



User Manual

Wireless N 300 Router

DIR-615

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	September 04, 2019	Initial release.

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Package Contents



DIR-615



Ethernet Cable



Power Adapter



Wi-Fi Configuration Card



Quick Installation Guide

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

Note: Using a power supply with a different voltage rating than the one included with the DIR-615 will cause damage and void the warranty for this product.

System Requirements

Network Requirements	<ul style="list-style-type: none">• An Ethernet-based cable or DSL modem• IEEE 802.11n or 802.11g wireless clients• 10/100 Ethernet
Web-based Configuration Utility Requirements	<p>Computer with the following:</p> <ul style="list-style-type: none">• Windows®, Macintosh, or Linux-based operating system• An installed Ethernet adapter <p>Browser Requirements:</p> <ul style="list-style-type: none">• Internet Explorer 10 or higher• Firefox 44 or higher• Safari 8 or higher• Chrome 48 or higher• Edge 20.10240 or higher <p>Windows® Users: Make sure you have the latest version of Java installed. Visit www.java.com to download the latest version.</p>

Introduction

The D-Link DIR-615 Wireless N 300 Router is an attractive, high-performance router that makes it easy to share broadband Internet connection with all your devices. Simply connect it to your broadband modem, then use the web-based Setup Wizard that guides you step by step through the configuration process. Whether you're surfing the web on your desktop or relaxing on the couch with your laptop, the DIR-615 keeps you connected wherever you are in your home.

The DIR-615 supports the latest wireless protection features to help prevent unauthorized access, be it from over a wireless network or the Internet. Support for WPA™ and WPA2™ standards ensure that you will be able to use the best possible encryption regardless of your client devices. In addition, this router is equipped with a dual-active firewall (SPI and NAT) to prevent potential attacks over the Internet.

Features

- **Faster Wireless Networking** - The DIR-615 provides wireless connections of up to 300 Mbps¹ for other 802.11n wireless clients. This capability allows users to participate in real-time activities online, such as video streaming, online gaming, and real-time audio.
- **IPv6 Support** - The DIR-615 fully supports IPv6 and includes support for a variety of IPv6 connection types including: SLAAC/DHCPv6, Static IPv6, IPv6 PPPoE, IPv6 Dual Stack, and IPv6 LAN.
- **Advanced Firewall Features** - The web-based user interface displays a number of advanced network management features. Easily apply content filtering based on domain names and MAC addresses.
- **Encrypted Multiple/Concurrent Sessions** - The DIR-615 can pass through VPN sessions. It supports multiple and concurrent IPSec and PPTP sessions, so users behind the DIR-615 can access corporate networks through encrypted channels.
- **User-friendly Setup Wizard** - Through its easy-to-use wizard, the DIR-615 lets you quickly switch itself to one of the following modes: router (for connection to a wired or wireless ISP), access point, repeater, or client, and then configure all needed setting for operation in the selected mode in several simple steps.

¹ Maximum wireless signal rate derived from IEEE Standard 802.11g and 802.11n 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.

Hardware Overview

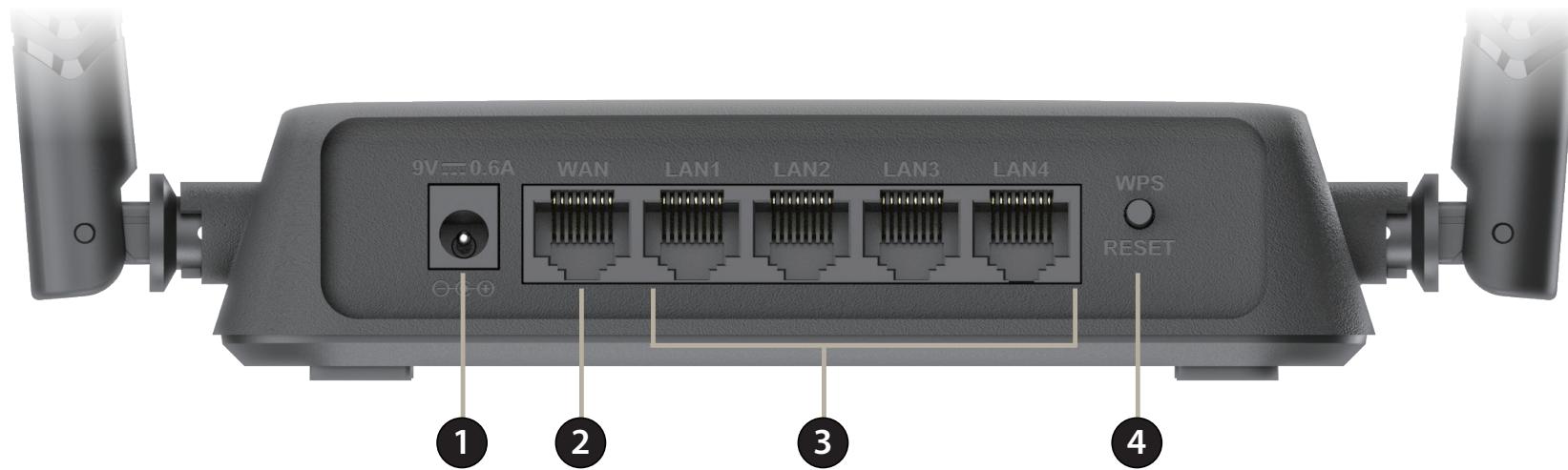
LED Indicators



1	Internet LED	A solid light indicates a cable is connected on the Internet port. If the light is blinking green, data transmission is in progress. If the LED is off, the cable is not connected.
2	Wireless LED	A solid green light indicates that wireless is enabled. If the light is blinking green, data transmission is in progress.
3	Power LED	A solid light indicates a proper connection to the power supply.

Hardware Overview

Back Panel



1	Power Connector	Connector for the supplied power adapter.
2	Internet Port	Using an Ethernet cable, connect your broadband modem to this port.
3	LAN Ports (1- 4)	Connect Ethernet devices such as computers, switches, storage (NAS) devices, and game consoles.
4	WPS/Reset Button	Press to start the WPS process and automatically create an encrypted connection to a WPS client. Long press the button to reset the router to default settings.

Installation

This section will walk you through the installation of the DIR-615.

Before you Begin

- Placement of the router is very important. Do not place the router in an enclosed area such as a closet, cabinet, attic, or garage.
- Configure the router with the computer that was last connected directly to your Internet connection. Verify that it is connected to the Internet before connecting additional devices.
- If your ISP provided you with a modem/router combo, you will need to set it to “bridge” mode so the router can work properly. Please contact your ISP or refer to the user manual for your modem/router device.
- You can only use the Ethernet port on your modem. If you were using the USB connection before using the router, then you must turn off your modem, disconnect the USB cable and connect an Ethernet cable to the Internet port on the router, and then turn the modem back on. In some cases, you may need to call your Internet Service Provider (ISP) to change connection types (USB to Ethernet).
- If connecting to a DSL modem, 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 might be necessary to establish a connection.
- 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.
- If you have DSL and are connecting via PPPoE, make sure you disable or uninstall any PPPoE software such as WinPoET, BroadJump, or EnterNet 300 from your computer or you will not be able to connect to the Internet.

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.

Completing Setup

There are several different 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 **Setup Wizard** on page **10**.
- **Manual Setup** - Log in to the router and manually configure your router.
Refer to **Configuration** on page **15**.

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://192.168.0.1**).

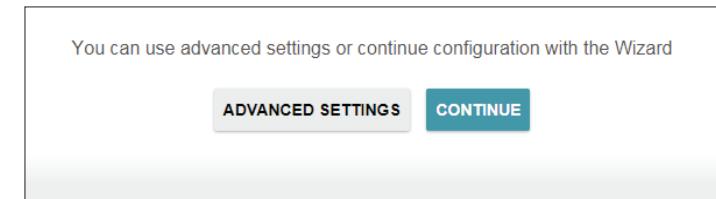
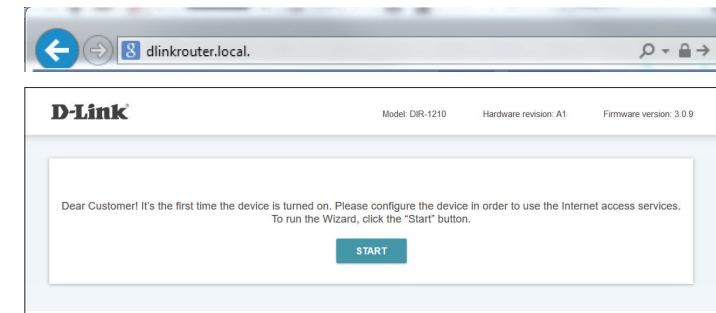
The wizard is designed to guide you through a step-by-step process to configure your new D-Link router and connect to the Internet.

Click **Start** to continue.

If your preferred language is English, click **Yes** to confirm. To select a different language for the interface, click **No** and select your language from the list.

To start the full setup wizard, click **Continue** and see page 12.

To skip the wizard and directly configure the router from default DHCP WAN configuration, click **Advanced Settings**.



Advanced Settings

Default Settings

These settings allow advanced users to quickly setup the router with a default IPv4 DHCP WAN and a simple SSID. Once configured, the user is taken directly to the full UI and can configure the router according to **Configuration** on page 15

Defaults

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.

Network name 2.4GHz (SSID): Create a name for your 2.4 GHz wireless network using up to 32 characters.

Network name 5GHz (SSID): Create a name for your 5 GHz wireless network using up to 32 characters.

Click **Apply** to proceed to the router according to **Configuration** on page 15

Defaults

In order to start up, please change several default settings.

Admin password:^{*}

ⓘ Password should be between 1 and 31 ASCII characters

Network name 2.4GHz (SSID):^{*}

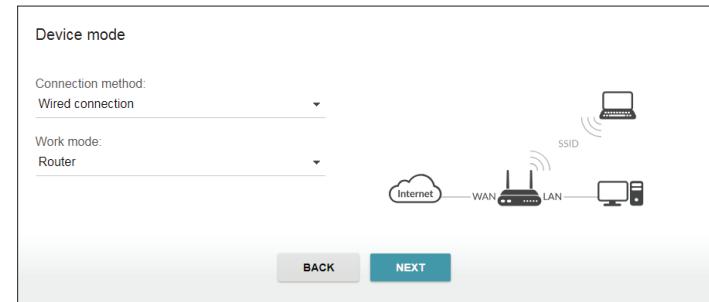
Network name 5GHz (SSID):^{*}

BACK **APPLY**

Setup Wizard (cont)

The DIR-615 can operate in five different modes:

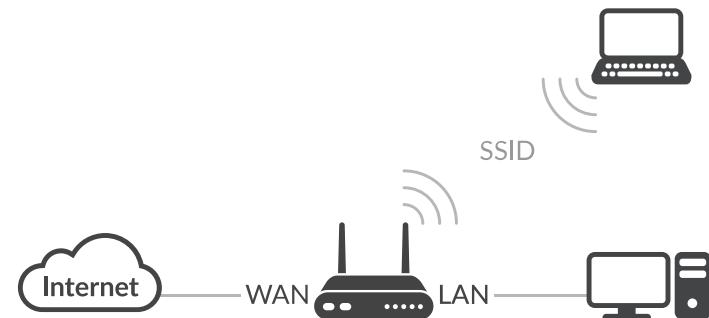
- Router Mode
- Access Point Mode
- Client Mode
- Repeater Mode
- WISP Repeater Mode



Router Mode

In Router Mode, the DIR-615 connects to your cable modem, DSL modem, or other Internet source and shares your Internet connection with your devices both wirelessly and over a wired LAN connection, providing Internet access for an entire home or office. Router Mode is suitable for most wired home Internet connections.

