D-Link®

Version 1.00 | 10/20/2015

User Manual

TAIPAN AC3200 Ultra Wi-Fi Modem Router DSL-4320L

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
1.00	October 20, 2015	Initial release

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Power Usage

ErP Power Usage

This device is an Energy Related Product (ErP) that 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: 11.612 watts

Switched Off: .02 watts

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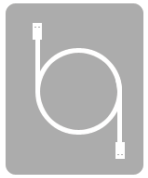
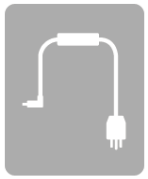
Package Contents

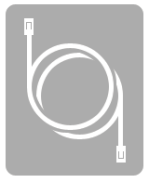
DSL-4320L TAIPAN AC3200 Ultra Wi-Fi Modem Router



DSL Phone Cable



Splitter



Ethernet Cable

Power Adapter

Wi-Fi Configuration Card

D-Link Cloud Service Mobile Apps Guide

Quick Installation Guide

Wall Mount Hardware

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

Note: *Using a power supply with a different voltage rating than the one included with the DSL-4320L will cause damage and void the warranty for this product.*

System Requirements

Network Requirements	• An Ethernet-based cable or DSL modem • 802.11ac, n, g, b, or a wireless or Ethernet port
Web-based Configuration Utility Requirements	**Computer with the following:** • Windows®, Macintosh, or Linux-based operating system • An installed Ethernet adapter **Browser Requirements:** • Internet Explorer 9 or higher • Firefox 20 or higher • Safari 5.1 or higher • Chrome 25 or higher **Windows® Users:** Make sure you have the latest version of Java installed. Visit www.java.com to download the latest version.

mydlink Requirements	• iPhone/iPad/iPod touch (iOS 6.0 or higher)
	• Android device (2.3 or higher)
	• Computer with the following browser requirements:
	  • Internet Explorer 9 or higher
	  • Firefox 20 or higher
	  • Safari 5.1 or higher
	  • Chrome 25 or higher
	
	iPhone, iPad, and iPod touch are registered trademarks of Apple Inc. Android is a trademark of Google, Inc.

Introduction

The D-Link DSL-4320L TAIPAN AC3200 Ultra Wi-Fi Modem Router shares your DSL Internet connection over a blazing-fast Wireless AC connection using advanced AC beamforming technology to maximize the speed and range of your wireless signal to significantly outperform 802.11n and other 802.11ac devices. It also comes equipped with four Gigabit ports to provide speeds up to 10x faster than standard 10/100 ports. With the addition of Advanced Quality of Service (QoS), data streams are separated, which helps organize and prioritize your network traffic so your video streaming, gaming, and VoIP calls run smoother over both your wired and wireless network.

The TAIPAN AC3200 Ultra Wi-Fi Modem Router is mydlink-enabled, which gives you access to your home network no matter where you go. Now you can monitor and manage your home network right from your laptop, iPhone®, iPad®, or Android™ device. mydlink-enabled routers can be configured to send an email to keep you informed anywhere, anytime when new devices are connecting to your network or unwanted access is detected. Monitor in real-time websites that are being visited with recent browser history displayed on the mydlink™ Lite app – which is great for parents.

SharePort technology lets you take advantage of the USB 3.0 port found on the back of your DSL-4320L (as well as an additional USB 2.0 port). Plug in a USB storage drive and you can use the mydlink SharePort™ app for iPad®, iPhone®, iPod touch®, and Android™ device to access files, stream videos, view photos, or listen to music on your laptop or mobile devices.

The DSL-4320L TAIPAN AC3200 Ultra Wi-Fi Modem Router provides incredible speeds, smart antenna technology, fast ports, cloud features, and terrific security features. It also features an innovative design and easy installation options.

Features

- **Faster Wireless Networking** - The DSL-4320L introduces Smart Connect, a new D-Link feature which when combined with an additional 5 Ghz antenna can provide up to a full 3200 Mbps* wireless connection with concurrent 801.11ac and 802.11n wireless clients . It also operates on both the 2.4 GHz and 5 GHz bands to allow separation of traffic so users can participate in high-bandwidth activities, such as video streaming, online gaming, and real-time audio, without affecting low-priority traffic like email and web surfing.

- **Cloud Features** - The DSL-4320L is mydlink-enabled so you can remotely access and mange your DSL-4320L from a mobile device using the mydlink Lite app. The mydlink SharePort™ app can be used to share files, stream videos, view photos, and play music. SharePort Plus lets you share a printer.

- **Compatible with 802.11n/g/b/a Devices** - The DSL-4320L is still fully compatible with the 802.11n, IEEE 802.11g and 802.11a standards, so it can connect with existing 802.11n, 802.11g, 802.11b, and 802.11a wireless devices.

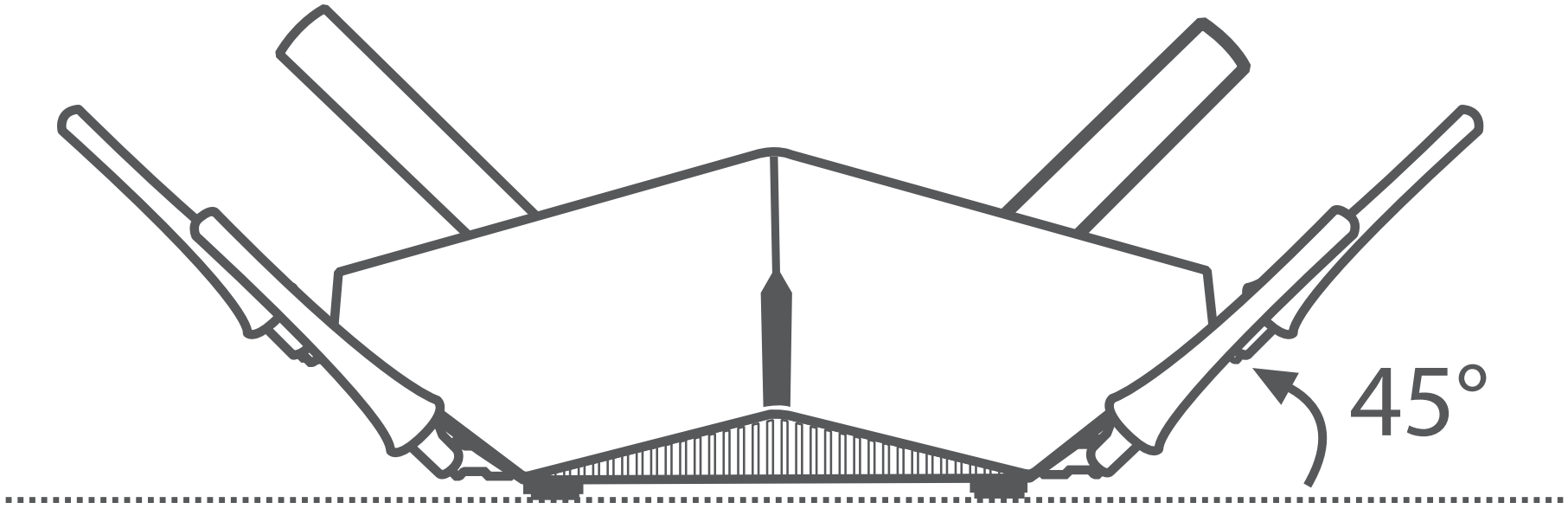
- **Advanced Firewall Features** - The web-based user interface displays a number of advanced network management features including:
    - **Content Filtering** - Easily applied content filtering based on MAC address, URL, and/or domain name.
    - **Scheduling** - The Firewall, wireless, and port forwarding features can be scheduled to be active on certain days, or for a duration of a set number of hours.
    - **Secure Multiple/Concurrent Sessions** - The DSL-4320L can pass through VPN sessions. It supports multiple and concurrent IPSec and PPTP sessions, so users behind the DSL-4320L can securely access corporate networks.

- **User-friendly Setup Wizard** - Through its easy-to-use web-based user interface, the DSL-4320L lets you control what information is accessible to those on the wireless network, whether from the Internet, or from your company's server. Configure your router to your specific settings within minutes.

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

Antenna Setup

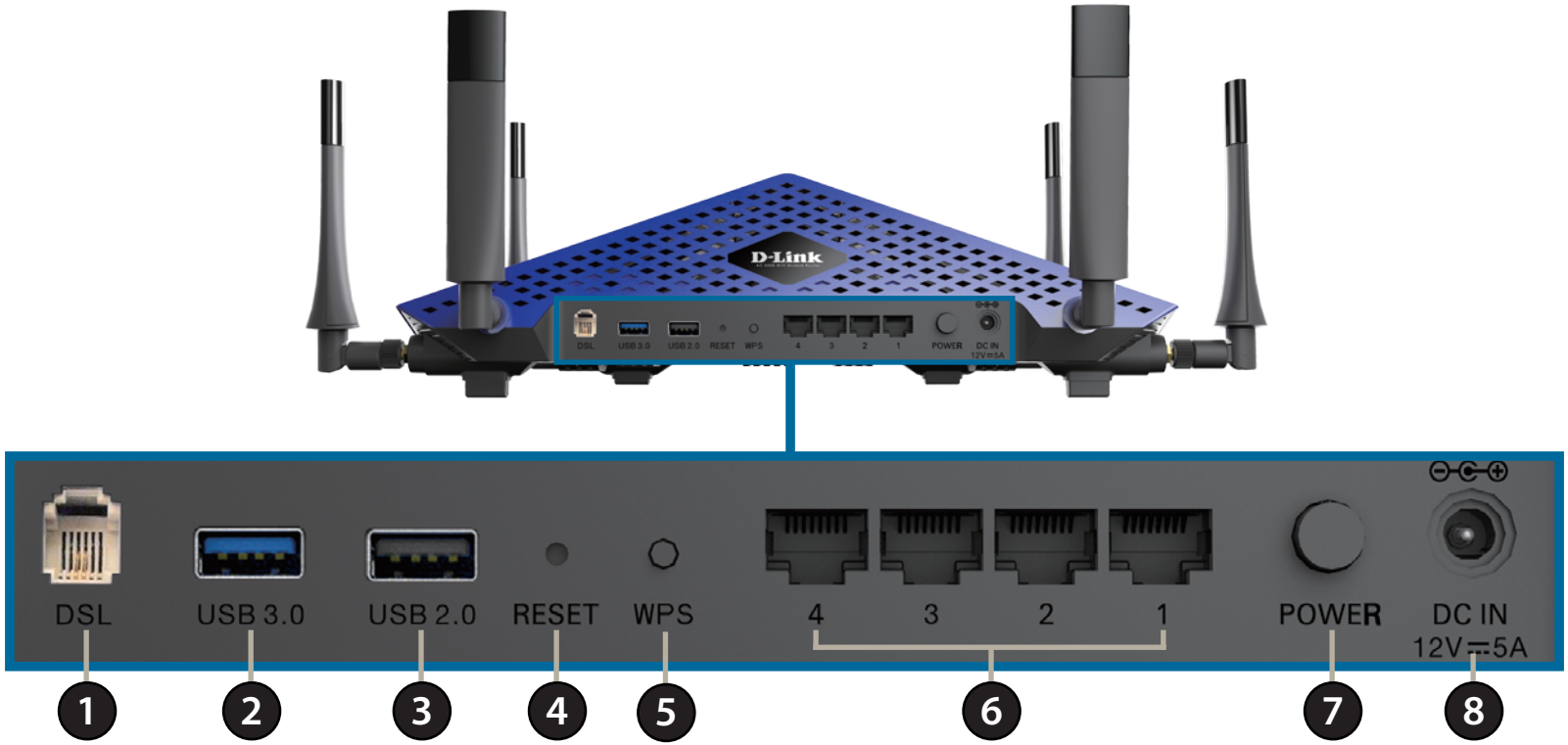
The DSL-4320L is designed to give you the fastest, most stable network connection possible. In order to maximize performance, orient the antennas at an angle, pointing outward and away from the base unit.



NOTE: Attach the antennas to the router before powering it on.

Hardware Overview

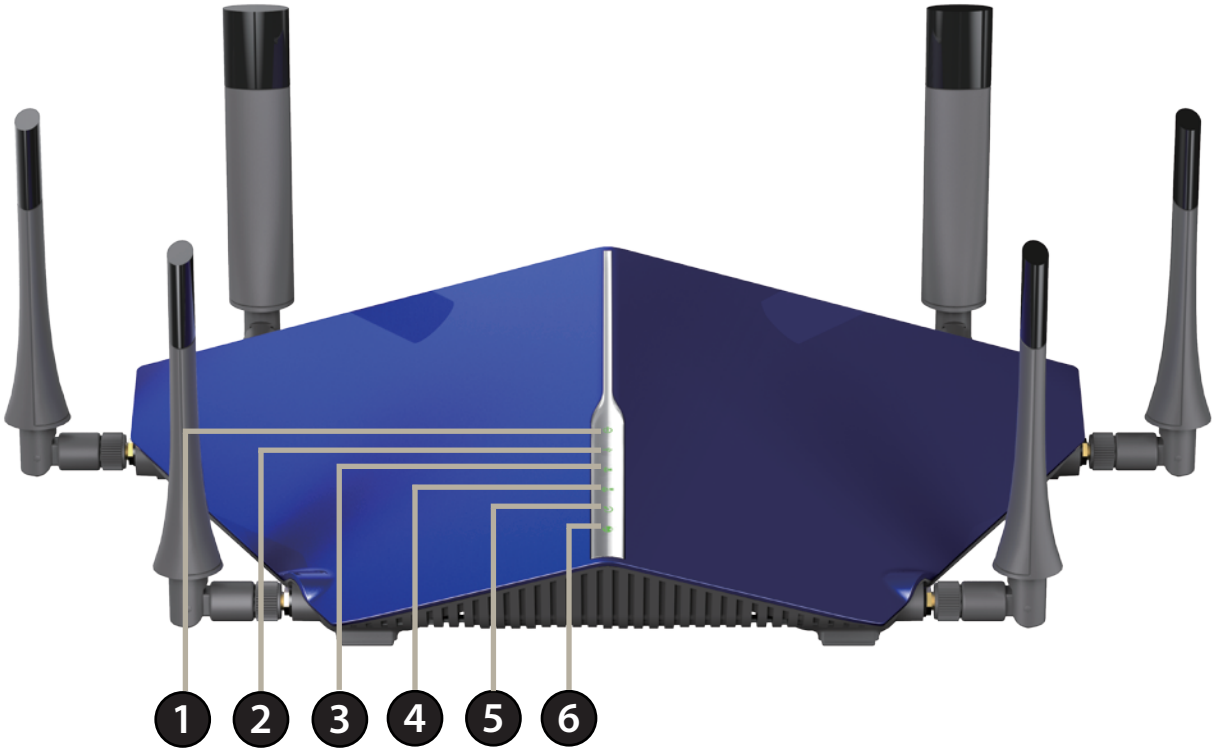
Connections



1	**DSL Port**	Connect to an DSL-enabled telephone line and with the supplied microfilter/splitter.
2	**USB 3.0 Port**	Connect a USB flash drive to share content , or connect it to a USB printer to share it on your network.
3	**USB 2.0 Port**	Connect a USB flash drive to share content , or connect it to a USB printer to share it on your network.
4	**Reset Button**	Insert a paperclip in the hole and wait for several seconds to reset the router to default settings.
5	**WPS Button**	Press to start the WPS process and automatically create a secure connection to a WPS client.
6	**Gigabit LAN Ports (1-4)**	Connect Ethernet devices such as computers, switches, storage (NAS) devices and game consoles.
7	**Power Button**	Press the power button to power on and off.
8	**Power Connector**	Connector for the supplied power adapter.

Hardware Overview

LEDs



1	**Power LED**	A solid green light indicates a proper connection to the power supply. The light will be solid red during boot up.
2	**USB 3.0/2.0 LED**	A solid green light indicates that a USB device was detected in the USB 3.0 port. A solid orange light indicates that a USB device was detected in the USB 2.0 port.
3	**Wireless (2.4 GHz) LED**	A solid green light indicates that the 2.4 GHz wireless band is enabled.
4	**Wireless (5 GHz) LED**	A solid green light indicates that the 5 GHz wireless band is enabled.
5	**DSL LED**	A solid green light indicates a proper connection to a DSL enabled telephone line.
6	**Internet LED**	A solid green light indicates a proper connection to a broadband service.

Installation

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

Note: This installation section is written for users who are setting up their home Internet service with the DSL-4320L TAIPAN AC3200 Ultra Wi-Fi Modem Router for the first time. If you are replacing an existing DSL modem and/or router, you may need to modify these steps.

Before you Begin

- Make sure to have your DSL service information provided by your Internet Service Provider handy. This information is likely to include your DSL account's Username and Password. Your ISP may also supply you with additional WAN configuration settings which are necessary to establish a connection. This information may include the connection type (DHCP IP, Static IP, PPPoE, or PPPoA) and/or ATM PVC details.

- If you are connecting a considerable amount of networking equipment, it may be a good idea to take the time to label each cable or take a picture of your existing setup before making any changes.

- We suggest setting up your DSL-4320L from a single device and verifying that it is connected to the Internet before connecting additional devices.

- If you have DSL and are connecting via PPPoE, make sure you disable or uninstall any PPPoE connection software such as WinPoET, BroadJump, or EnterNet 300 from your computer as the DSL-4320L will be providing this functionality.

Wireless Installation Considerations

The D-Link wireless router lets you access your network using a wireless connection from virtually anywhere within the operating range of your wireless network. Keep in mind that the number, thickness and location of walls, ceilings, or other objects that the wireless signals must pass through may limit the range. Typical ranges vary depending on the types of materials and background RF (radio frequency) noise in your home or business. The key to maximizing wireless range is to follow these basic guidelines:

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

2. Be aware of the direct line between network devices. A wall that is 1.5 feet thick (0.5 meters), at a 45-degree angle appears to be almost 3 feet (1 meter) thick. At a 2-degree angle it looks over 42 feet (14 meters) thick! Position devices so that the signal will travel straight through a wall or ceiling (instead of at an angle) for better reception.

3. Building materials make a difference. A solid metal door or aluminum studs may have a negative effect on range. Try to position access points, wireless routers, and computers so that the signal passes through drywall or open doorways. Materials and objects such as glass, steel, metal, walls with insulation, water (fish tanks), mirrors, file cabinets, brick, and concrete will degrade your wireless signal.

4. Keep your product away (at least 3-6 feet or 1-2 meters) from electrical devices or appliances that generate RF noise.

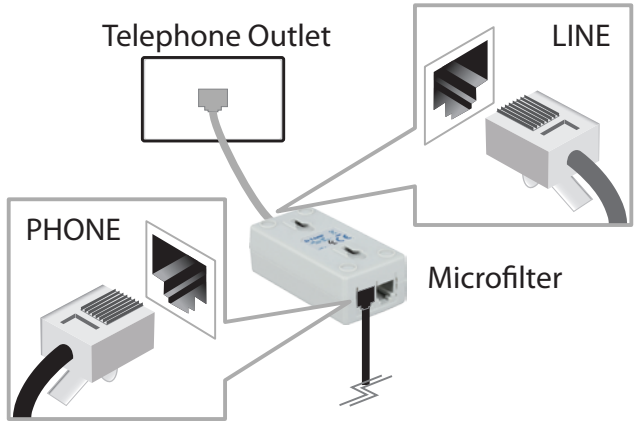
5. If you are using 2.4 GHz cordless phones or X-10 (wireless products such as ceiling fans, lights, and home security systems), your wireless connection may degrade dramatically or drop completely. Make sure your 2.4 GHz phone base is as far away from your wireless devices as possible. The base transmits a signal even if the phone is not in use.

Manual Setup

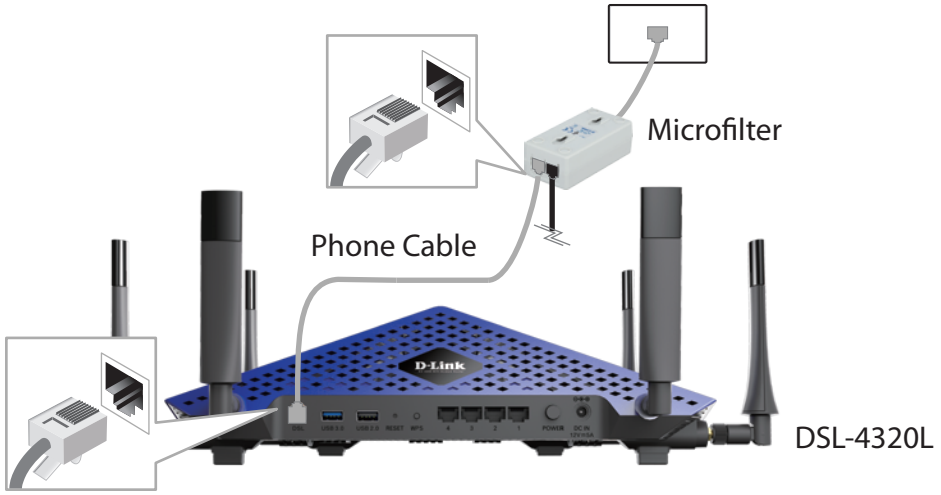
1. Position your router close to a wall jack which provides DSL service. Place the router in an open area of your intended work area for better wireless coverage.

2. Connect your existing phone cable from a telephone outlet to the LINE port on the Microfilter and your telephone handset into the PHONE port.

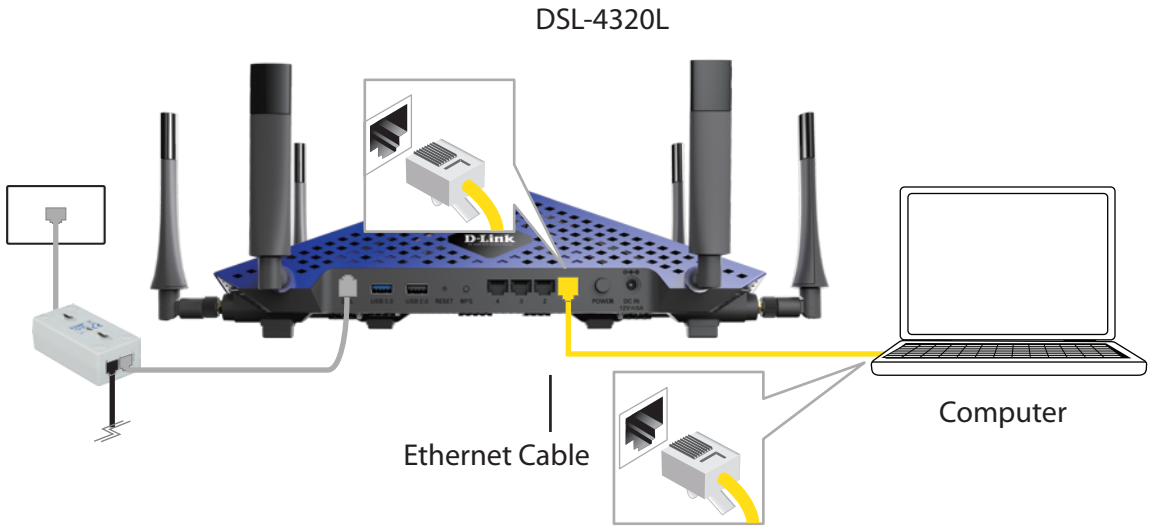
   Caution: *- To reduce the risk of fire, use only No. 26 AWG or larger telecommunication line cord.*



3. Connect the Phone cable from the DSL port on the Microfilter to the ADSL port of the modem router.

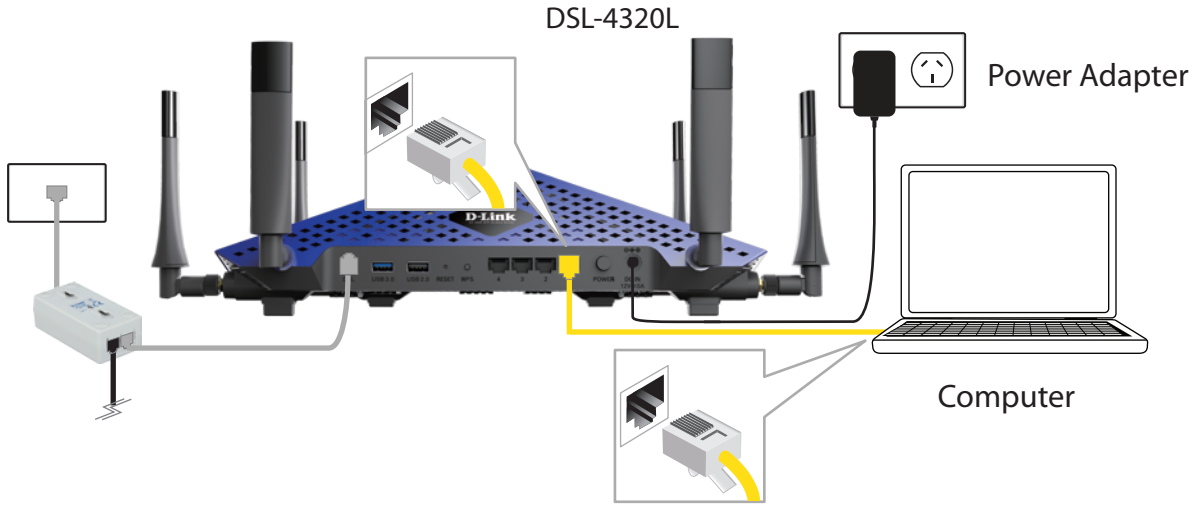


4 If you wish to use a wired connection, connect the Ethernet cable from a LAN port of the DSL-4320L to the Ethernet port on your computer.



5 Plug the power adapter into your modem router and connect to an available power outlet or surge protector.

Caution: *- Use only the included power adapter with this product.*



6 Press the power button and verify that the power LED is lit. Allow 1 minute for the router to boot up.

7 If connecting to the DSL-4320L wirelessly, access the wireless utility on your computer or mobile device. Scan for available Wi-Fi networks (SSID). Select and join a Wi-Fi network and use the password which corresponds to the information on the supplied Wi-Fi Configuration Card.

Getting Started

There are two ways you can configure your router to connect to the Internet and connect to your clients:

- **D-Link Setup Wizard** - This wizard will launch when you log into the router for the first time. Refer to page "Setup Wizard" on page 14.

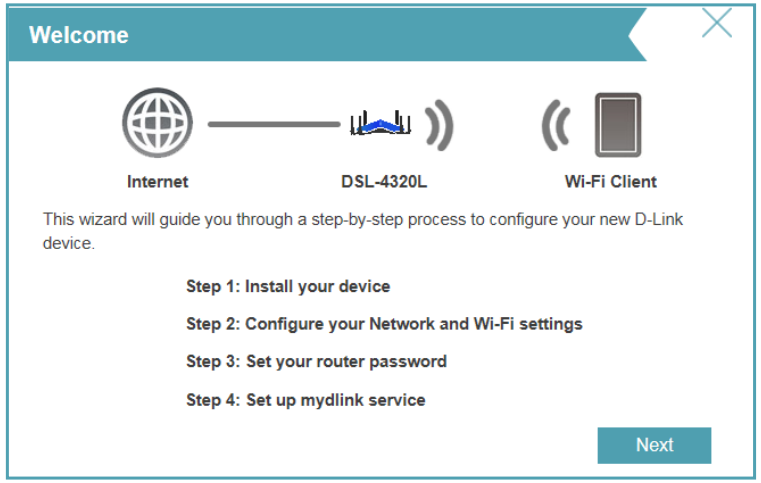
- **Manual Setup** - Log into the router and manually configure your router. Refer to "Configuration" on page 61.

Setup Wizard

If this is your first time installing the router, open your web browser and enter **http://dlinkrouter.local./** in the address bar. Alternatively, enter the IP address of the router (default: **http://192.168.1.1**).

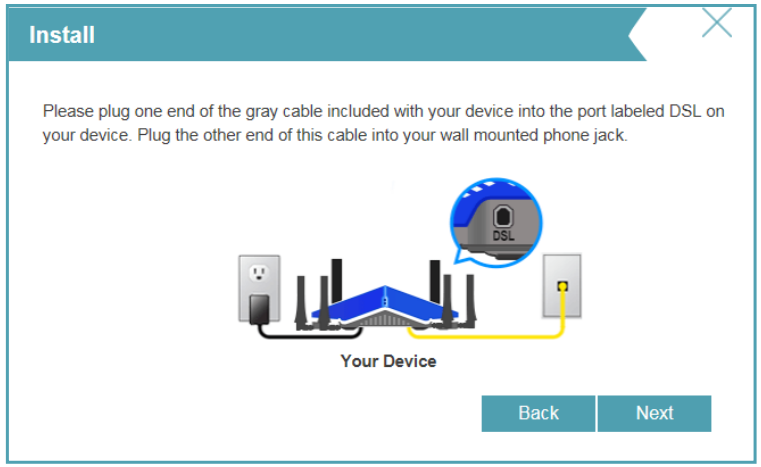
The wizard is designed to guide you through a step-by-step process to configure your new D-Link router and connect to the Internet.

Click **Next** to continue.



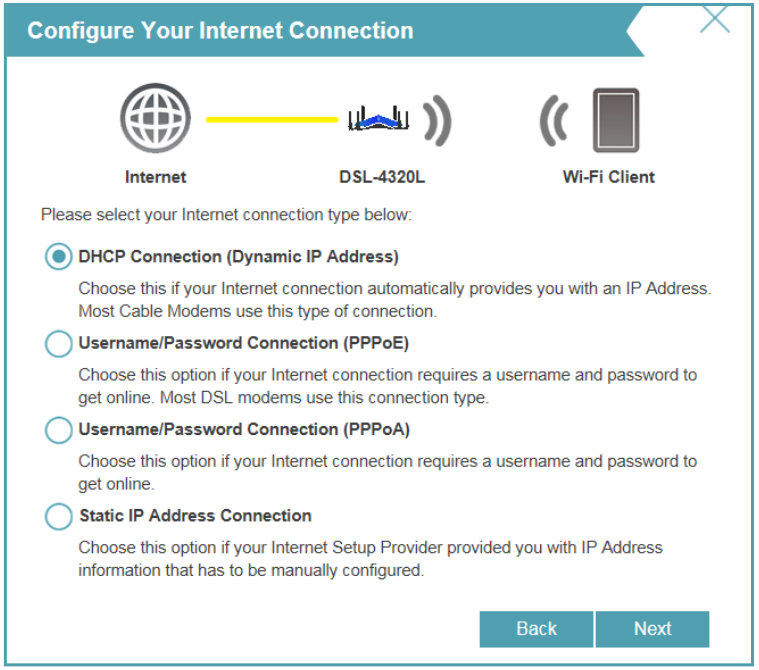
Ensure that your DSL phone cable is connected to both the router and the wall jack.

Click **Next** to continue.



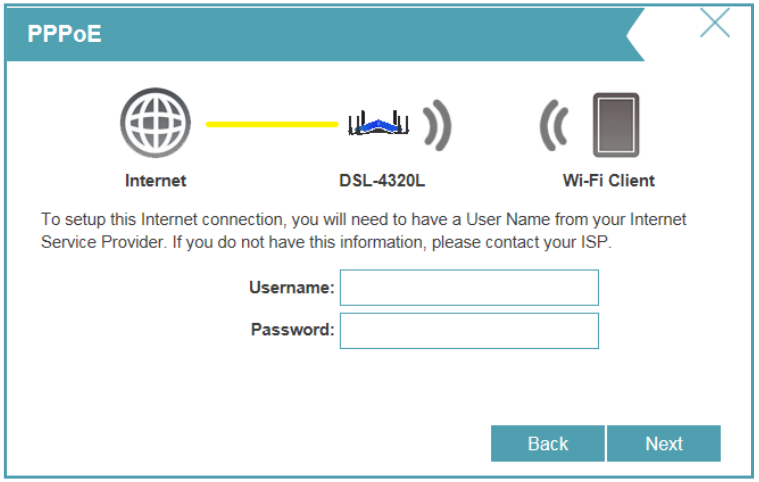
If the router does not detect a valid Internet connection, a list of connection types to choose from will be displayed.

Select your Internet connection type (this information can be obtained from your Internet Service Provider) and click **Next** to continue.



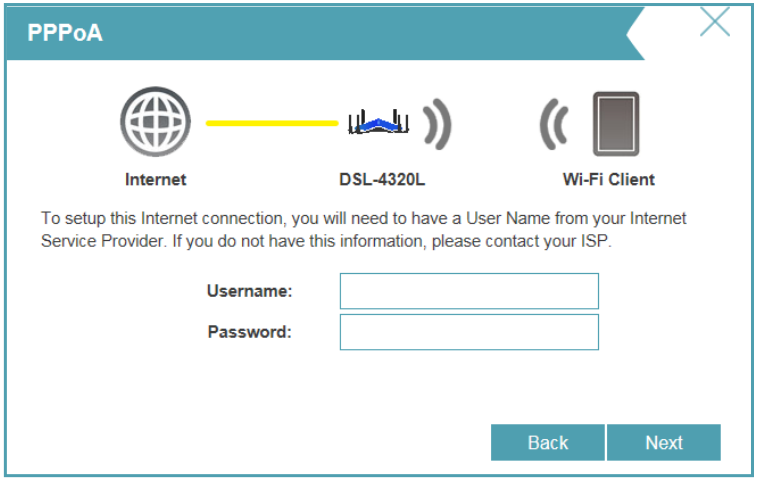
If the router detected or you selected **PPPoE**, enter your PPPoE username and password and click **Next** to continue.

Note: *Make sure to remove your PPPoE software from your computer. The software is no longer needed and will not work through a router.*

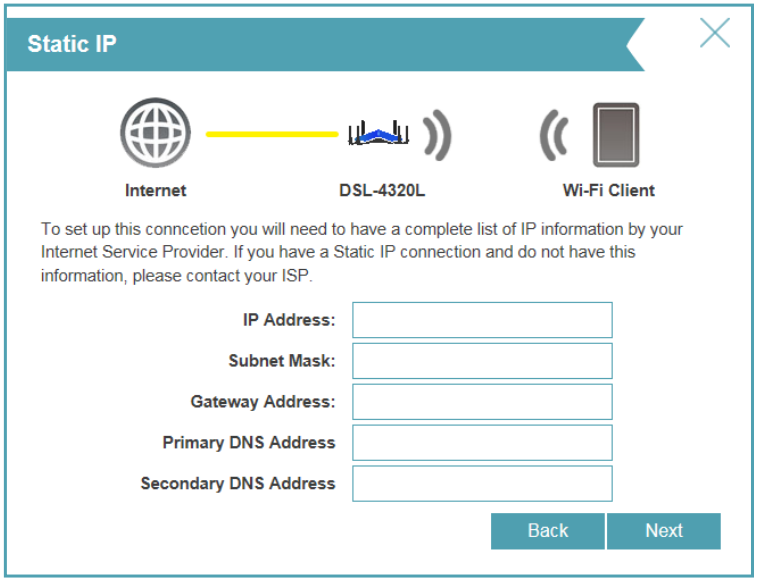


If the router detected or you selected **PPPoA**, enter your PPPoA username and password and click **Next** to continue.

Note: *Make sure to remove your PPPoA software from your computer. The software is no longer needed and will not work through a router.*



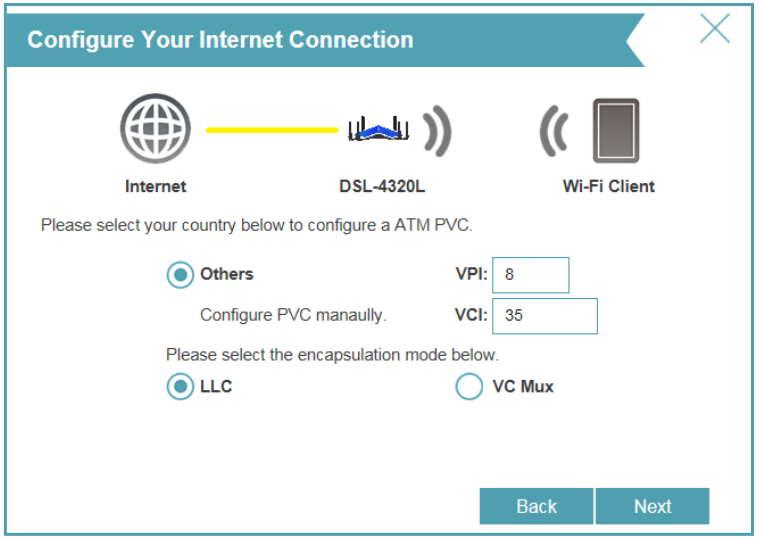
If the router detected or you selected **Static**, enter the IP and DNS settings supplied by your ISP. Click **Next** to continue.



