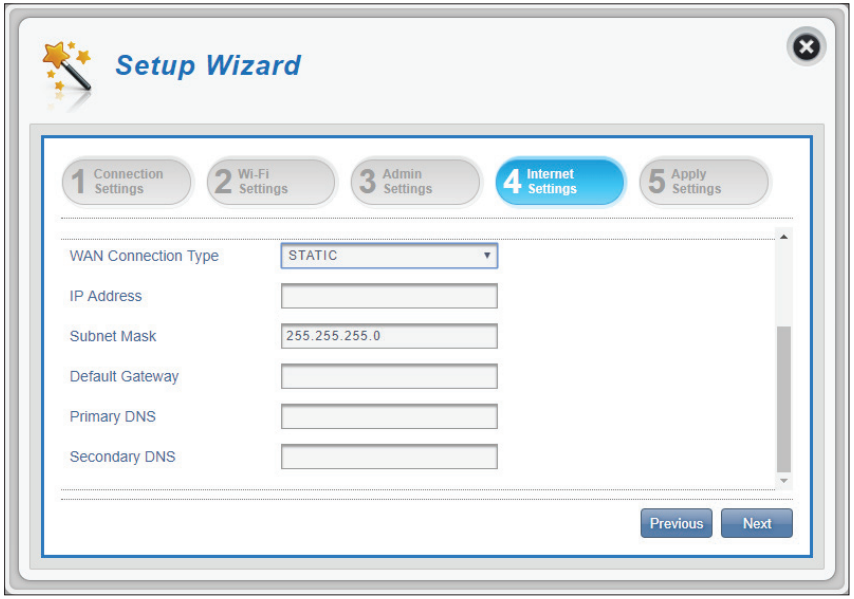
IP Address Enter the IP Address assigned to your network connection.

Subnet Mask Enter the subnet mask.

Default Gateway Enter the default gateway.

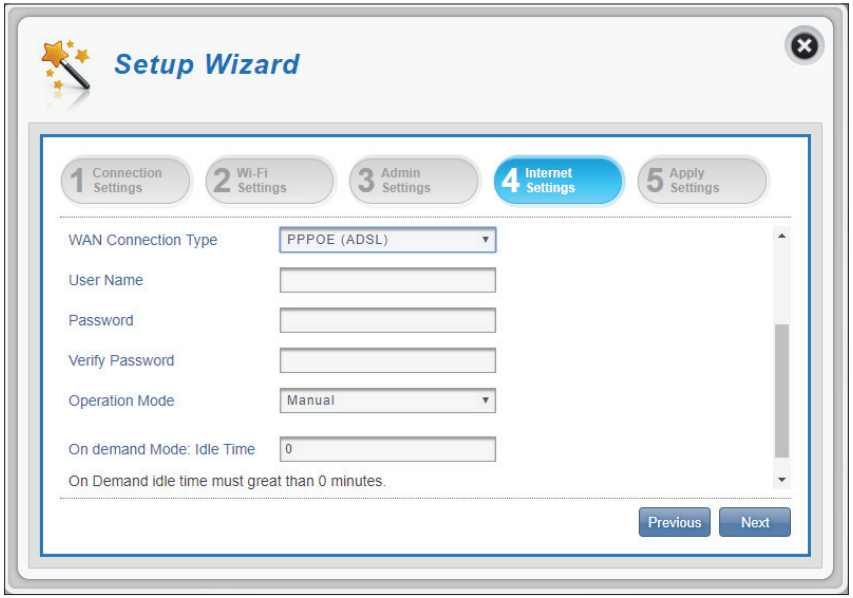
Primary DNS Enter the primary DNS server.

Secondary DNS Enter the secondary DNS server.



WAN Connection Type - PPPoE (ADSL)

Choose this option if your Internet connection requires a username and password to connect. Most DSL modems use this style of connection.



Username The username/account name that your ISP provides to you for PPPoE dial-up.

Password The password that your ISP provides to you for PPPoE dial-up.

Verify Password Type in the previous password again for verification.

Operation Mode Specify whether the connection should be **Manual** or to **Keep Alive**. This determines under what circumstances the connection is dialed.