Follow the on-screen instructions to complete router mode setup.

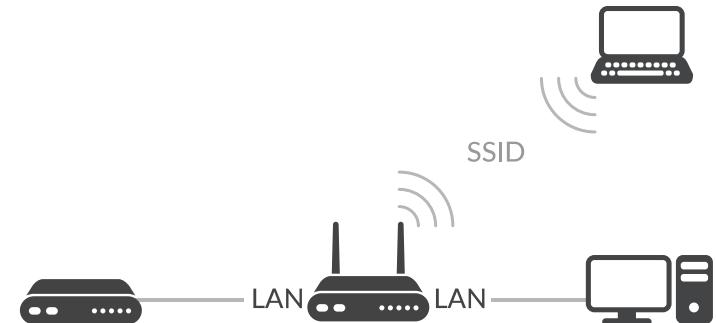


Setup Wizard (cont)

AP Mode

In Access Point Mode, the DIR-615 connects your wireless devices together, but does not provide routing functionality. This can be useful if you already have an existing Internet router that does not have built-in wireless capabilities. You can also use this to create a private wireless network without Internet access so that your devices can connect to one another without being exposed to the Internet or other computers.

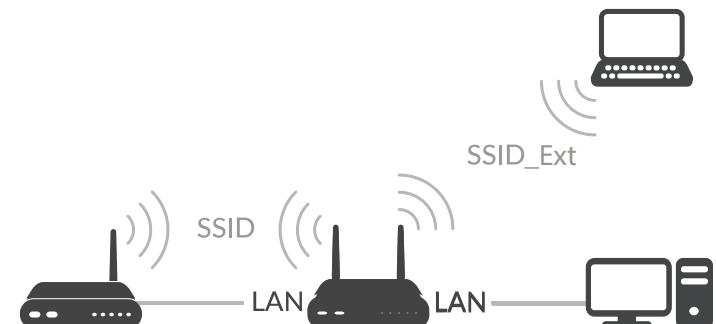
Follow the on-screen instructions to complete setup.



Repeater Mode

In Repeater Mode, the DIR-615 extends the range of an existing wireless network. You can use this to extend the coverage of an existing wireless router to provide better signal for parts of your home or office that may have poor reception. Additionally, you can use this mode to connect a wired device to a wireless network, which can be useful for devices that do not have a built-in wireless card, such as some smart TVs, game consoles, or DVRs.

Follow the on-screen instructions to complete setup.



Setup Wizard (cont)

Client Mode

In client mode, the DIR-615 connects to a wireless hotspot or existing wireless network and lets you share access to that network with your devices, much like a wireless bridge. This mode is similar to Router mode, but instead of connecting to a cable or DSL modem as your Internet source, the DIR-615 connects to a Wi-Fi hotspot and shares that connection with your devices. You can use this mode to connect one or several wired devices to a wireless network, which can be useful for devices that do not have a built-in wireless card, such as some smart TVs, game consoles, or DVRs. Additionally, it can provide an added layer of isolation when connecting to public hotspots by hiding your computers and devices from other devices on the network, and keeping them in your own private network.

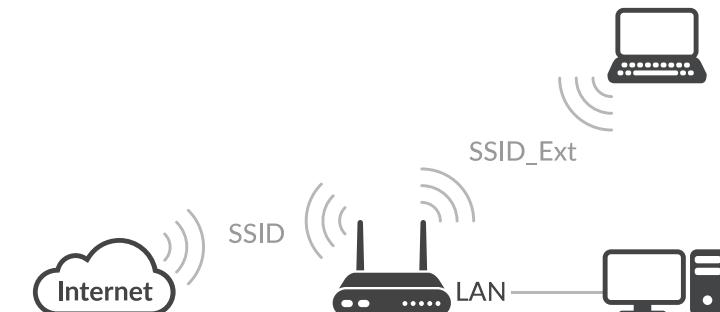
Follow the on-screen instructions to complete setup.



WISP Repeater Mode

In WISP mode, the DIR-615 can be used as a gateway for a Wireless Internet Service Provider's (WISP) Wi-Fi-compatible network. This allows you to extend your provider's Internet access to every corner of your home. Alternatively, this mode can be used to extend an existing wireless network while keeping your LAN behind a NAT firewall. This mode is similar to the Router mode, but instead of connecting to a cable or DSL modem as your Internet source, the DIR-615 connects to the ISP's Wi-Fi network and shares that connection with your devices. Additionally, it can provide an added layer of isolation when connecting to a public network by hiding your computers and devices from other devices on the network, and keeping them in your own private network.

Follow the on-screen instructions to complete setup.



Configuration

To access the configuration utility, open a web-browser such as Internet Explorer and enter **http://dlinkrouter.local./** or you may also connect by typing the IP address of the router (by default this is **http://192.168.0.1**) in the address bar.

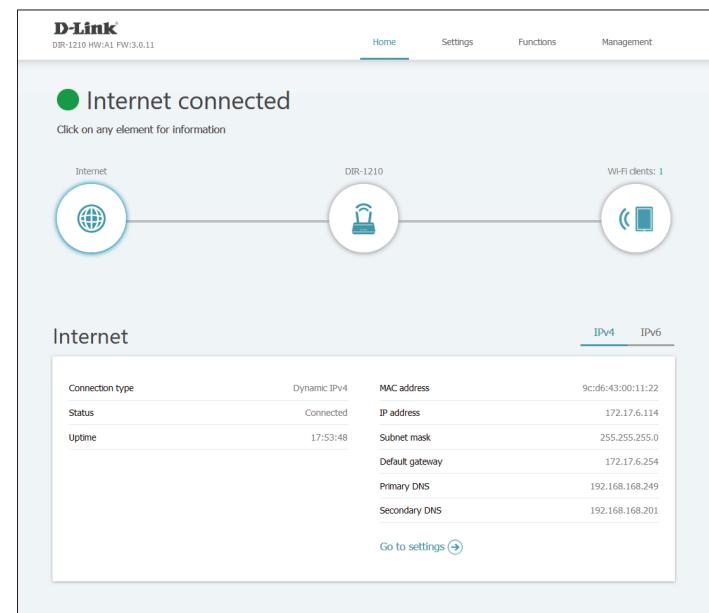
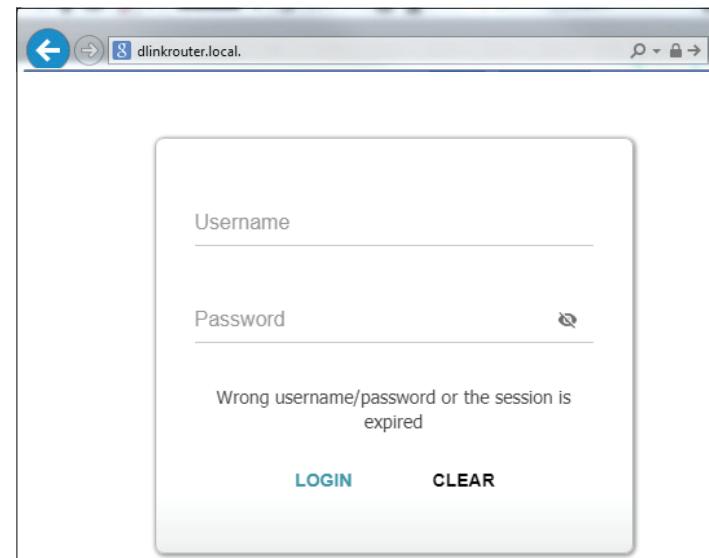
If you have already followed the setup wizard or changed the default settings, the login page opens. Enter the username (default username is: **admin**) and the admin password you entered during the wizard. Click **Login** to proceed.

Note: If you cannot remember your password and cannot log in, press the reset button on the bottom of the device for longer than 10 seconds to restore the router to its default settings.

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

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

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

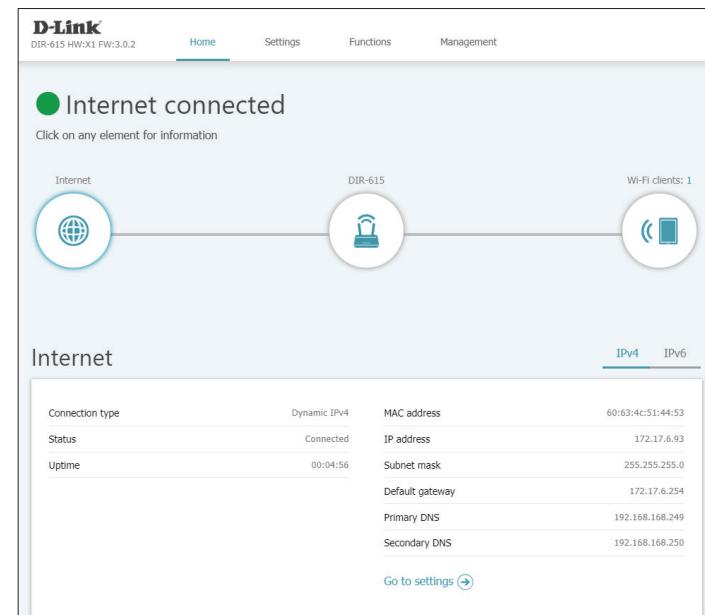
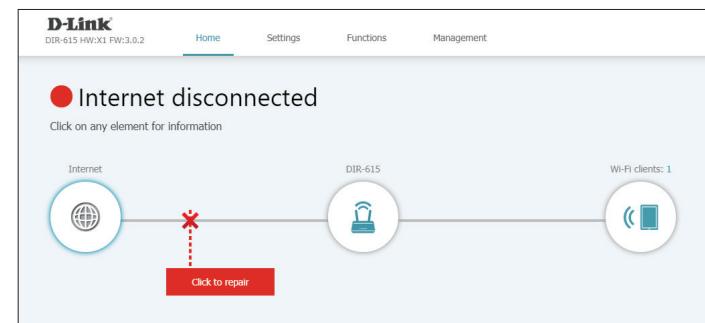
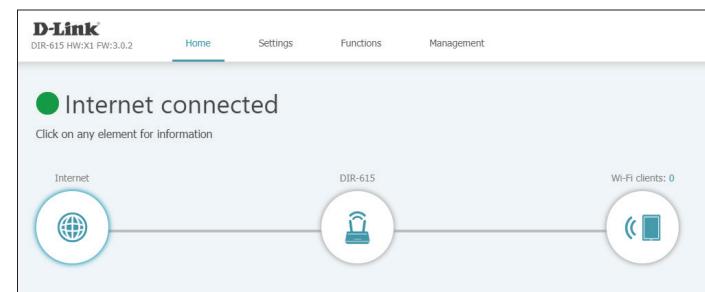


Home

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

The Home page displays whether or not the router is currently connected to the Internet. If it is disconnected, click on repair to go to the Internet - WAN Configuration page to change your Internet configuration and reconnect to the Internet.

To reconfigure the Internet settings, click on **Edit or Change Configuration**. For more information refer to **Internet** on page 19.