You may be prompted to confirm the Asynchronous Transfer Mode Permanent Virtual Circuit (ATM PVC) settings. We suggest using the default Virtual Path Identifier (VPI), Virtual Channel Identifier(VCI), and Logical Link Control (LLC) encapsulation settings unless directed by your ISP.

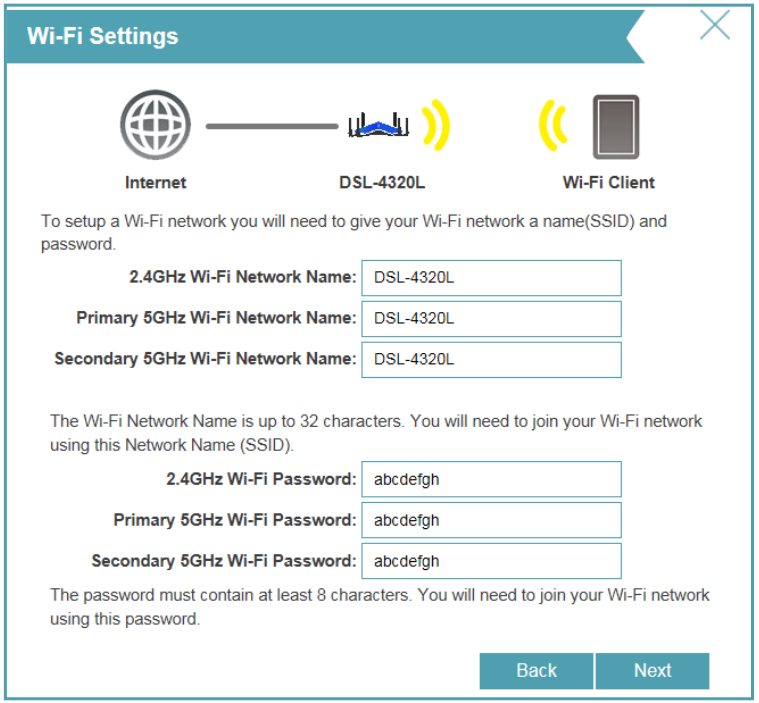
These settings may be adjusted later from the Web Configuration Utility. For more information refer to "ATM" on page 79.

Click **Next** to continue.

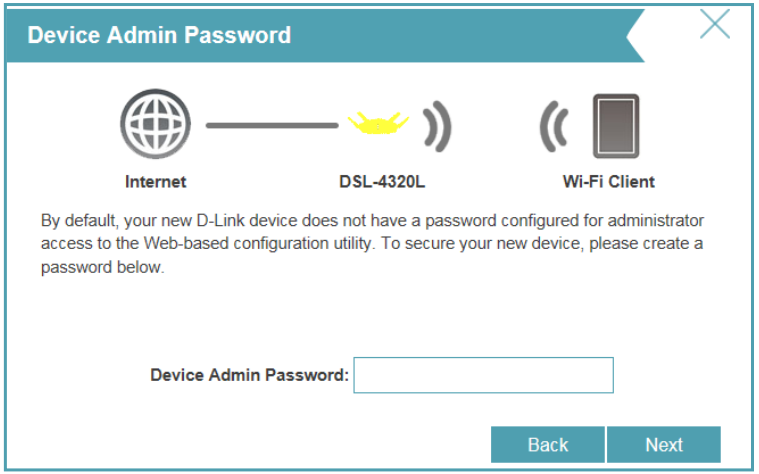


Create a Wi-Fi password (between 8-63 characters). Your wireless clients will need to have this passphrase or key entered to be able to connect to your wireless network.

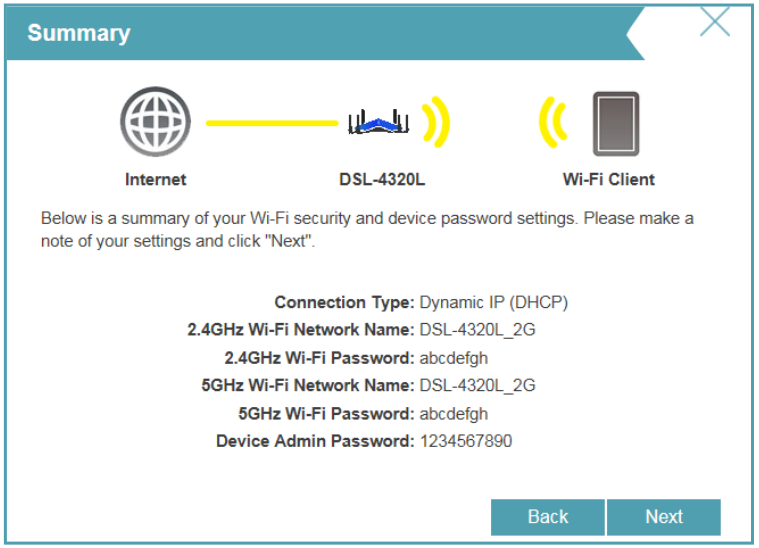
Click **Next** to continue.



In order to secure the router, please enter a new password. You will be prompted for this password every time you want to use the router's web configuration utility. Click **Next** to continue.

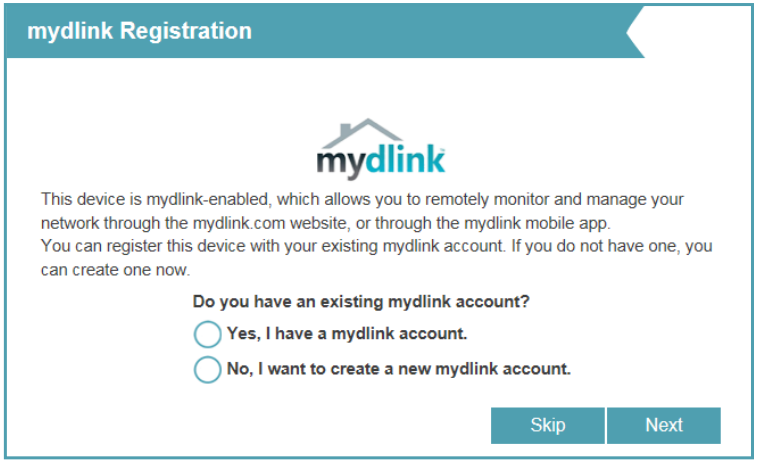


The Summary window will display your settings. Click **Next** if you are satisfied, or click **Back** to make changes to them.



To use the mydlink service (mydlink.com or the mydlink Lite app), you must have an account. Select **Yes** if you have a mydlink account already, or **No** if you want to create one. Click **Next** to continue.

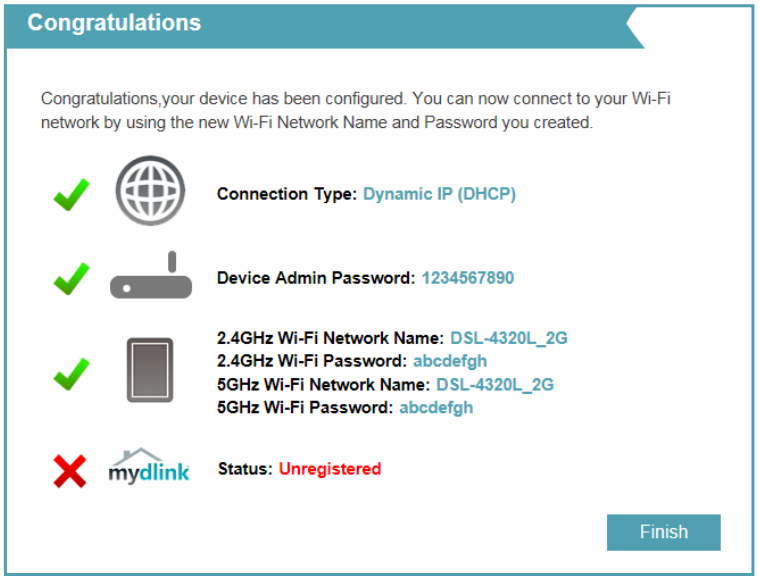
If you do not want to register at this time, click **Skip**.



If you clicked **Yes**, enter your mydlink account name (email address) and password. Click **Next** to register your mydlink account with the router.

If you clicked **No**, fill out the requested information and click **Next** to create your mydlink account.

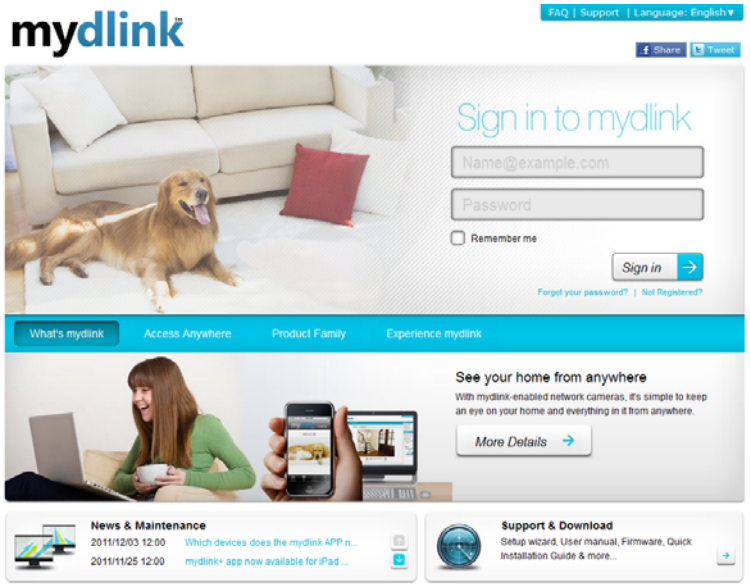
At the end of the wizard, you will be presented with a final summary of your settings. Click **Finish** to close the wizard.



The mydlink App will allow you to receive notices, browse network users, and configure your router from an iPhone/iPad/iPod touch (iOS 6.0 or higher), or Android device (2.3 or higher).

To download the "mydlink Lite" app, visit the Apple Store, Android Market or **http://mydlink.com/Lite**.

PC and Mac users can use the mydlink portal at **http://mydlink.com**.



mydlink SharePort

Using the mydlink SharePort™ app for iPad®, iPhone®, and iPod touch®

The mydlink SharePort™ app is a streamlined mobile application that allows you to conveniently stream media and share files stored on a removable storage device connected to your router. Once the router is set up, you can start the app and easily connect from a local network or through the Internet to access your photos, videos, music, and documents. It allows you to create your own personal cloud storage. You can upload files and photos from your mobile device to the removable storage via the app from anywhere in the world!

Note: In order to ensure smooth streaming performance, you will need a minimum of 2 Mbit/s upload bandwidth for your router's Internet connection. Streaming performance will vary depending on the quality of your Internet connection.

If you choose to skip the mydlink SharePort registration during the initial setup of your DSL-4320L, you may begin the registration process anytime by accessing the mydlink SharePort feature from within the router configuration menu. Refer to page 102 for details on how to begin the mydlink shareport registration process.

1. If you are connecting remotely through the mydlink SharePort™ app from the Internet, you will need a **mydlink** account.

2. Make sure the device is powered on. Then plug your USB drive into a USB port on the device.

Note: If you connect a removable storage device with several thousand files, it may take a while for the router to scan and catalog them.

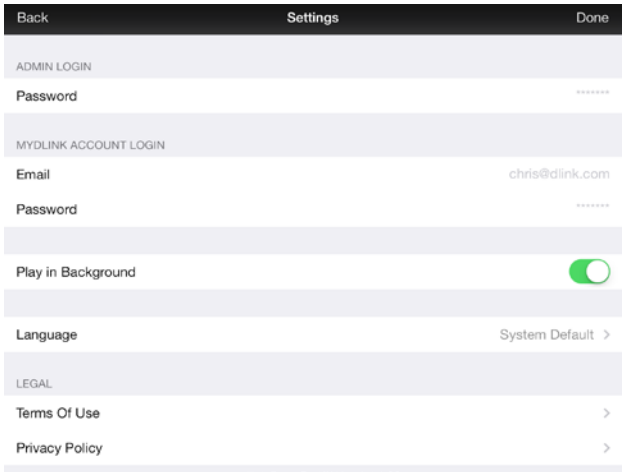
Plug your removable storage device in either the USB 2.0 or 3.0 port.

3. Use your iPhone, iPad or iPod touch to search for and download the free **mydlink SharePort** app from the App Store.

   If you have a QR code reader, you can scan the code for **mydlink SharePort** to the right.

4. Tap the **mydlink SharePort** icon, and the app will load.

5. Tap **Set up** to go to Settings and enter the Admin password and your mydlink Account Login information when the pop-up displays. Tap **Done** when your information is entered. (The Admin password is only for local access, if you can connect through the Internet, then you can leave the Admin password blank)



1. You can now use the mydlink SharePort app interface to stream media and access files stored on your removable drive. The wireless icon at the bottom will be lit green to indicate you are connected to the router through Remote Access. If you need to change your settings, tap the gear icon at the top right corner to enter the settings page.

2. If you have more than one device registered to your mydlink account, you can tap **Device List** (in the top-left corner) and you will be prompted to select the device you wish to use.

Note: A red wireless icon indicates that your router's network environment may not be optimal for streaming media and you may experience slow downs or otherwise degraded performance.

Using mydlink SharePort on a local network:

1. Make sure the device is powered on. Then plug your USB drive into the USB port of the device.

Note: If you connect a removable storage device with several thousand files, it may take a while for the router to scan and catalog them.

2. Use your iPhone, iPad or iPod touch to search for and download the free **mydlink SharePort** app from the App Store.

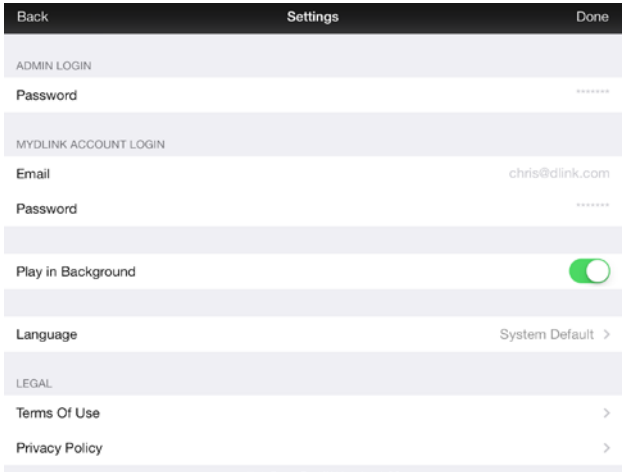
   If you have a QR code reader, you can scan the code for **mydlink SharePort** to the right.

3. On your mobile device, go to your Wi-Fi settings and connect to your router's wireless network using the default Wi-Fi settings. Locate the Wi-Fi name (SSID) and password for your device as printed on the included Wi-Fi Configuration Card.

4. Tap the **mydlink SharePort** icon, and the app will load.

1. Tap **Set up** to enter the Admin password for your router when the pop-up displays.

2. Enter your Admin Login in the Password field and tap **Done**.



3. You can now use the mydlink SharePort app interface to stream media and access files stored on your removable drive. The wireless icon at the bottom will be lit blue to indicate a Local Access connection. If you need to change your settings, tap the gear icon at the top right corner to enter the settings page.

Note: A red wireless icon indicates that your router's network environment may not be optimal for streaming media and you may experience slow downs or otherwise degraded performance.

Main Menu

The mydlink SharePort main menu has different sections that let you see all the documents, photos, movies, or music stored on your removable storage. Tap < or >, or swipe left or right to move between the different sections. The Wi-Fi icon at the bottom indicates an active local network connection (blue) or remote connection (green/red). Tap **Log In** if it is not lit, or **Log Out** to return to the login page.

Tap on the document icon to view documents.

Tap the camera icon to view photos.

Tap on the movie icon to play videos.

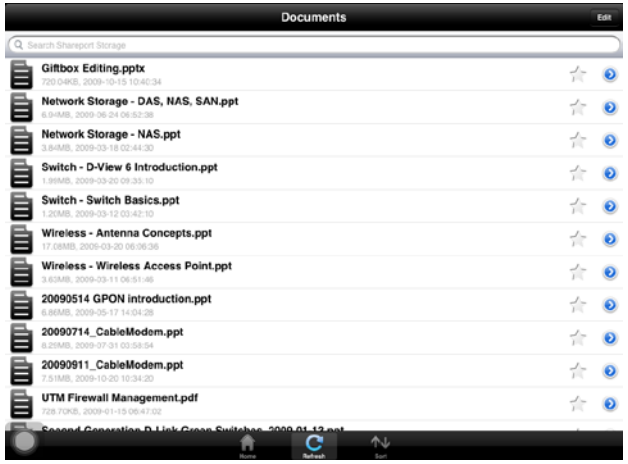
Tap on the music icon to play audio files.

Tap on the folder icon to browse all files in a folder view.

Tap on the star icon to access your favorite files.

Documents

The Documents section allows you to share, print, and view documents streamed from your DSL-4320L to your mobile device. Tap the document icon on the main menu to browse the documents on your mobile device.



Search Bar: Enter a filename here to search your storage.

Edit — Tap to mark files for deletion.

Tap the star icon next to each file to download it to your device and add it into your Favorites section.

Tapping this icon gives you additional options:

- **Mail**: Tap to e-mail the file.
- **iCloud**: Tap to store the file on iCloud.
- **AirPrint**: Tap to print the file.
- **Open In...**: Tap to use a third-party app to open the file.

The bottom menu bar includes these options:

Home — Tap to go back to the main menu.

Refresh — Tap to update the list of files.

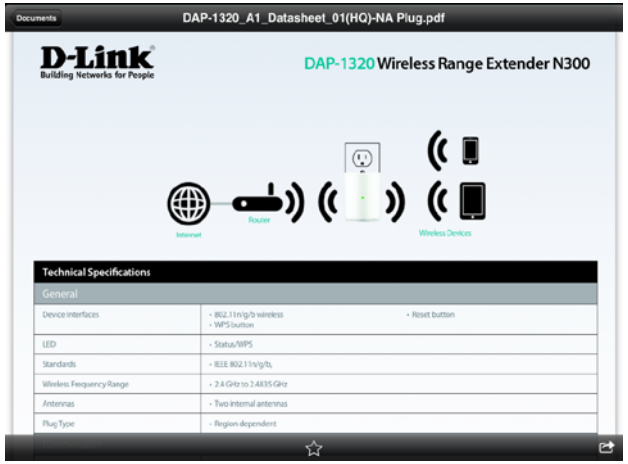
Sort — Tap to reorder the files alphabetically.

Tap on a file to start the document viewer. In the viewer:

Tap to add/remove the file from your Favorites.

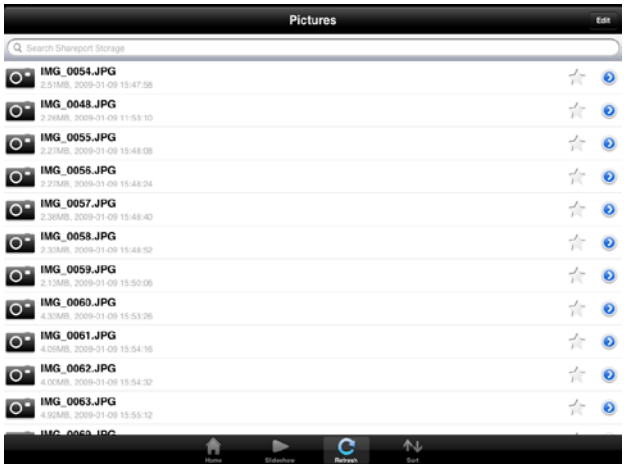
Tap to bring up the same options as >.

Note: Some files may require a third-party app to view them.



Pictures

The Pictures section allows you to stream images from your DSL-4320L to your mobile device. Tap the camera icon on the main menu to browse your photo collection on your removable storage.



Search Bar: Enter a filename here to search your storage.

Tap to mark files for deletion.

Tap the star icon next to each file to download it to your device and add it into your Favorites section.

Tapping this icon gives you additional options:

- **Mail**: Tap to e-mail the image.
- **iCloud**: Tap to store the image on iCloud.
- **AirPrint**: Tap to print the image.
- **Facebook:** Tap to upload the image to your Facebook account.
- **Twitter:** Tap to upload the image to your Twitter account.
- **Open In...**: Tap to use a third-party app to open the file.

The bottom menu bar includes these options:

Tap to go back to the main menu.

Tap to start a slideshow of your photos. Tap the screen again to bring up the menu.

Tap to update the list of files.

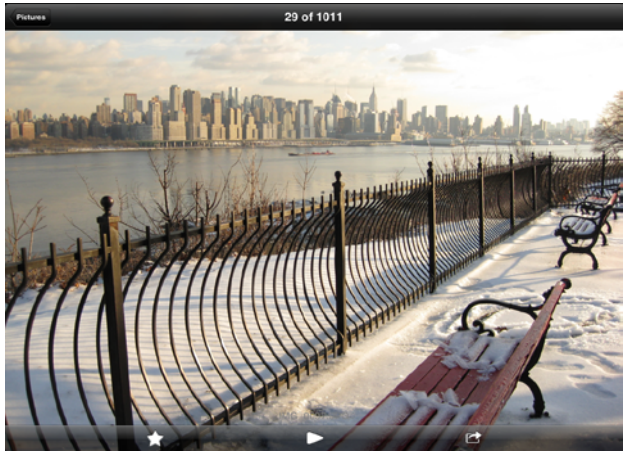
Tap to reorder the files alphabetically.

Tap on a file to start the photo viewer. In the viewer:

Tap to add/remove the current image from your Favorites.

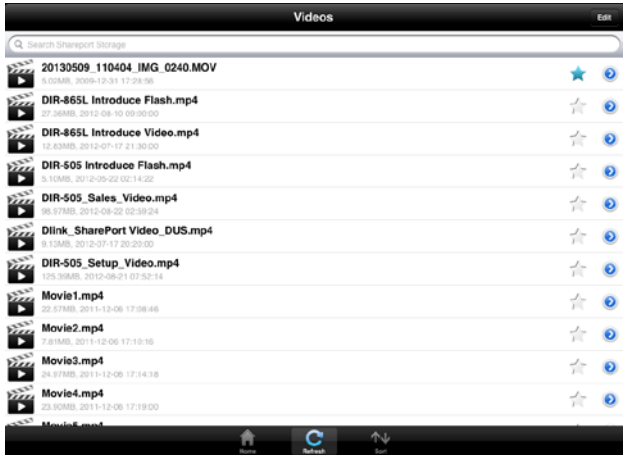
Tap to start the slideshow.

Tap to bring up the same options as >.



Videos

The Videos section allows you to stream video clips and movies from your DSL-4320L to your mobile device. Tap the movie icon on the main menu to browse your videos on your removable storage.



Search Bar: Enter a filename here to search for a specific file.

Tap to mark files for deletion.

Tap the star icon next to a file to download it to your device and add it into your Favorites section.

Tapping this icon gives you additional options:

- **Mail**: Lets you e-mail the file.
- **iCloud**: Lets you store the file on iCloud.
- **Open In...**: Lets you use a third-party app to open the file.

The bottom menu bar includes these options:

Tap to go back to the main menu.

Tap to update the list of files.

Tap to reorder the files alphabetically.

Tap on a file to start playing it. In the player:

Tap to play/pause the video. You can scroll to any time on the time line by holding and sliding your finger.

Tap to enter/exit fullscreen mode.

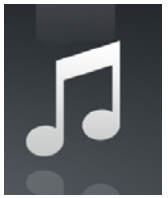
Tap to add/remove the file from your Favorites.

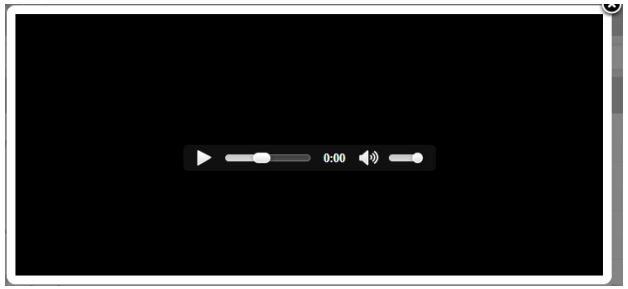
Tapping this icon gives you additional options:

- **Mail**: Lets you e-mail the video.
- **iCloud**: Lets you store the video on iCloud.
- **Open In...**: Lets you use a third-party app to open the file.

Music

The Music section allows you to stream songs from your DSL-4320L to your mobile device. Tap the music icon on the main menu to browse your music collection on your removable storage.





Search Bar: Enter a filename here to search your storage.

Tap to create a playlist and mark files for deletion.

Tap the star icon next to each file to download it to your device and add it into your Favorites section.

Tapping this icon gives you additional options:

- **Mail**: Lets you e-mail the file.
- **iCloud**: Lets you store the file on iCloud.
- **Open In...**: Lets you use a third-party app to open the file.

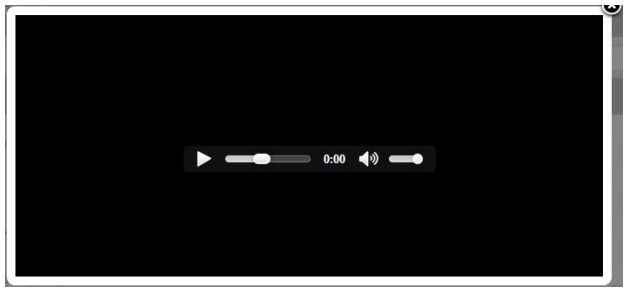
The bottom menu bar includes these options:

Tap to go back to the main menu.

Tap to update the list of files.

Tap to reorder the files alphabetically.

Tap on a file to start playing it. In the player:



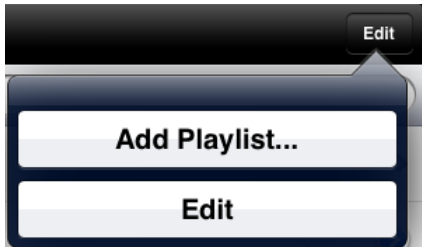
Tap to repeat all. Tap again to repeat a single song.

Tap to skip to the previous/next song.

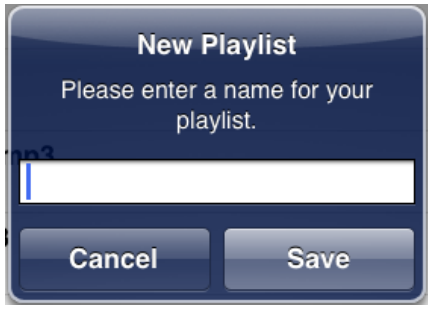
Tap to enable/disable shuffle mode.

To create a playlist:

- Tap **Edit** > **Add Playlist**.



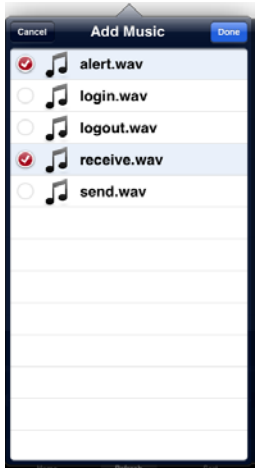
- Enter a name for the playlist, then tap **Save.**



- The name of the playlist will appear in the browser next to the icon.

To add songs to a playlist:

- Tap the playlist in the browser.
- Tap **Add Music...** to add songs to the current playlist.
- Tick the songs you wish to add and tap **Done**.



To delete songs from the playlist:

- Tap **Edit** in the playlist browser and mark the files to be deleted.
- Tap **Delete**.

Folders

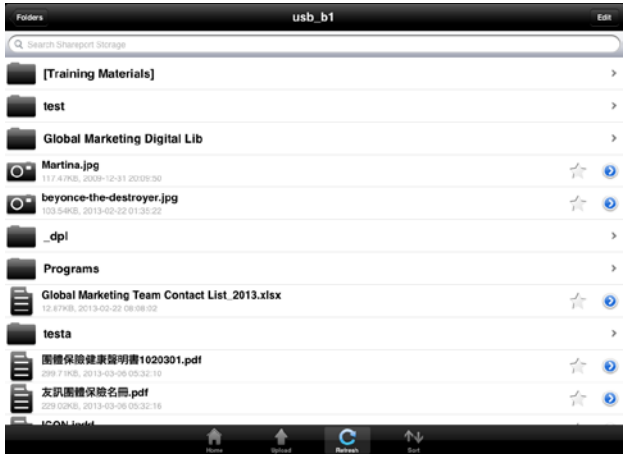
You can browse your removable storage in a folder view in the folders section. Tapping the filename will open the viewer/player for that file type as described in the previous pages. You can also upload files from your mobile device to the removable storage attached to your router.

Search Bar: Enter a filename here to search your storage.

Tap to take you to the editing screen where you can add a folder and mark files for deletion or copying.

Tap the star icon next to each file to download it to your device and add it into your Favorites section.

Tapping the > icon gives you additional options depending on the file type.



The bottom menu bar includes these options:

Tap to go back to the main menu.

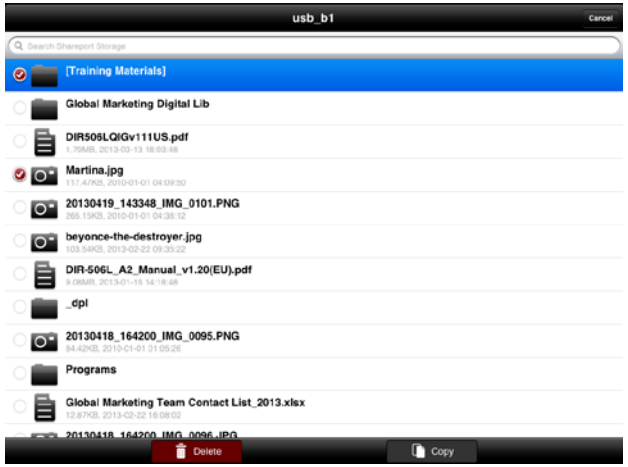
Tap to upload files from your device to your removable storage.

Tap to update the list of files.

Tap to reorder the files alphabetically.

To delete files:

- Tap **Edit** at the top right.
- Tick the circle next to a file to mark it for deletion.
- Tap on **Delete** at the bottom to delete the file.



To copy files:

- Tap on **Copy** to bring up a window where you can select the folder to copy to.
- Browse to the directory you want to copy the marked files to and tap **Paste**.
- You can also tap **Add Folder** to create a new folder.

To create a new folder:

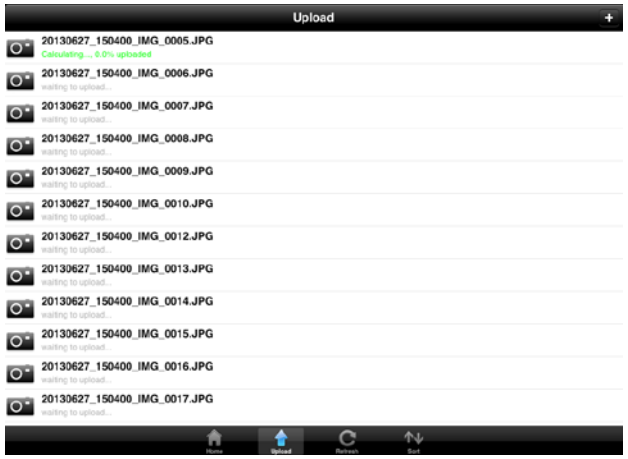
- Browse to the directory you wish to create a new folder in.
- Tap **Edit** at the top right.
- Tap **Add Folder** to add a new folder.
- Enter the name of the new folder, then tap **Save**.
- Tap **OK** to confirm folder creation.

To upload images and videos from your mobile device:

- Browse to the folder you wish to upload to.
- Tap **Upload** at the bottom.
- Select the photos/videos you wish to upload.
- Tap **Done**.

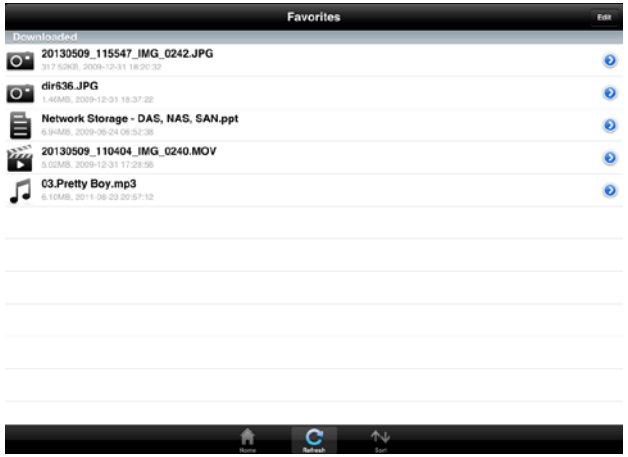
During the upload process, the size of the file and the upload progress will be displayed.

To upload more files, tap the **+** icon at the top right and repeat the steps listed above.



Favorites

The Favorites section allows you to quickly access your most often used files, no matter what file type, in a special section. Files added to the Favorites section will be copied here for playback in a centralized location.



Tap to mark files for deletion from the local storage in Favorites. The file will still be accessible in other mydlink SharePort sections.

Tapping this icon gives you additional options depending on the file type.

The bottom menu bar includes these options:

Tap to go back to the main menu.

Tap to update the list of files.

Tap to reorder the files alphabetically.

Tap on a file to start the file viewer. In the viewer:

Tap to add/remove the file from your Favorites.

Tap to bring up additional options.

Note: The file options available will vary depending on the file type.

Using the mydlink SharePort™ app for Android™

The mydlink SharePort™ app is a streamlined mobile application that allows you to conveniently stream media and share files stored on a removable storage device connected to your router. Once the router is set up, you can start the app and easily connect from a local network or through the Internet to access your photos, videos, music, and documents. It allows you to create your own personal cloud storage. You can upload files and photos from your mobile device to the removable storage via the app from anywhere in the world!

Note: In order to ensure smooth streaming performance, you will need a minimum of 2 Mbit/s upload bandwidth for your router's Internet connection. Streaming performance will vary depending on the quality of your Internet connection.

Note: If you choose to skip the mydlink SharePort registration during the initial setup of your DSL-4320L, you may begin the registration process anytime by accessing the mydlink SharePort feature from within the router configuration menu. Refer to page 102 for details on how to begin the mydlink shareport registration process.

1. If you are connecting remotely through the mydlink SharePort™ app from the Internet, you will need a **mydlink** account.

2. Make sure the device is powered on. Then plug your USB drive into a USB port on the device.

Note: If you connect a removable storage device with several thousand files, it may take a while for the router to scan and catalog them.

Plug your removable storage device in either the USB 2.0 or 3.0 port.

3. Use your Android mobile device to search for and download the free **mydlink SharePort** app from Google Play™.

   If you have a QR code reader, you can scan the code for **mydlink SharePort** to the right.

4. Tap the **mydlink SharePort** icon, and the app will load.

5. Tap **Set up** to go to Settings and enter the Admin password and your mydlink Account Login information when the pop-up displays. Tap **Apply** when your information is entered. (The Admin password is only for local access, if you can connect through the Internet, then you can leave the Admin password blank)

7. You can now use the mydlink SharePort app interface to stream media and access files stored on your removable drive. The wireless icon at the bottom will be lit green to indicate you are connected to the router through Remote Access.

8. If you have more than one device registered to your mydlink account, you can tap **Device List** (in the top-left corner) and you will be prompted to select the device you wish to use.

Note: A red wireless icon indicates that your router's network environment may not be optimal for streaming media and you may experience slow downs or otherwise degraded performance.

Using mydlink SharePort in a local network:

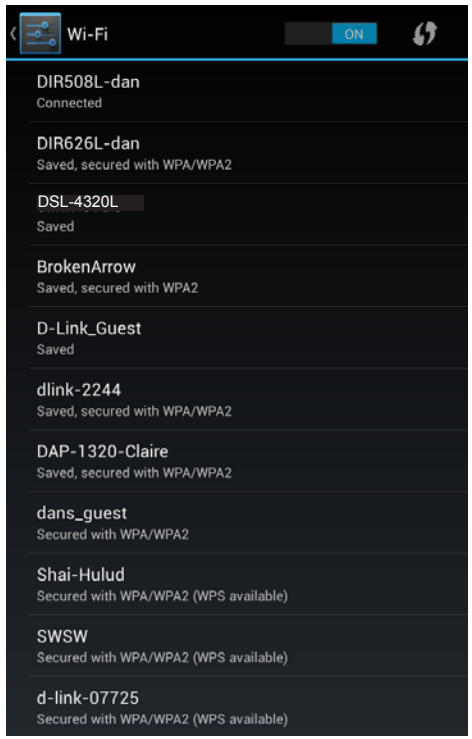
1. Make sure the device is powered on. Then plug your USB drive into the USB port of the device.