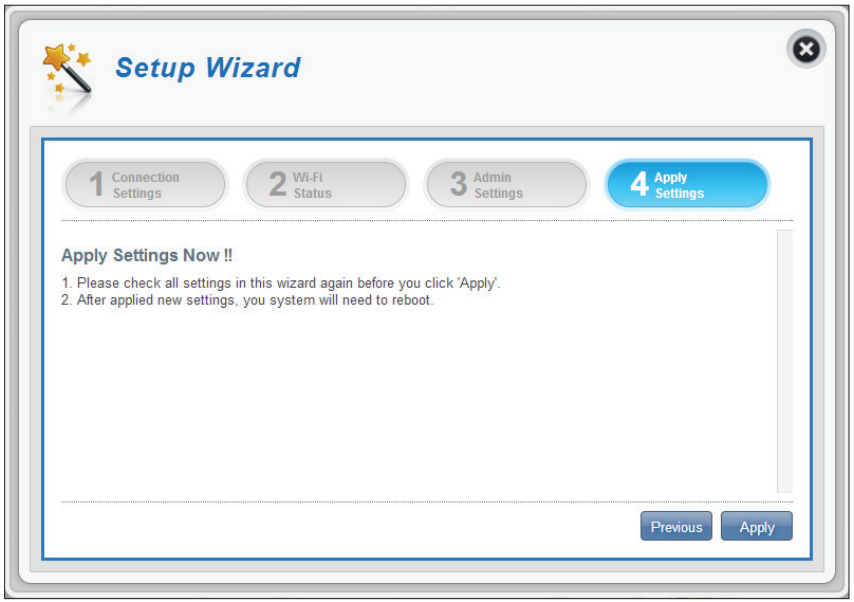
On demand Mode: Idle Time This option is available if Manual Operation Mode is chosen. This establishes the amount of time of inactivity before disconnecting an established PPPoE session. The On Demand idle time must be greater than 0 minutes.

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

Apply Settings

Check all settings in the wizard and click **Apply**. After applying your settings, your router will need to reboot.

Click **Apply** to save changes.



Internet Settings
Network Status

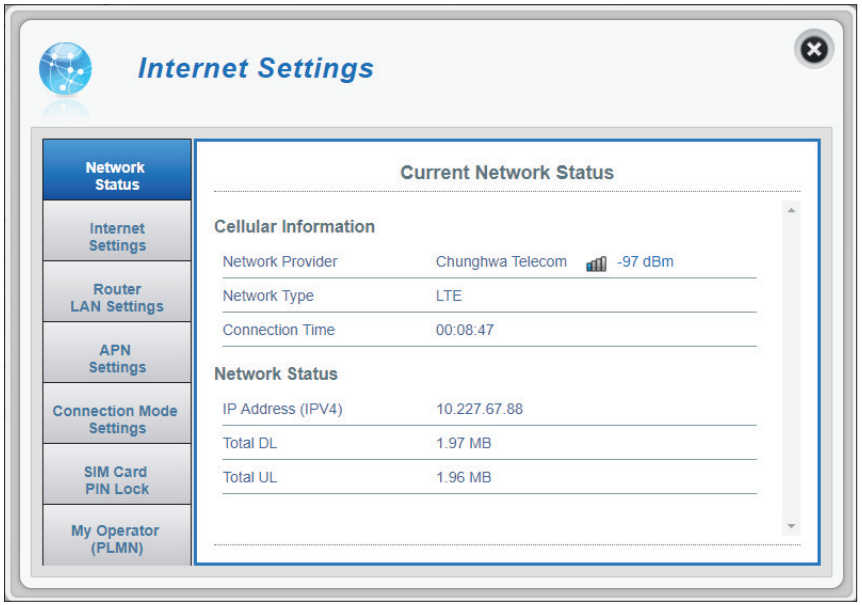
In this section you can check your current network status as well as your network provider and data usage.

Cellular Information

Network Provider Displays your current network provider and signal strength.

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

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 the total amount of downloaded data.