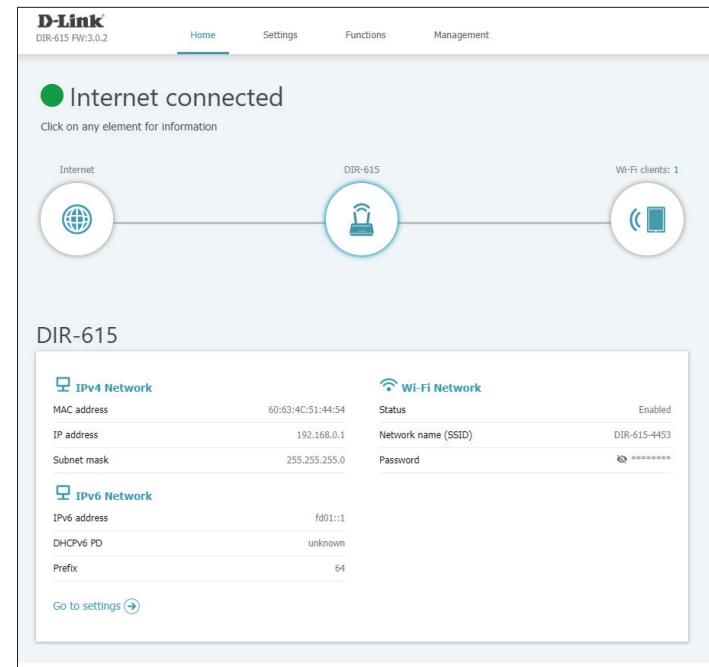
DIR-615

Click on the **DIR-615** icon to view details about the router and its wireless settings.

Here you can see the router's current Wi-Fi network name and password, as well as the router's MAC address, IPv4 address, and IPv6 address.

To reconfigure the network settings, either click **Go to settings** on the lower left, or click on **Settings** in the navigation bar and then **Network** on the menu that appears. Refer to **Network** on page **63** for more information.

To reconfigure the wireless settings, either click **Go to settings**, on the lower right, or click **Settings** in the navigation bar and then **Wireless** on the menu that appears. Refer to **Wireless network** on page **60** for more information.

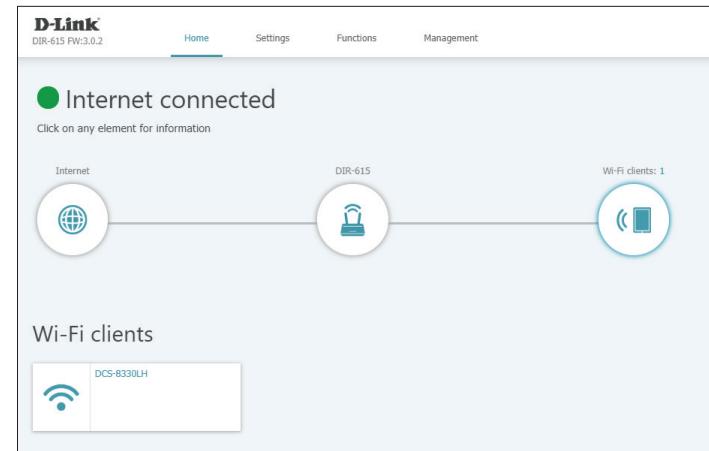


Wi-Fi Clients

Click on the **Connected Clients** icon to view details about wireless clients connected to the router.

On this page you can see all the clients currently connected to the router. Such devices are marked by the colored Wi-Fi logo.

To create or edit connection access rules for each client click the pencil icon on the client you want to edit.



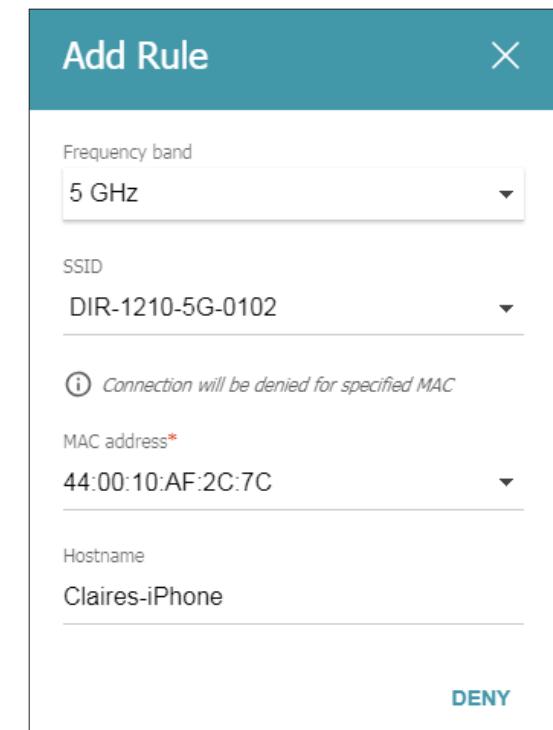
Frequency band: Connection will be denied for this device on this wireless frequency band

SSID: Connection will be denied for this device on this specific SSID

MAC Address: Connection will be denied for the device with this specific MAC address

Hostname: Enter a custom name for this client.

Click **Deny** when you are done.



Add Rule

Frequency band: 5 GHz

SSID: DIR-1210-5G-0102

MAC address*: 44:00:10:AF:2C:7C

Hostname: Claries-iPhone

Connection will be denied for specified MAC

DENY

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 **10** for details. Note that activating the wizard will reset the router to factory defaults.

Internet

In the Settings menu on the bar on the top of the page, click **Internet** to see the Internet configuration options.

WAN

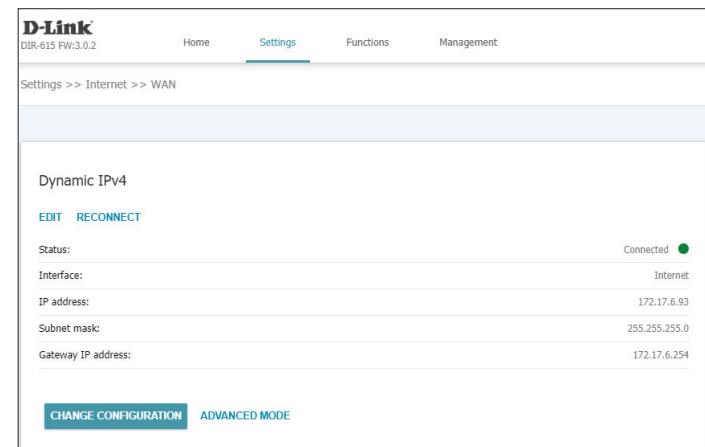
The **WAN** contains information about your current Internet connection settings.

Edit: Click here to be taken to **WAN/Adding** on page **20**. Note that edit does not allow you to change the connection type, only edit connection specific settings. Edit allows you to change settings without losing your current active connection.

Reconnect: Click here to re-initialize the active WAN connection.

Change Configuration: Click here to be taken to **WAN/Adding** on page **20**. Note that **Change Configuration** will allow you to change your connection type and may disrupt active connections.

Advanced Mode: Click here to see a list of Internet WAN connections and their status. You can add, delete or re-initialize a connection



WAN/Adding

This section allows you to configure your WAN interface in detail.

Under **Basic**, you will see the following:

Connection Type: Select your connection type from drop-down menu:

For **Dynamic IPv4** refer to page **21**.

For **Static IPv4** refer to page **24**

For **Dynamic IPv6** refer to page **27**

For **Static IPv6** refer to page **30**

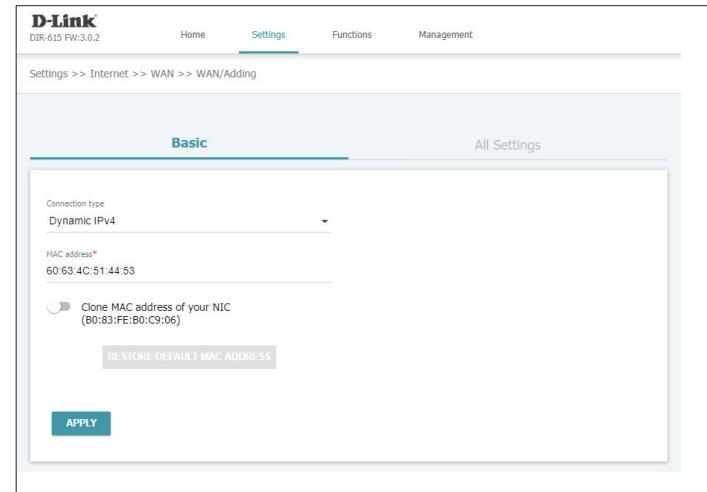
For **PPPoE** refer to page **33**

For **PPPoE IPv6** refer to page **37**

For **PPPoE Dual Stack** refer to page **42**

For **PPTP** refer to page **47**

For **L2TP** refer to page **51**



Note: this option can only be edited in the **WAN/Adding** mode.

Toggle this switch to clone the MAC address of your NIC.

Click **Apply** when you are done.

Dynamic IPv4

Select **Dynamic IPv4** to obtain IPv4 address information automatically from your Internet Service Provider (ISP). Choose **Basic** configuration or **All Settings**.

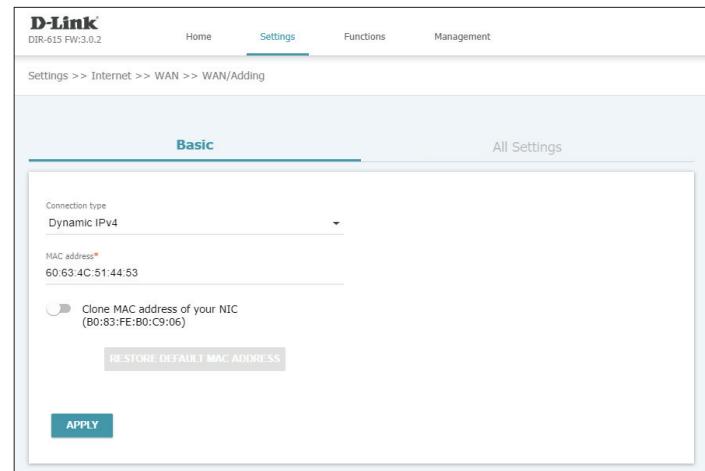
Basic

MAC address: The default MAC address is set to the Internet port's physical interface MAC address on the router. You can edit that address manually here.

Clone MAC address of your NIC: Toggle this switch to clone the MAC address of the device you are using to access the web UI. Note that no two MAC address within the same subnet can be the same.

Restore Default MAC Address: Click here to restore your router's default MAC address.

Click **Apply** when you are done.



All Settings

Connection Type: Select your connection type from drop-down menu:

For **Dynamic IPv4** refer to page **21**.