Note: If you connect a removable storage with many files or a large capacity, it may take a while for the router to scan and catalog your files.

2. Use your Android mobile device to search for and download the free **mydlink SharePort** app from Google Play™.

   If you have a QR code reader, you can scan the code for **mydlink SharePort** to the right.

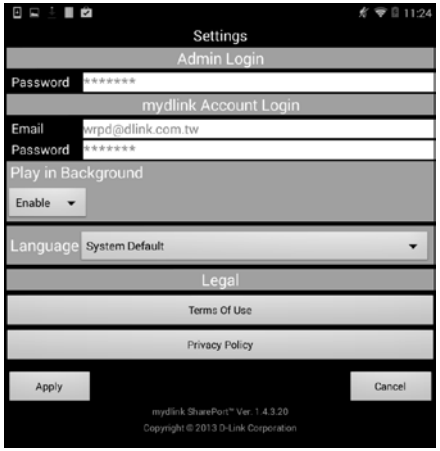
3. On your mobile device, go to your Wi-Fi settings and connect to your router's wireless network using the default Wi-Fi settings. Locate the Wi-Fi name (SSID) and password for your device as printed on the included Wi-Fi Configuration Card.



4. Tap the **mydlink SharePort** icon, and the app will load.

5. Tap **Set up** to enter the Admin password for your router when the pop-up displays.

6. Enter your Admin Login in the Password field and tap **Apply**. You will be taken back to the device list where you can select the device for use with mydlink SharePort.

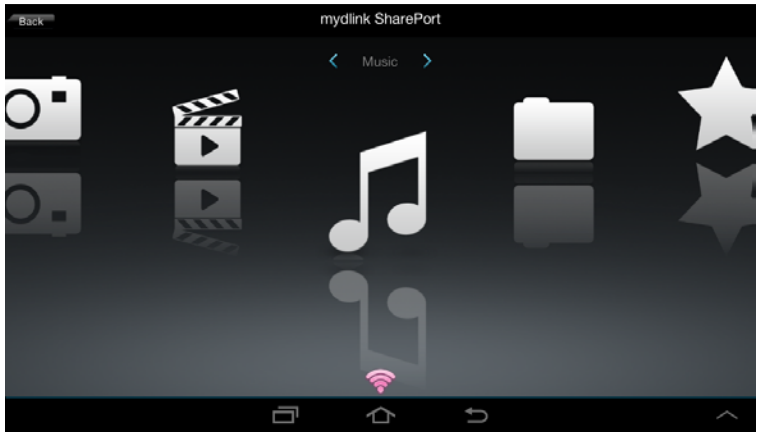


7. You can now use the mydlink SharePort app interface to stream media and access files stored on your removable drive. The wireless icon at the bottom will be lit blue to indicate a Local Access connection.

Note: A red wireless icon indicates that your router's network environment may not be optimal for streaming media and you may experience slow downs or otherwise degraded performance.

Main Menu

The mydlink SharePort main menu has different sections that let you see all the documents, photos, movies, or music stored on your removable storage. Tap < or >, or swipe left or right to move between the different sections. The Wi-Fi icon at the bottom indicates an active local network connection (blue) or remote connection (green/red). Tap **Log In** if it is not lit, or **Log Out** to return to the login page.



Tap on the document icon to view documents.

Tap the camera icon to view pictures.

Tap on the movie icon to play videos.

Tap on the music icon to play audio files.

Tap on the folder icon to browse all files in a folder view.

Tap on the star icon to access your favorite files.

Note: Available features may differ depending on the Android OS version of your device.

Documents

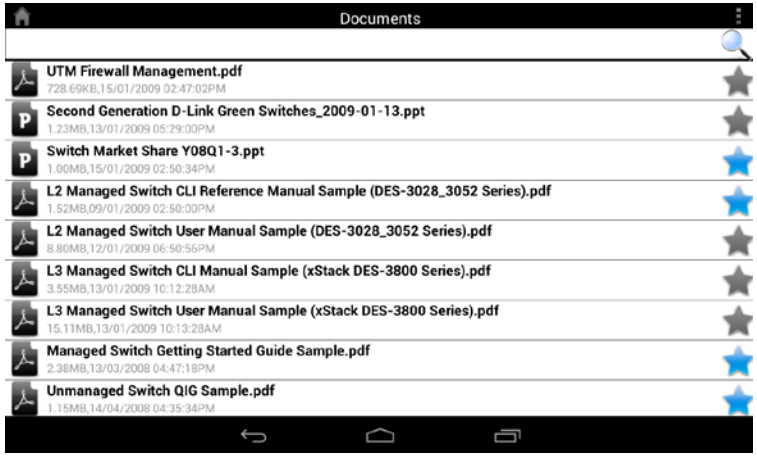
The Documents section allows you to share, print, and view documents streamed from your DSL-4320L to your mobile device. Tap the document icon on the main menu to browse the files on your mobile device.

Search Bar: Type in the name of a file to search for it.

Tap to return to the main menu.

Tap to refresh, sort, or mark files for deletion.

Tap the star icon next to each file to download it to your device and add it into your Favorites section.



Tap for additional options:

Tap to return to the main menu.

Tap to update the list of files.

Tap to sort the files by name, size, type, or date.

Check a file then tap to delete it.

Tap on a file to start the document viewer. In the viewer:

- Tap the screen to bring up zoom in/out buttons.
- Drag the screen up or down to scroll between pages.
- Tap ⋮ to perform File, Find, Zoom, Reading View, Go To Page, and Bookmarks actions.

Note: Available actions may differ depending on your Android OS.

Pictures

The Pictures section allows you to view images streamed from your DSL-4320L to your mobile device. Tap the camera icon on the main menu to browse your photo collection on your removable storage.

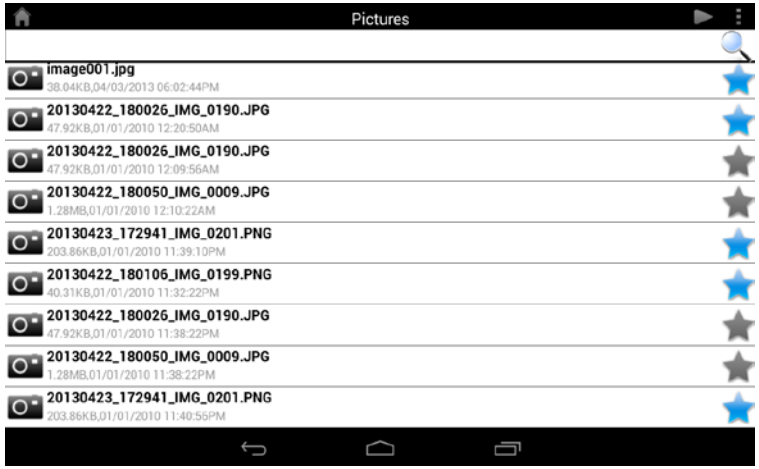
Search Bar: Type in the name of a file to search for it.

Tap to return to the main menu.

Tap to start a slideshow.

Tap to refresh, sort, or mark files for deletion.

Tap the star icon next to each file to download it to your device and add it into your Favorites section.



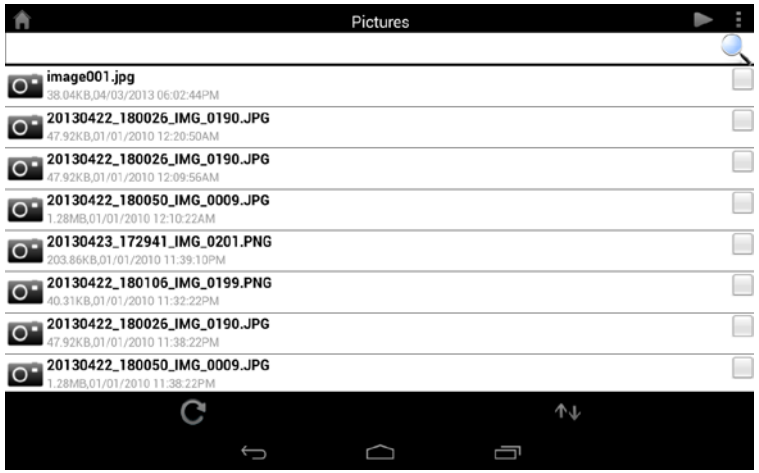
Tap for additional options:

Tap to return to the main menu.

Tap to update the list of files.

Tap to sort the files by name, size, type, or date.

Check a file then tap to delete it.



Tap on an image file to start the image viewer. In the viewer:

- Tap the star icon to download it to your device and add it into your Favorites section.
- Tap to start a slideshow. Tap the image to stop the slideshow.
- Tap to delete the current image. Tap **OK** to confirm.
- Tap to bring up additional options using other applications.
- Tap to access the image editor.

Note: This function may vary depending on the version of your Android OS.

Videos

The Videos section allows you to stream video clips and movies from your DSL-4320L to your mobile device. Tap the movie icon on the main menu to browse your videos on your removable storage.

Search Bar: Type in the name of a file to search for it.

Tap to return to the main menu.

Tap to refresh, sort, or mark files for deletion.

Tap the star icon next to a file to download it to your device and add it into your Favorites section.

Tap for additional options:

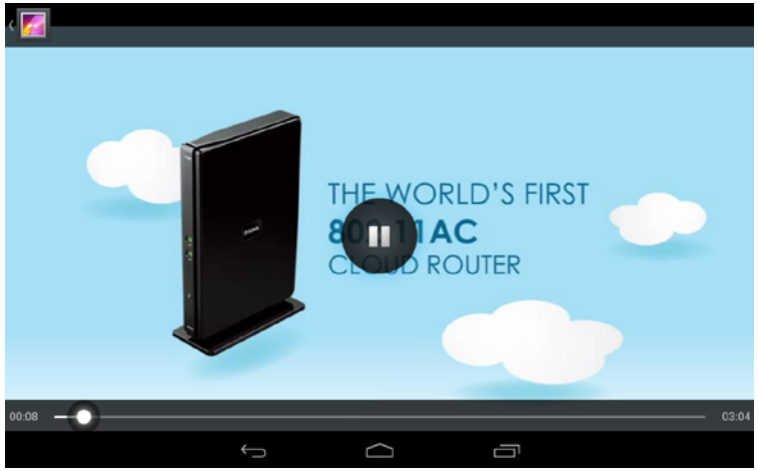
Tap to return to the main menu.

Tap to update the list of files.

Tap to sort the files by name, size, type, or date.

Check a file then tap this icon to delete it.

Tap on a file to start playing it. Tap on the screen to bring up the scroll bar, pause button, and play button.



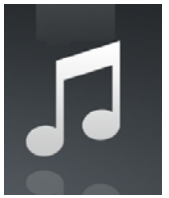
Tap to resume playback.

Tap to pause the video.

Note: Available features may vary depending on the Android OS version installed on your device.

Music

The Music section allows you to stream songs from your DSL-4320L to your mobile device. Tap the music icon on the main menu to browse your music collection on your removable storage.



Search Bar: Type in the name of a file to search for it.

Tap to return to the main menu.

Tap to refresh, sort, or mark files for deletion.

Tap to browse your playlists.

Tap the star icon next to a file to download it to your device and add it into your Favorites section.

Tap for additional options:

Tap to return to the main menu.

Tap to update the list of files.

Tap to sort the files by name, size, type, or date.

Check a file then tap this icon to delete it.

Tap on a file to start playing it. In the player:

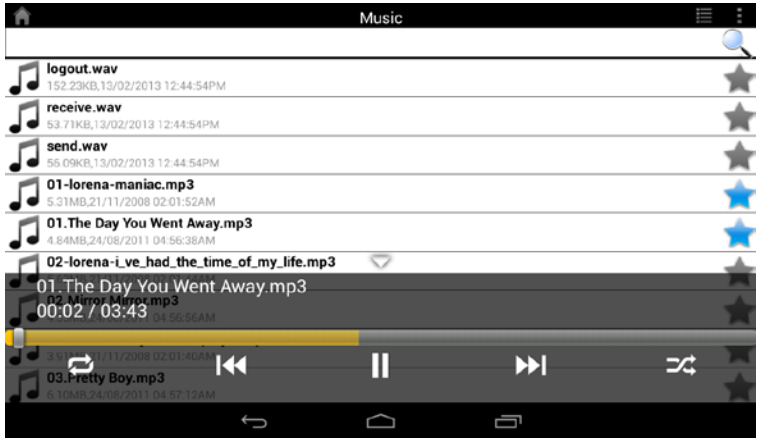
Tap on the up/down arrow to show/hide the player controls.

Tap to repeat all. Tap again to repeat a single song.

Tap to skip to the previous/next song.

Tap to play or pause the song.

Tap to enable/disable shuffle mode.



To create a playlist:

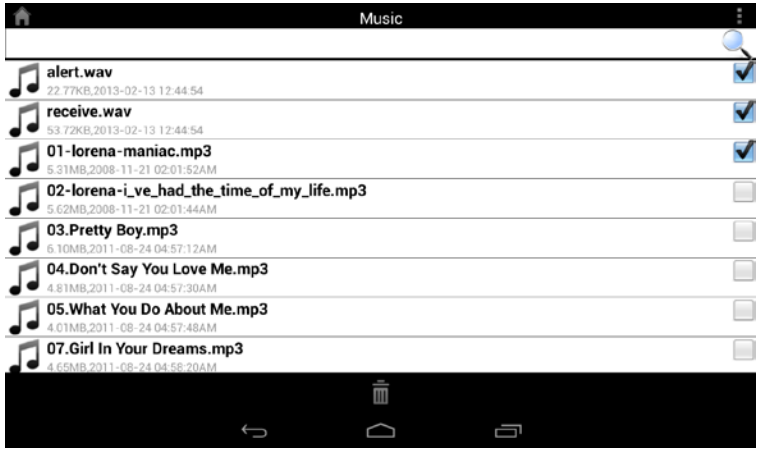
- Tap
- Tap **Add new playlist...**
- Enter a name for the playlist, then tap **OK**. The name of the playlist will appear in the browser next to the icon.
- You can tap then to refresh the playlist page.

To add songs to a playlist:

- Tap a playlist to see its contents.
- Tap **Add Music...** to add songs to the current playlist.
- Tick the songs you wish to add and tap to save.

To delete songs from the playlist:

- Tap **Edit** in the playlist browser and mark the files to be deleted.
- Tap then tap **OK** to confirm.



Folders

You can browse your removable storage in a folder view in the folders section. Tapping the filename will open the viewer/player for that file type as described in the previous pages. You can also upload files from your mobile device to the removable storage attached to your router.

Search Bar: Type in the name of a file to search for it.

Tap to return to the main menu.

Tap to access file options.

In the file browser:

Tap to return to the main menu.

Tap to upload files.

Tap to refresh, sort, create a new folder, or mark files for deletion and copying.

Tap to select files and perform the following actions:

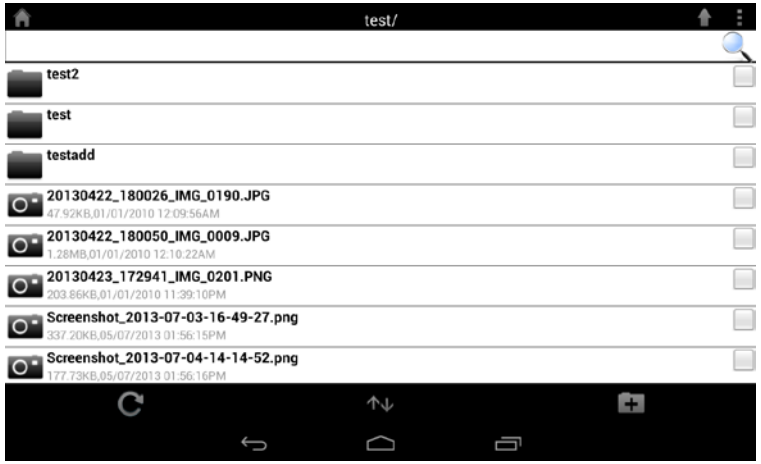
Tap to update the list of files.

Tap to sort the files by name, size, type, or date.

Tap to create a new folder.

Mark a file then tap this icon to delete it.

Mark a file then tap this icon to copy it.



To delete files:

Tap on and tick the box next to a file for deletion.

Tap on to delete your selected files. Tap **OK** to confirm.

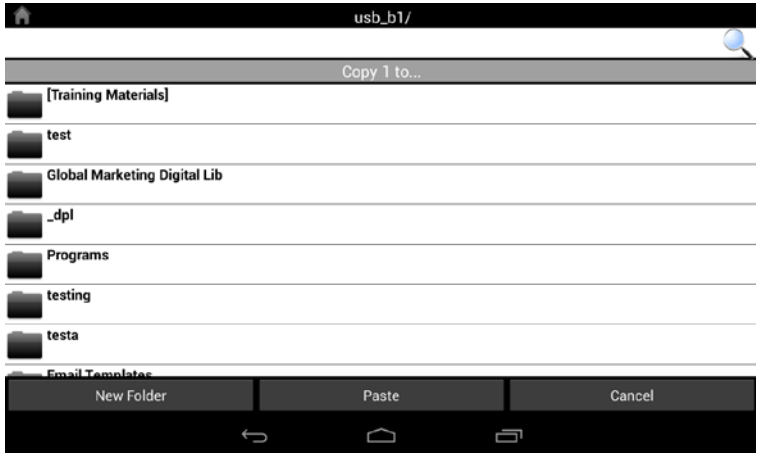
To copy files:

Tap on to select files for copying. Tick the box next to each file for copying.

Tap on to browse to the destination.

•Tap **Paste** or **Cancel.**

•You can also tap **New Folder** if you wish to create a folder in the current directory.

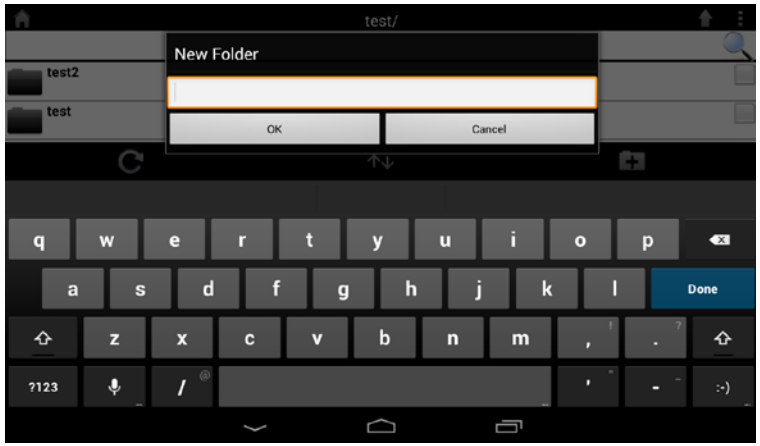


To create a new folder:

•Browse to the directory you wish to create a new folder in.

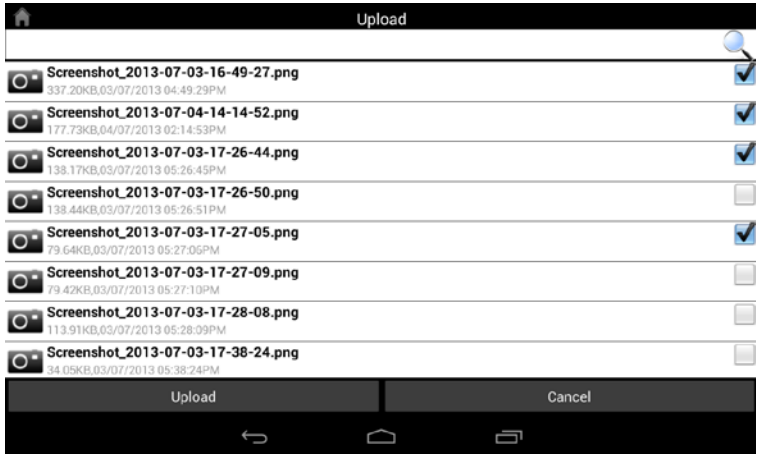
•Tap then .

•Enter the name of the folder in the box, then tap **OK.**



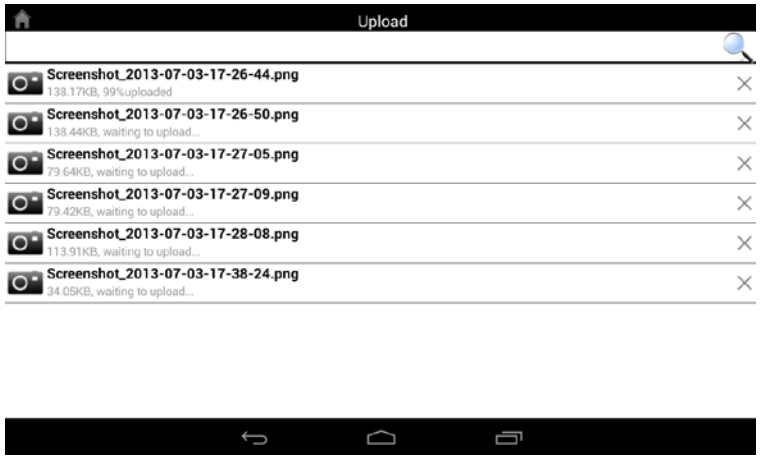
To upload images and videos from your mobile device:

- Browse to the folder you wish to upload to.
- Tap and browse to the file or files you wish to upload from the local device.
- Tick the box next to each of the files you wish to upload.
- Tap **Upload**.



During the upload process, the size of the file and the upload progress will be displayed under the file name.

To remove a file from the upload queue, tap the X next to it.



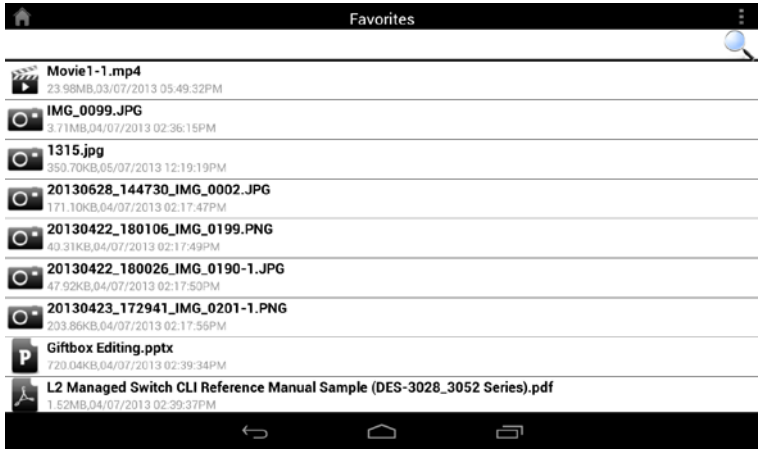
Favorites

The Favorites section allows you to quickly access your most often used files, no matter what file type, in a special section. Files added to the Favorites section will be copied here for playback in a centralized location.

Search Bar: Type in the name of a file to search for it.

Tap to return to the main menu.

Tap to refresh, sort, or mark files for deletion.



Tap for additional options:

Tap to return to the main menu.

Tap to update the list of files.

Tap to sort the files by name, size, type, or date.

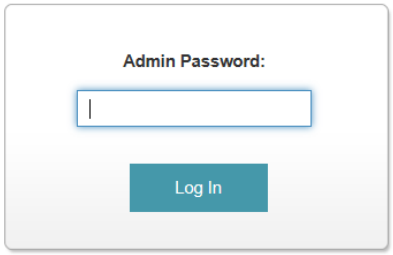
Check a file then tap to delete it.

Configuration

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

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

Enter your password. If you previously followed the setup wizard (see page 14), please use the admin password you entered during the wizard. Otherwise, leave the password blank. Click **Log In** to proceed.



Note: *If you cannot remember your password and cannot log in, press the reset button (see page 6) to restore the router to its default settings.*

The router's home page will open displaying its current connection status.

The bar at the top of the page has quick access to Settings and Management functions. You may quickly jump back Home at any time.

Note: *The system will automatically log out after a period of inactivity.*

Home

The Home page displays the current status of the router in the form of an interactive diagram. You can click each icon to display information about each part of the network at the bottom of the screen. The menu bar at the top of the page will allow you to quickly navigate to other pages.

Internet

The Home page displays whether or not the router is currently connected to the Internet. If it is disconnected, click **Click to repair** to bring up the setup wizard. Refer to page 14 for more information.

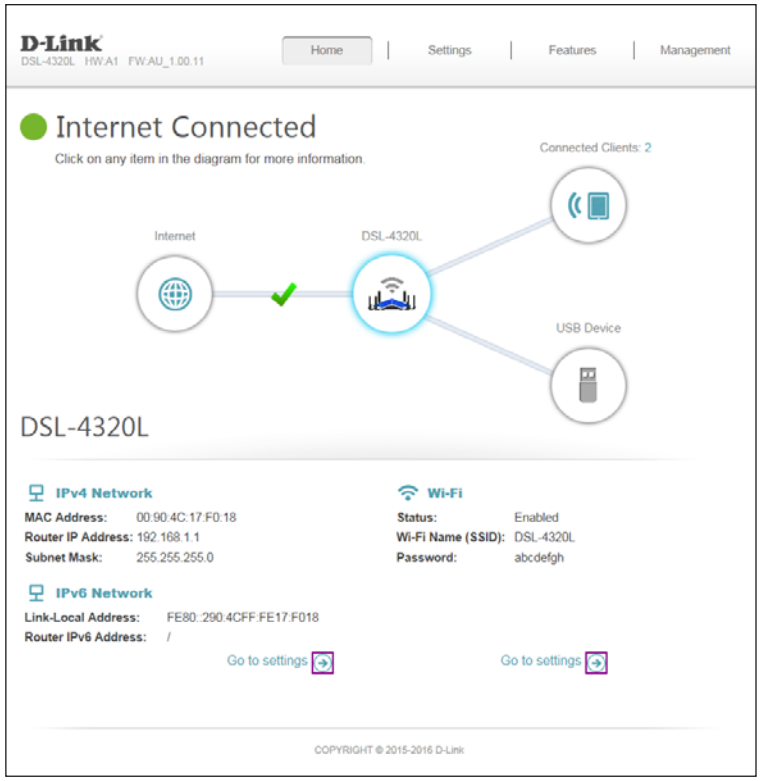
To bring up more details about your Internet connection, click on the **Internet** icon. Click **IPv4** or **IPv6** to see details of the IPv4 connection and IPv6 connection respectively.

Click **Release** to disconnect from the Internet. If you do this and wish to reconnect, click **Renew**.

To reconfigure the Internet settings, refer to "Internet" on page 62.

DSL-4320L

Click on the **DSL-4320L** icon to view details about the router and its wireless settings.



Here you can see the router's current wireless settings, as well as its MAC address and IPv4/IPv6 addresses.

To reconfigure the network settings, either click **Go to settings** on the lower left, or click **Settings** (at the top of the page) and then **Network** on the menu that appears. Refer to page 98 for more information.

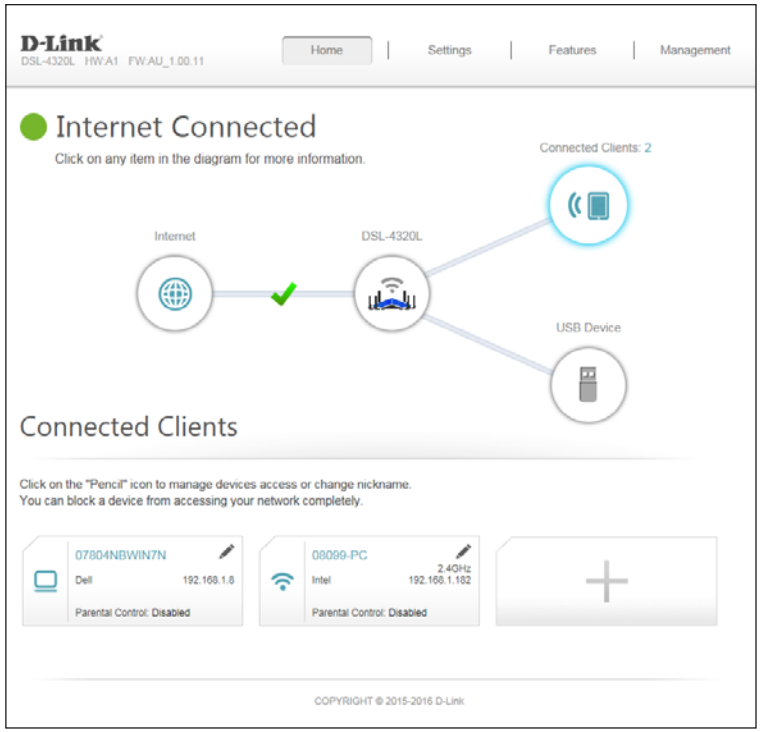
To reconfigure the wireless settings, either click **Go to settings**, on the lower right, or click **Settings** (at the top of the page) and then **Wireless** on the menu that appears. Refer to page 95 for more information.

Connected Clients

Click on the **Connected Clients** icon to view details about the router and its wireless settings.

On this page you can see all the clients currently connected to the router, and their IP addresses.

To edit each client's settings, click the pencil icon on the client you want to edit.



Name: Enter a custom name for this client.

Vendor: Displays the vendor of the device.

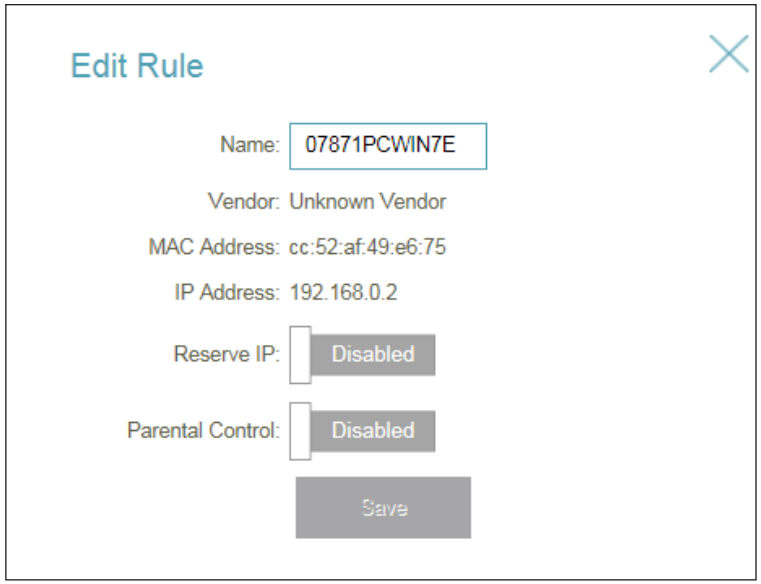
MAC Address: Displays the MAC address of the device.

IP Address: Enter a specific IP address for this client.

Reserve IP: Enable to reserve this IP address for this client.

Parental Control: Allow or Block access to the router.

Click **Save** when you are done.



USB Device

Click on the **USB Device** icon to view details about the currently connected USB device, DLNA media server, SharePort, and Windows File Sharing.

If you have a USB device connected, you can see its name and how much free space it has.

To configure your SharePort settings, click **Go to settings** and refer to page 100 for more information.

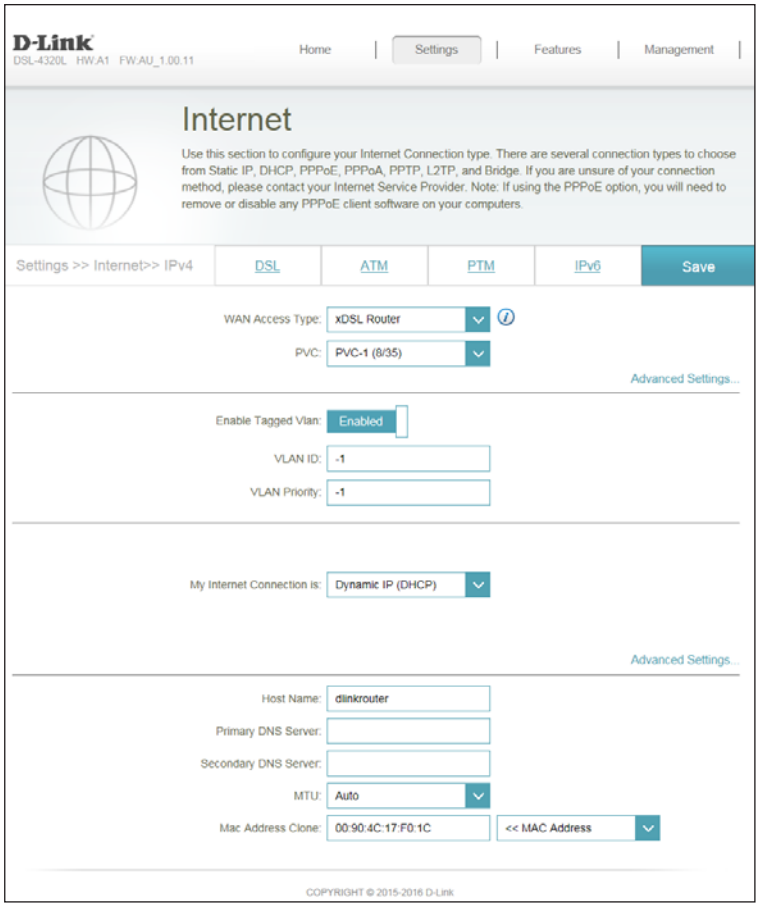
Settings

Wizard

In the Settings menu on the bar on the top of the page, click **Wizard** to open the setup wizard. This is the same wizard that appears when you start the router for the first time. Refer to **Setup Wizard** on page 14 for more information.

Internet

In the Settings menu on the bar on the top of the page, click **Internet** to see the Internet configuration options. Click **Advanced Settings...** to expand the list and see all of the options.



You will see the settings for your **IPv4** connection.

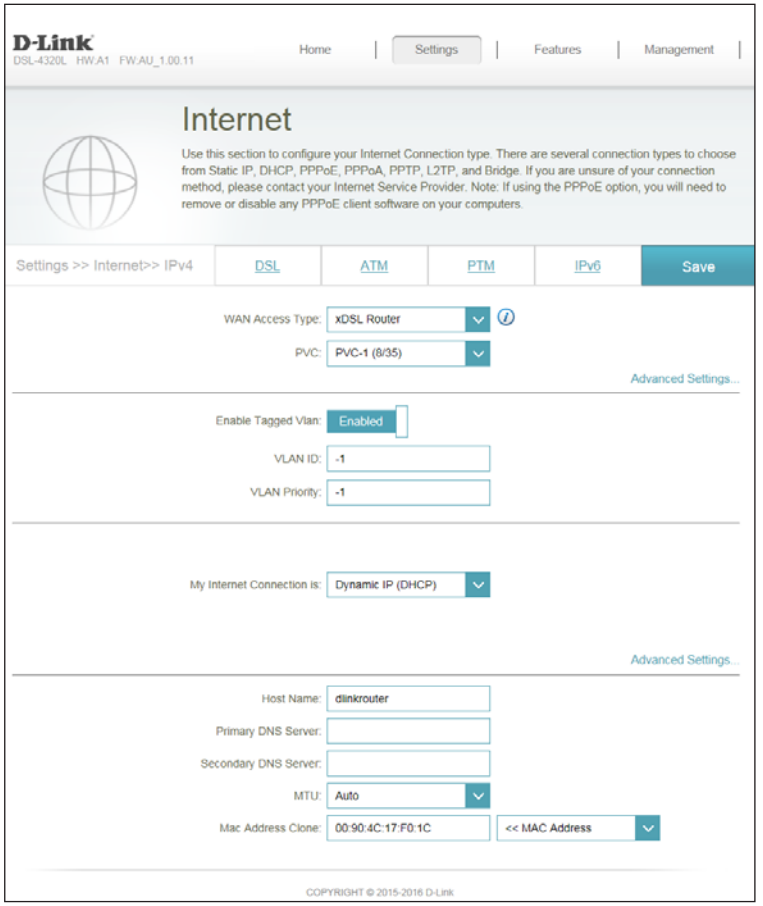
To configure the advanced DSL settings, click the **DSL** link. Refer to **DSL on page 78**.

To configure the ATM settings, click the **ATM** link. Refer to **ATM on page 79**.

To configure the PTM settings, click the **PTM** link. Refer to **PTM on page 80**.

To configure an IPv6 connection, click the **IPv6** link. Refer to **IPv6 on page 81**.

In the Settings menu on the bar on the top of the page, click **Internet** to see the Internet configuration options. Click **Advanced Settings...** to expand the list and see all of the options.