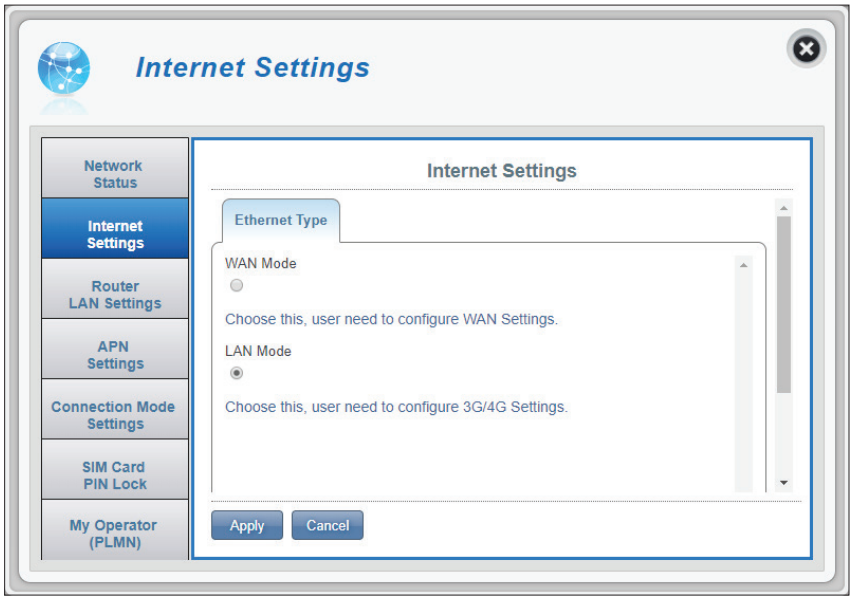
Total UL Displays the total amount of uploaded data.

Note: These counters may be reset when the battery or SIM/UICC card is removed.

Internet Settings

On this page you can configure your Ethernet connection. This would be used if you have an Internet connection from a DSL, Cable, or other external source. Note that by default, the 4G connection is used as your primary connection. If you are not sure which settings to use, please contact your Internet Service Provider (ISP).

For more information, refer to **Internet Settings** on page 21.



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-920V 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-920V as well as configure its DHCP settings.

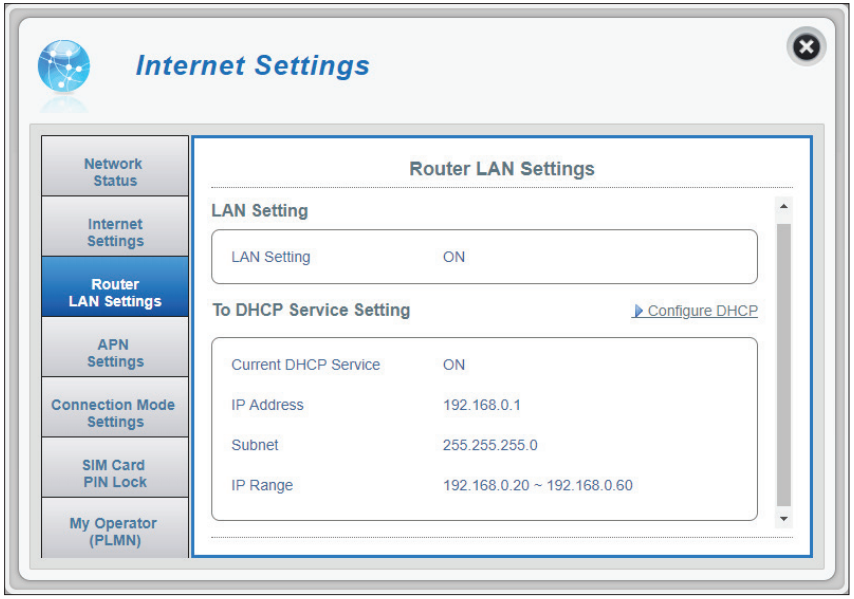
Configure DHCP This button takes you through to DHCP Settings where you can configure your IP address and IP range.

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.