For **Static IPv4** refer to page **24**

For **Dynamic IPv6** refer to page **27**

For **Static IPv6** refer to page **30**

For **PPPoE** refer to page **33**

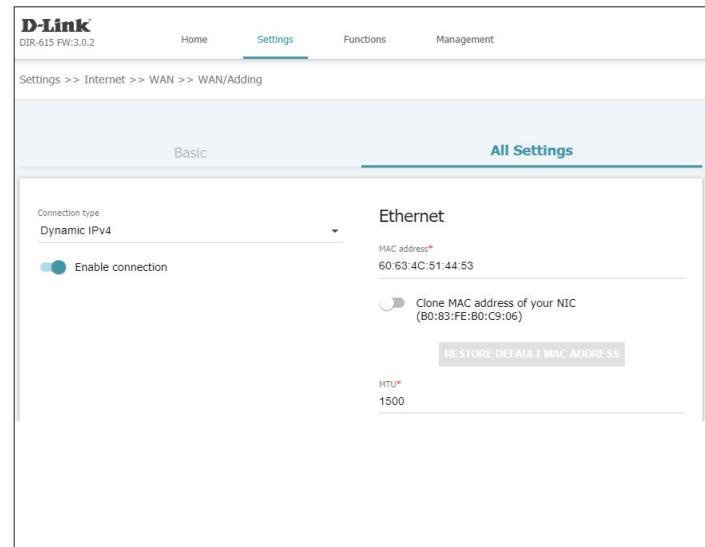
For **PPPoE IPv6** refer to page **37**

For **PPPoE Dual Stack** refer to page **42**

For **PPTP** refer to page **47**

For **L2TP** refer to page **51**

Note: this option can only be edited in the WAN/Creating mode.



Dynamic IPv4 (cont)

Enable Connection: Toggle this switch to enable the connection. This is enabled by default. Disabling this feature may disable your Internet connection.

Miscellaneous

NAT: Toggle this switch to enable Network Address Translation (NAT). This setting is enabled by default.

Firewall: Toggle this switch to enable firewall functionality. This setting is enabled by default.

Ping: Toggle this switch to enable WAN Ping. This setting is disabled by default.

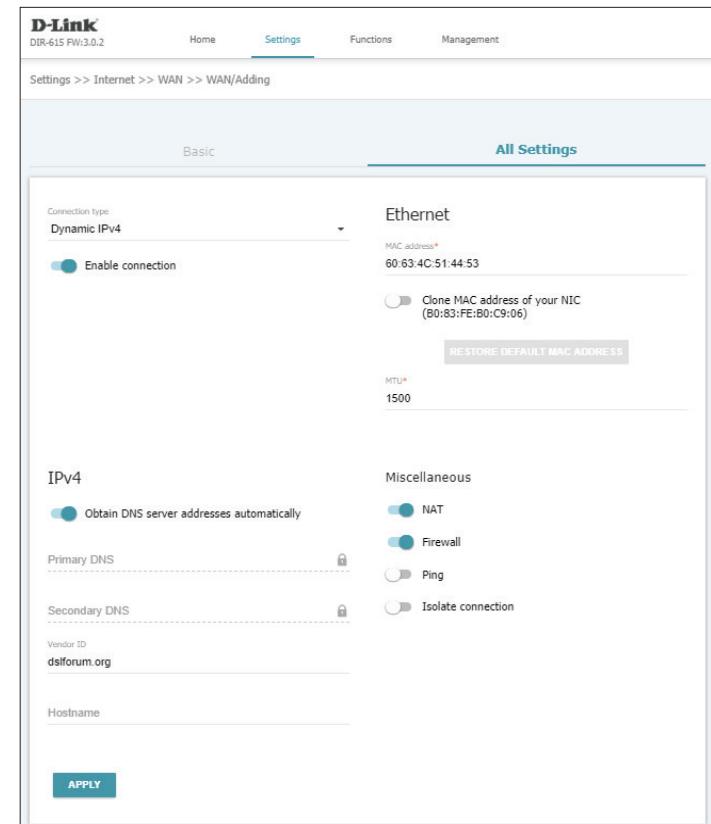
Isolate connection: Toggle this switch to enable connection isolation. This setting is disabled by default.

Ethernet

MAC address: The default MAC address is set to the Internet port's physical interface MAC address on the router. You can edit that address manually here.

Clone MAC address of your NIC: Toggle this switch to clone the MAC address of the device you are using to access the web UI. Note that no two MAC address within the same subnet can be the same.

Restore Default MAC Address: Click here to restore your router's default MAC address.



Dynamic IPv4 (cont)

MTU: Specify the Maximum Transmission Unit of your Internet connection. You may need to change the MTU for optimal performance with your ISP. The default setting is 1500.

IPv4

Obtain DNS server addresses automatically: Toggle this switch to enable DNS information to be acquired automatically through DHCP. This setting is enabled by default.

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

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

Vendor ID: Specify a custom vendor ID. (Optional)

Hostname: Specify a hostname here. This will be the name of your router when viewed from networking tools.

Click **Apply** when you are done.

Static IPv4

Select **Static IP** if your IP information is provided by your Internet Service Provider (ISP). Choose Basic configuration or All Settings.

Basic

MAC address: The default MAC address is set to the Internet port's physical interface MAC address on the router. You can edit that address manually here.

Clone MAC address of your NIC: Toggle this switch to clone the MAC address of the device you are using to access the web UI. Note that no two MAC address within the same subnet can be the same.

Restore Default MAC Address: Click here to restore your router's default MAC address.

IP address: Specify the IP address provided by your ISP.

Netmask: Specify the subnet mask provided by your ISP.

Gateway IP address: Specify the default gateway address provided by your ISP.

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

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

Click **Apply** when you are done.

Static IPv4 (cont)

All Settings

Connection Type: Select your connection type from drop-down menu:
 For **Dynamic IPv4** refer to page **21**.
 For **Static IPv4** refer to page **24**
 For **Dynamic IPv6** refer to page **27**
 For **Static IPv6** refer to page **30**
 For **PPPoE** refer to page **33**
 For **PPPoE IPv6** refer to page **37**
 For **PPPoE Dual Stack** refer to page **42**
 For **PPTP** refer to page **47**
 For **L2TP** refer to page **51**

Note: this option can only be edited in the WAN/Creating mode.

Enable Connection: Toggle this switch to enable the connection. This is enabled by default.
Connection: Disabling this feature may disable your Internet connection.

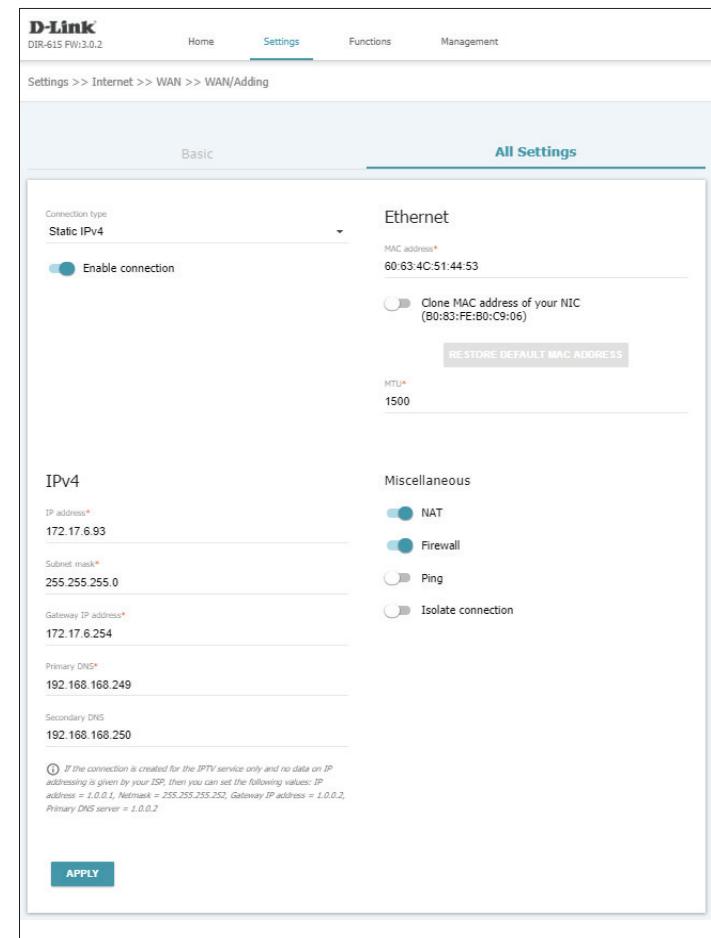
Miscellaneous

NAT: Toggle this switch to enable Network Address Translation (NAT). This setting is enabled by default.

Firewall: Toggle this switch to enable firewall functionality. This setting is enabled by default.

Ping: Toggle this switch to enable WAN Ping. This setting is disabled by default.

Isolate connection: Toggle this switch to enable connection isolation. This setting is disabled by default.



Static IPv4 (cont)

Ethernet

MAC address: The default MAC address is set to the Internet port's physical interface MAC address on the router. You can edit that address manually here.

Clone MAC address of your NIC: Toggle this switch to clone the MAC address of the device you are using to access the web UI. Note that no two MAC address within the same subnet can be the same.

Restore Default MAC Address: Click here to restore your router's default MAC address.

MTU: Specify the Maximum Transmission Unit of your Internet connection. You may need to change the MTU for optimal performance with your ISP. The default setting is 1500.

IPv4

IP address: Specify the IP address provided by your ISP.

Netmask: Specify the subnet mask provided by your ISP.

Gateway IP address: Specify the default gateway address provided by your ISP.

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

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

Click **Apply** when you are done.

The screenshot shows the 'WAN Adding' configuration page for a static IPv4 connection. The 'Connection type' is set to 'Static IPv4'. The 'MAC address' is listed as 60:63:4C:51:44:53. There is an option to 'Clone MAC address of your NIC' (B0:83:FE:B0:C9:06). The 'MTU' is set to 1500. The 'IPv4' section includes fields for 'IP address' (172.17.6.93), 'Subnet mask' (255.255.255.0), 'Gateway IP address' (172.17.6.254), 'Primary DNS' (192.168.168.249), and 'Secondary DNS' (192.168.168.250). The 'Miscellaneous' section includes checkboxes for 'NAT', 'Firewall', 'Ping', and 'Isolate connection'. A note at the bottom states: 'If the connection is created for the IPTV service only and no data on IP addressing is given by your ISP, then you can set the following values: IP address = 1.0.0.1, Netmask = 255.255.255.252, Gateway IP address = 1.0.0.2, Primary DNS server = 1.0.0.2'. An 'APPLY' button is at the bottom right.

Dynamic IPv6

Select **Dynamic IPv6** to obtain IPv6 address information automatically from your Internet Service Provider (ISP). Choose **Basic** configuration or **All Settings**.

Basic

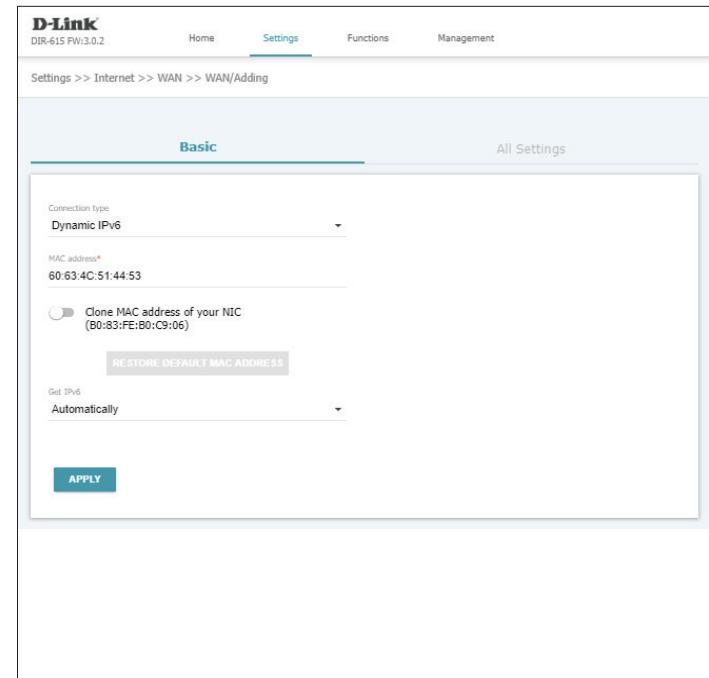
MAC address: The default MAC address is set to the Internet port's physical interface MAC address on the router. You can edit that address manually here.