WAN Access Type: Select whether the device should act as an **xDSL Router** or a **Residential Gateway**.

PVC: Use the default setting unless otherwise instructed by your ISP.

Ether WAN Port: If you selected **Residential Gateway**, sselect the Ethernet port that will connect to the WAN. Use this setting if you do not intend to use the built-in DSL modem.

Enable Tagged Vlan: Enable or disable tagged VLAN.

VLAN ID: Enter the VLAN ID.

VLAN Priority: Enter the VLAN Priority from the default 0 (lowest) to 7 (highest).

My Internet Connection Is: Choose your Internet connection type from the drop-down menu. You will be presented with the appropriate options for your connection type.

For **Dynamic IP (DHCP)** refer to **Dynamic IP (DCHP) on page 69**.

For **Static IP** refer to **Static IP on page 70.**

For **PPPoE** refer to **PPPoE on page 71.**

For **PPPoA** refer to **PPPoA on page 72.**

For **PPTP** refer to **PPTP on page 73.**

For **L2TP** refer to **L2TP on page 75.**

For **Bridge** refer to **Bridge on page 77.**

IPv4

Dynamic IP (DCHP)

Select **Dynamic IP (DHCP)** to obtain IP address information automatically from your Internet Service Provider (ISP). Select this option if your ISP does not give you an IP address to use.

Host Name: The host name is optional but may be required by some ISPs. Leave it blank if you are not sure.

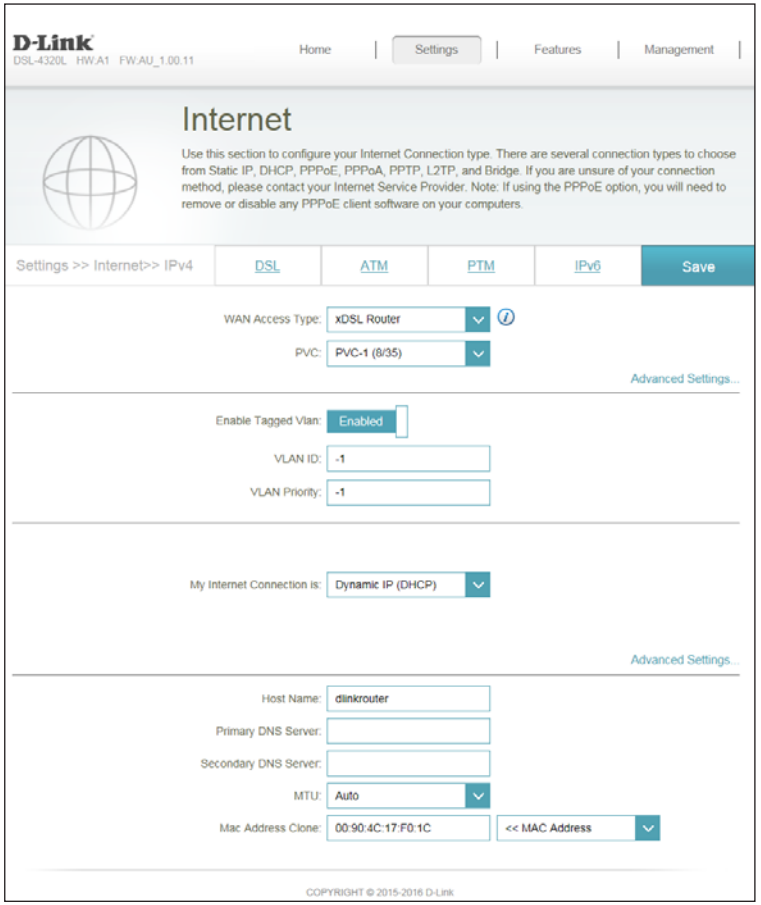
Primary DNS Server: Enter the primary DNS server IP address assigned by your ISP. This address is usually obtained automatically from your ISP.

Secondary DNS Server: Enter the secondary DNS server IP address assigned by your ISP. This address is usually obtained automatically from your ISP.

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

MAC Address Clone: The default MAC address is set to the Internet port's physical interface MAC address on the router. You can use the drop-down menu to replace the Internet port's MAC address with the MAC address of a connected client.

Click **Save** when you are done.



Static IP

Select **Static IP** if your IP information is provided by your Internet Service Provider (ISP).

IP Address: Enter the IP address provided by your ISP.

Subnet Mask: Enter the subnet mask provided by your ISP.

Default Gateway: Enter the default gateway address provided by your ISP.

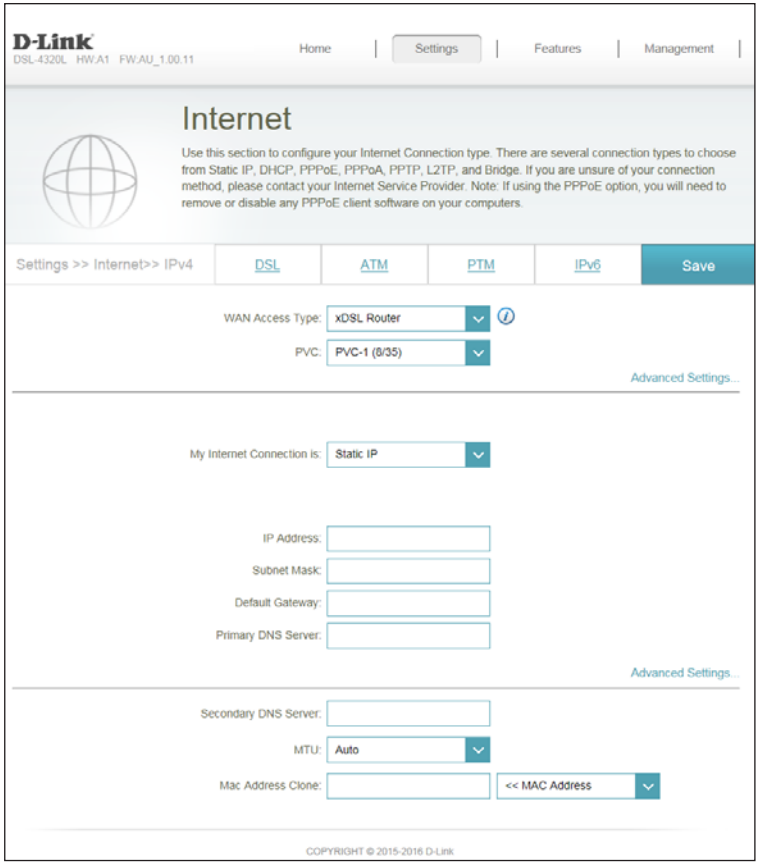
Primary DNS Server: Enter the primary DNS server IP address assigned by your ISP.

Secondary DNS Server: Enter the secondary DNS server IP address assigned by your ISP.

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

MAC Address Clone: The default MAC address is set to the Internet port's physical interface MAC address on the router. You can use drop-down menu to replace the Internet port's MAC address with the MAC address of a connected client.

Click **Save** when you are done.



PPPoE

Select **PPPoE** if your Internet connection requires you to enter a PPPoE username and password. This information is provided by your Internet Service Provider (ISP).

Username: Enter the username provided by your ISP.

Password: Enter the password provided by your ISP.

Reconnect Mode: Select either **Always-on**, **On-Demand**, or **Manual**.

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

IP Address: Enter the IP address provided by your ISP (Static IP only).

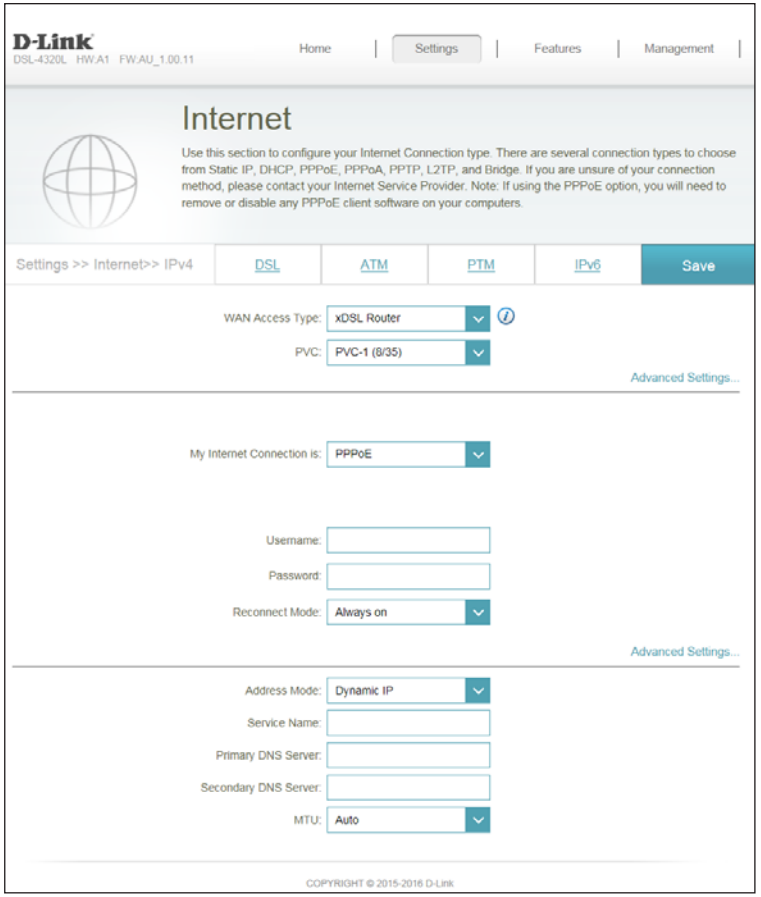
Service Name: Enter the ISP service name (optional).

Primary DNS Server: Enter the primary DNS server IP address assigned by your ISP.

Secondary DNS Server: Enter the secondary DNS server IP address assigned by your ISP.

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

Click **Save** when you are done.



PPPoA

Choose **PPPoA** if your Internet connection requires you to enter a PPPoA username and password. This information is provided by your Internet Service Provider (ISP).

Username: Enter the username provided by your ISP.

Password: Enter the password provided by your ISP.

Reconnect Mode: Select either **Always-on**, **On-Demand**, or **Manual**.

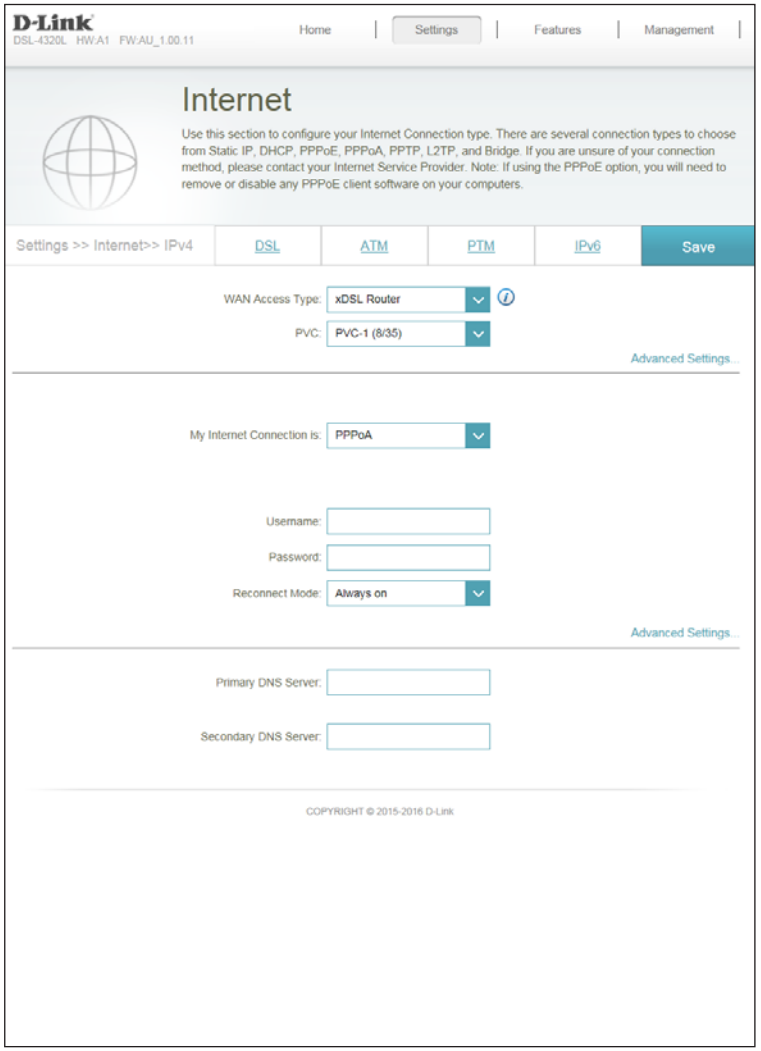
Address Mode: Select **Static IP** if your ISP assigned you the IP address, subnet mask, gateway, and DNS server addresses. In most cases, select **Dynamic IP**.

IP Address: Enter the IP address provided by your ISP (Static IP only).

Primary DNS Server: Enter the primary DNS server IP address assigned by your ISP.

Secondary DNS Server: Enter the secondary DNS server IP address assigned by your ISP.

Click **Save** when you are done.



PPTP

Choose **PPTP** (Point-to-Point-Tunneling Protocol) if your Internet Service Provider (ISP) uses a PPTP connection. Your ISP will provide you with a username and password.

PPTP Server IP Address: Enter the PPTP server IP address provided by your ISP.

Username: Enter the username provided by your ISP.

Password: Enter the password provided by your ISP.

Reconnect Mode: Select either **Always-on**, **On-Demand**, or **Manual**.

Maximum Idle Time: Enter a maximum idle time during which the Internet connection is maintained during inactivity. To disable this feature, enable Auto-reconnect.

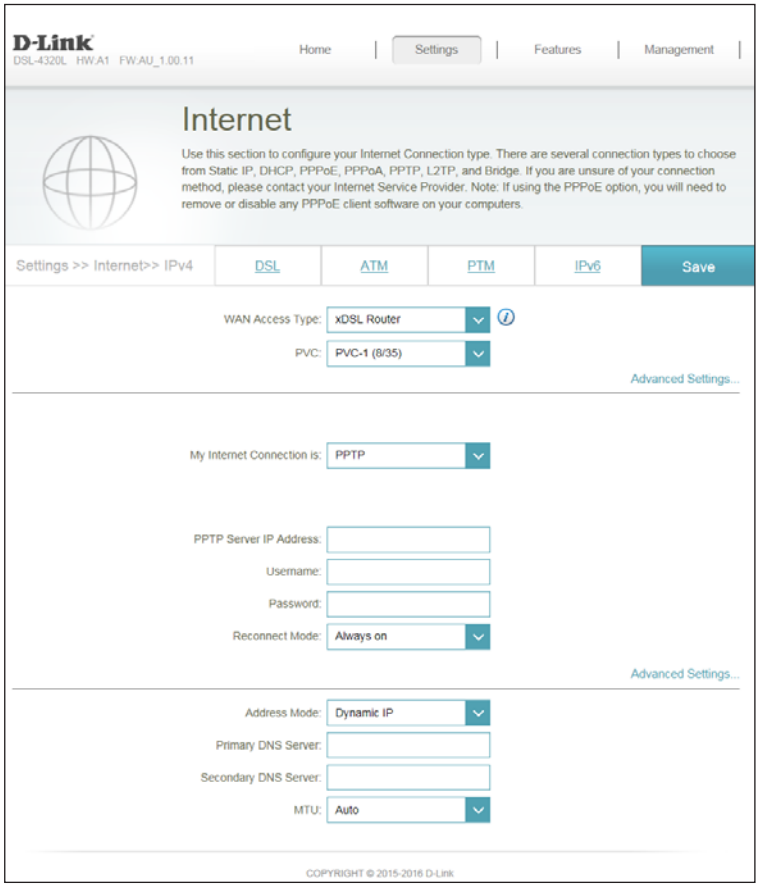
Address Mode: Select **Static IP** if your ISP assigned you the IP address, subnet mask, gateway, and DNS server addresses. In most cases, select **Dynamic IP**.

PPTP IP Address: Enter the IP address provided by your ISP (Static IP only).

PPTP Subnet Mask: Enter the subnet mask provided by your ISP (Static IP only).

PPTP Gateway IP Address: Enter the gateway IP address provided by your ISP (Static IP only).

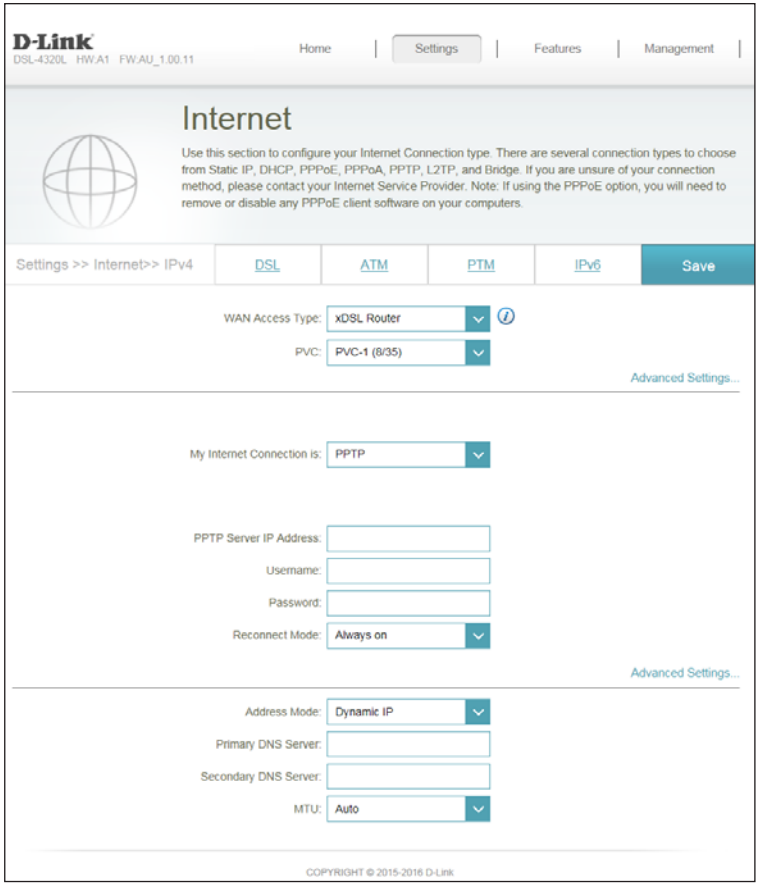
Primary DNS Server: Enter the primary DNS server IP address assigned by your ISP.



Secondary DNS Server: Enter the secondary DNS server IP address assigned by your ISP.

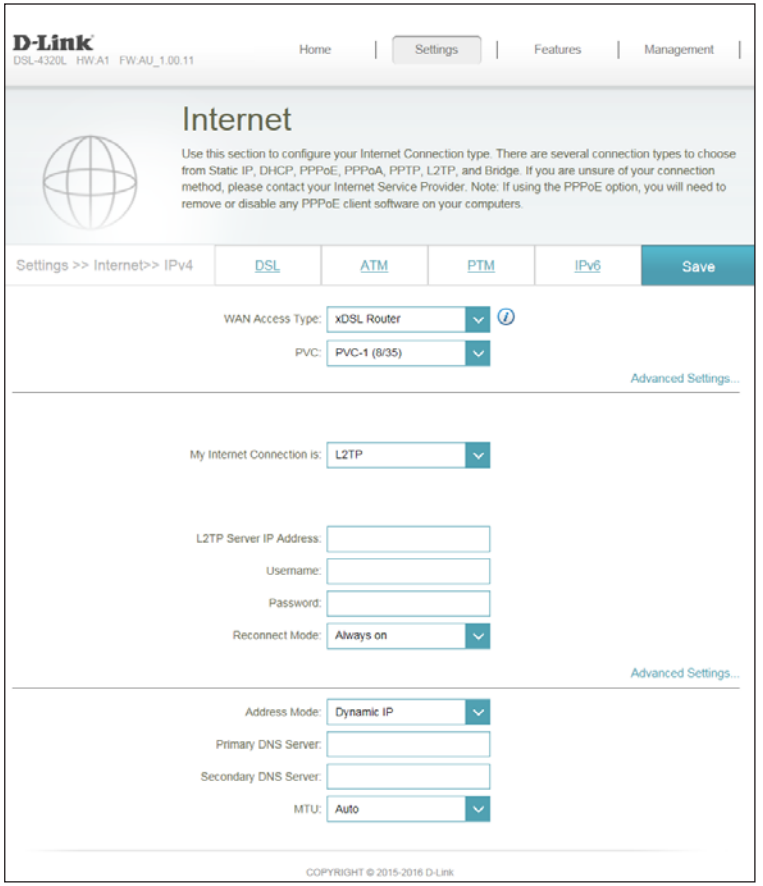
MTU: Maximum Transmission Unit - you may need to change the MTU for optimal performance with your ISP.

Click **Save** when you are done.



L2TP

Choose **L2TP** (Layer 2 Tunneling Protocol) if your Internet Service Provider (ISP) uses a L2TP connection. Your ISP will provide you with a username and password.



L2TP Server IP Address: Enter the L2TP server IP address provided by your ISP.

Username: Enter the username provided by your ISP.

Password: Enter the password provided by your ISP.

Reconnect Mode: Select either **Always-on**, **On-Demand**, or **Manual**.

Maximum Idle Time: Enter a maximum idle time during which the Internet connection is maintained during inactivity. To disable this feature, enable Auto-reconnect.

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

L2TP IP Address: Enter the IP address provided by your ISP (Static IP only).

L2TP Subnet Mask: Enter the subnet mask provided by your ISP (Static IP only).

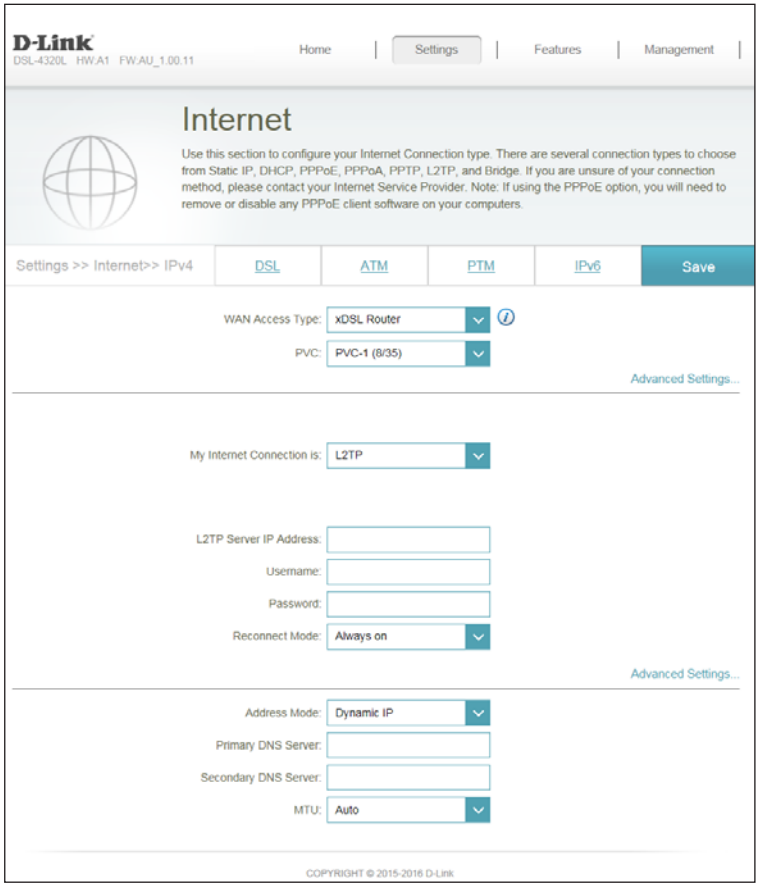
L2TP Gateway IP Address: Enter the gateway IP address provided by your ISP (Static IP only).

Primary DNS Server: Enter the primary DNS server IP address assigned by your ISP.

Secondary DNS Server: Enter the secondary DNS server IP address assigned by your ISP.

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

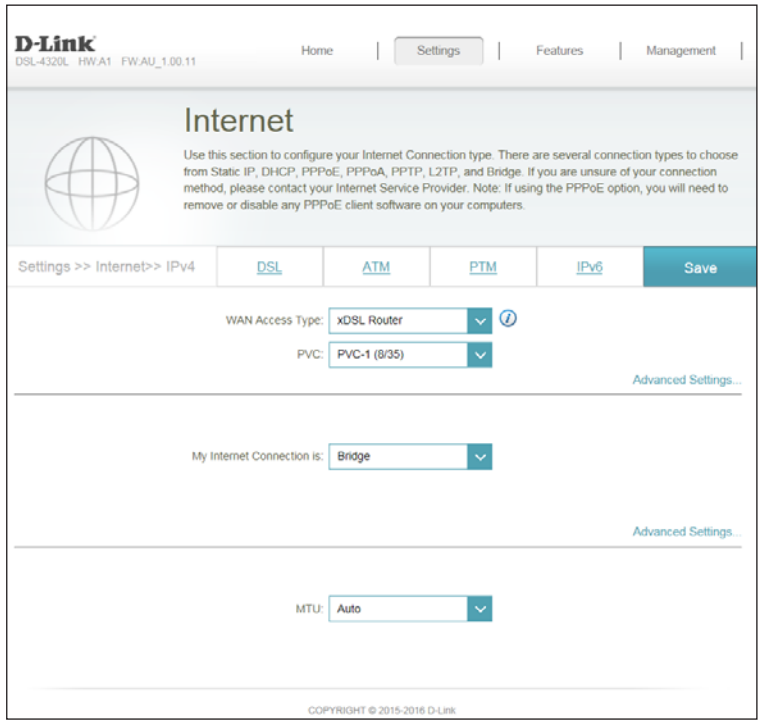
Click **Save** when you are done.



Bridge

Choose **Bridge** to configure the device as a network bridge.

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

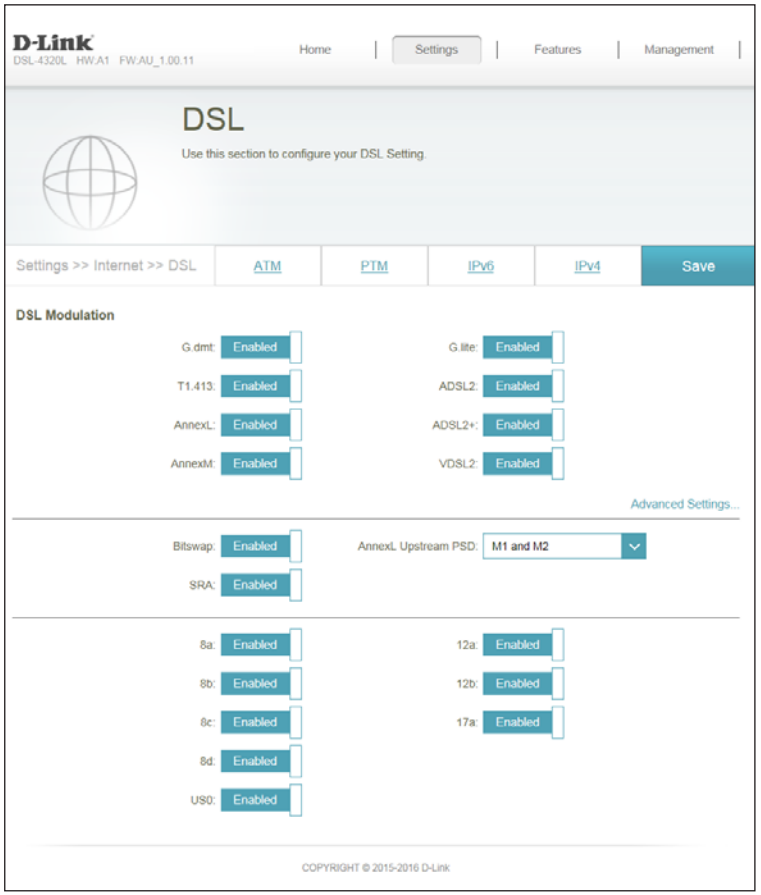


DSL

On this page you can configure your DSL settings. If you are unsure, you can obtain these settings from your ISP.

DSL Modulation: Select whether to enable or disable each DSL modulation option. Usually it is best to leave these at their defaults, unless otherwise instructed by your ISP.

Click **Save** when you are done.



ATM

On this page you can configure your Asynchronous Transfer Mode (ATM) settings. If you are unsure, you can obtain these settings from your ISP.

Interface: Select the ATM interface from the drop-down menu.

VPI: Enter the Virtual Path Indicator (0 - 255).

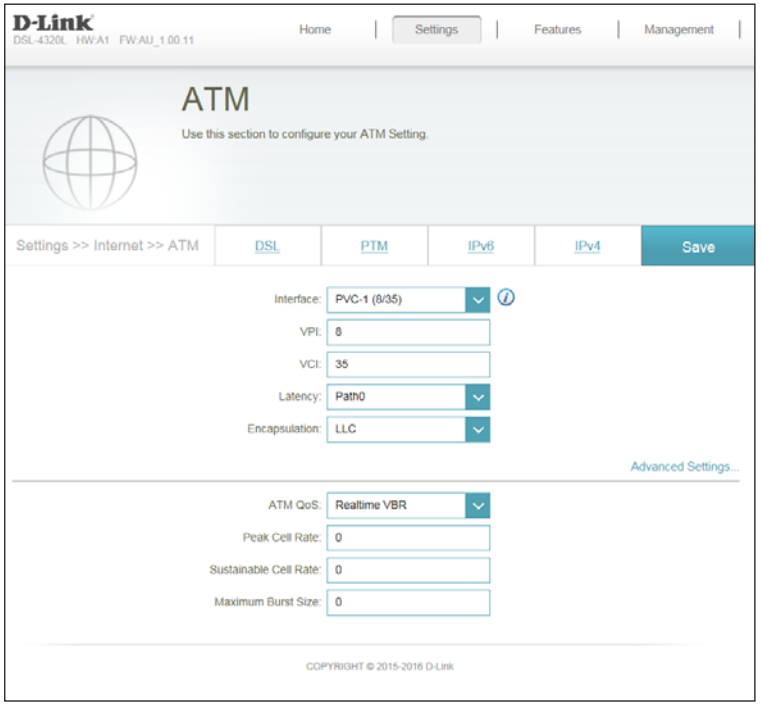
VCI: Enter the Virtual Channel Indicator (32 - 65535).

Latency: Select the latency from the drop-down menu.

Encapsulation: Select the method of encapsulation provided by your ISP. You can select **LLC** or **VCMUX**.

ATM QoS: Select the Quality of Service type from the drop-down menu.

Click **Save** when you are done.

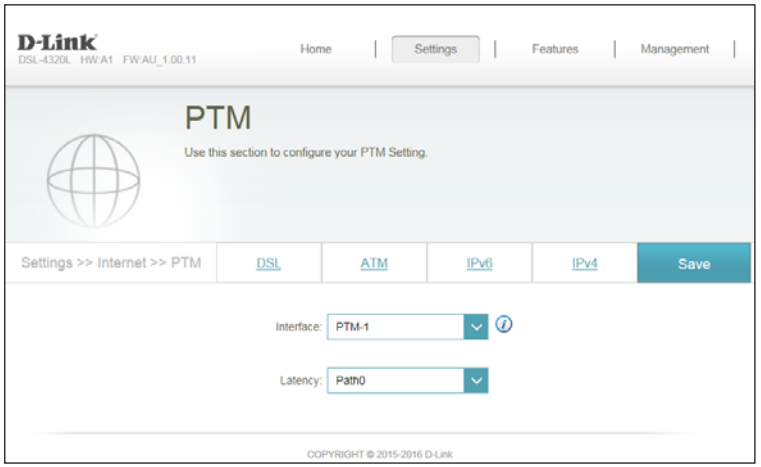


PTM

On this page you can configure your Packet Transfer Mode (ATM) settings. If you are unsure, you can obtain these settings from your ISP.

Interface: Select the PTM interface from the drop-down menu.

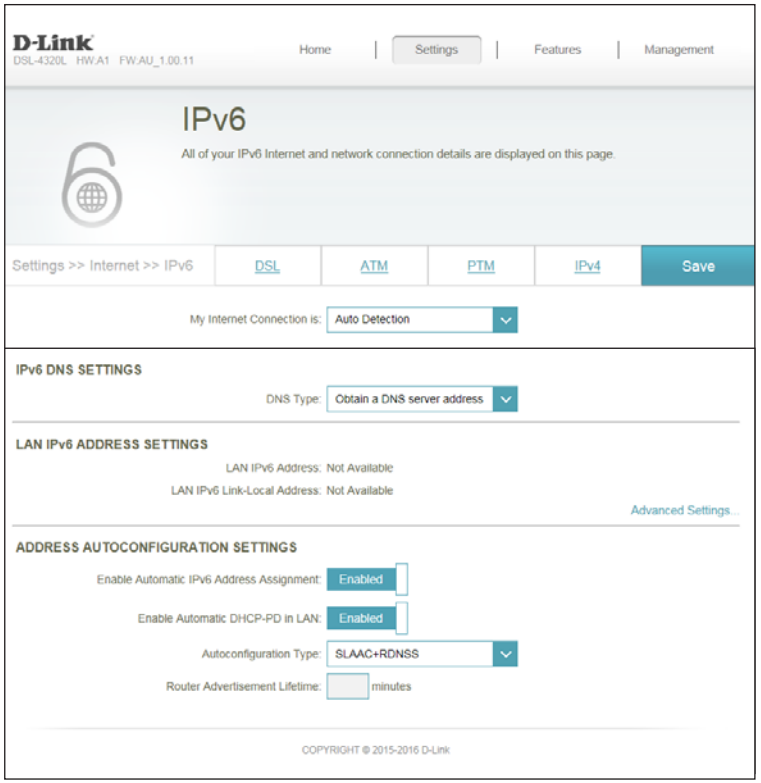
Latency: Select the latency from the drop-down menu.



IPv6

To configure an IPv6 connection, click the **IPv6** link. To return to the IPv4 settings, click **IPv4**.

My Internet Connection Is: Choose your IPv6 connection type from the drop-down menu. You will be presented with the appropriate options for your connection type. Click **Advanced Settings...** to expand the list and see all of the options.



For **Auto Detection** refer to **Auto Detection on page 82.**

For **Static IPv6** refer to **Static IPv6 on page 83**.

For **Auto Configuration (SLAAC/DHCPv6)** refer to **Auto Configuration (SLAAC/DHCPv6) on page 85**.

For **PPPoE** refer to **PPPoE on page 87**.

For **IPv6 in IPv4 Tunnel** refer to **IPv6 in IPv4 Tunnel on page 89**.

For **6 to 4** refer to **6 to 4 on page 91.**

For **6rd** refer to **6rd on page 92.**

For **Local Connectivity Only** refer to **Local Connectivity Only on page 94.**

Auto Detection

Auto Detection mode (not Auto-Configuration mode) automatically detects IPv6 the connection method used by your Internet Service Provider (ISP). If your ISP provides an IPv6 service and Auto Detection failed to detect it, the user must manually select another IPv6 connection type (such as PPPoE, Auto Configuration, 6rd, DS-Lite etc.)

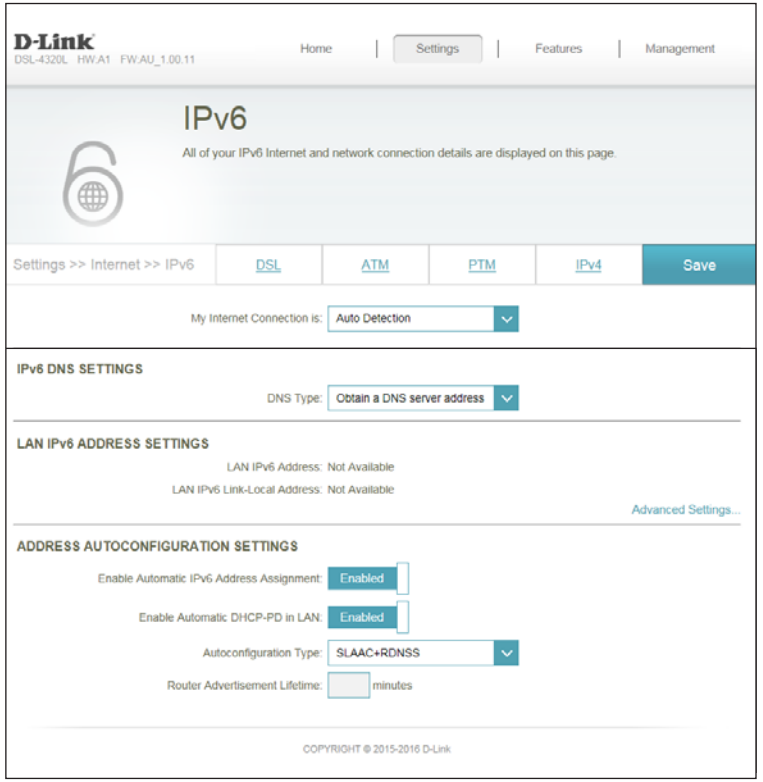
Enable Automatic IPv6 Address Assignment: Enable or disable the Automatic IPv6 Address Assignment feature.