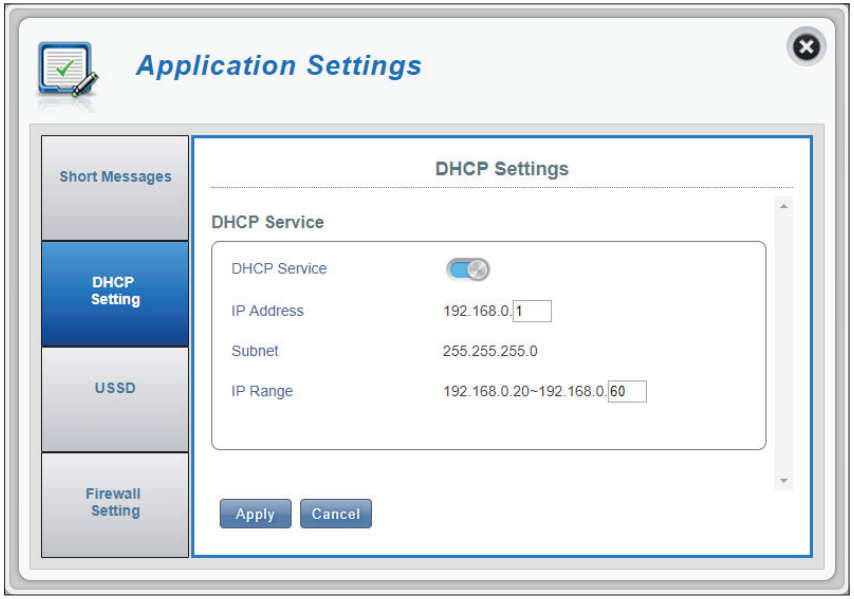
IP Range The range of numbers that the DHCP server will give out.



If you selected Configure DHCP:

DHCP Service

Here you can configure the IP address for the DWR-920V, as well as the range of IP numbers that the DHCP will give out.



DHCP Service Enable/disable the DHCP Server.

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.

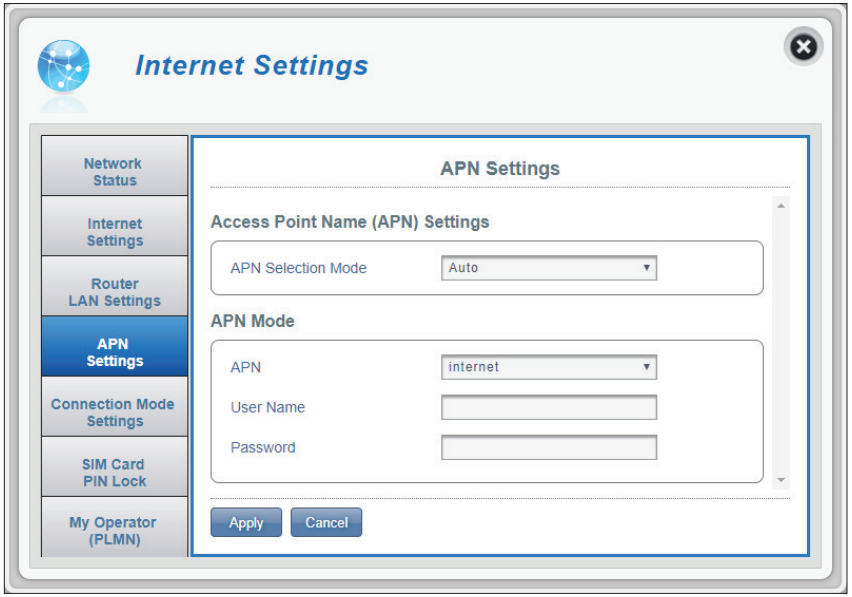
IP Range Click on the last two digits to alter the range of numbers that the DHCP server will give out.

Click **Apply** to save changes.

APN Settings

In this section you can configure your Access Point Name (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

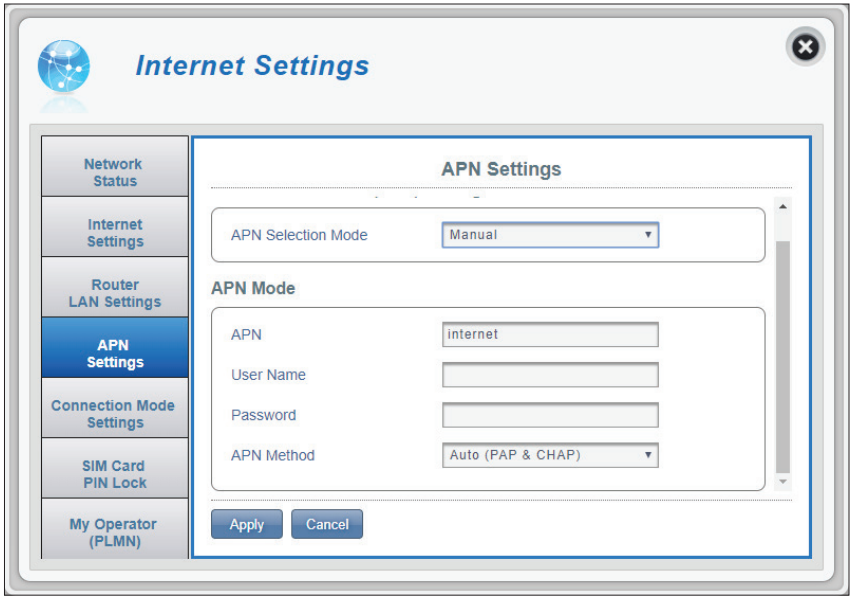
Auto - Select this option if you want the DWR-920V to automatically connect to a mobile network after it has been powered on, or has been disconnected from its current mobile network.