Clone MAC **address of your NIC:** Toggle this switch to clone the MAC address of the device you are using to access the web UI. Note that no two MAC address within the same subnet can be the same.

Restore Default MAC Address: Click here to restore your router's default MAC address.

Get IPv6: Choose **Automatically, IPv6 by DHCPv6, by SLAAC, or DHCPv6 PD** according to the type of IPv6 is used by your ISP. The default setting is **Automatically**.

Click **Apply** when you are done.



Dynamic IPv6 (cont)

All Settings

Connection Type: Select your connection type from drop-down menu:

For **Dynamic IPv4** refer to page **21**.

For **Static IPv4** refer to page **24**

For **Dynamic IPv6** refer to page **27**

For **Static IPv6** refer to page **30**

For **PPPoE** refer to page **33**

For **PPPoE IPv6** refer to page **37**

For **PPPoE Dual Stack** refer to page **42**

For **PPTP** refer to page **47**

For **L2TP** refer to page **51**

Note: this option can only be edited in the WAN/Creating mode.

Enable Connection: Toggle this switch to enable the connection. This is enabled by default. Disabling this feature may disable your Internet connection.

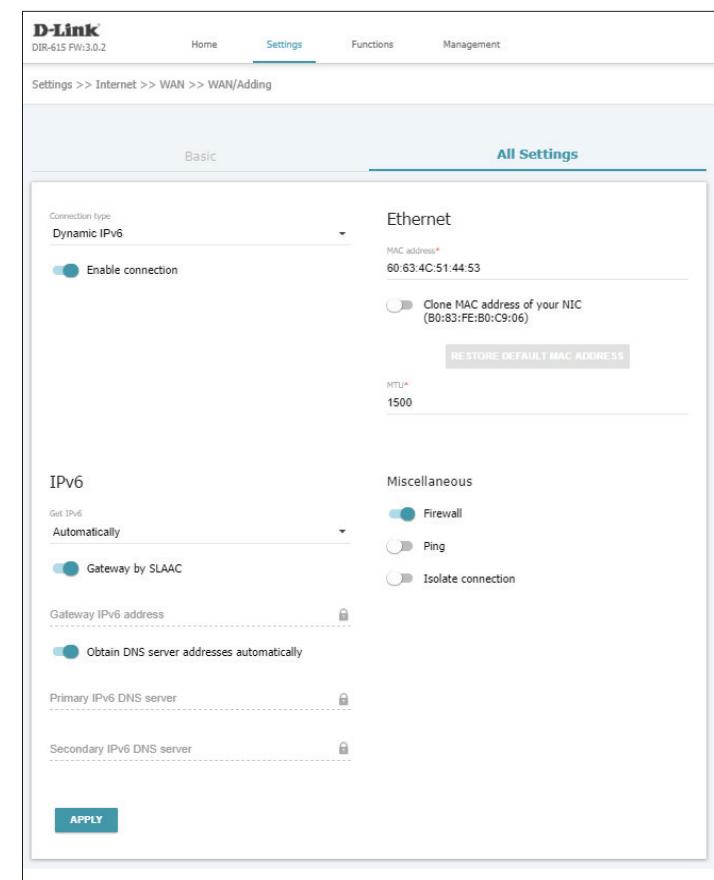
IPv6

Get IPv6: Choose **Automatically**, **IPv6 by DHCPv6**, **by SLAAC**, or **DHCPv6 PD** according to the type of IPv6 is used by your ISP. The default setting is **Automatically**.

Gateway by SLAAC: Toggle this switch to obtain gateway information through SLAAC.

Gateway IPv6 address: If **Gateway by SLAAC** is disabled, specify the Gateway IPv6 address here.

Obtain DNS server addresses automatically: Toggle this switch to obtain DNS information automatically.



Dynamic IPv6 (cont)

Primary IPv6 DNS server: If **Obtain DNS server addresses automatically** is disabled, specify the primary DNS server IP address assigned by your ISP.

Secondary IPv6 DNS Server: If **Obtain DNS server addresses automatically** is disabled, specify the secondary DNS server IP address assigned by your ISP.

Ethernet

MAC address: The default MAC address is set to the Internet port's physical interface MAC address on the router. You can edit that address manually here.

Clone MAC address of your NIC: Toggle this switch to clone the MAC address of the device you are using to access the web UI. Note that no two MAC address within the same subnet can be the same.

Restore Default MAC Address: Click here to restore your router's default MAC address.

MTU: Specify the Maximum Transmission Unit of your Internet connection. You may need to change the MTU for optimal performance with your ISP. The default setting is 1500.

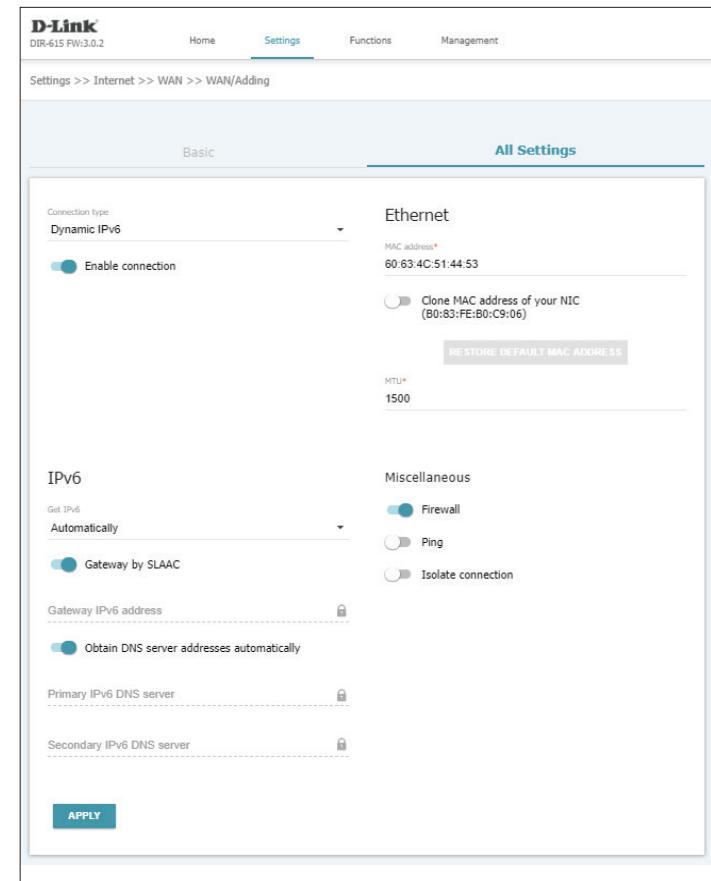
Miscellaneous

Firewall: Toggle this switch to enable firewall functionality. This setting is enabled by default.

Ping: Toggle this switch to enable WAN Ping. This setting is disabled by default.

Isolate connection: Toggle this switch to enable connection isolation. This setting is disabled by default.

Click **Apply** when you are done.



Static IPv6

Select **Static IP** if your IPv6 information is provided by your Internet Service Provider (ISP). Choose Basic configuration or All Settings.

Basic

MAC address: The default MAC address is set to the Internet port's physical interface MAC address on the router. You can edit that address manually here.

Clone MAC address of your NIC: Toggle this switch to clone the MAC address of the device you are using to access the web UI. Note that no two MAC address within the same subnet can be the same.

Restore Default MAC Address: Click here to restore your router's default MAC address.

IPv6 address: Specify the IPv6 address provided by your ISP.

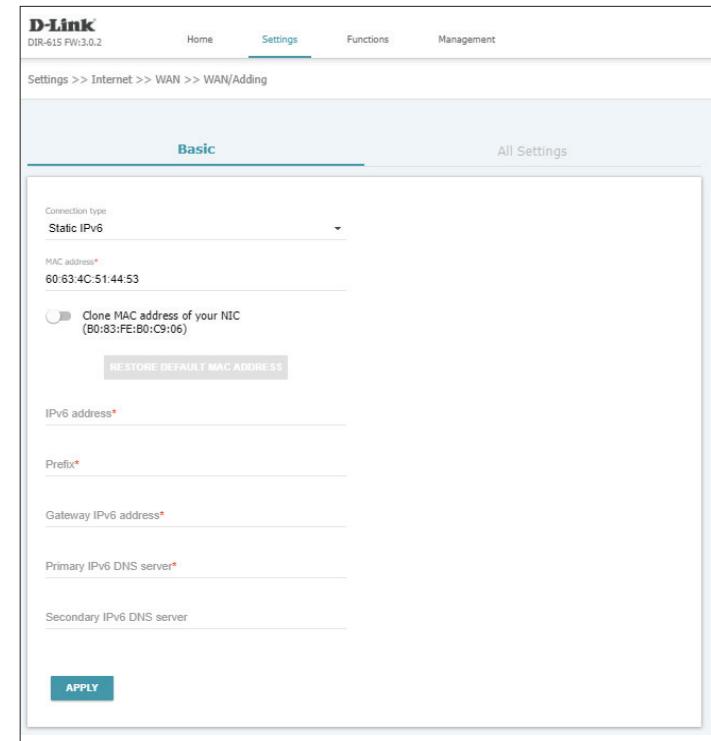
Prefix: Specify the prefix provided by your ISP.

Gateway IPv6 address: Specify the default gateway address provided by your ISP.

Primary IPv6 DNS server: Specify the primary DNS server IP address assigned by your ISP.

Secondary IPv6 DNS server: Specify the secondary DNS server IP address assigned by your ISP.

Click **Apply** when you are done.



Static IPv6 (cont)

All Settings

Connection Type: Select your connection type from drop-down menu:

For **Dynamic IPv4** refer to page **21**.

For **Static IPv4** refer to page **24**

For **Dynamic IPv6** refer to page **27**

For **Static IPv6** refer to page **30**

For **PPPoE** refer to page **33**

For **PPPoE IPv6** refer to page **37**

For **PPPoE Dual Stack** refer to page **42**

For **PPTP** refer to page **47**

For **L2TP** refer to page **51**

Note: this option can only be edited in the WAN/Creating mode.

Enable Connection: Toggle this switch to enable the connection. This is enabled by default.
Disabling this feature may disable your Internet connection.