Enable Automatic DHCP-PD in LAN: Enable or disable automatic DHCP-PD services.

Autoconfiguration Type: Select **Stateful (DHCPv6)**, **SLAAC + RDNSS** or **SLAAC + Stateless DHCPv6**.

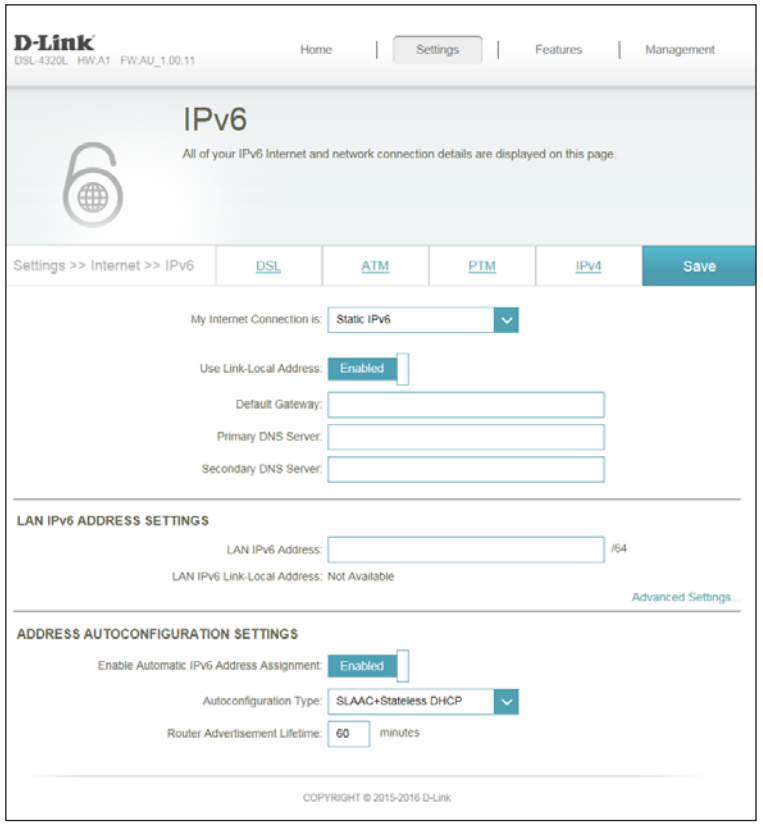
Router Advertisement Lifetime: Enter the IPv6 address lifetime (in minutes).

Click **Save** when you are done.



Static IPv6

Select **Static IP** if your IPv6 information is provided by your Internet Service Provider (ISP).



Use Link-Local Address: Enable or disable a link-local address.

IPv6 Address: If you disabled **Use Link-Local Address**, enter the address supplied by your ISP.

Subnet Prefix Length: If you disabled **Use Link-Local Address**, enter the subnet prefix length supplied by your ISP.

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

Primary DNS Server: Enter the primary DNS server address.

Secondary DNS Server: Enter the secondary DNS server address.

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

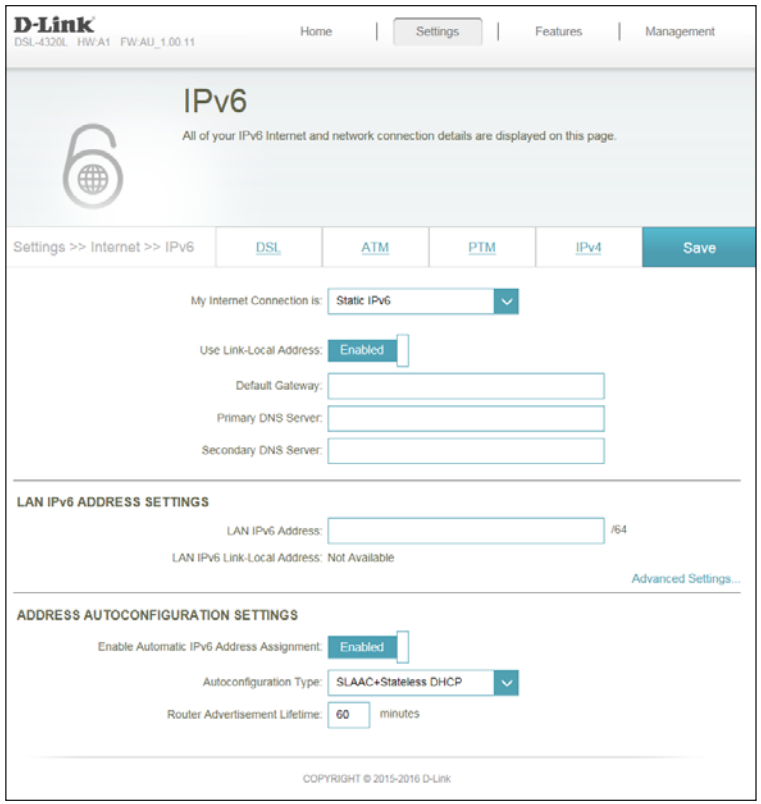
LAN IPv6 Link-Local Address: Displays the router's LAN link-local address.

Enable Automatic IPv6 Address Assignment: Check to enable the Automatic IPv6 Address Assignment feature.

Autoconfiguration Type: Select **Stateful (DHCPv6)**, **SLAAC + RDNSS** or **SLAAC + Stateless DHCPv6**.

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

Click **Save** when you are done.



Auto Configuration (SLAAC/DHCPv6)

This is a connection method where the ISP assigns your IPv6 address when your router requests one from the ISP's server. Some ISPs require you to make some settings on your side before your router can connect to the IPv6 Internet.

DNS Type: Select either **Obtain DNS server address automatically** or **Use the following DNS address**.

Primary DNS Server: If you selected **Use the following DNS address** above, enter the primary DNS server address.

Secondary DNS Server: If you selected **Use the following DNS address** above, enter the secondary DNS server address.

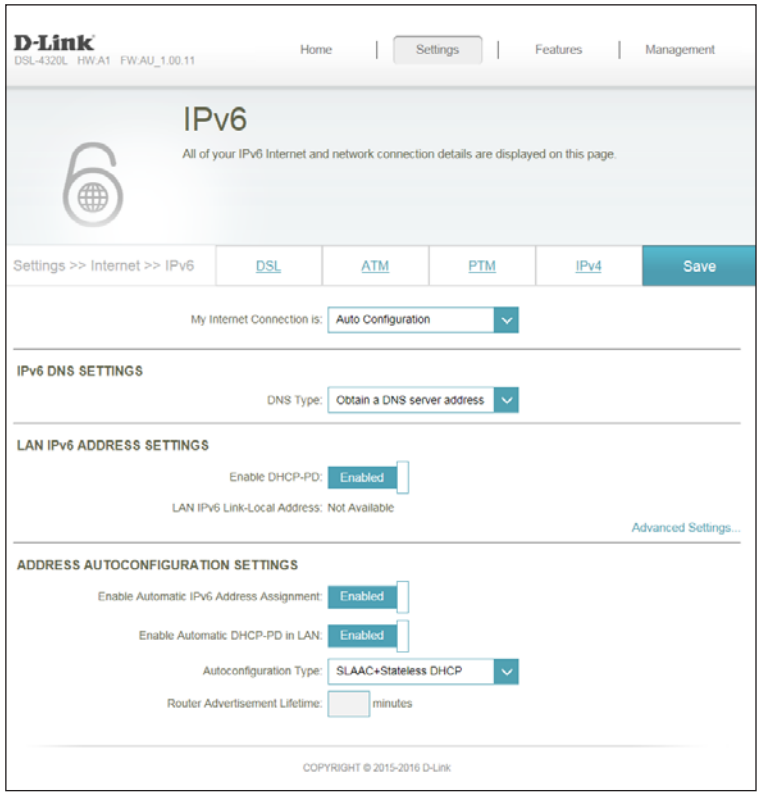
Enable DHCP-PD: Enable or disable prefix delegation services.

LAN IPv6 Address: If you disabled DHCP-PD, enter the LAN (local) IPv6 address for the router.

LAN IPv6 Link-Local Address: Displays the router's LAN link-local address.

Enable Automatic IPv6 Address Assignment: Enable or disable the Automatic IPv6 Address Assignment feature.

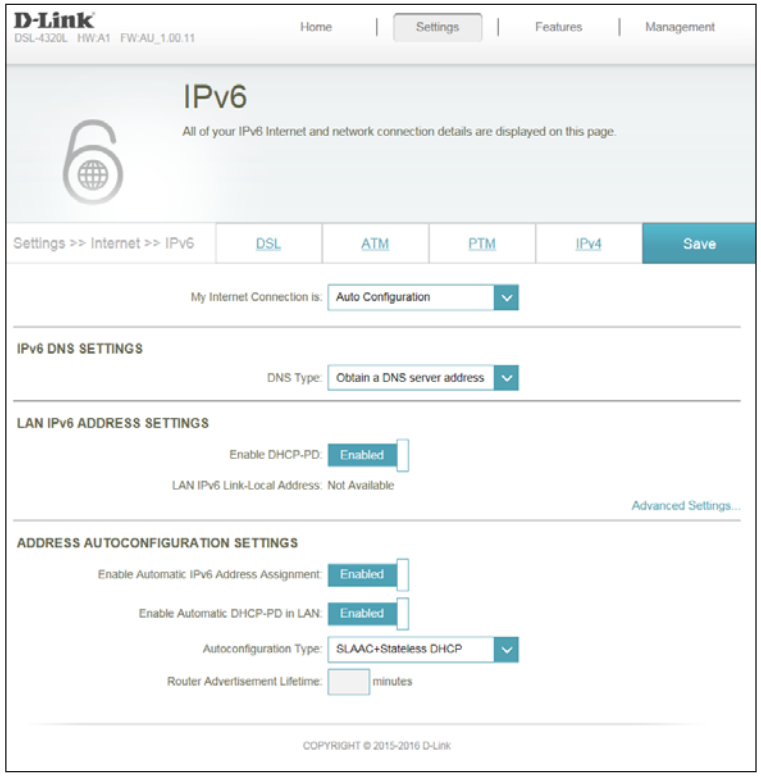
Enable Automatic DHCP-PD in LAN: Enable or disable automatic DHCP-PD services.



Autoconfiguration Type: Select **Stateful (DHCPv6)**, **SLAAC + RDNSS** or **SLAAC + Stateless DHCPv6**.

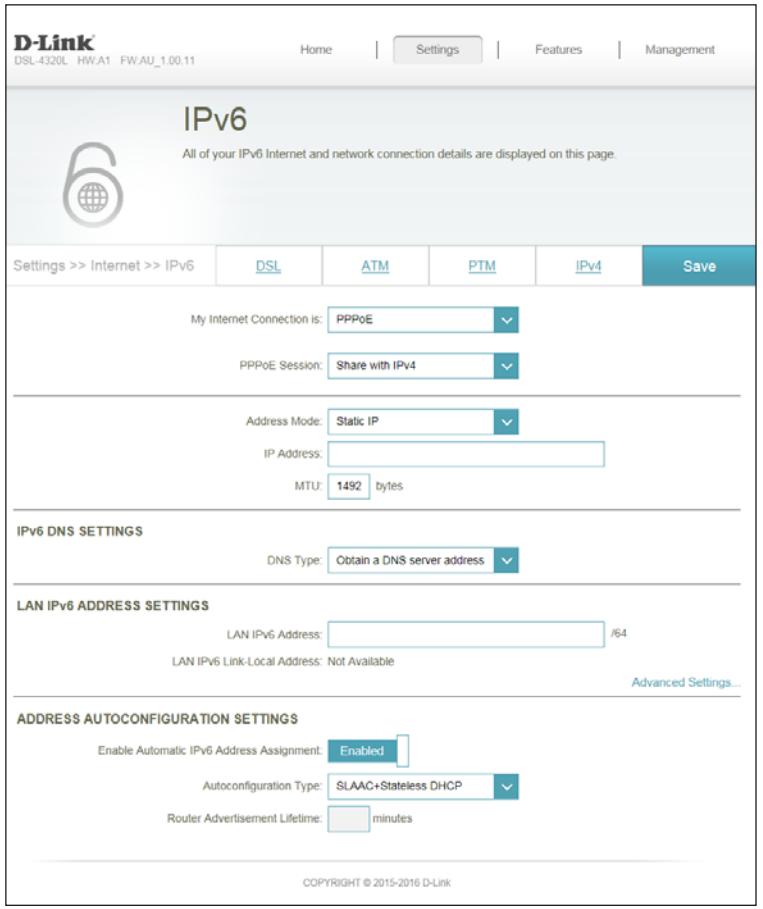
Router Advertisement Lifetime: Enter the IPv6 address lifetime (in minutes).

Click **Save** when you are done.



PPPoE

Select **PPPoE** if your Internet connection requires you to enter a username and password. This information is provided by your Internet Service Provider (ISP).



PPPoE Session: Choose **Share with IPv4** to re-use your IPv4 PPPoE username and password, or **Create a new session**.

Username: If you selected **Create a new session** above, enter the PPPoE username provided by your ISP here.

Password: If you selected **Create a new session** above, enter the PPPoE password provided by your ISP here.

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

IP Address: Enter the IP address provided by your ISP (Static IP only).

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

DNS Type: Select either **Obtain DNS server address automatically** or **Use the following DNS address**.

Primary DNS Server: If you selected **Use the following DNS address** above, enter the primary DNS server address.

Secondary DNS Server: If you selected **Use the following DNS address** above, enter the secondary DNS server address.

Enable DHCP-PD: Enable or disable prefix delegation services.

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

LAN IPv6 Link-Local Address: Displays the router's LAN link-local address.

Enable Automatic IPv6 Address Assignment: Enable or disable the Automatic IPv6 Address Assignment feature.

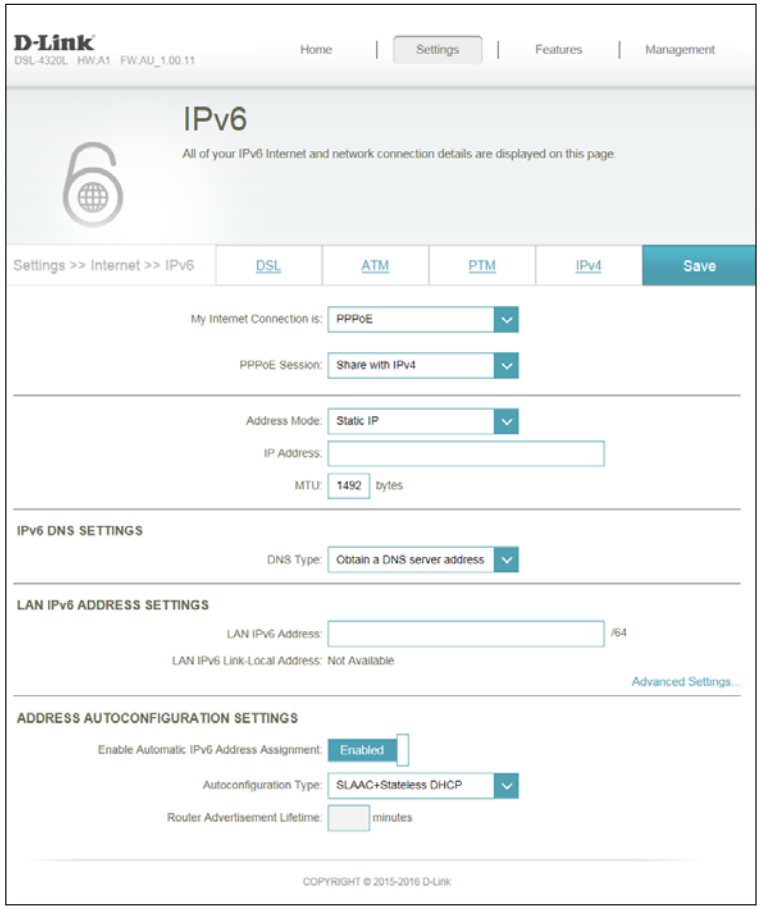
Enable Automatic DHCP-PD in LAN: Enable or disable DHCP-PD for other IPv6 routers connected to the LAN interface.

Note: *This feature requires a smaller subnet prefix than /64 (i.e. allowing for a larger address allocation), such as /63. Contact your ISP for more information.*

Autoconfiguration Type: Select **Stateful (DHCPv6)**, **SLAAC + RDNSS** or **SLAAC + Stateless DHCPv6**.

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

Click **Save** when you are done.



IPv6 in IPv4 Tunnel

The user can configure the IPv6 connection to run in IPv4 Tunnel mode. IPv6 over IPv4 tunneling encapsulates IPv6 packets in IPv4 packets so that IPv6 packets can be sent over an IPv4 infrastructure.

Remote IPv4 Address: Enter the IPv4 remote address you will use.

Remote IPv6 Address: Enter the IPv6 remote address you will use.

Local IPv4 Address: Enter the IPv4 local address you will use.

Local IPv6 Address: Enter the IPv6 local address you will use.

Subnet Prefix Length: Enter the subnet prefix length supplied by your ISP.

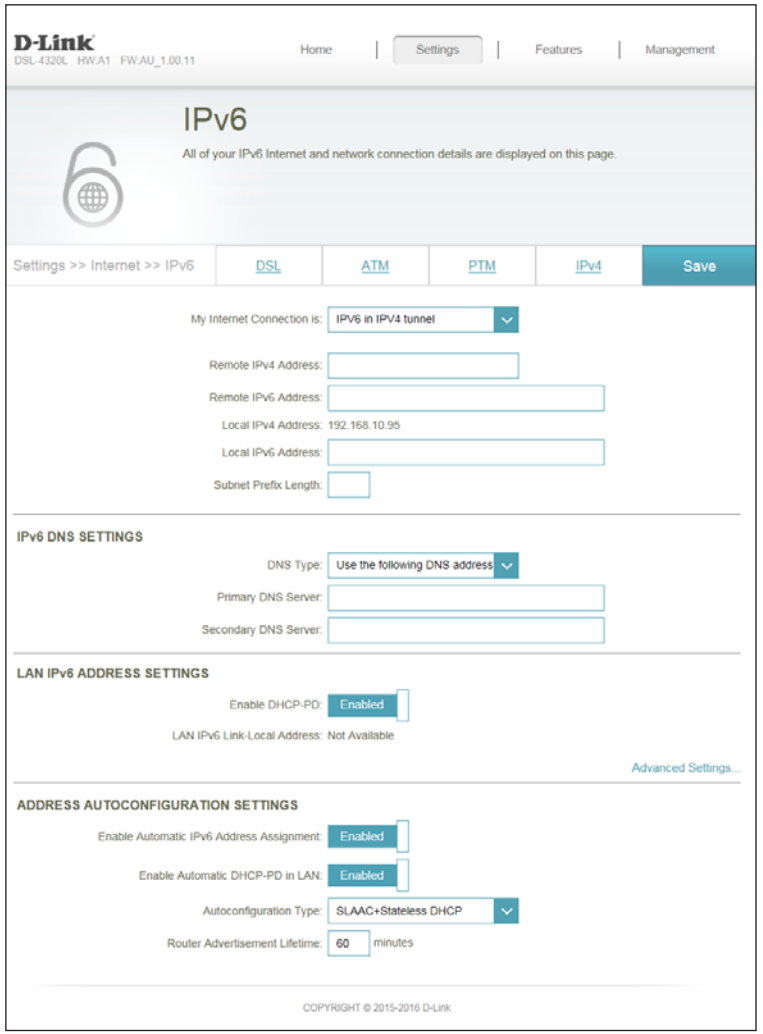
DNS Type: Select either **Obtain DNS server address automatically** or **Use the following DNS address**.

Primary DNS Server: If you selected **Use the following DNS address** above, enter the primary DNS server address.

Secondary DNS Server: If you selected **Use the following DNS address** above, enter the secondary DNS server address.

Enable DHCP-PD: Enable or disable prefix delegation services.

LAN IPv6 Address: If you disabled DHCP-PD, enter the LAN (local) IPv6 address for the router.



LAN IPv6 Link-Local Address: Displays the router's LAN link-local address.

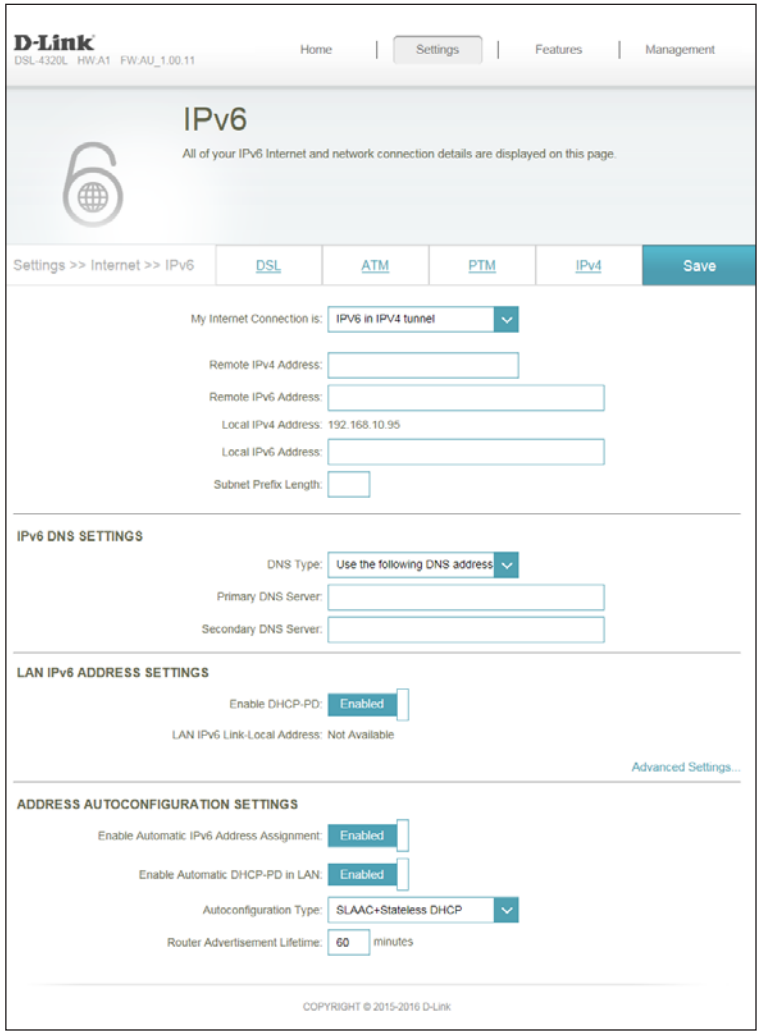
Enable Automatic IPv6 Address Assignment: Enable or disable the Automatic IPv6 Address Assignment feature.

Enable Automatic DHCP-PD in LAN: Enable or disable automatic DHCP-PD services.

Auto Configuration Type: Select **Stateful (DHCPv6)**, **SLAAC + RDNSS** or **SLAAC + Stateless DHCPv6**.

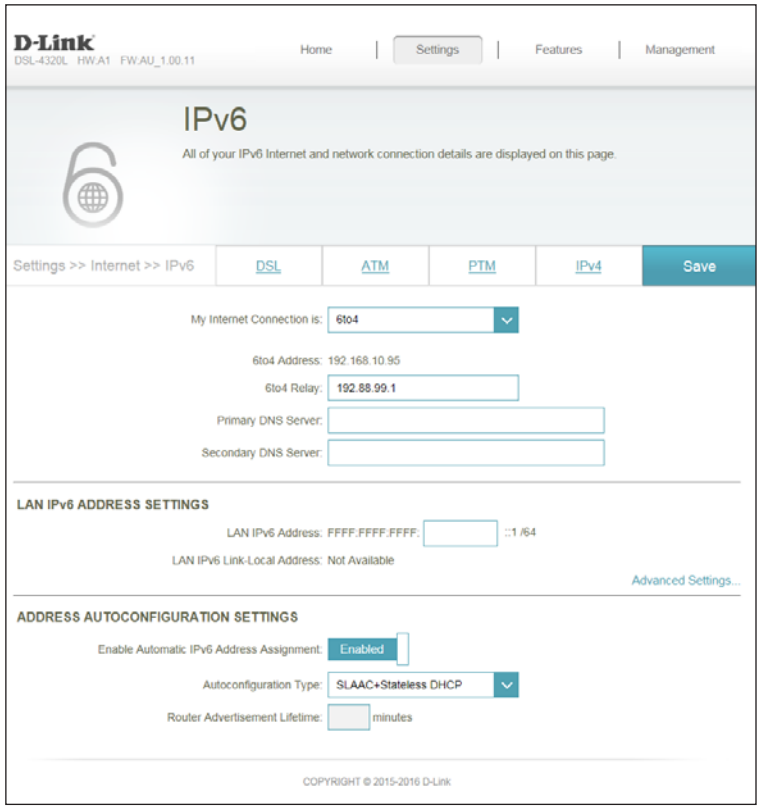
Router Advertisement Lifetime: Enter the IPv6 address lifetime (in minutes).

Click **Save** when you are done.



6 to 4

In this section the user can configure the IPv6 6 to 4 connection settings. 6to4 is an IPv6 address assignment and automatic tunneling technology that is used to provide unicast IPv6 connectivity between IPv6 sites and hosts across the IPv4 Internet.



6 to 4 Address: Displays the 6 to 4 address.

6 to 4 Relay: Enter the 6 to 4 relay supplied by your ISP.

Primary DNS Server: Enter the primary DNS server address.

Secondary DNS Server: Enter the secondary DNS server address.

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

LAN IPv6 Link-Local Address: Displays the router's LAN link-local address.

Enable Automatic IPv6 Address Assignment: Check to enable the Automatic IPv6 Address Assignment feature.

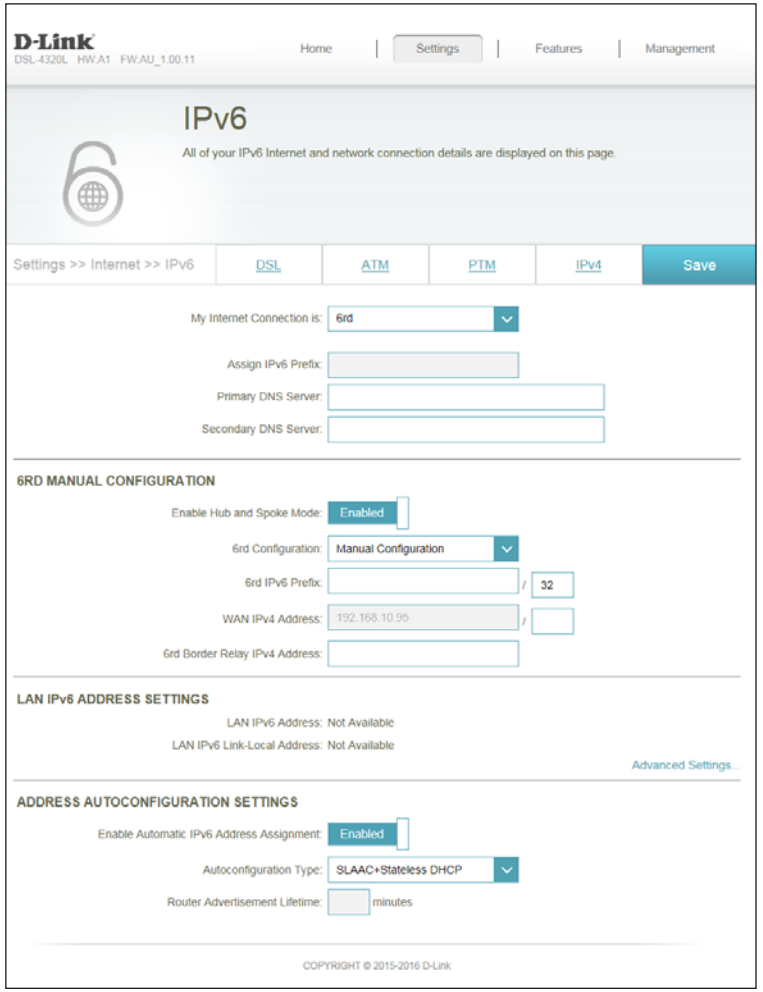
Autoconfiguration Type: Select **Stateful (DHCPv6)**, **SLAAC + RDNSS** or **SLAAC + Stateless DHCPv6**.

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

Click **Save** when you are done.

6rd

In this section the user can configure the IPv6 6rd connection settings.



Assign IPv6 Prefix: Enter the IPv6 prefix.

Primary DNS Server: Enter the primary DNS server address.

Secondary DNS Server: Enter the secondary DNS server address.

Enable Hub and Spoke Mode: Enable if you want to minimize the number of routes to the destination by using a hub and spoke method of networking.

6rd Configuration: Choose the **6rd DHCPv4 Option** to automatically discover and populate the data values, or **Manual Configuration** to enter the settings yourself.

6rd IPv6 Prefix: Enter the 6rd IPv6 prefix and mask length supplied by your ISP (manual configuration only).

6rd Border Relay IPv4 Address: Enter the 6rd border relay IPv4 address settings supplied by your ISP (manual configuration only).

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

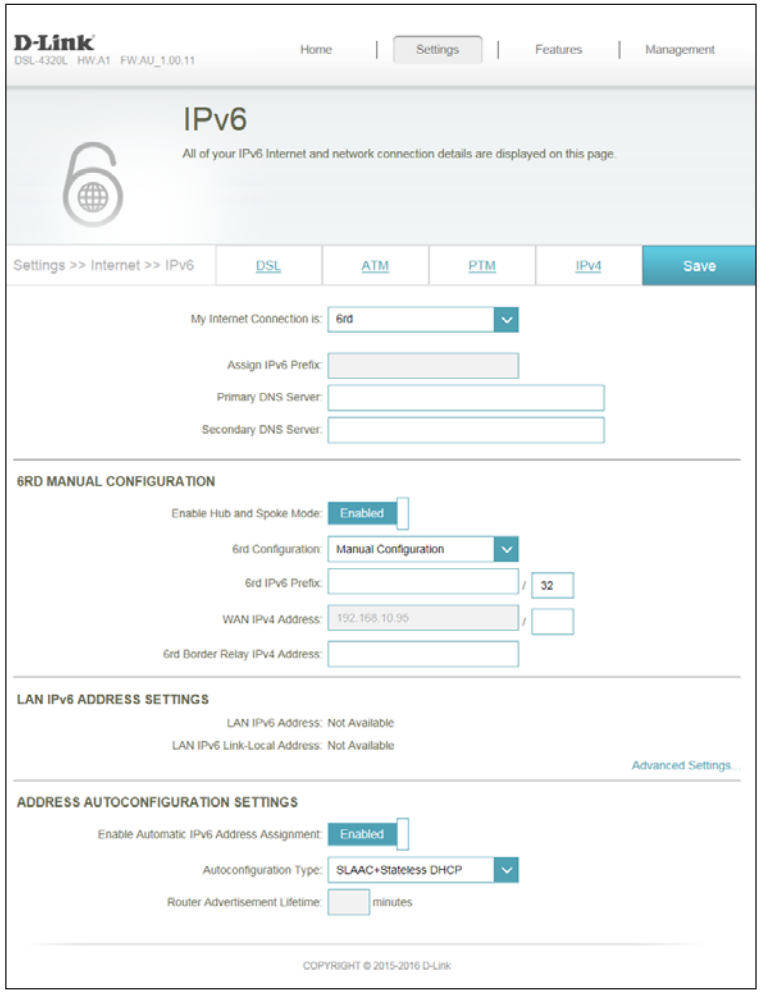
LAN IPv6 Link-Local Address: Displays the router's LAN link-local address.

Enable Automatic IPv6 Address Assignment: Check to enable the Automatic IPv6 Address Assignment feature.

Autoconfiguration Type: Select **Stateful (DHCPv6)**, **SLAAC + RDNSS** or **SLAAC + Stateless DHCPv6**.

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

Click **Save** when you are done.



Local Connectivity Only

Local Connectivity Only allows you to set up an IPv6 connection that will not connect to the Internet.

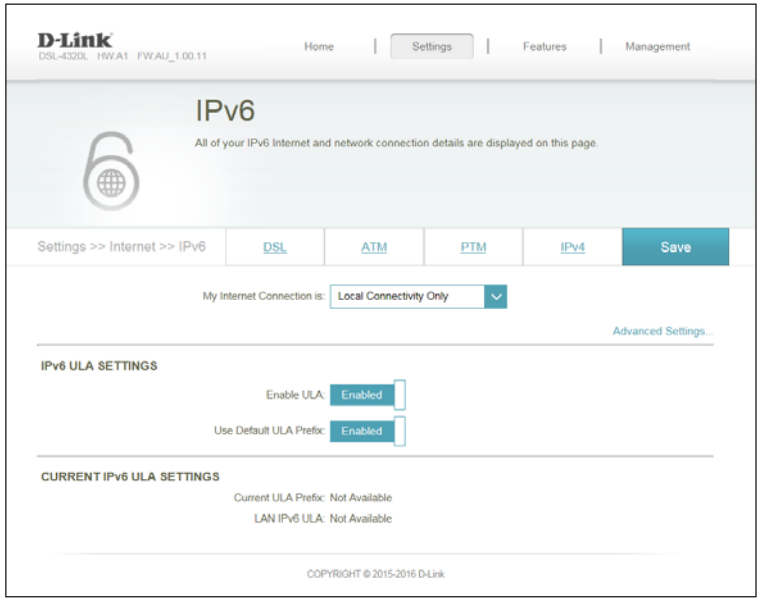
Enable ULA: Click here to enable Unique Local IPv6 Unicast Addresses settings.

Use Default ULA Prefix: Checking this box will automatically configure the ULA prefix for the default setting.

ULA Prefix: If you wish to choose your own ULA prefix, enter it here.

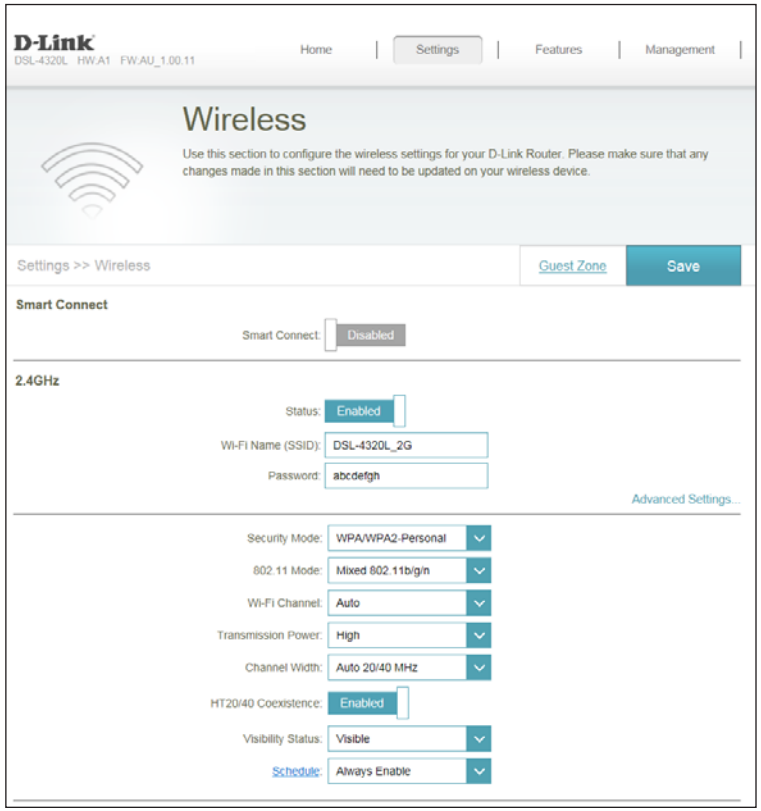
Current IPv6 ULA Settings: This section will display the current settings for your IPv6 ULA.

Click **Save** when you are done.



Wireless

In the Settings menu on the bar on the top of the page, click **Wireless** to see the wireless configuration options. To configure the router's guest zone, click the **Guest Zone** link. Refer to 97 for details. Click **Advanced Settings...** to expand the list and see all of the options. The following options apply to both the 2.4 GHz and the 5 GHz wireless frequency bands:



Smart Connect: Enable this option to have the DSL-4320L automatically manage the 2.4 Ghz and 5 Ghz wireless networks. Disable this option if you want to manually configure the 2.4 Ghz and 5 Ghz wireless networks.