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

Click **Apply** to save changes.

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. If no options are available, use the manual configuration on the previous page.

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.

Connection 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

Enabling this if you want to allow data roaming. Data roaming lets you use an Internet connection internationally or outside of you Internet provider's coverage. Enabling this feature may lead to very high data charges. Check with your provider for details.

Network Status

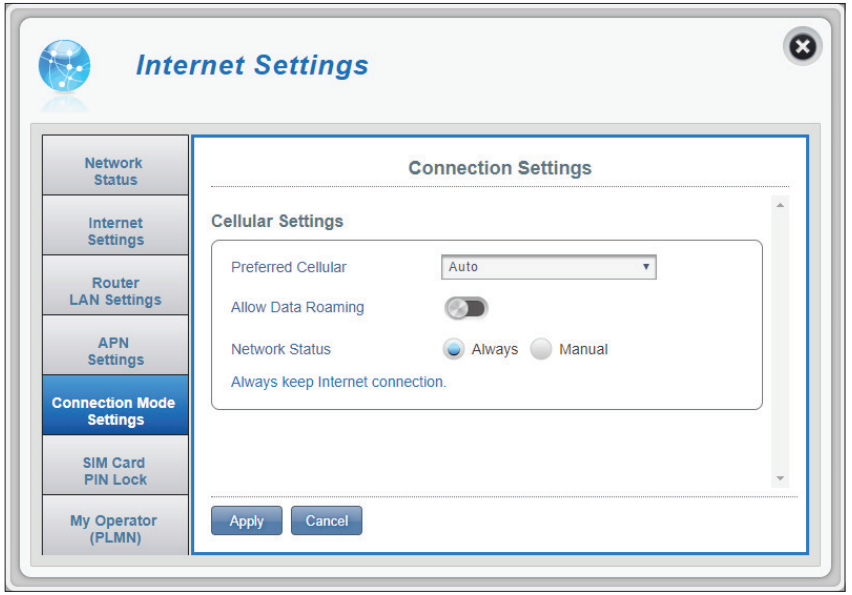
Choose between **Always** or **Manual** for connecting to the Internet.

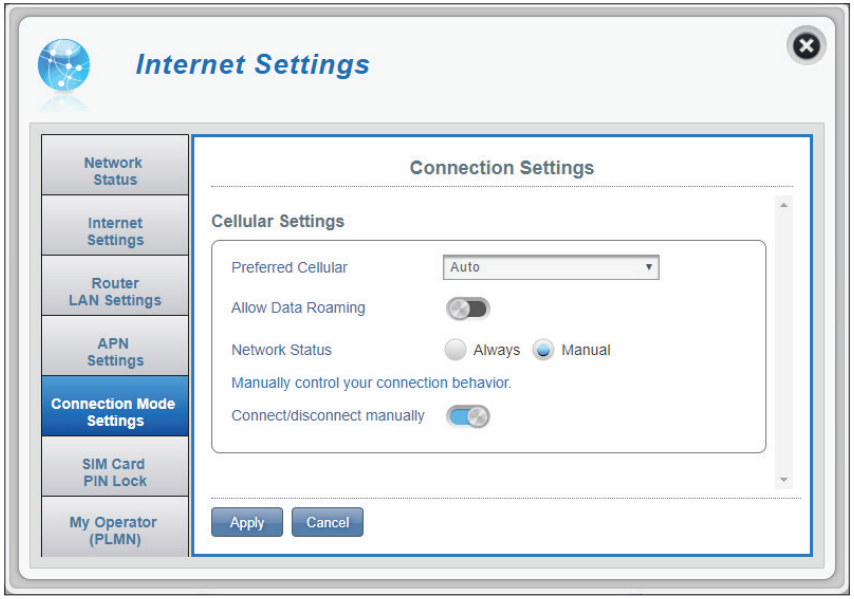
If you selected Manual Connection Mode:

Connect/disconnect manually

Toggle the switch to enable/disable your Internet connection.