IPv6

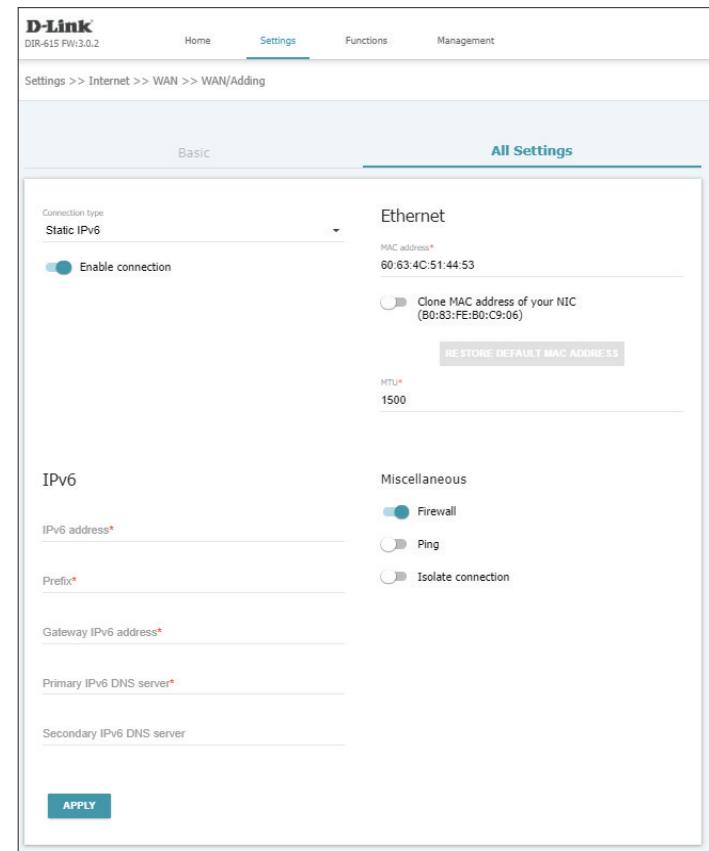
IPv6 address: Specify the IPv6 address provided by your ISP.

Prefix: Specify the prefix provided by your ISP.

Gateway IPv6 address: Specify the default gateway address provided by your ISP.

Primary IPv6 DNS server: Specify the primary DNS server IP address assigned by your ISP.

Secondary IPv6 DNS server: Specify the secondary DNS server IP address assigned by your ISP.



Static IPv6 (cont)

Ethernet

MAC address: The default MAC address is set to the Internet port's physical interface MAC address on the router. You can edit that address manually here.

Clone MAC address of your NIC: Toggle this switch to clone the MAC address of the device you are using to access the web UI. Note that no two MAC address within the same subnet can be the same.

Restore Default MAC Address: Click here to restore your router's default MAC address.

MTU: Specify the Maximum Transmission Unit of your Internet connection. You may need to change the MTU for optimal performance with your ISP. The default setting is 1500.

Miscellaneous

Firewall: Toggle this switch to enable firewall functionality. This setting is enabled by default.

Ping: Toggle this switch to enable WAN Ping. This setting is disabled by default.

Isolate connection: Toggle this switch to enable connection isolation. This setting is disabled by default.

Click **Apply** when you are done.

PPPoE

Select **PPPoE** if your ISP provides and requires you to enter a PPPoE username and password in order to connect to the Internet. Choose Basic configuration or All Settings.

Basic

MAC address: The default MAC address is set to the Internet port's physical interface MAC address on the router. You can edit that address manually here.

Clone MAC address of your NIC: Toggle this switch to clone the MAC address of the device you are using to access the web UI. Note that no two MAC address within the same subnet can be the same.

Restore Default MAC Address: Click here to restore your router's default MAC address.

Without authorization: Enable this setting to connect without a username and password. This configuration is uncommon and is disabled by default.

Username: If **Without authorization** is disabled, specify the PPP username provided by your ISP.

Password: If **Without authorization** is disabled, specify the PPP password provided by your ISP.

Service name: Specify the ISP service name (optional).

Click **Apply** when you are done.

The screenshot shows the 'Basic' configuration page for PPPoE. The 'Connection type' is set to 'PPPoE'. The 'MAC address' field contains '60:63:4C:51:44:53'. The 'Clone MAC address of your NIC' checkbox is checked. The 'Without authorization' checkbox is unchecked. The 'Username' and 'Password' fields are empty. The 'Service name' field is empty. The 'APPLY' button is at the bottom.

PPPoE (cont)

All Settings

Connection Type: Select your connection type from drop-down menu:

For **Dynamic IPv4** refer to page **21**.

For **Static IPv4** refer to page **24**

For **Dynamic IPv6** refer to page **27**

For **Static IPv6** refer to page **30**

For **PPPoE** refer to page **33**

For **PPPoE IPv6** refer to page **37**

For **PPPoE Dual Stack** refer to page **42**

For **PPTP** refer to page **47**

For **L2TP** refer to page **51**

Note: this option can only be edited in the WAN/Creating mode.

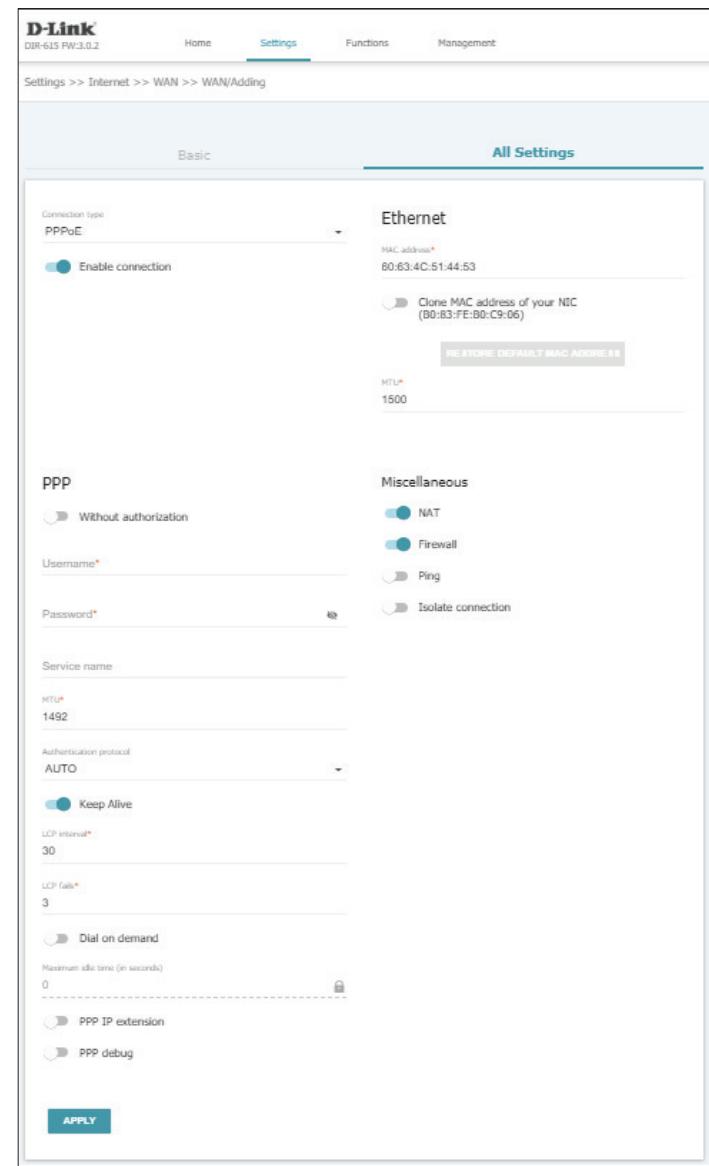
Enable Connection: Toggle this switch to enable the connection. This is enabled by default. Disabling this feature may disable your Internet connection.

PPP

Without authorization: Enable this setting to connect without a username and password. This configuration is uncommon and is disabled by default.

Username: If **Without authorization** is disabled, specify the PPP username provided by your ISP.

Password: If **Without authorization** is disabled, specify the PPP password provided by your ISP.



PPPoE (cont)

Service name: Specify the ISP service name (optional).

Authentication protocol: Choose from **AUTO**, **PAP**, **CHAP**, **MS-CHAP**, or **MS-CHAPv2**. **AUTO** is selected by default.

Keep alive: Toggle this switch to maintain your connection when no activity is detected.

LCP interval: If you have enabled **Keep alive**, specify the LCP Echo frequency in seconds. The default setting is 30.

LCP fails: If you have enabled **Keep alive**, specify the maximum number of LCP fails before the connection is dropped.

Dial on demand: Enable this option to automatically dial a PPPoE connection when data flow is detected.

Maximum idle time: If you have enabled **Dial on demand**, specify a maximum idle time in seconds before the connection will be dropped.

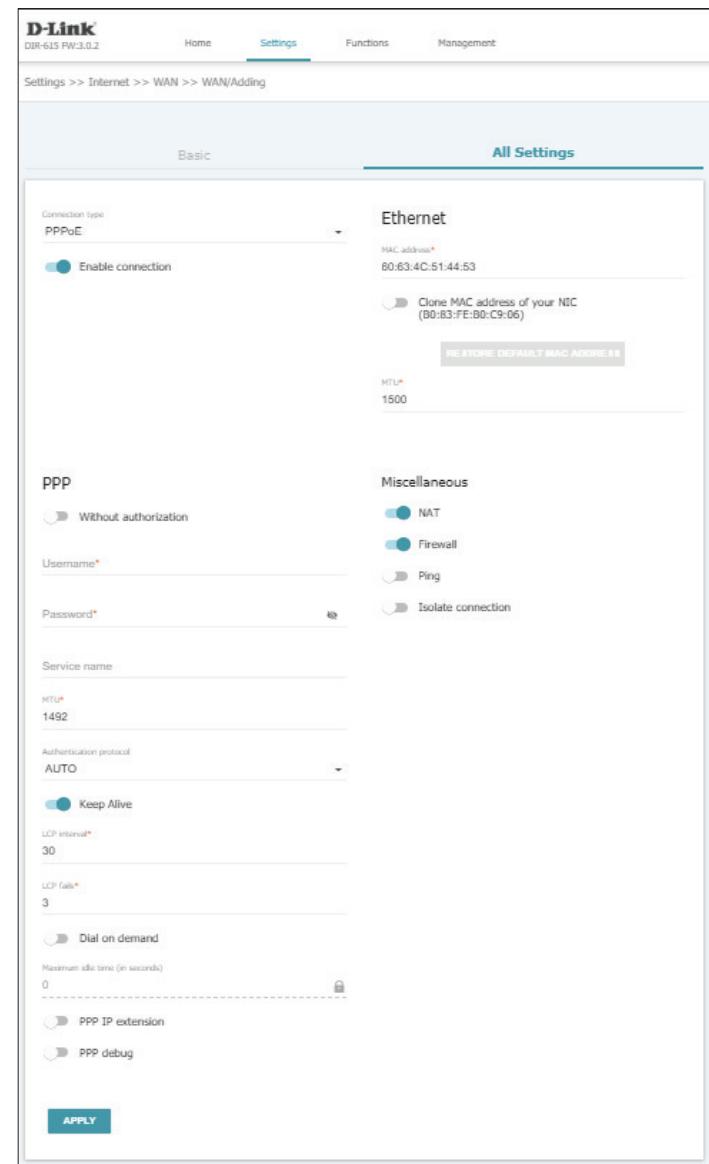
Static IP address: Specify the IP address provided by your ISP.

PPP IP extension: Toggle this switch to enable the PPP server to directly assign IP addresses to PCs behind your router. This is disabled by default.

PPP debug: Toggle this switch to enable PPP debug. This feature is disabled by default.

Ethernet

MAC address: The default MAC address is set to the Internet port's physical interface MAC address on the router. You can edit that address manually here.



PPPoE (cont)

Clone MAC address of your NIC: Toggle this switch to clone the MAC address of the device you are using to access the web UI. Note that no two MAC address within the same subnet can be the same.

Restore Default MAC Address: Click here to restore your router's default MAC address.

MTU: Specify the Maximum Transmission Unit of your Internet connection. You may need to change the MTU for optimal performance with your ISP. The default setting is 1500.