Status: Enable or disable the wireless frequency band.

Wi-Fi Name (SSID): Create a name for your wireless network using up to 32 characters.

Password: Create a password to use for wireless security. Wireless clients will need to enter this password to successfully connect to the network.

Security Mode: Choose **None**, **WEP**, or **WPA/WPA2-(Personal)** (recommended).

802.11 Mode: Select the desired wireless networking standards to use. The available options will depend on the wireless frequency band, as well as the currently selected security mode.

Wi-Fi Channel: Select the desired channel. The default is **Auto** (recommended).

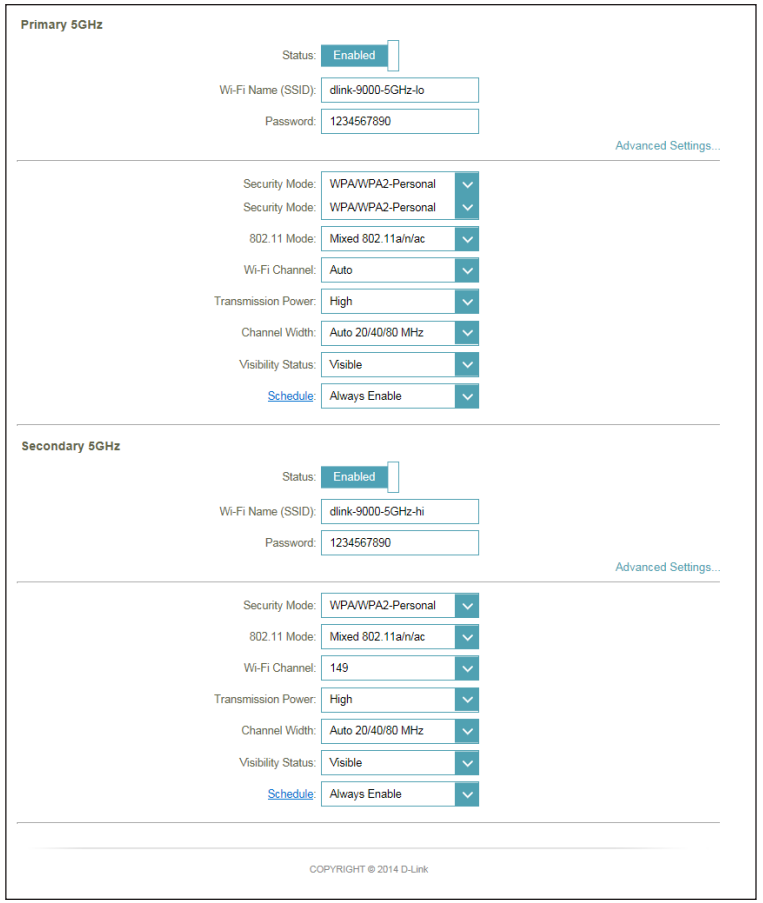
Transmission Power: Select the desired wireless transmission power.

Channel Width: Select **Auto 20/40** if you are using both 802.11n and non-802.11n wireless devices, or select **20 MHz** if you are not using any 802.11n wireless clients.

Visibility Status: The default setting is **Visible**. Select **Invisible** if you do not want to broadcast the SSID of your wireless network.

Schedule: Use the drop-down menu to select the time schedule that the rule will be enabled on. The schedule may be set to **Always Enable**, or you can create your own schedules in the **Schedules** section. Refer to page 115 for more information.

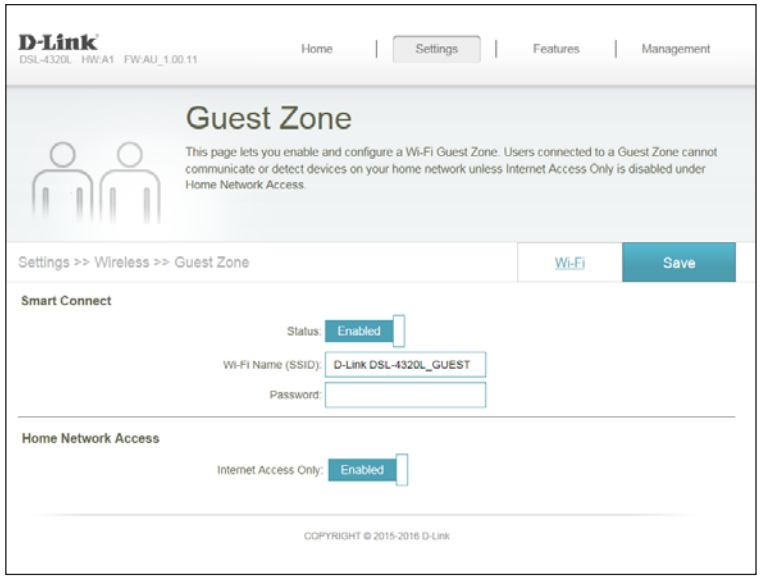
Click **Save** when you are done.



Guest Zone

The guest zone feature will allow you to create temporary zones that can be used by guests to access the Internet. These zones will be separate from your main wireless network. You may configure different zones for the 2.4 GHz and 5 GHz wireless bands.

In the Settings menu on the bar on the top of the page, click **Wireless**, then click the **Guest Zone** link. Click **Advanced Settings...** to expand the list and see all of the options. The following options apply to both the 2.4 GHz and the 5 GHz wireless frequency bands:



Status: Enable or disable the guest zone for each wireless frequency band.

Wi-Fi Name (SSID): Enter a wireless network name (SSID) that is different from your main wireless network.

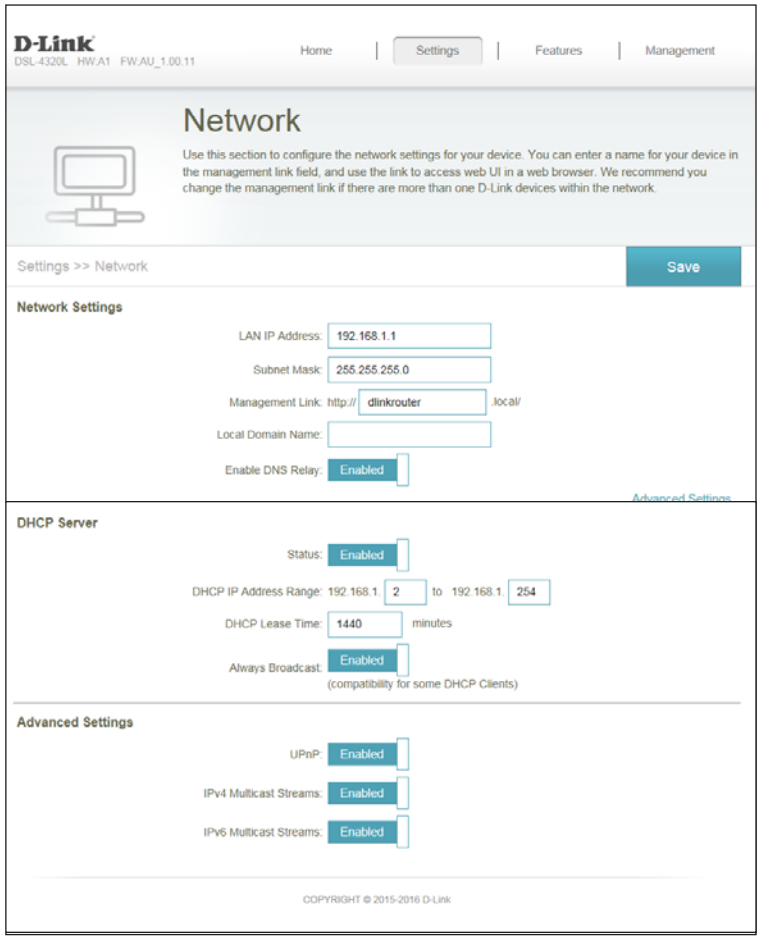
Password: Create a password to use for wireless security. Wireless clients will need to enter this password to successfully connect to the guest zone.

Internet Access Only: Enabling this option will confine connectivity to the Internet, disallowing guests from accessing other local network devices.

Click **Save** when you are done.

Network

This section will allow you to change the local network settings of the router and to configure the DHCP settings. In the Settings menu on the bar on the top of the page, click **Network**. Click **Advanced Settings...** to expand the list and see all of the options.



LAN IP Address: Enter the IP address of the router. The default IP address is **192.168.0.1**.

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

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

Management Link: The default address to access the router's configuration is **http://dlinkrouter.local./** Here, you can replace **dlinkrouter** with a name of your choice.

Local Domain Name: Enter the domain name (optional).

Enable DNS Relay: Disable to transfer the DNS server information from your ISP to your computers. If enabled, your computers will use the router for a DNS server.

Status: Enable or disable the DHCP server.

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

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

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

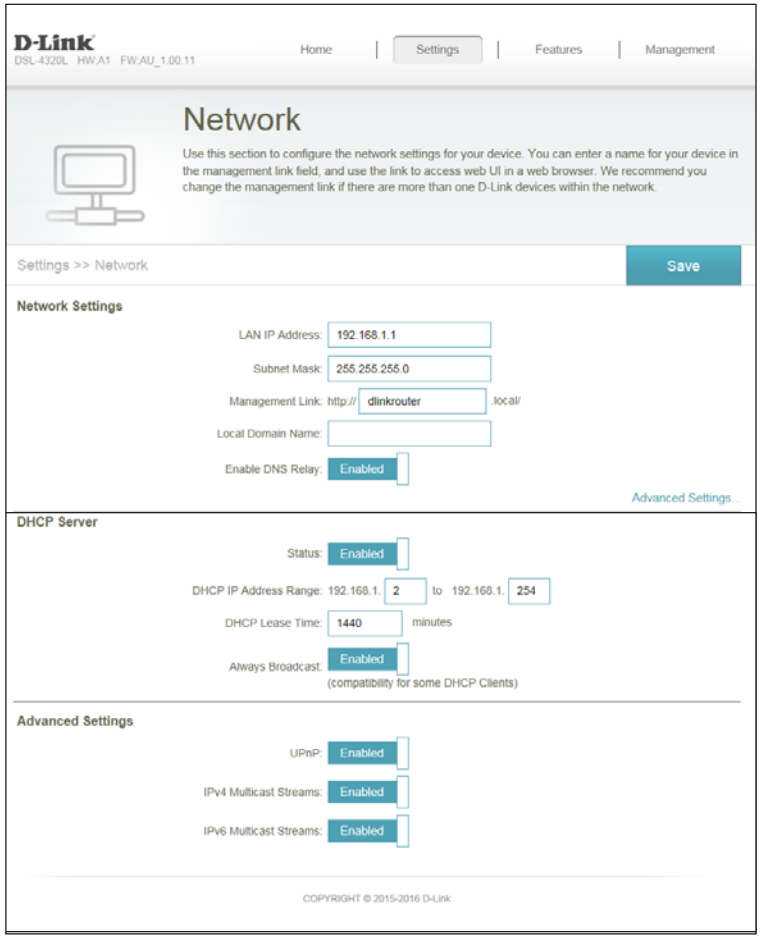
Always Broadcast: Enable this feature to broadcast your networks DHCP server to LAN/WLAN clients.

UPnP: Enable or disable Universal Plug and Play (UPnP). UPnP provides compatibility with networking equipment, software and peripherals.

IPv4 Multicast Stream: Enable to allow IPv4 multicast traffic to pass through the router from the Internet.

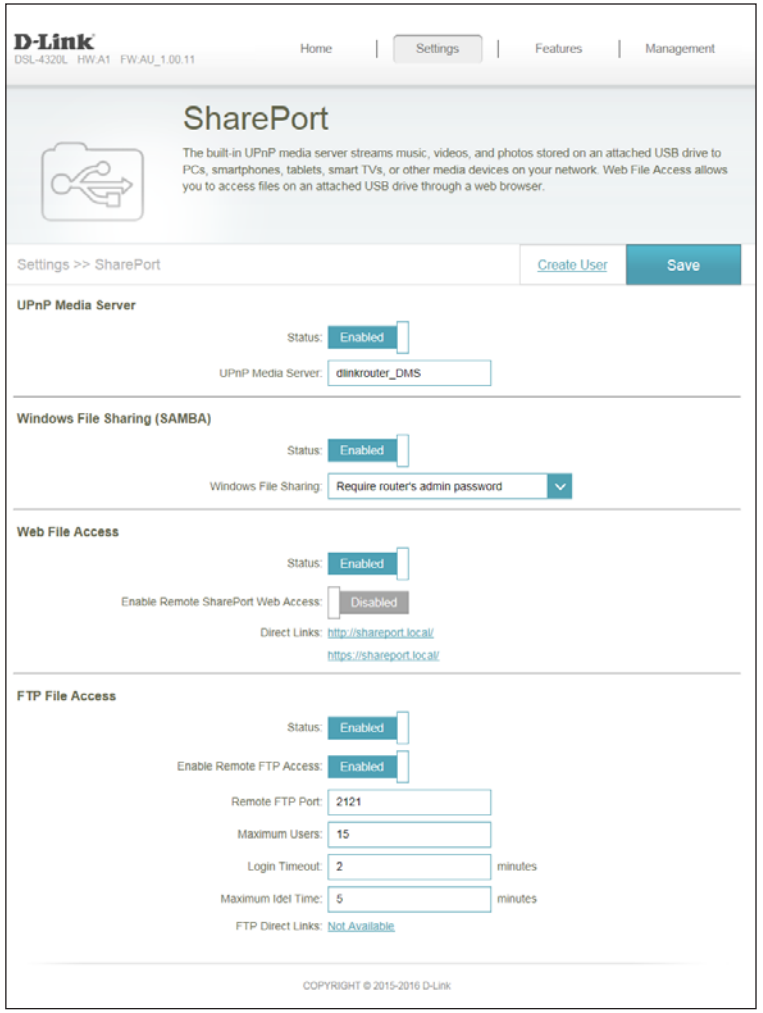
IPv6 Multicast Stream: Enable to allow IPv6 multicast traffic to pass through the router from the Internet.

Click **Save** when you are done.



SharePort

This page will allow you to set up access to files on an external USB device plugged into the router. You can do this through the local network or from the Internet using either a web browser or an app on your smartphone or tablet. In the Settings menu on the bar on the top of the page, click **SharePort**.



Status: Check to enable the media server functions, allowing connected clients access to media files over the network.

UPnP Media Server: Choose a name for your media server so that it can be found.

Windows File Sharing (SAMBA): Choose either **Allow all users to access (no password)** or **Require router's admin password** to specify whether the router's password will be required for access.

Web File Access: Enable remote access to files stored on a USB device plugged into the router through a web browser.

Direct Links: This area will display the HTTP and HTTPS links to connect to your SharePort drive through a web browser from a device on your network.

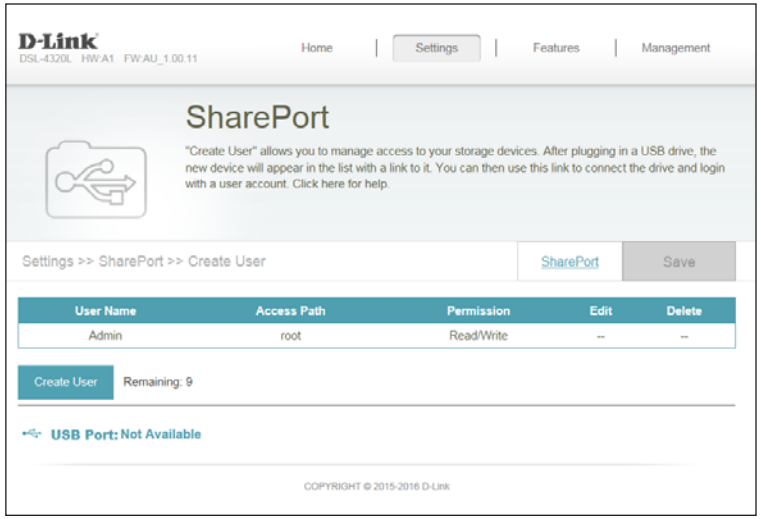
FTP File Access: To allow file access via FTP, ensure that the **Status** is **Enabled**. **Enable Remote FTP Access** allows users to access files from outside the network via FTP. If this is enabled, enter the **Remote FTP Port**, **Maximum Users**, **Login Timeout**, and the **Maximum Idle Time**.

Click **Save** when you are done.

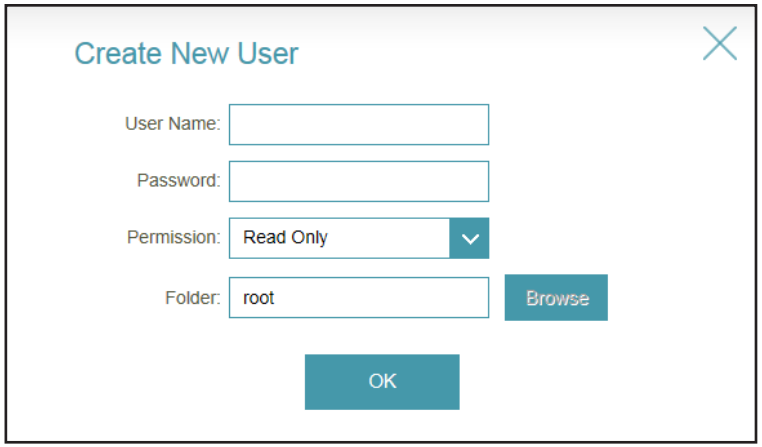
To manage user accounts for SharePort access, click **Create User** and refer to the next page for details.

Create User

The Create User page allows you to manage your SharePort user accounts. The current list of user accounts will be displayed, along with their current permissions and access path. If they do not have an account set up, users will be restricted to guest access; only having access to the "Guest" folder on the media server. The router can store a maximum of ten accounts (including the "Admin" account).



If you wish to remove an account, click on its trash can icon in the Delete column. If you wish to edit an account, click on its pencil icon in the Edit column. If you wish to create a new account, click the **Create User** button. If you edit or create a user, the following options will appear:



User Name: Enter the desired user name for the new account.

Password: Enter the password which the user will need to enter when logging in.

Permission: Select either **Read Only** or **Read/Write** to control whether the user can edit, add, or delete files on the device.

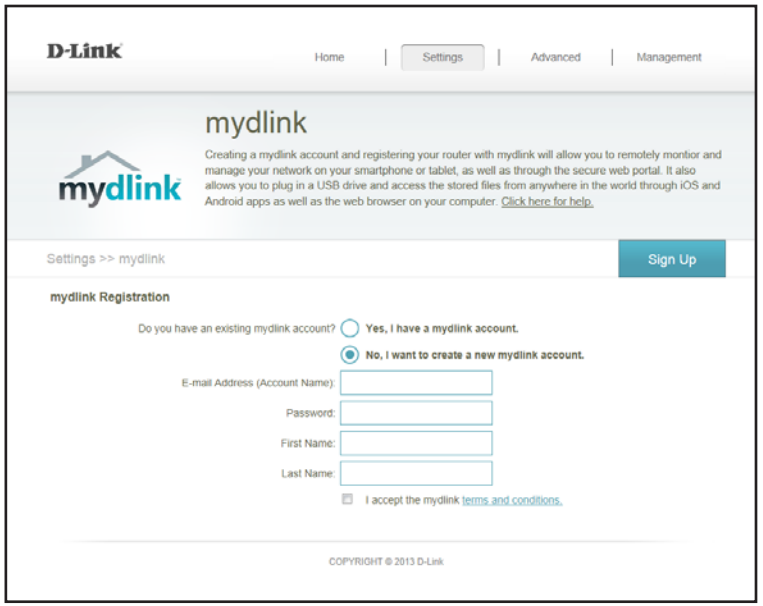
Folder: Choose the parent folder that the user will be able to access. Files and folders on a higher level will be unavailable. "root" means that the user can access all files on the device. To change the selected folder, click **Browse** and browse to the desired folder.

Click **OK** when you are done. The new user should be added to the list of user accounts. To save the new list, click **Save**. To return to the SharePort page, click **SharePort**.

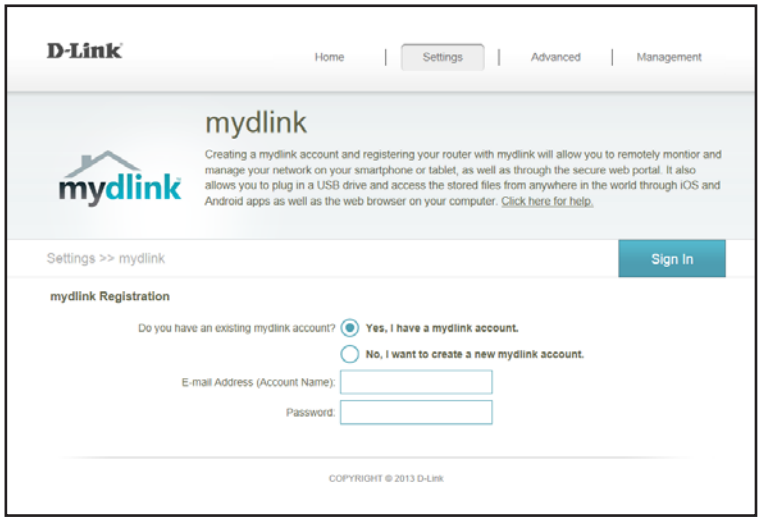
mydlink

Enabling mydlink will allow you to access and manage the mydlink-compatible devices on your network. This can be done either through a web browser or via a smartphone app.

This page allows you to sign in to an existing mydlink account, or sign up for a new mydlink account. In the Settings menu on the bar on the top of the page, click **mydlink**.



If you do not already have a mydlink account, click **No, I want to create a new mydlink account**. Fill out your email address (which will also function as your username), choose a password, and enter your first and last name. Then, click **Sign Up** to create your new mydlink account.



If you already have a mydlink account, click **Yes, I have a mydlink account**. Enter your email address (which is also your username) and your password. Then, click **Sign In** to register your existing mydlink account with your router.

Features

QoS Engine

This section will allow you to prioritize particular clients over others, so that those clients receive higher bandwidth. For example, if one client is streaming a movie and another is downloading a non-urgent file, you might wish to assign the former device a higher priority than the latter so that the movie streaming is not disrupted by the traffic of the other devices on the network.

In the Features menu on the bar on the top of the page, click **QoS Engine**.

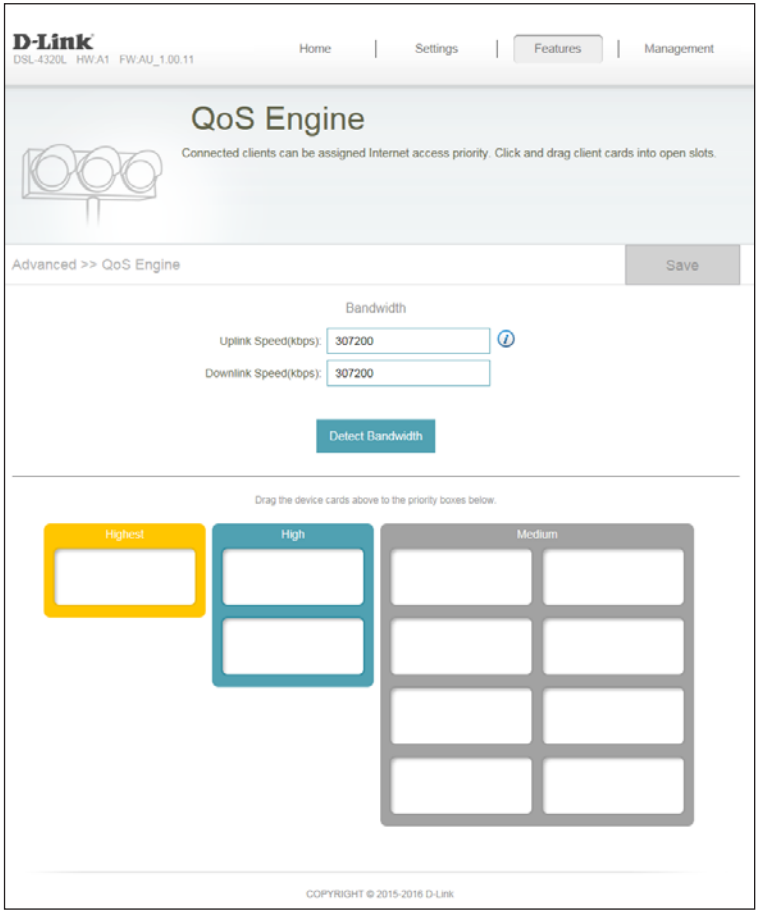
Under All Devices, you will see device cards representing each connected client. If some are off-screen, you can use the **<** and **>** buttons to scroll through the cards.

A maximum of **one** device can be assigned **Highest** priority.

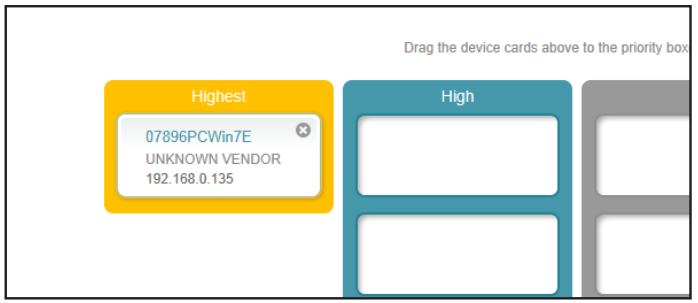
A maximum of **two** devices can be assigned **High** priority.

A maximum of **eight** devices can be assigned **Medium** priority.

If no devices are explicitly assigned a priority, they will all be treated with equal priority. If some devices are not assigned a priority and others are, the unassigned devices will be treated with the lowest priority.



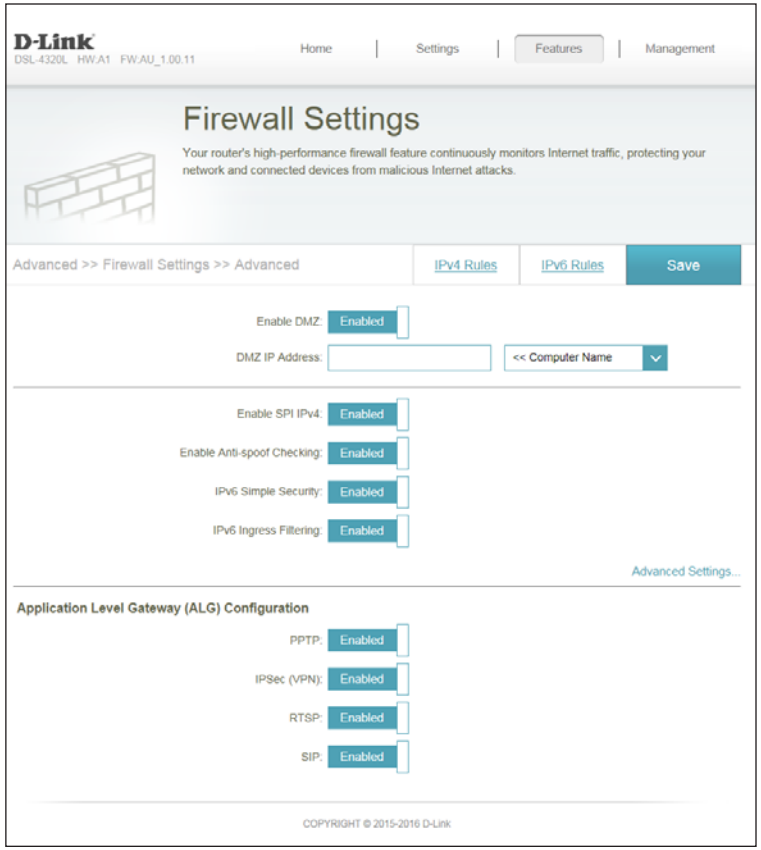
To assign a priority level to a device, drag the device card from the All Devices list over an empty slot and release the mouse button. The card will remain in the slot. If you want to remove a priority assignment from a device and return it to the All Devices list, click the cross icon in the top right of the device card.



Click **Save** when you are done.

Firewall Settings

The router's firewall protects your network from malicious attacks over the Internet. In the Features menu on the bar on the top of the page, click **Firewall Settings**. Click **Advanced Settings...** to expand the list and see all of the options.



Enable DMZ: Enable or disable Demilitarized Zone (DMZ). This completely exposes the client to threats over the Internet, and is not recommended in ordinary situations.

DMZ IP Address: If you enabled DMZ, enter the IP address of the client you wish to expose, or use the drop-down menu to quickly select it.

Enable SPI IPv4: Enabling Stateful Packet Inspection (SPI) helps to prevent cyber attacks by validating that the traffic passing through the session conforms to the protocol.

Enable Anti-Spoof Checking: Enable this feature to protect your network from certain kinds of "spoofing" attacks.

IPv6 Simple Security: Enable or disable IPv6 simple security.

IPv6 Ingress Filtering: Enable or disable IPv6 ingress filtering.

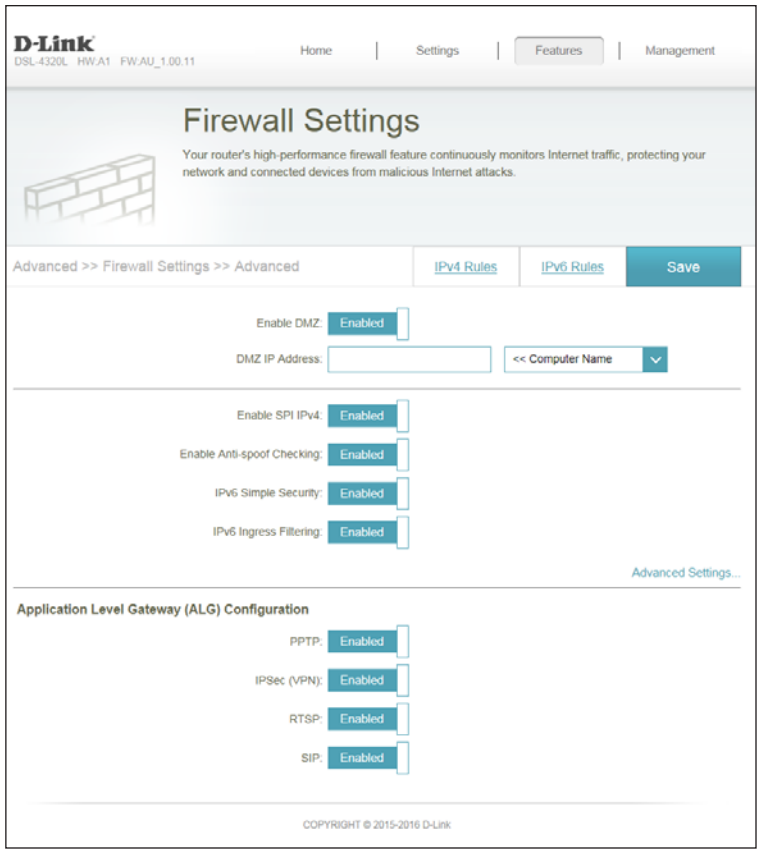
PPTP: Allows multiple machines on the LAN to connect to their corporate network using the PPTP protocol.

IPSec (VPN): Allows multiple VPN clients to connect to their corporate network using IPSec. Some VPN clients support traversal of IPSec through NAT. This Application Level Gateway (ALG) may interfere with the operation of such VPN clients. If you are having trouble connecting with your corporate network, try turning this ALG off. Please check with the system administrator of your corporate network whether your VPN client supports NAT traversal.

RTSP: Allows applications that uses Real Time Streaming Protocol (RTSP) to receive streaming media from the Internet.

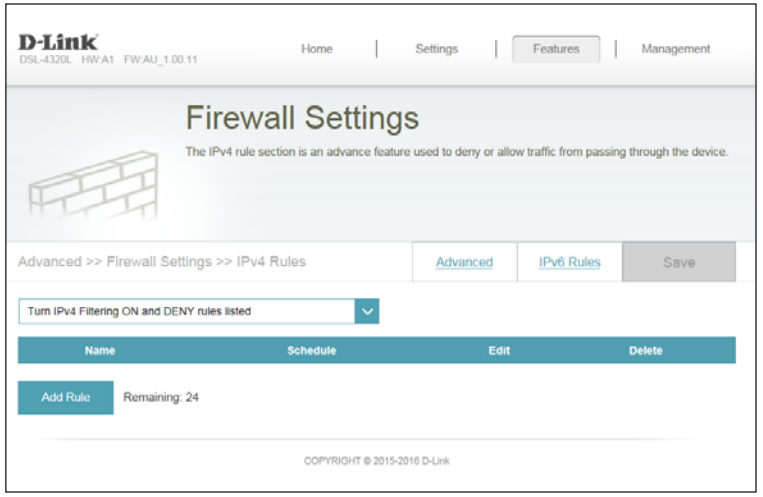
SIP: Allows devices and applications using VoIP (Voice over IP) to communicate across NAT. Some VoIP applications and devices have the ability to discover NAT devices and work around them. This ALG may interfere with the operation of such devices. If you are having trouble making VoIP calls, try turning this ALG off.

Click **Save** when you are done.



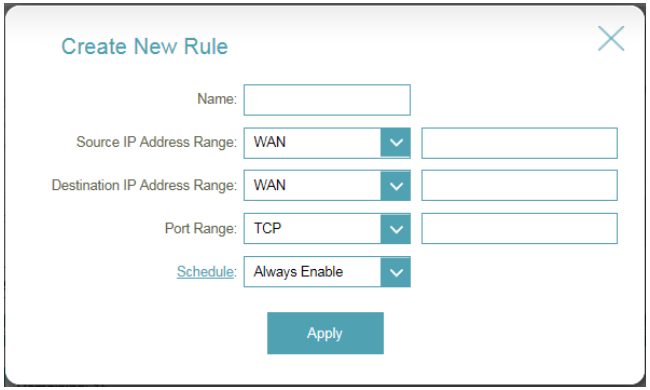
IPv4/IPv6 Rules

The IPv4/IPv6 Rules section is an advanced option that lets you configure what kind of traffic is allowed to pass through the network. To configure the IPv4 rules, from the Firewall Settings page click **IPv4 Rules**. To configure IPv6 rules, from the Firewall Settings page click **IPv6 Rules**. To return to the main Firewall Settings page, click **Security Check**.



To begin, use the drop-down menu to select whether you want to **ALLOW** or **DENY** the rules you create. You can also choose to turn filtering **OFF**.

If you wish to remove a rule, click on its trash can icon in the Delete column. If you wish to edit a rule, click on its pencil icon in the Edit column. If you wish to create a new rule, click the **Add Rules** button. Click **Save** when you are done. If you edit or create a rule, the following options will appear:



Name: Enter a name for the rule.

Source IP Address Range: Enter the source IP address range that the rule will apply to, and using the drop-down menu, specify whether it is a **WAN** or **LAN** IP address.

Destination IP Address Range: Enter the destination IP address range that the rule will apply to, and using the drop-down menu, specify whether it is a **WAN** or **LAN** IP address.

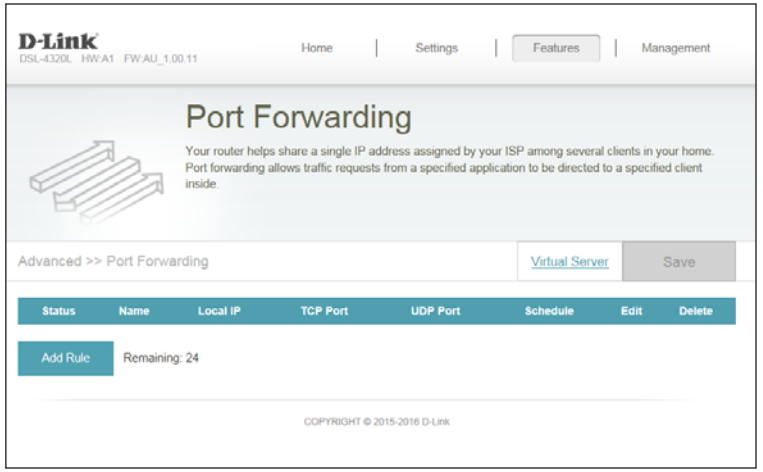
Port Range: Select the protocol of the traffic to allow or deny (**Any**, **TCP**, or **UDP**) and then enter the range of ports that the rule will apply to.

Schedule: Use the drop-down menu to select the time schedule that the rule will be enabled on. The schedule may be set to **Always Enable**, or you can create your own schedules in the **Schedules** section. Refer to page 115 for more information.