Click **Apply** to save changes.





SIM/UICC Card PIN Lock Settings

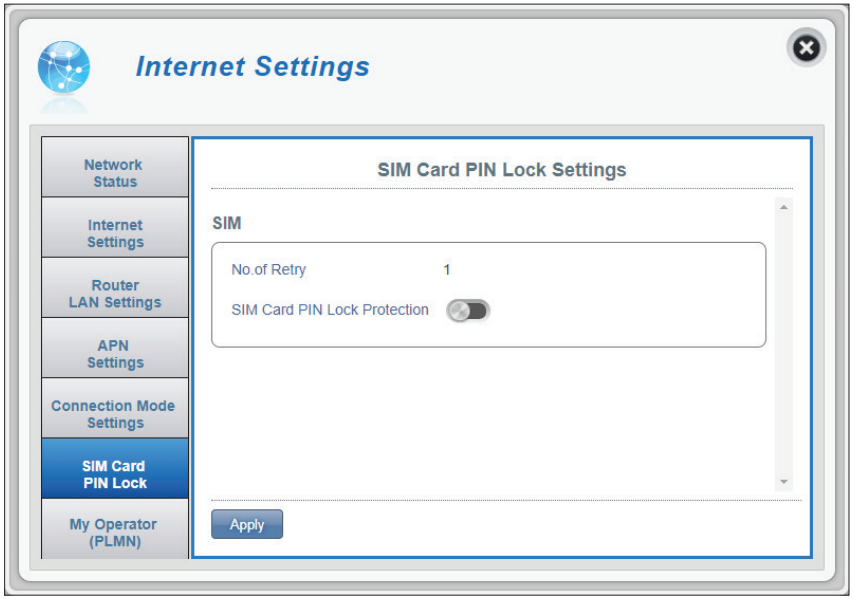
This section allows you to lock the SIM/UICC card currently inserted into the DWR-920V.

SIM/UICC

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

Note: *If you exceed the number of retries, your SIM/UICC card will be locked and can only be unlocked by your operator.*

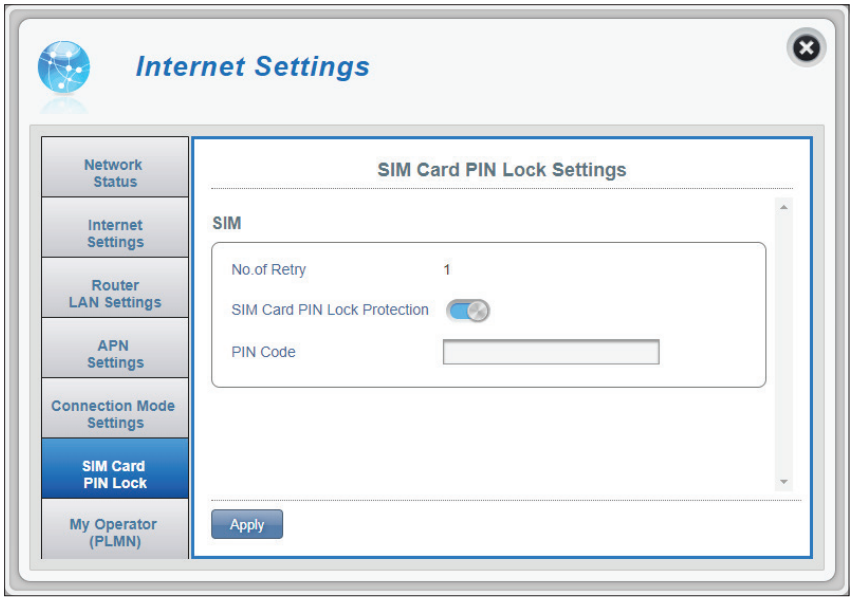
SIM/UICC Card PIN Lock Protection Move the toggle to enable **SIM/UICC card PIN Lock Protection.** In order to use this function you need to know the PIN of the SIM/UICC card.



If you enabled SIM/UICC Card PIN Lock Protection:

PIN Code Enter your SIM/UICC'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.