Miscellaneous

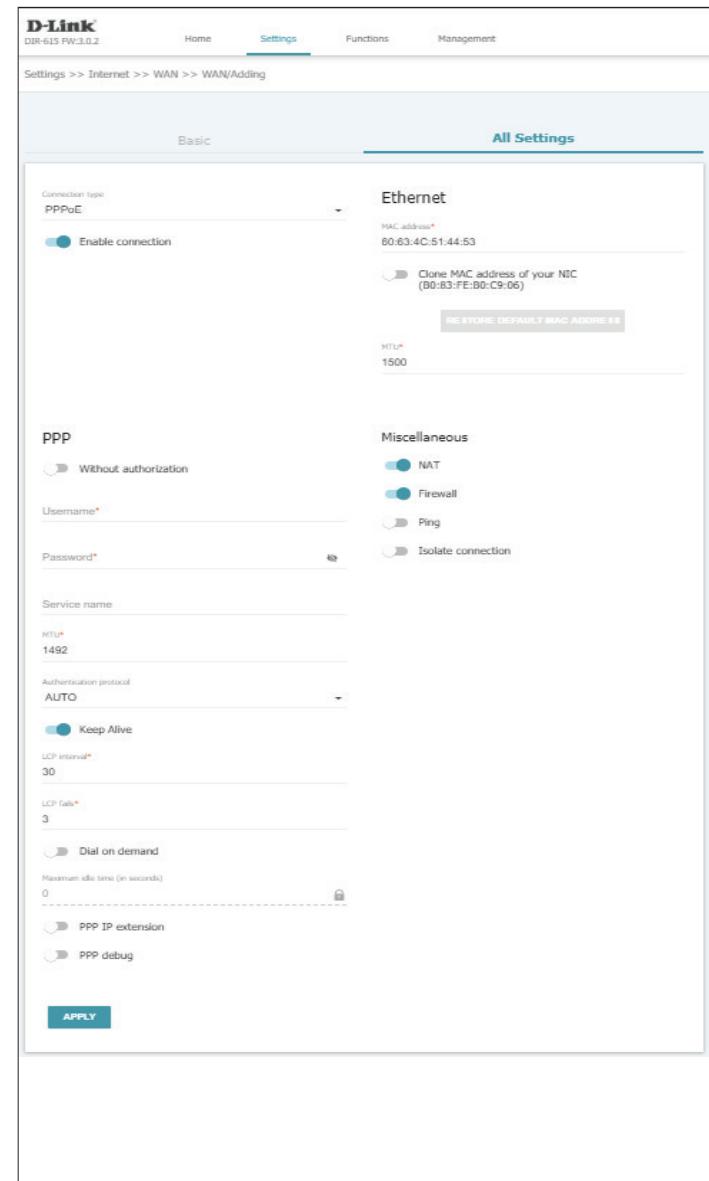
NAT: Toggle this switch to enable Network Address Translation (NAT). This setting is enabled by default.

Firewall: Toggle this switch to enable firewall functionality. This setting is enabled by default.

Ping: Toggle this switch to enable WAN Ping. This setting is disabled by default.

Isolate connection: Toggle this switch to enable connection isolation. This setting is disabled by default.

Click **Apply** when you are done.



PPPoE IPv6

Select **PPPoE IPv6** if your ISP provides and requires you to enter a PPPoE username and password in order to connect to the Internet. Choose Basic configuration or All Settings.

Basic

MAC address: The default MAC address is set to the Internet port's physical interface MAC address on the router. You can edit that address manually here.

Clone MAC address of your NIC: Toggle this switch to clone the MAC address of the device you are using to access the web UI. Note that no two MAC address within the same subnet can be the same.

Restore Default MAC Address: Click here to restore your router's default MAC address.

Without authorization: Enable this setting to connect without a username and password. This configuration is uncommon and is disabled by default.

Username: If **Without authorization** is disabled, specify the PPP username provided by your ISP.

Password: If **Without authorization** is disabled, specify the PPP password provided by your ISP.

Service name: Specify the ISP service name (optional).

Get IPv6: Choose **Automatically**, **IPv6 by DHCPv6**, **by SLAAC**, or **DHCPv6 PD** according to the type of IPv6 is used by your ISP. The default setting is **Automatically**.

Click **Apply** when you are done.

PPPoE IPv6 (cont)

All Settings

Connection Type: Select your connection type from drop-down menu:
 For **Dynamic IPv4** refer to page [21](#).
 For **Static IPv4** refer to page [24](#)
 For **Dynamic IPv6** refer to page [27](#)
 For **Static IPv6** refer to page [30](#)
 For **PPPoE** refer to page [33](#)
 For **PPPoE IPv6** refer to page [37](#)
 For **PPPoE Dual Stack** refer to page [42](#)
 For **PPTP** refer to page [47](#)
 For **L2TP** refer to page [51](#)

Note: this option can only be edited in the WAN/Creating mode.

Enable Connection: Toggle this switch to enable the connection. This is enabled by default.
Disabling this feature may disable your Internet connection.

PPP

Without authorization: Enable this setting to connect without a username and password.
This configuration is uncommon and is disabled by default.

Username: If **Without authorization** is disabled, specify the PPP username provided by your ISP.

Password: If **Without authorization** is disabled, specify the PPP password provided by your ISP.

Service name: Specify the ISP service name (optional).

PPPoE IPv6 (cont)

MTU: Specify the Maximum Transmission Unit of your Internet connection. You may need to change the MTU for optimal performance with your ISP. The default setting is 1492.

Authentication protocol: Choose from **AUTO**, **PAP**, **CHAP**, **MS-CHAP**, or **MS-CHAPv2**. **AUTO** is selected by default.

Keep alive: Toggle this switch to maintain your connection when no activity is detected.

LCP interval: If you have enabled **Keep alive**, specify the LCP Echo frequency in seconds. The default setting is 30.

LCP fails: If you have enabled **Keep alive**, specify the maximum number of LCP fails before the connection is dropped.

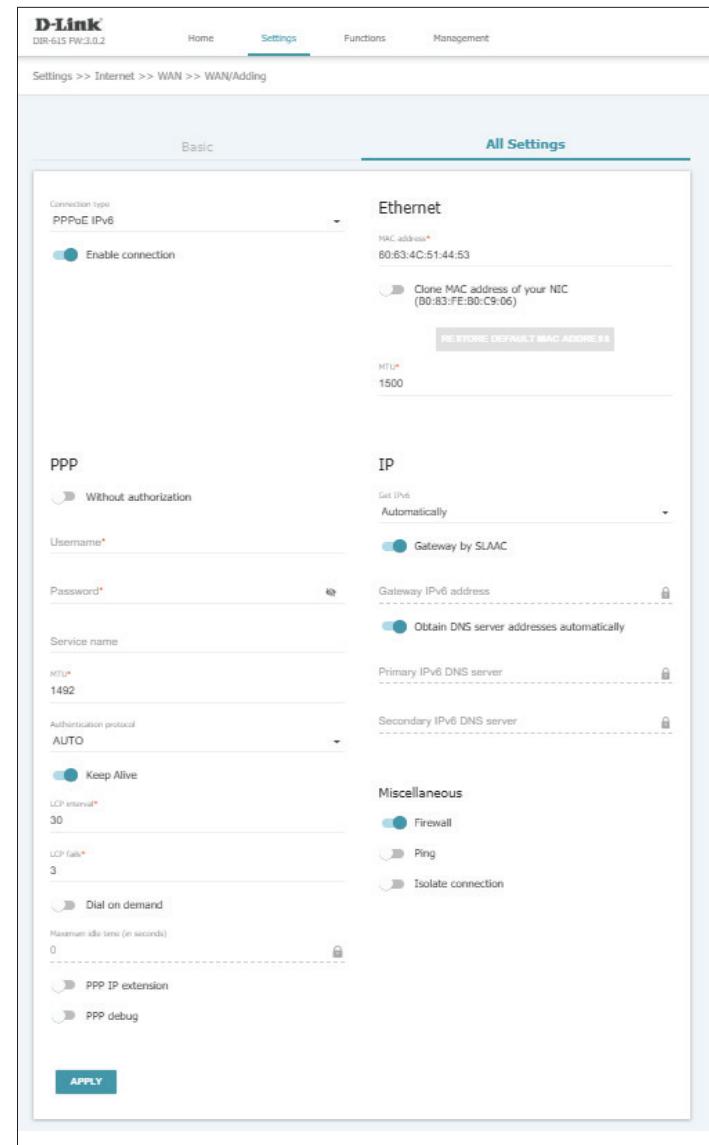
Dial on demand: Enable this option to automatically dial a PPPoE connection when data flow is detected.

Maximum idle time: If you have enabled **Dial on demand**, specify a maximum idle time in seconds before the connection will be dropped.

Static IP address: Specify the IP address provided by your ISP.

PPP IP extension: Toggle this switch to enable the PPP server to directly assign IP addresses to PCs behind your router. This is disabled by default.

PPP debug: Toggle this switch to enable PPP debug. This feature is disabled by default.



PPPoE IPv6 (cont)

Ethernet

MAC address: The default MAC address is set to the Internet port's physical interface MAC address on the router. You can edit that address manually here.

Clone MAC address of your NIC: Toggle this switch to clone the MAC address of the device you are using to access the web UI. Note that no two MAC address within the same subnet can be the same.

Restore Default MAC Address: Click here to restore your router's default MAC address.

MTU: Specify the Maximum Transmission Unit of your Internet connection. You may need to change the MTU for optimal performance with your ISP. The default setting is 1500.

IP

Get IPv6: Choose **Automatically**, **IPv6 by DHCPv6**, **by SLAAC**, or **DHCPv6 PD** according to the type of IPv6 is used by your ISP. The default setting is **Automatically**.

Gateway by SLAAC: Toggle this switch to obtain gateway information through SLAAC.

IPv6 address: Specify the IPv6 address provided by your ISP.

Prefix: Specify the prefix provided by your ISP.

Gateway IPv6 address: Specify the default gateway address provided by your ISP.

PPPoE IPv6 (cont)

Primary IPv6 DNS server: Specify the primary DNS server IP address assigned by your ISP.

Secondary IPv6 DNS server: Specify the secondary DNS server IP address assigned by your ISP.

Miscellaneous

Firewall: Toggle this switch to enable firewall functionality. This setting is enabled by default.

RIP: Toggle this switch to enable Routing Information Protocol (RIP). This setting is disabled by default.

Isolate connection: Toggle this switch to enable connection isolation. This setting is disabled by default.

Click **Apply** when you are done.

PPPoE Dual Stack

Select **PPPoE Dual Stack** if your ISP provides and requires you to enter a PPPoE username and password in order to connect to the Internet and supports adding IPv6 access to PPP for IPv4. Choose Basic configuration or All Settings.

Basic

MAC address: The default MAC address is set to the Internet port's physical interface MAC address on the router. You can edit that address manually here.

Clone MAC address of your NIC: Toggle this switch to clone the MAC address of the device you are using to access the web UI. Note that no two MAC address within the same subnet can be the same.

Restore Default MAC Address: Click here to restore your router's default MAC address.

Without authorization: Enable this setting to connect without a username and password. This configuration is uncommon and is disabled by default.

Username: If **Without authorization** is disabled, specify the PPP username provided by your ISP.

Password: If **Without authorization** is disabled, specify the PPP password provided by your ISP.

Service name: Specify the ISP service name (optional).