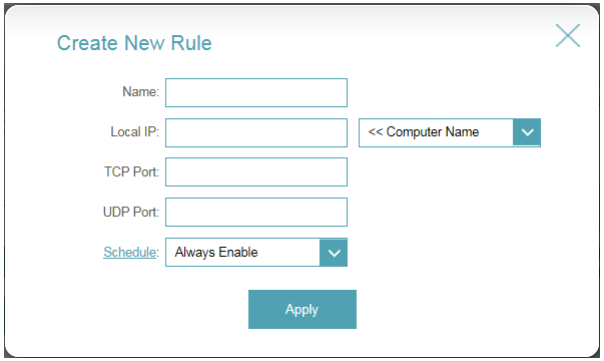
Click **Apply** when you are done.

Port Forwarding

Port forwarding allows you to specify a port or range of ports to open for specific devices on the network. This might be necessary for certain applications to connect through the router. In the Features menu on the bar on the top of the page, click **Port Forwarding**.



If you wish to remove a rule, click on its trash can icon in the Delete column. If you wish to edit a rule, click on its pencil icon in the Edit column. If you wish to create a new rule, click the **Add Rules** button. Click **Save** when you are done. If you edit or create a rule, the following options will appear:



Name: Enter a name for the rule.

Local IP: Enter the IP address of the computer on your local network that you want to allow the incoming service to. Alternatively, select the device from the drop-down menu.

TCP Port: Enter the TCP ports that you want to open. You can enter a single port or a range of ports. Separate ports with a comma (for example: 24,1009,3000-4000).

UDP Port: Enter the UDP ports that you want to open. You can enter a single port or a range of ports. Separate ports with a comma (for example: 24,1009,3000-4000).

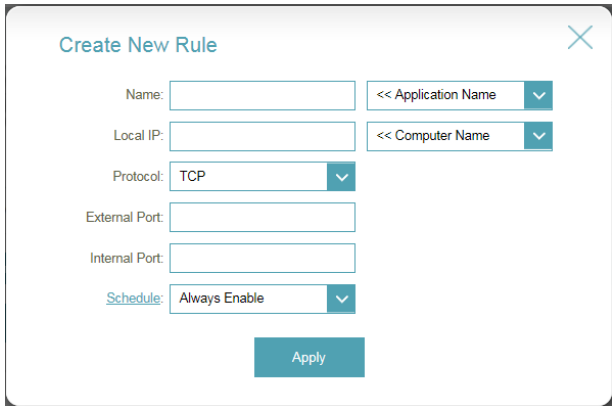
Schedule: Use the drop-down menu to select the time schedule that the rule will be enabled on. The schedule may be set to **Always Enable**, or you can create your own schedules in the **Schedules** section. Refer to 115 for more information.

Click **Apply** when you are done.

Virtual Server

The virtual server allows you to specify a single public port on your router for redirection to an internal LAN IP Address and Private LAN port. To configure the virtual server, from the Port Forwarding page click **Virtual Server**. To return to the main Port Forwarding page, click **Port Forwarding**.

If you wish to remove a rule, click on its trash can icon in the Delete column. If you wish to edit a rule, click on its pencil icon in the Edit column. If you wish to create a new rule, click the **Add Rules** button. Click **Save** when you are done. If you edit or create a rule, the following options will appear:



Name: Enter a name for the rule.

Local IP: Enter the IP address of the computer on your local network that you want to allow the incoming service to. Alternatively, select the device from the drop-down menu.

Protocol: Select the protocol of the traffic to allow or deny (**TCP**, **UDP**, **Both**, or **Other**).

Protocol Number: If you entered **Other** above, enter the protocol number.

External Port: Enter the public port you want to open.

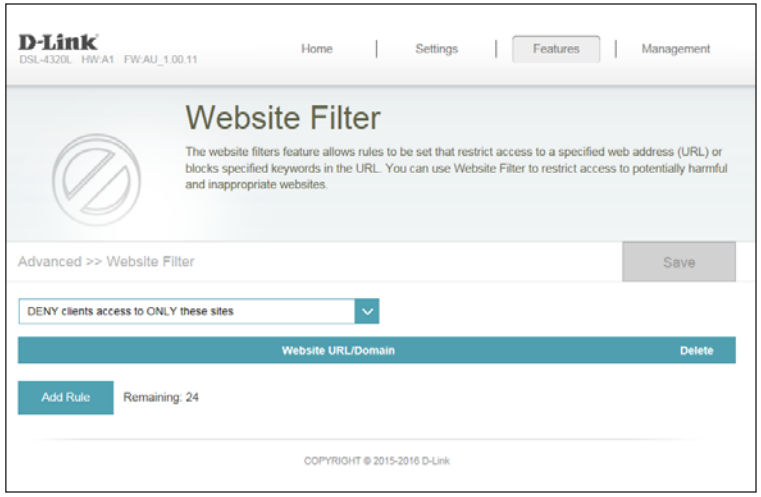
Internal Port: Enter the private port you want to open.

Schedule: Use the drop-down menu to select the time schedule that the rule will be enabled on. The schedule may be set to **Always Enable**, or you can create your own schedules in the **Schedules** section. Refer to page 115 for more information.

Click **Apply** when you are done.

Website Filter

The website filter settings allow you to block access to certain web sites. You can either create a list of sites to block, or create a list of sites to allow (with all other sites being blocked).



In the Features menu on the bar on the top of the page, click **Website Filter**.

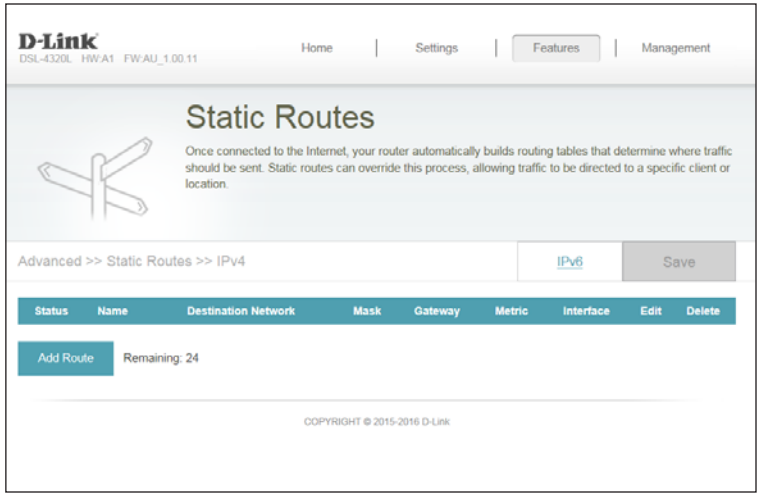
If you want to create a list of sites to block, select **DENY computers access to ONLY these sites** from the drop-down menu. All other sites will be accessible. If you want to specify a list of sites to allow, select **ALLOW computers access to ONLY these sites** from the drop-down menu. All other sites will be blocked.

You may specify a maximum of fifteen web sites. To add a new site to the list, click **Create New Rule**. Next, under Website URL/Domain enter the URL or domain. If you wish to remove a rule, click on its trash can icon in the Delete column. If you wish to edit a rule, simply replace the URL or domain.

Click **Save** when you are done.

Static Routes

The Static Routes section allows you to define custom routes to control how data traffic is moved around your network.



In the Features menu on the bar on the top of the page, click **Static Routes**. To configure IPv6 rules, click **IPv6** and refer to page 111 for more information. To return to the main IPv4 static routes page, click **IPv4**.

If you wish to remove a rule, click on its trash can icon in the Delete column. If you wish to edit a rule, click on its pencil icon in the Edit column. If you wish to create a new rule, click the **Add Rules** button. Click **Save** when you are done. If you edit or create a rule, the following options will appear:

Name: Enter a name for the rule.

Destination IP: Enter the IP address of packets that will take this route.

Netmask: Enter the netmask of the route.

Gateway: Enter your next hop gateway to be taken if this route is used.

Metric: The route metric is a value from 1 to 16 that indicates the cost of using this route. A value 1 is the lowest cost and 15 is the highest cost.

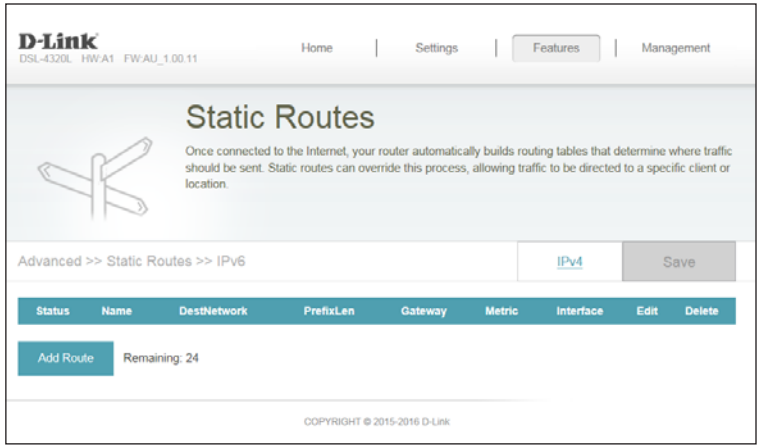
Interface: Select the interface that the IP packet must use to transit out of the router when this route is used.

Click **Apply** when you are done.

IPv6

To configure IPv6 rules, on the Static Routes page click **IPv6**. To return to the main IPv4 static routes page, click **IPv4**.

If you wish to remove a rule, click on its trash can icon in the Delete column. If you wish to edit a rule, click on its pencil icon in the Edit column. If you wish to create a new rule, click the **Add Rules** button. Click **Save** when you are done. If you edit or create a rule, the following options will appear:



Name: Enter a name for the rule.

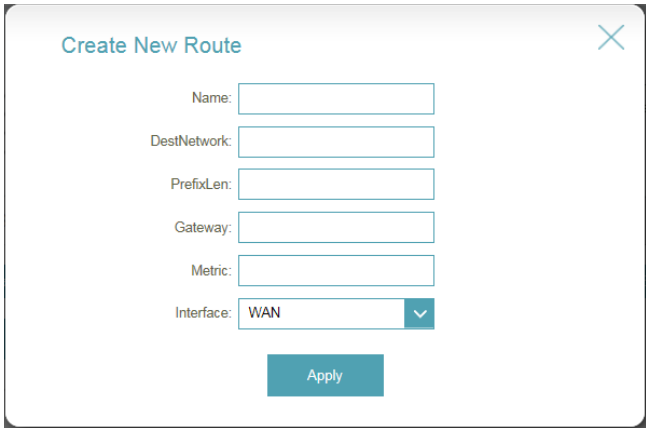
DestNetwork: This is the IP address of the router used to reach the specified destination.

PrefixLen: Enter the IPv6 address prefix length of the packets that will take this route.

Metric: Enter the metric value for this rule here.

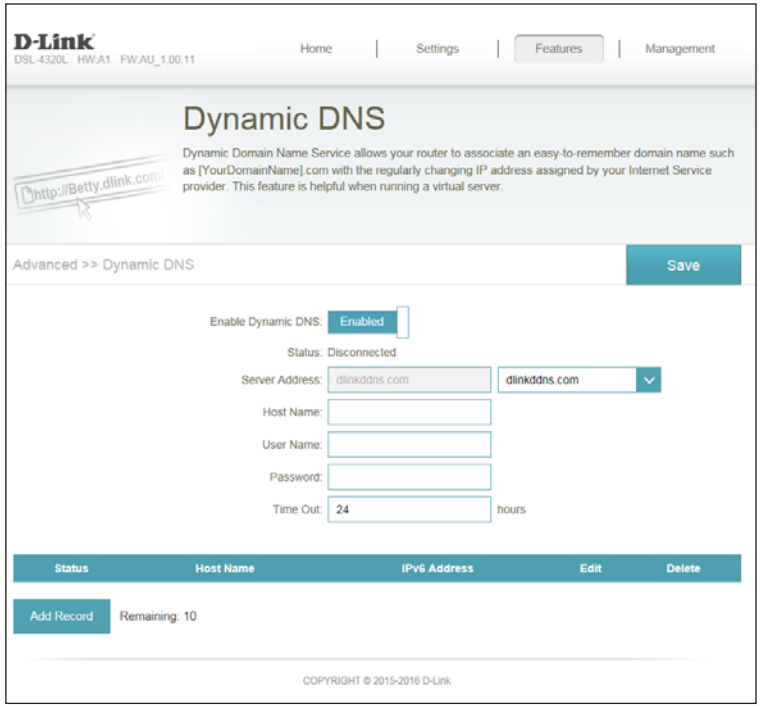
Interface: Select the interface that the IP packet must use to transit out of the router when this route is used.

Click **Apply** when you are done.



Dynamic DNS

Most Internet Service Providers (ISPs) assign dynamic (changing) IP addresses. Using a dynamic DNS service provider, people can enter your domain name in their web browser to connect to your server no matter what your IP address is.



In the Features menu on the bar on the top of the page, click **Dynamic DNS**.

Enable Dynamic DNS: Enabling dynamic DNS will reveal further configuration options.

Status: Displays the current dynamic DNS connection status.

Server Address: Enter the address of your dynamic DNS server, or select one from the drop-down menu.

Host Name: Enter the host name that you registered with your dynamic DNS service provider.

User Name: Enter your dynamic DNS username.

Password: Enter your dynamic DNS password.

Time Out: Enter a timeout time (in hours).

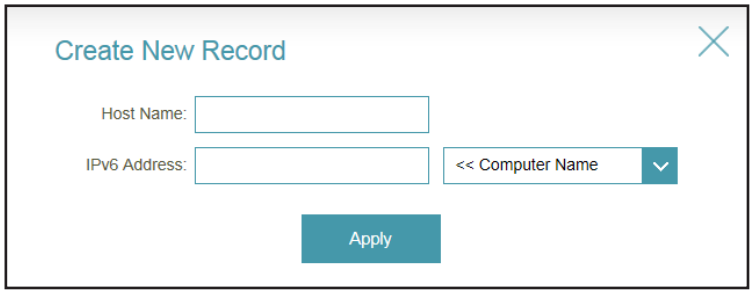
Click **Save** when you are done.

At the bottom of the page are the IPv6 host settings. To configure an IPv6 dynamic DNS host, refer to 113 for more information.

IPv6 Host

The IPv6 host settings are found at the bottom of the Dynamic DNS page.

If you wish to remove a rule, click on its trash can icon in the Delete column. If you wish to edit a rule, click on its pencil icon in the Edit column. If you wish to create a new rule, click the **Add Rules** button. Click **Save** when you are done. If you edit or create a rule, the following options will appear:



Host Name: Enter the host name that you registered with your dynamic DNS service provider.

IPv6 Address: Enter the IPv6 address of the dynamic DNS server. Alternatively, select the server device in the drop-down menu.

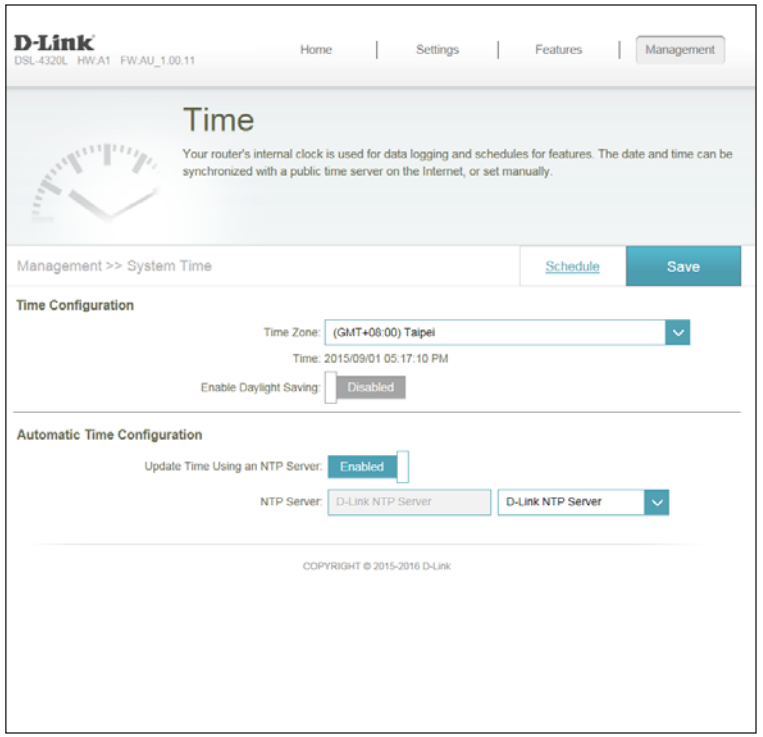
Click **Apply** when you are done.

Management

Time & Schedule

Time

The Time page allows you to configure, update, and maintain the correct time on the internal system clock. From here you can set the time zone, the Network Time Protocol (NTP) server, and enable or disable daylight saving time.



In the Management menu on the bar on the top of the page, click **Time & Schedule**.

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

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

Daylight Saving: Enable or disable daylight saving time.

Update Time Using an NTP Server: Enable or disable to allow an NTP server on the Internet to synchronize the time and date with your router. If you enable this option, select an NTP server from the drop-down menu. To configure the router'stime and date manually, disable this option and use the drop-down menus that appear to input the time and date.

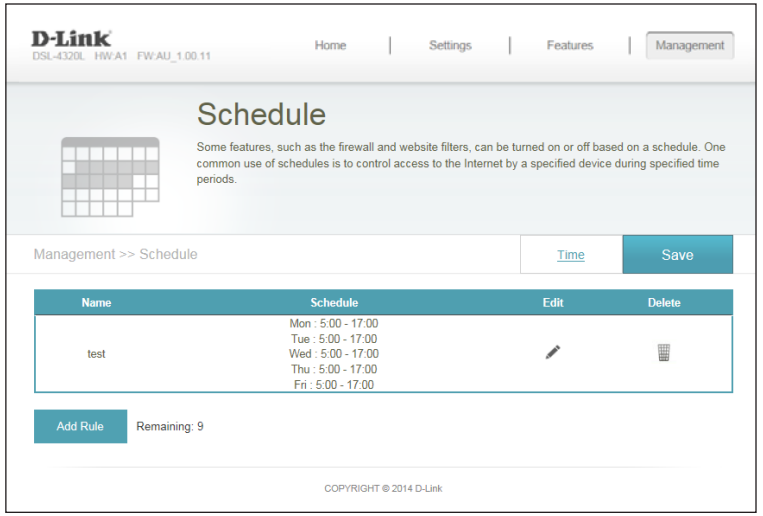
Click **Save** when you are done.

To configure and manage your schedules, click **Schedule** and refer to page 115 for more information.

Schedule

Some configuration rules can be set according to a pre-configured schedule. To create, edit, or delete schedules, from the Time page click **Schedule**. To return to the Time page, click **Time**.

If you wish to remove a rule, click on its trash can icon in the Delete column. If you wish to edit a rule, click on its pencil icon in the Edit column. If you wish to create a new rule, click the **Add Rules** button. Click **Save** when you are done. If you edit or create a rule, the following screen will appear:

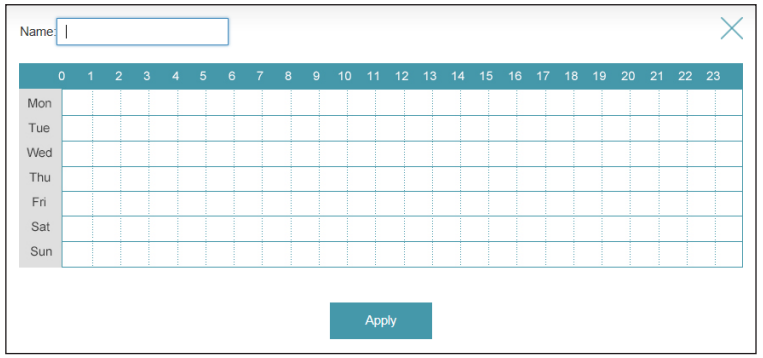


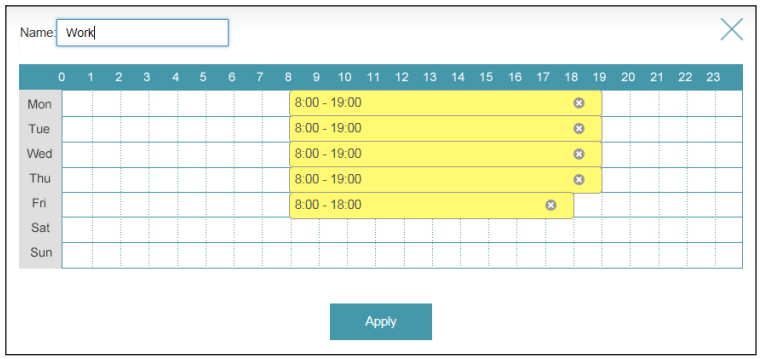
First, enter the name of your schedule in the **Name** field.

Each box represents one hour, with the time at the top of each column. To add a time period to the schedule, simply click on the start hour and drag to the end hour. You can add multiple days to the schedule, but only one period per day.

To remove a time period from the schedule, click on the cross icon.

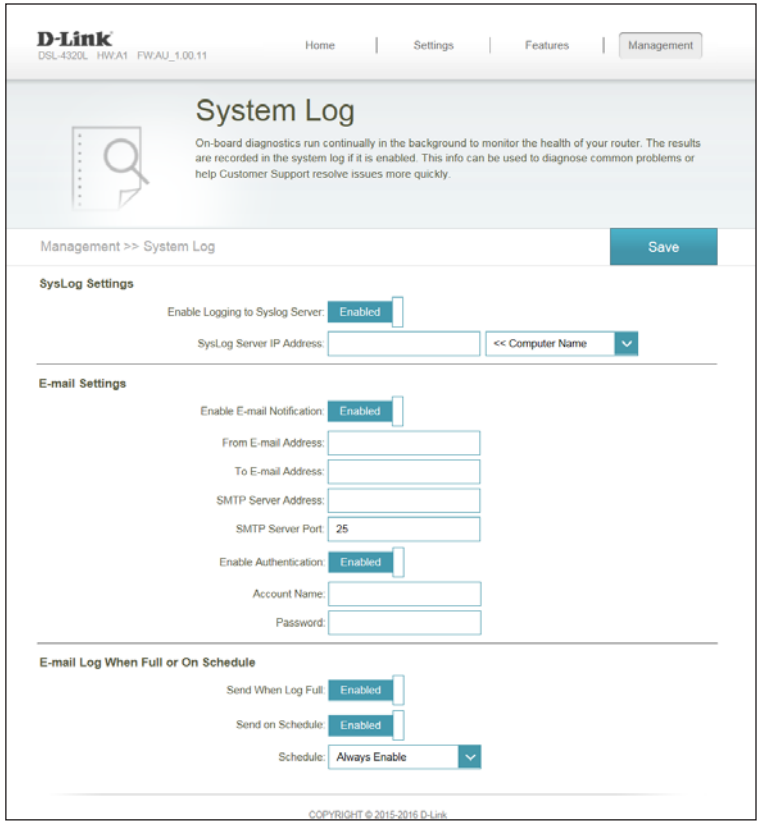
Click **Apply** when you are done.





System Log

The router keeps a running log of events. This log can be sent to a Syslog server, and sent to your email address. In the Management menu on the bar on the top of the page, click **System Log**.



Enable Logging to Syslog Server: Check this box to send the router logs to a SysLog Server. If this is disabled, there will be no other options on this page.

Syslog Server IP Address: Enter the IP address for the Syslog server. If the Syslog server is connected to the router, select it from the drop-down menu to automatically populate the field.

Enable Email Notification: If you want the logs to be automatically sent to an email address, enable this option.

Enter the settings for your email account. These are obtained from your email service provider.

On Log Full: If email notification is enabled, this option will set the router to send the log by email when the log is fully.

On Schedule: This option can be enabled to send an email according to a pre-configured schedule. See below.

Schedule: If you enable **On Schedule** is enabled, use the drop-down menu to select the time schedule that the rule will be enabled on. The schedule may be set to **Always Enable**, or you can create your own schedules in the **Schedules** section. Refer to page 115 for more information.

Click **Save** when you are done.

Admin

This page will allow you to change the administrator (Admin) password and enable remote management.

In the Management menu on the bar on the top of the page, click **Admin**.

Password: Enter a new password for the administrator account. You will need to enter this password whenever you configure the router using a web browser.

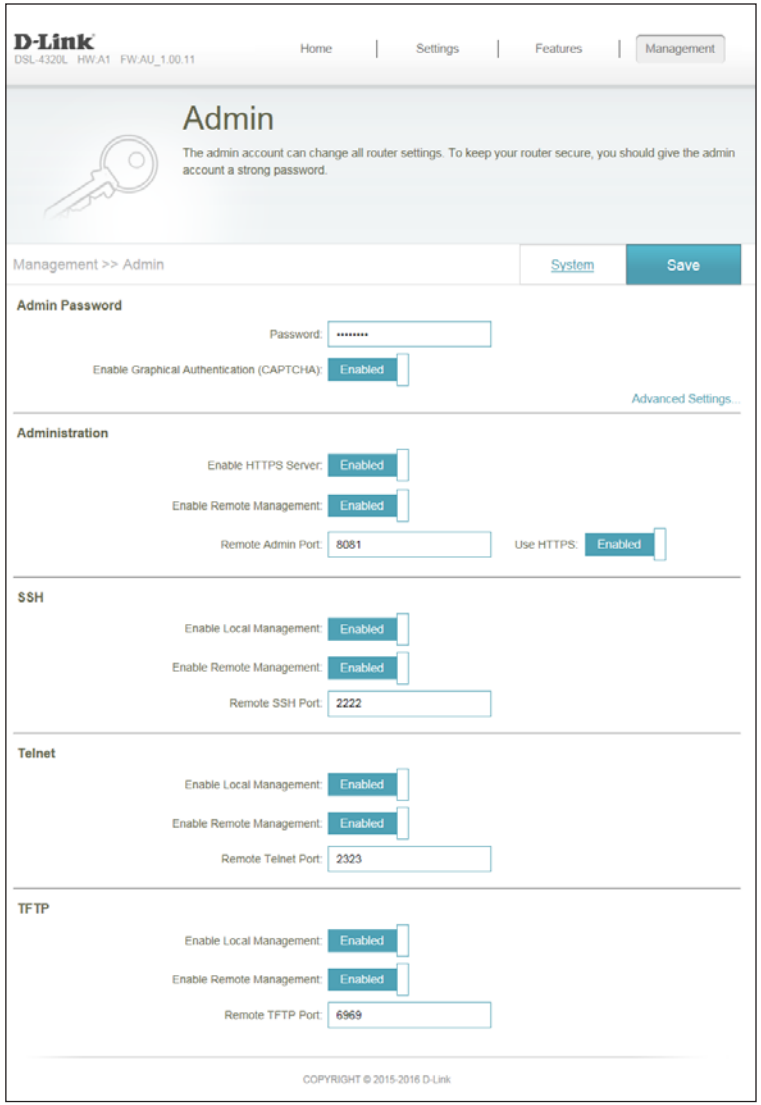
Enable Graphical Authentication (CAPTCHA): Enables a challenge-response test to require users to type letters or numbers from a distorted image displayed on the screen to prevent online hackers and unauthorized users from gaining access to your router's network settings.

Enable HTTPS Server: Check to enable HTTPS to connect to the router securely. This means to connect to the router, you must enter **https://dlinkrouter.local./** instead of **http://dlinkrouter.local./**

Enable Remote Management: Remote management allows the DIR-860L to be configured from the Internet by a web browser. A password is still required to access the web management interface.

Remote Admin Port: The port number used to access the DIR-860L is used in the URL. Example: **http://x.x.x.x:8080** where x.x.x.x is the Internet IP address of the DIR-860L and 8080 is the port used for the web management interface.

Note: *If you enabled* ***HTTPS Server*** *and wish to access the router remotely and securely, you must enter* ***https://*** *at the beginning of the address.*

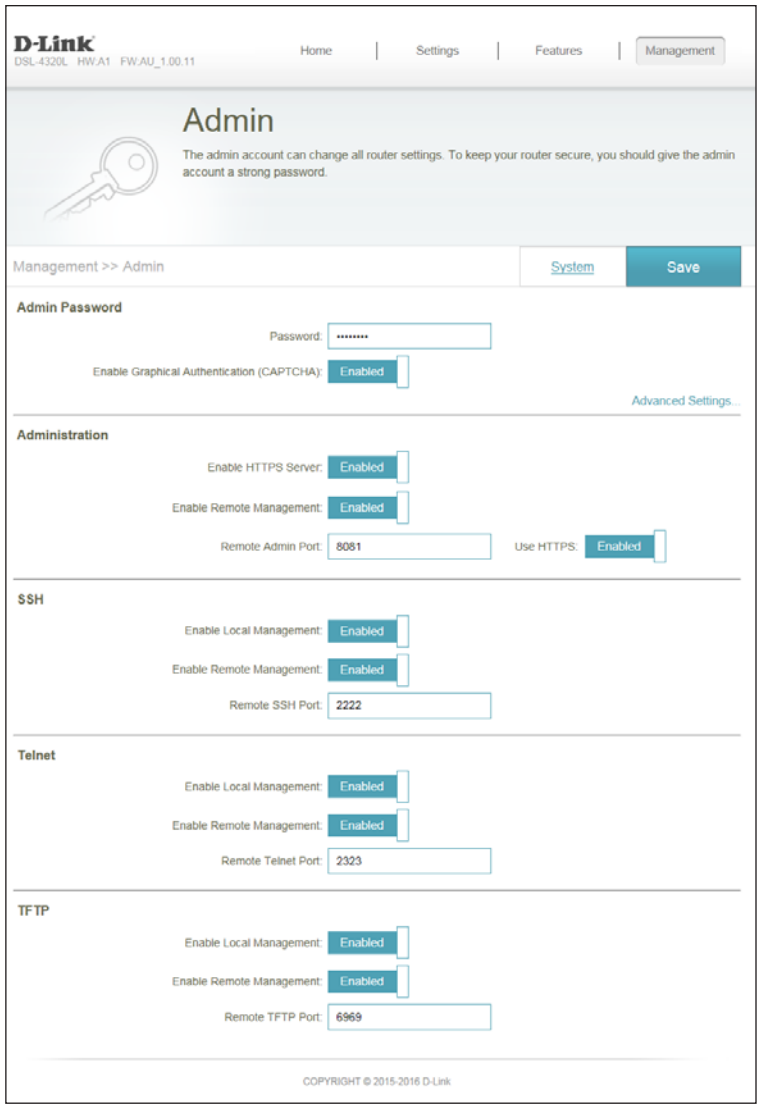


SSH / Telnet / TFTP: If you want to allow router setup via the SSH, telnet, or TFTP protocols, you can configure it here.

For each protocol, click **Enable Local Management** to allow administrators to configure the network from within, and/or **Enable Remote Management** to allow administrators to configure the network from outside.

If you enabled remote management, enter the remote port number that the router will use for that protocol.

Click **Save** when you are done.

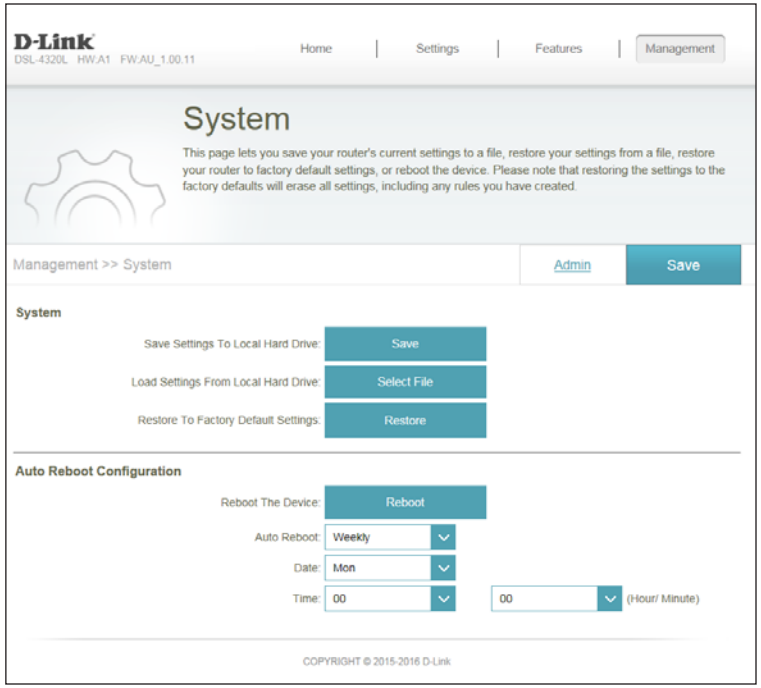


To load, save, or reset settings, or reboot the router, click **Save.**

System

This page allows you to save the router's current configuration, load a previously saved configuration, reset the router to its factory default settings, or reboot the router.

From the Admin page, click **System**. To return to the Admin page, click **Admin**.



Save Settings To Local Hard Drive: This option will save the current router configuration settings to a file on your computer.

Load Settings From Local Hard Drive: This option will load a previously saved router configuration file. This will overwrite the router's current configuration.

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

Auto Reboot Configuration You may configure the router to automatically reboot at a set time. Please note, the router will be temporarily unavailable while rebooting.

Reboot The Device: Click to reboot the router immediately.

Auto Reboot: You may select **Never**, **Daily**, or **Weekly**.

Day of the week: Choose the day of the week to automatically reboot the router.

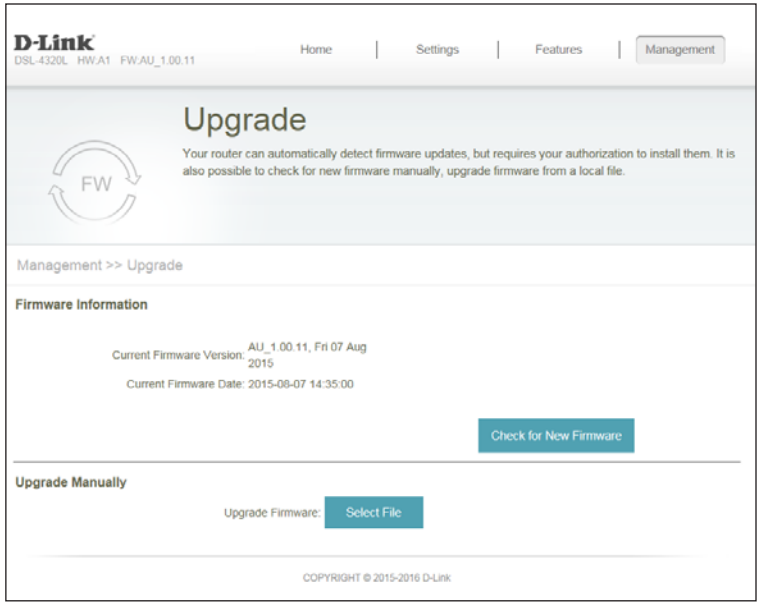
Time: Choose the time of day to automatically reboot the router.

Click **Save** when you are done.

Upgrade

This page will allow you to upgrade the router's firmware or language pack, either automatically or manually. To manually upgrade the firmware or language pack, you must first download the relevant file from **http://support.dlink.com**.

In the Management menu on the bar on the top of the page, click **Upgrade**.



Firmware Information: The current firmware's version and date will be displayed.

Check for New Firmware: Click this button to prompt the router to automatically check for a new firmware version. If a newer version is found, it will prompt you to install it.

Upgrade Firmware: If you wish to upgrade manually, first download the firmware file you wish to upgrade to. Next, click the **Upgrade Firmware** button and browse to the file to install the new firmware. You can also browse to a language pack file to install a new language pack.

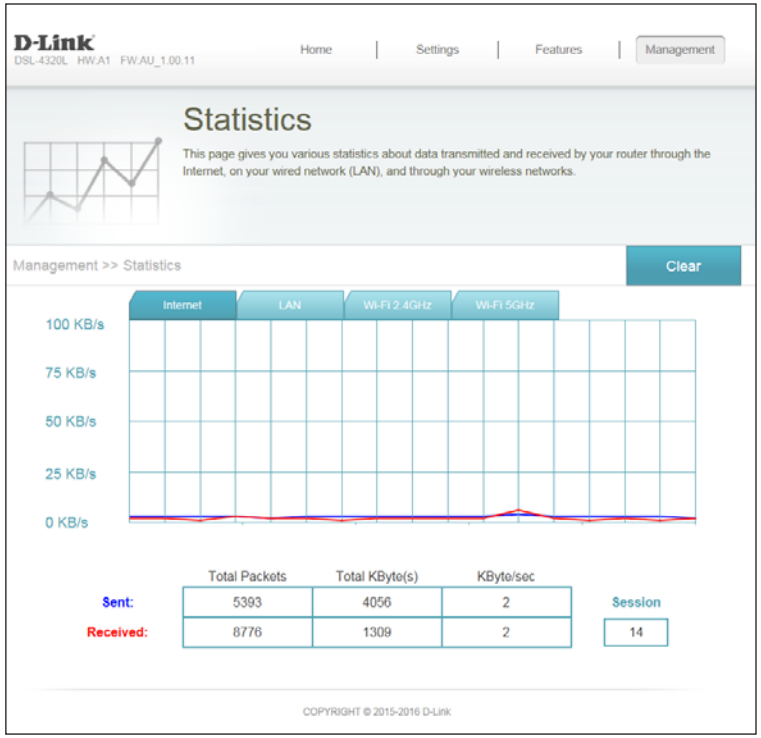
Statistics

On the Statistics page you can view the amount of packets that pass through the router on the WAN, LAN, and wireless segments.