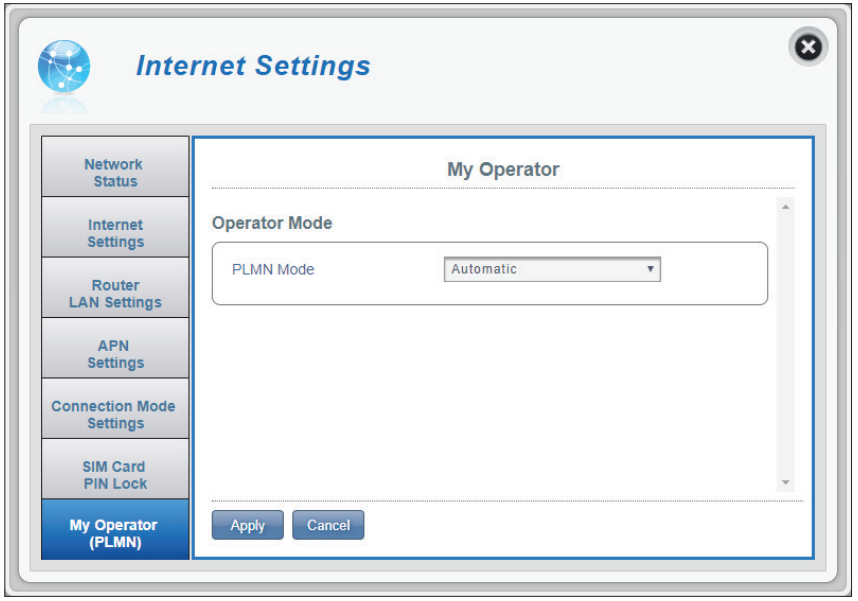
Operator Mode (PLMN)

PLMN Mode Displays the current mode the DWR-920V is operating in.

Select **Automatic** to allow the DWR-920V to automatically connect to the first available network when roaming.

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

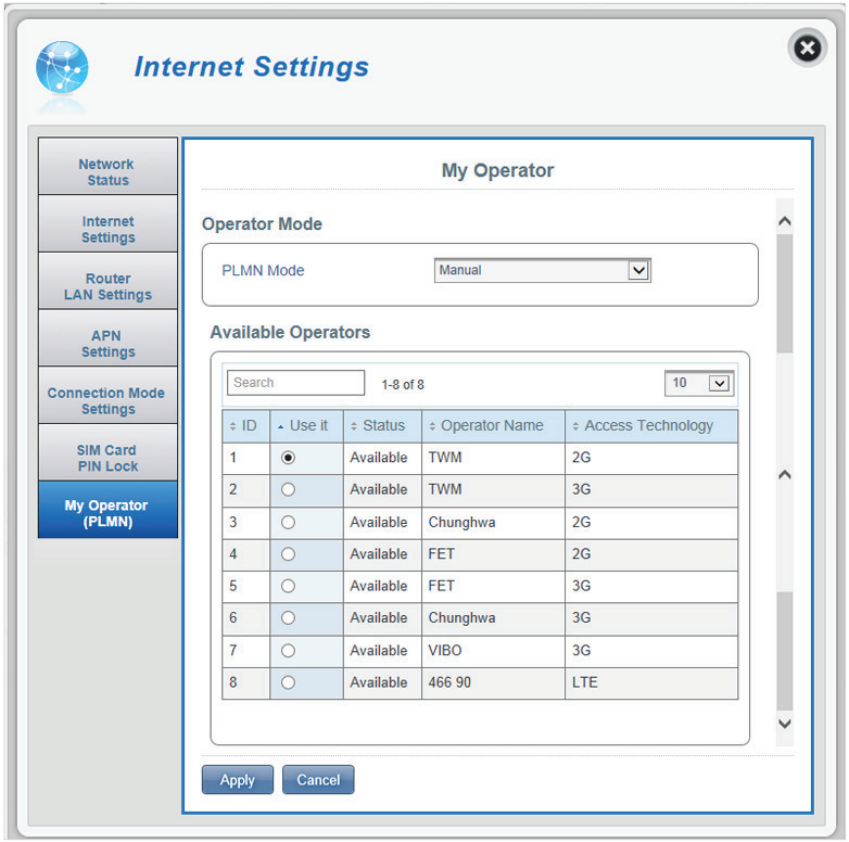
Click **Apply** to save changes.



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 The cellular network's access technology.

Click **Apply** to save changes.