In the Management menu on the bar on the top of the page, click **Statistics**.

You can view the **Internet**, **LAN**, **Wi-Fi 2.4 GHz**, or **Wi-Fi 5 GHz** by clicking on the respective tabs at the top. The graph will update in real time. To clear the information on the graph, click **Clear**.

The traffic counter will reset if the device is rebooted.



Connect a Wireless Client to your Router

WPS Button

The easiest and most secure 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 DSL-4320L router. Please refer to your user manual for the wireless device you want to connect to make sure you understand how to enable WPS. Once you know, follow the steps below:

Step 1 - Press the WPS button on the DSL-4320L for about 1 second. The Internet LED on the front will start to blink.

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

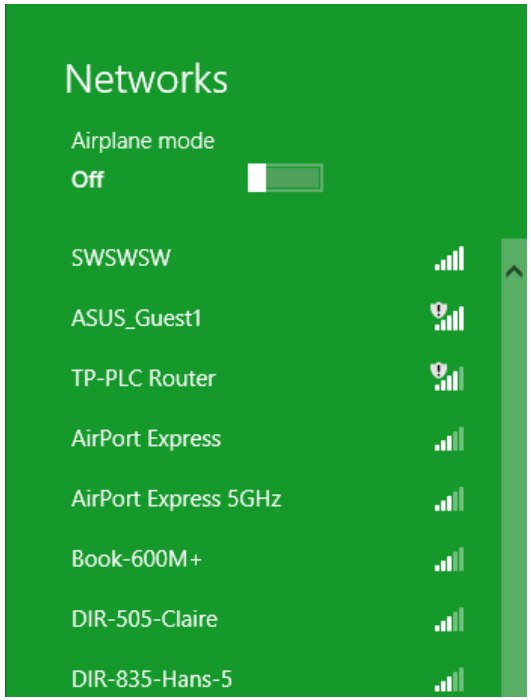
Step 3 - Allow up to 1 minute for your connection to be configured. Once the Internet light stops blinking, you will be connected and your wireless connection will be secure with WPA2.

Windows® 8
WPA/WPA2

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

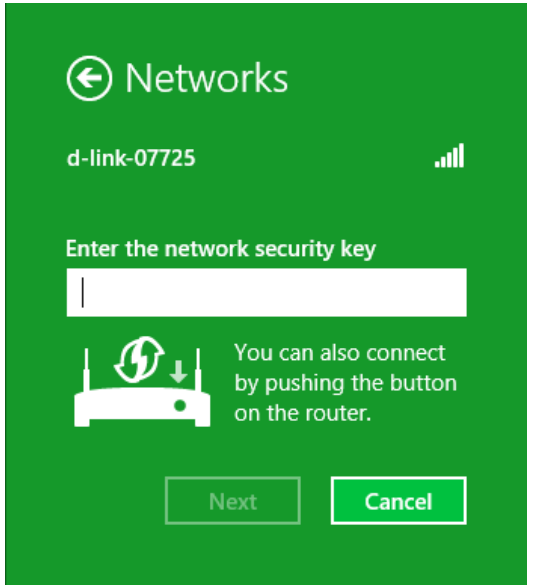
To join an existing network, locate the wireless network icon in the taskbar next to the time display.

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

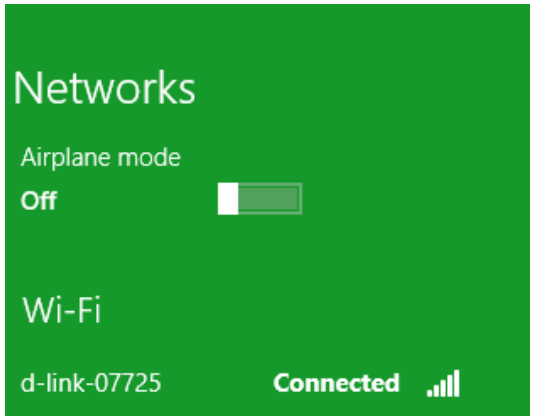


You will then be prompted to enter the network security key (Wi-Fi password) for the wireless network. Enter the password into the box and click **Next**.

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



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



Windows® 7
WPA/WPA2

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

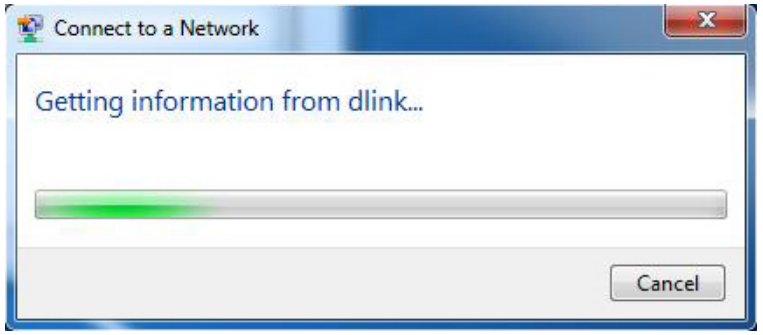
1. Click on the wireless icon in your system tray (lower-right corner).

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

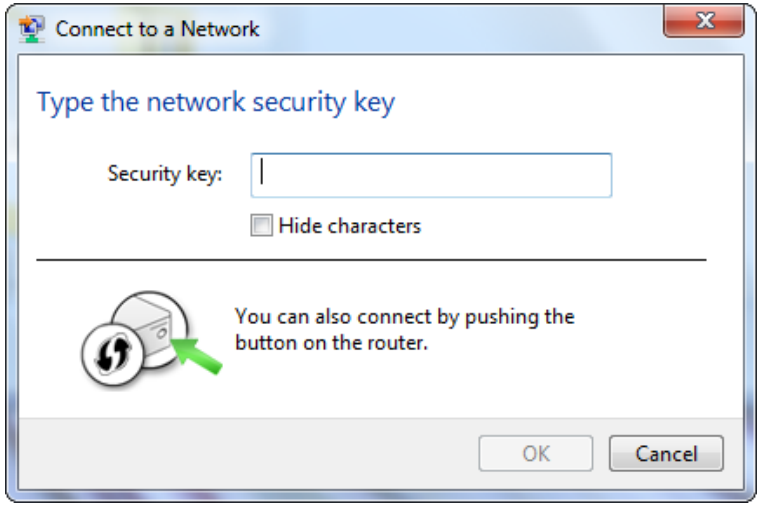
3. Highlight the wireless connection with Wi-Fi name (SSID) you would like to connect to and click the **Connect** button.

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

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



5. Enter the same security key or passphrase (Wi-Fi password) that is on your router and click **Connect**. You can also connect by pushing the WPS button on the router.

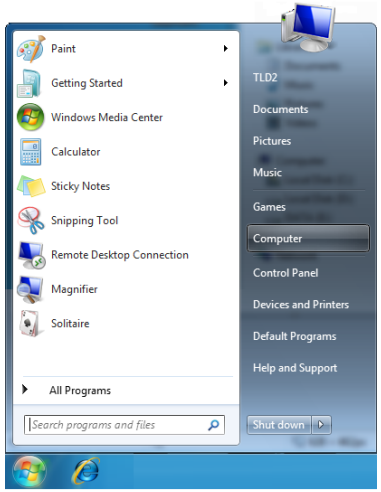


It may take 20-30 seconds to connect to the wireless network. If the connection fails, please verify that the security settings are correct. The key or passphrase must be exactly the same as the one on the wireless router.

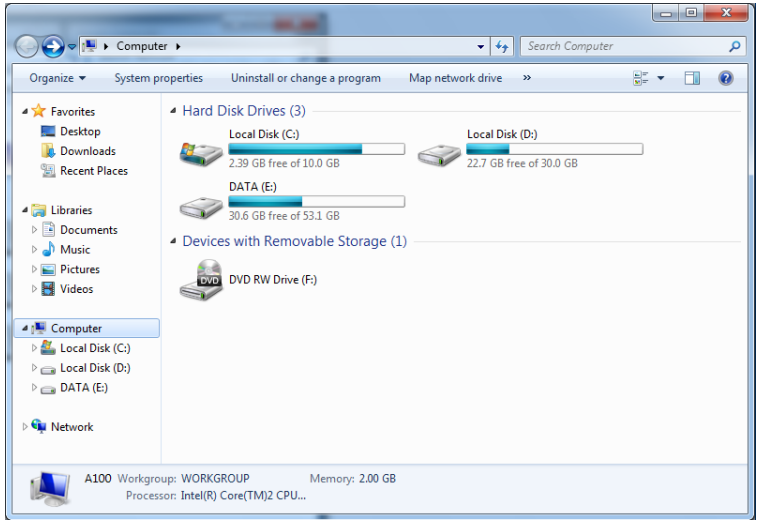
WPS

The WPS feature of the DSL-4320L can be configured using Windows® 7. Carry out the following steps to use Windows® 7 to configure the WPS feature:

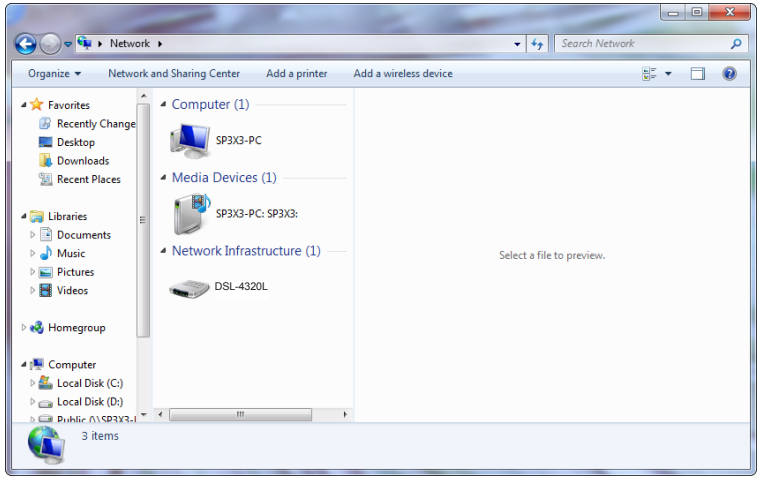
1. Click the **Start** button and select **Computer** from the Start menu.



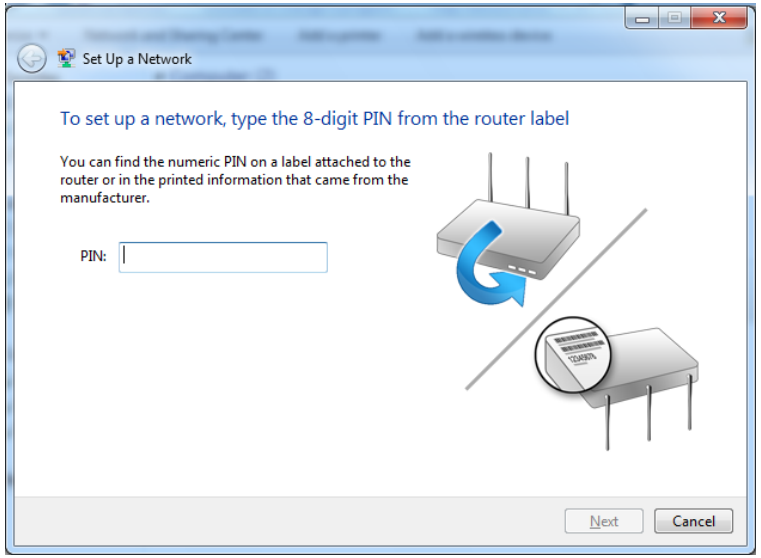
2. Click **Network** on the left side.



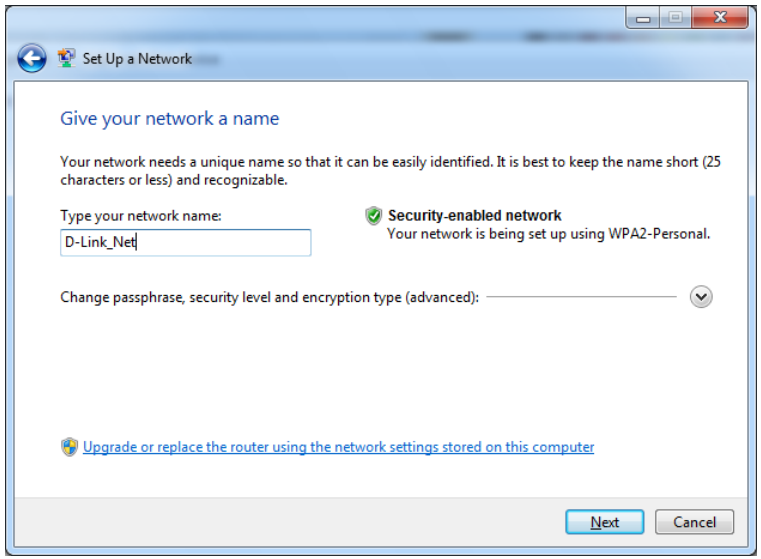
3. Double-click the DSL-4320L.



4. Input the WPS PIN number (on the router label) in the **Setup** > **Wireless Setup** menu in the Router's Web UI) and click **Next**.

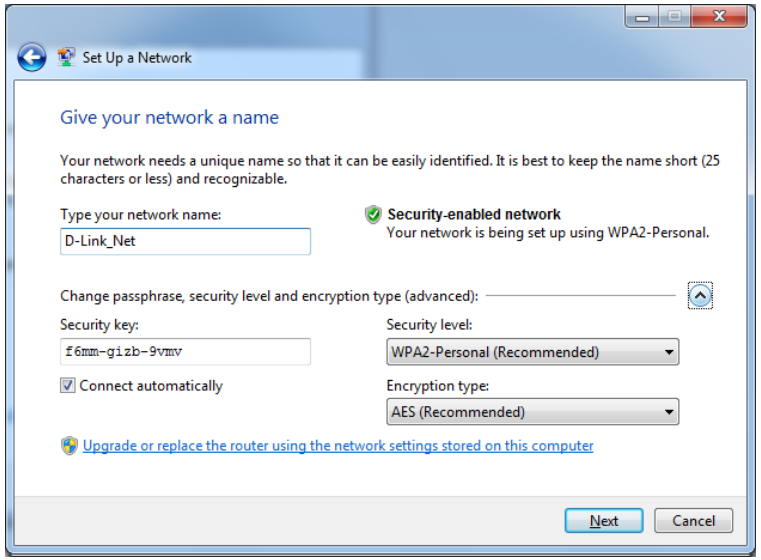


5. Type a name to identify the network.



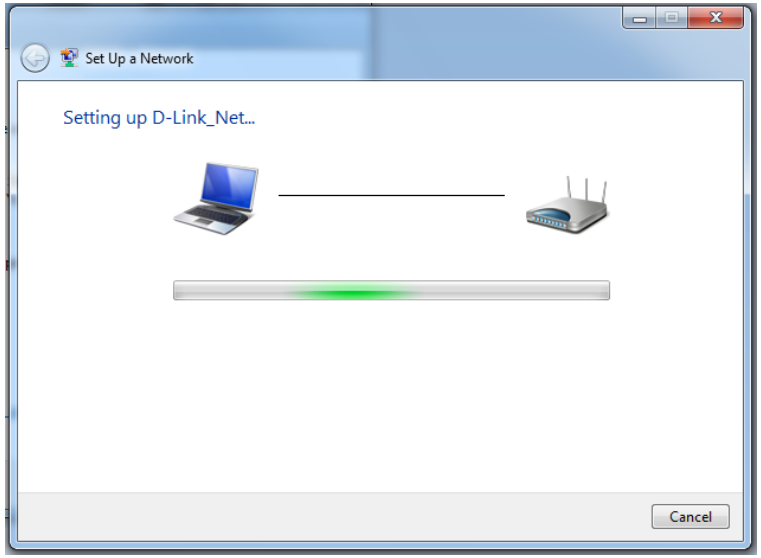
6. To configure advanced settings, click the icon.

Click **Next** to continue.



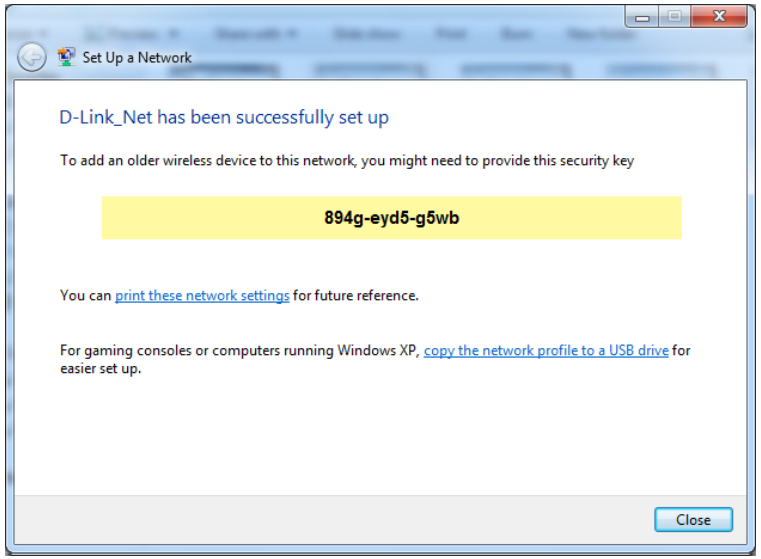
7. The following window appears while the Router is being configured.

   Wait for the configuration to complete.



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

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



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

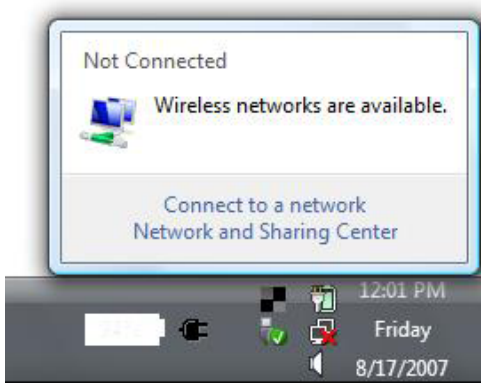
Windows Vista®

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

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

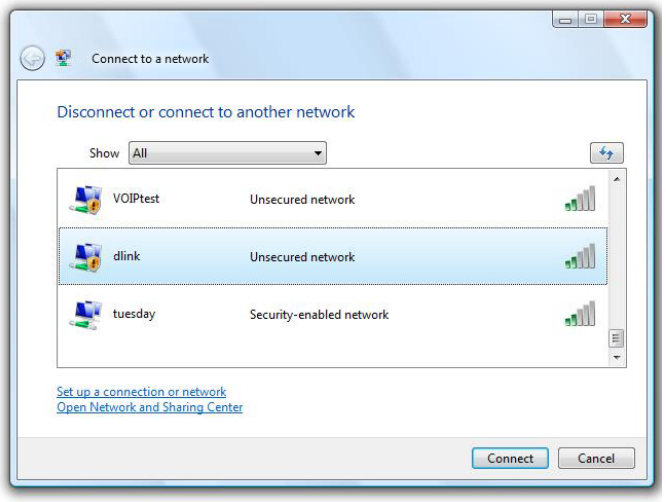
or

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



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

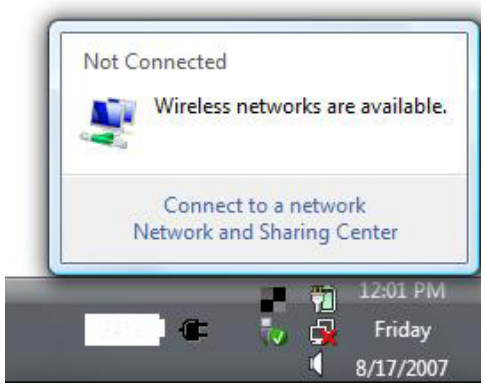
If you get a good signal but cannot access the Internet, check you TCP/IP settings for your wireless adapter. Refer to the **Networking Basics** section in this manual for more information.



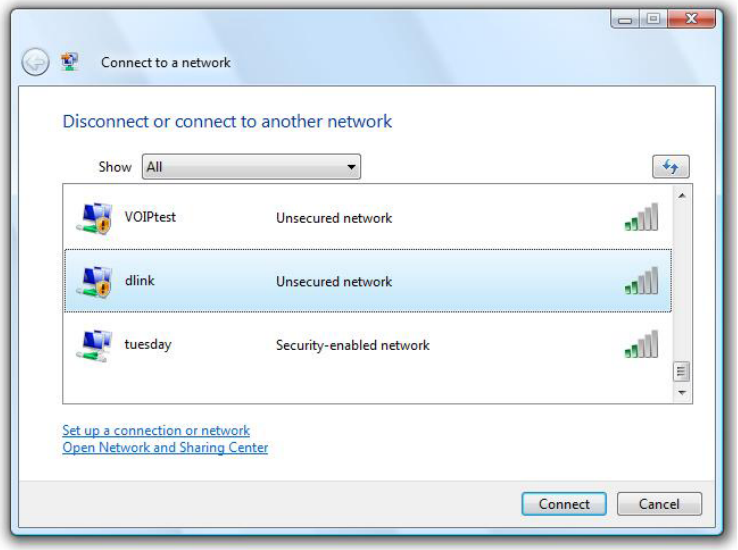
WPA/WPA2

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

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



2. Highlight the Wi-Fi name (SSID) you would like to connect to and click **Connect**.



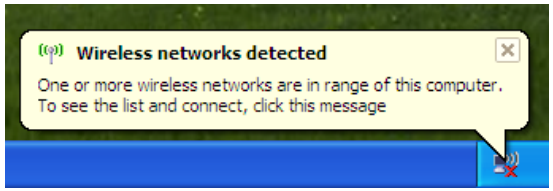
3. Enter the same security key or passphrase (Wi-Fi password) that is on your router and click **Connect**.

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

Windows® XP

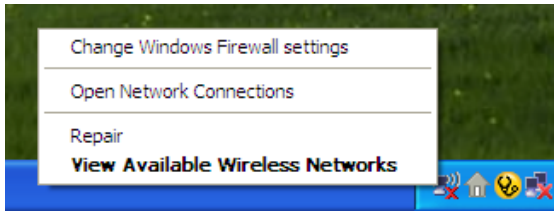
Windows® XP users may use the built-in wireless utility (Zero Configuration Utility). The following instructions are for Service Pack 2 users. If you are using another company's utility, please refer to the user manual of your wireless adapter for help with connecting to a wireless network. Most utilities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

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



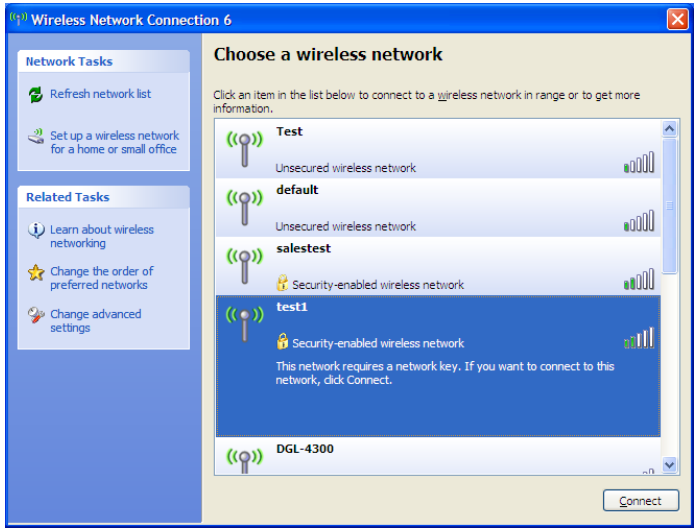
or

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



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

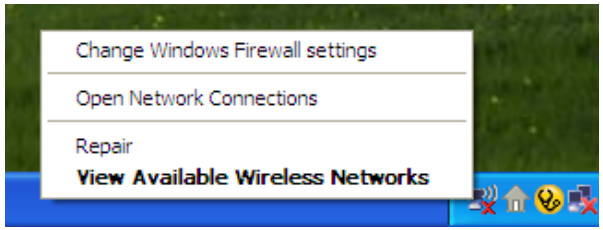
If you get a good signal but cannot access the Internet, check you TCP/IP settings for your wireless adapter. Refer to the **Networking Basics** section in this manual for more information.



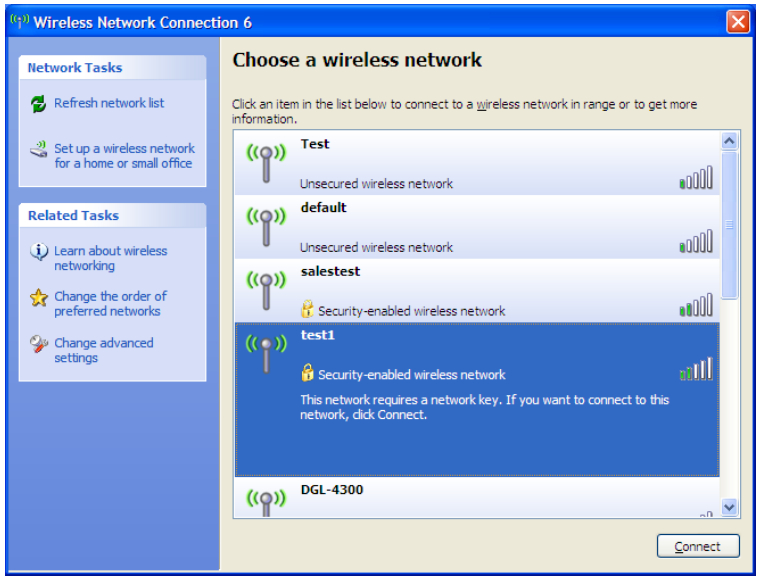
WPA/WPA2

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

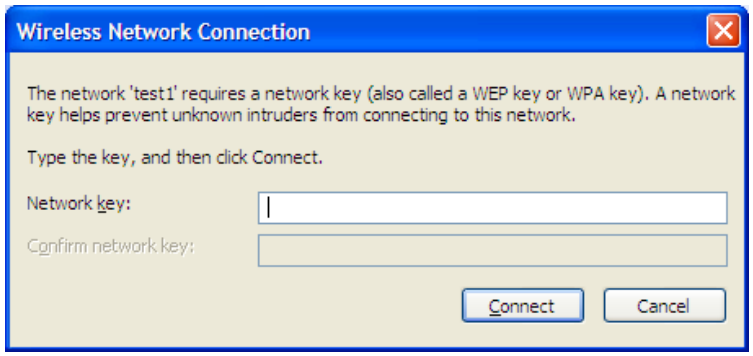
1. Open the Windows® XP Wireless Utility by right-clicking on the wireless computer icon in your system tray (lower-right corner of screen). Select **View Available Wireless Networks**.



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



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



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

Troubleshooting

This chapter provides solutions to problems that can occur during the installation and operation of the DSL-4320L. Read the following descriptions if you are having problems. The examples below are illustrated in Windows® XP. If you have a different operating system, the screenshots on your computer will look similar to these examples.

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

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

- Make sure you have an updated Java-enabled web browser. We recommend the following:

  - Microsoft Internet Explorer® 7 or higher
  - Mozilla Firefox 3.5 or higher
  - Google™ Chrome 8 or higher
  - Apple Safari 4 or higher

- Verify physical connectivity by checking for solid link lights on the device. If you do not get a solid link light, try using a different cable, or connect to a different port on the device if possible. If the computer is turned off, the link light may not be on.

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

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

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

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

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

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

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

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

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

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

```
C:\>ping yahoo.com -f -l 1482

Pinging yahoo.com [66.94.234.13] with 1482 bytes of data:

Packet needs to be fragmented but DF set.
Packet needs to be fragmented but DF set.
Packet needs to be fragmented but DF set.
Packet needs to be fragmented but DF set.

Ping statistics for 66.94.234.13:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum =  0ms, Average =  0ms

C:\>ping yahoo.com -f -l 1472

Pinging yahoo.com [66.94.234.13] with 1472 bytes of data:

Reply from 66.94.234.13: bytes=1472 time=93ms TTL=52
Reply from 66.94.234.13: bytes=1472 time=109ms TTL=52
Reply from 66.94.234.13: bytes=1472 time=125ms TTL=52
Reply from 66.94.234.13: bytes=1472 time=203ms TTL=52

Ping statistics for 66.94.234.13:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 93ms, Maximum =  203ms, Average =  132ms

C:\>
```

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

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

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

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

Wireless Basics

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

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

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

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

What is Wireless?

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

Why D-Link Wireless?

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

How does wireless work?

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

Wireless Local Area Network (WLAN)

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

Wireless Personal Area Network (WPAN)

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

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

Who uses wireless?

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

Home Uses/Benefits

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

Small Office and Home Office Uses/Benefits

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

Where is wireless used?

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

Using a D-Link CardBus adapter with your laptop, you can access the hotspot to connect to the Internet from remote locations like: airports, hotels, coffee shops, libraries, restaurants, and convention centers.

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

Tips

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

Centralize your router or access point

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

Eliminate Interference

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

Security

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

Wireless Modes

There are basically two modes of networking:

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

- **Ad-hoc** – Directly connecting to another computer for peer-to-peer communication using wireless network adapters on each computer, such as two or more DSL-4320L wireless network CardBus adapters.

An Infrastructure network contains an access point or wireless router. All the wireless devices, or clients, will connect to the wireless router or access point.

An Ad-hoc network contains only clients, such as laptops with wireless CardBus adapters. All the adapters must be in Ad-hoc mode to communicate.

Networking Basics

Check your IP address

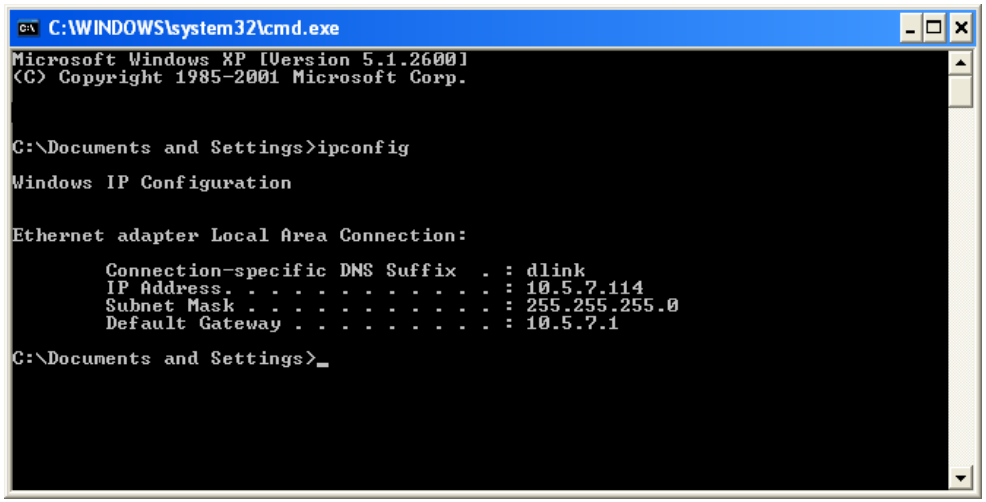
After you install your new D-Link adapter, by default, the TCP/IP settings should be set to obtain an IP address from a DHCP server (i.e. wireless router) automatically. To verify your IP address, please follow the steps below.

Click on **Start** > **Run**. In the run box type ***cmd*** and click **OK.** (Windows® 7/Vista® users type *cmd* in the **Start Search** box.)

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

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

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



Statically Assign an IP address

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

Step 1

Windows® 7 - Click on **Start** > **Control Panel** > **Network and Internet** > **Network and Sharing Center**.

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

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

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

Step 2

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

Step 3

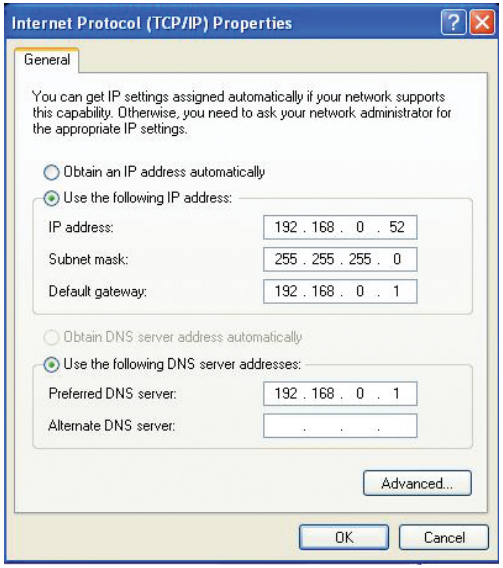
Highlight **Internet Protocol (TCP/IP)** and click **Properties**.

Step 4

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

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

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



Step 5

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

Wireless Security

This section will show you the different levels of security you can use to protect your data from intruders. The DSL-4320L offers the following types of security:

- WPA2 (Wi-Fi Protected Access 2)
- WPA (Wi-Fi Protected Access)
- WPA2-PSK (Pre-Shared Key)
- WPA-PSK (Pre-Shared Key)

What is WPA?

WPA (Wi-Fi Protected Access), is a Wi-Fi standard that was designed to improve the security features of WEP (Wired Equivalent Privacy).

The 2 major improvements over WEP:

- Improved data encryption through the Temporal Key Integrity Protocol (TKIP). TKIP scrambles the keys using a hashing algorithm and by adding an integrity-checking feature, ensures that the keys haven't been tampered with. WPA2 is based on 802.11i and uses Advanced Encryption Standard (AES) instead of TKIP.

- User authentication, which is generally missing in WEP, through the extensible authentication protocol (EAP). WEP regulates access to a wireless network based on a computer's hardware-specific MAC address, which is relatively simple to be sniffed out and stolen. EAP is built on a more secure public-key encryption system to ensure that only authorized network users can access the network.

WPA-PSK/WPA2-PSK uses a passphrase or key to authenticate your wireless connection. The key is an alpha-numeric password between 8 and 63 characters long. The password can include symbols (!?*&_) and spaces. This key must be the exact same key entered on your wireless router or access point.

WPA/WPA2 incorporates user authentication through the Extensible Authentication Protocol (EAP). EAP is built on a more secure public key encryption system to ensure that only authorized network users can access the network.

Technical Specifications

Device Interfaces
- 802.11 ac/n/g/b/a wireless LAN
- DSL Port
- Four 10/100/1000 Gigabit LAN ports
- Two USB ports (one USB 3.0, one USB 2.0)

Antenna Types
- Six external antennas

Standards
- IEEE 802.11ac
- IEEE 802.11n
- IEEE 802.11g
- IEEE 802.11b
- IEEE 802.11a
- IEEE 802.3
- IEEE 802.3u

Security
- WPA™ - Personal/Enterprise
- WPA2™ - Personal/Enterprise
- Wi-Fi Protected Setup (WPS) PIN/PBC

Power
- Input: 100 to 240 V AC, 50/60 Hz
- Output: 12 V DC, 5 A

USB Port Power
- 5 V / 0.9 A

Operating Temperature
- 0 to 40 °C (32 to 104 °F)

Operating Humidity
- 10% to 95% maximum (non-condensing)

Certifications
- CSA/LVD
- CE Class B
- RCM
- Wi-Fi Protected Setup (WPS)
- Wi-Fi Multimedia (WMM)

Dimensions
- 225.20 mm (8.87 inches)
- 342.70 mm (13.49 inches)
- 100.88 mm (3.97 inches)

Weight
- 925.08 g (2.04 lbs)

Note:

- Maximum wireless signal rate derived from IEEE Standard 802.11a, 802.11g, 802.11n, and 802.11ac specifications. Actual data throughput will vary. Network conditions and environmental factors, including volume of network traffic, building materials and construction, and network overhead, lower actual data throughput rate. Environmental factors will adversely affect wireless signal range.
- Frequency Range varies depending on country's regulation.
- The DSL-4320L does not include 5.25-5.35 GHz & 5.47-5.725 GHz in some regions.