Get IPv6: Choose **Automatically**, **IPv6 by DHCPv6**, **by SLAAC**, or **DHCPv6 PD** according to the type of IPv6 is used by your ISP. The default setting is **Automatically**.

Click **Apply** when you are done.

PPPoE Dual Stack (cont)

All Settings

Connection Type: Select your connection type from drop-down menu:

For **Dynamic IPv4** refer to page [21](#).

For **Static IPv4** refer to page [24](#)

For **Dynamic IPv6** refer to page [27](#)

For **Static IPv6** refer to page [30](#)

For **PPPoE** refer to page [33](#)

For **PPPoE IPv6** refer to page [37](#)

For **PPPoE Dual Stack** refer to page [42](#)

For **PPTP** refer to page [47](#)

For **L2TP** refer to page [51](#)

Note: this option can only be edited in the WAN/Creating mode.

Enable Connection: Toggle this switch to enable the connection. This is enabled by default. Disabling this feature may disable your Internet connection.

PPP

Without authorization: Enable this setting to connect without a username and password. This configuration is uncommon and is disabled by default.

Username: If **Without authorization** is disabled, specify the PPP username provided by your ISP.

Password: If **Without authorization** is disabled, specify the PPP password provided by your ISP.

The screenshot shows the D-Link DIR-615 web interface for configuring a PPPoE connection. The 'Connection type' is set to 'PPPoE Dual Stack'. The 'Enable connection' switch is turned on. The 'Ethernet' tab is selected. In the PPP section, 'Without authorization' is selected. In the IP section, 'Get IPv6 Automatically' and 'Gateway by SLAAC' are selected. Miscellaneous options like NAT, Firewall, Ping, and Isolate connection are also visible.

PPPoE Dual Stack (cont)

Service name: Specify the ISP service name (optional).

MTU: Specify the Maximum Transmission Unit of your Internet connection. You may need to change the MTU for optimal performance with your ISP. The default setting is 1492.

Authentication protocol: Choose from **AUTO**, **PAP**, **CHAP**, **MS-CHAP**, or **MS-CHAPv2**. **AUTO** is selected by default.

Keep alive: Toggle this switch to maintain your connection when no activity is detected.

LCP interval: If you have enabled **Keep alive**, specify the LCP Echo frequency in seconds. The default setting is 30.

LCP fails: If you have enabled **Keep alive**, specify the maximum number of LCP fails before the connection is dropped.

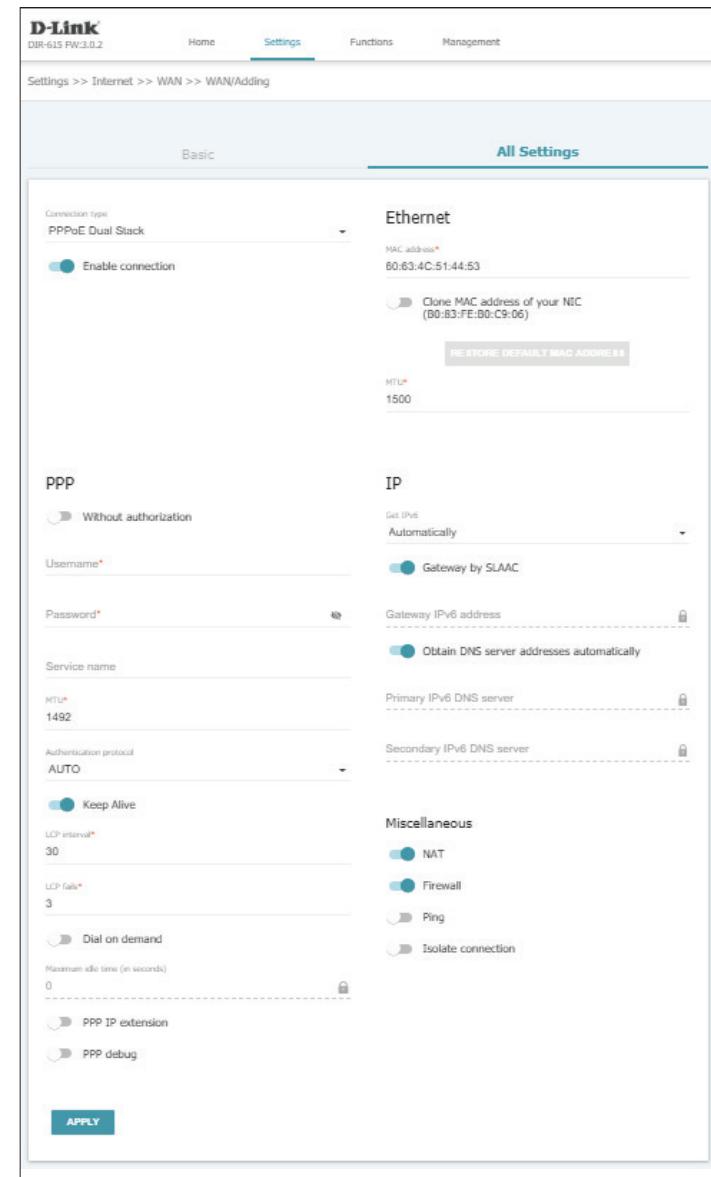
Dial on demand: Enable this option to automatically dial a PPPoE connection when data flow is detected.

Maximum idle time: If you have enabled **Dial on demand**, specify a maximum idle time in seconds before the connection will be dropped.

Static IP address: Specify the IP address provided by your ISP.

PPP IP extension: Toggle this switch to enable the PPP server to directly assign IP addresses to PCs behind your router. This is disabled by default.

PPP debug: Toggle this switch to enable PPP debug. This feature is disabled by default.



PPPoE Dual Stack (cont)

Ethernet

MAC address: The default MAC address is set to the Internet port's physical interface MAC address on the router. You can edit that address manually here.

Clone MAC address of your NIC: Toggle this switch to clone the MAC address of the device you are using to access the web UI. Note that no two MAC address within the same subnet can be the same.

Restore Default MAC Address: Click here to restore your router's default MAC address.

MTU: Specify the Maximum Transmission Unit of your Internet connection. You may need to change the MTU for optimal performance with your ISP. The default setting is 1500.

IP

Get IPv6: Choose **Automatically**, **IPv6 by DHCPv6**, **by SLAAC**, or **DHCPv6 PD** according to the type of IPv6 is used by your ISP. The default setting is **Automatically**.

Gateway by SLAAC: Toggle this switch to obtain gateway information through SLAAC.

IPv6 address: Specify the IPv6 address provided by your ISP.

Prefix: Specify the prefix provided by your ISP.

Gateway IPv6 address: Specify the default gateway address provided by your ISP.

PPPoE Dual Stack (cont)

Primary IPv6 DNS server: Specify the primary DNS server IP address assigned by your ISP.

Secondary IPv6 DNS server: Specify the secondary DNS server IP address assigned by your ISP.

Miscellaneous

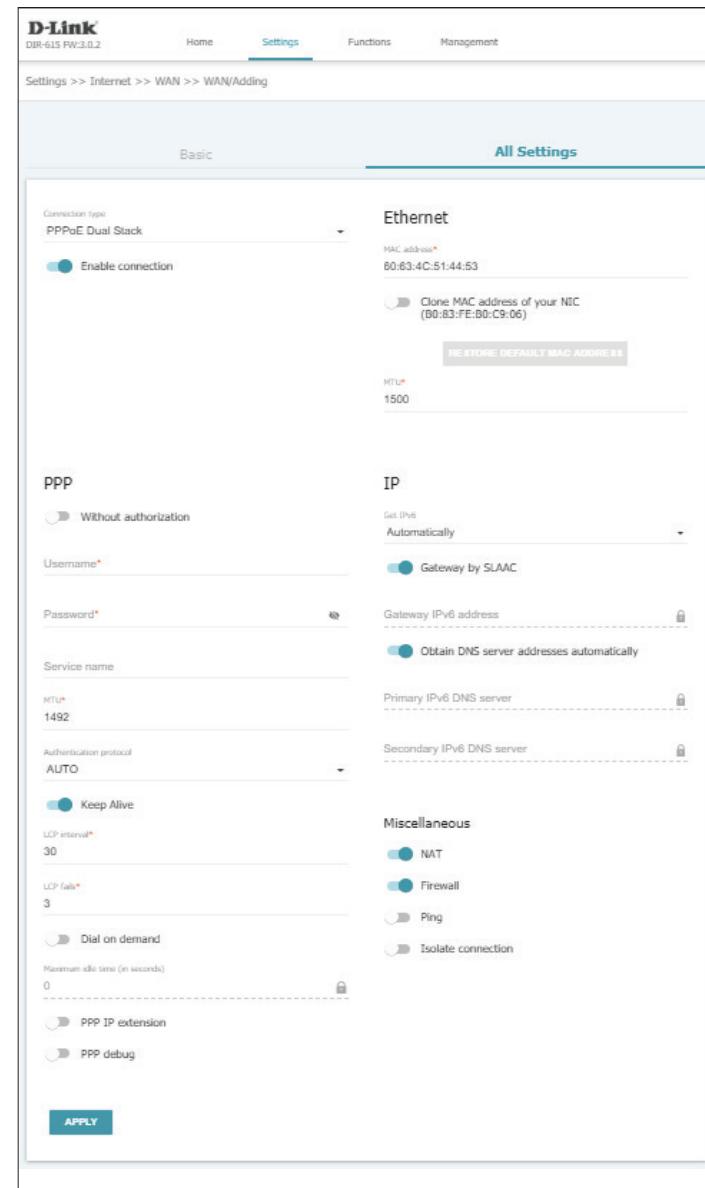
NAT: Toggle this switch to enable Network Address Translation (NAT). This setting is enabled by default.

Firewall: Toggle this switch to enable firewall functionality. This setting is enabled by default.

Ping: Toggle this switch to enable WAN Ping. This setting is disabled by default.

Isolate connection: Toggle this switch to enable connection isolation. This setting is disabled by default.

Click **Apply** 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. Choose Basic configuration or All Settings.

Basic

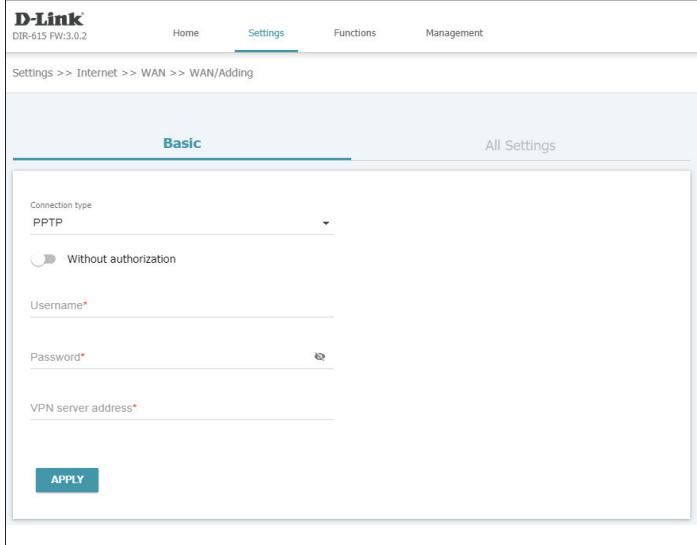
Without authorization: Enable this setting to connect without a username and password. This configuration is uncommon and is disabled by default.

Username: If **Without authorization** is disabled, specify the PPP username provided by your ISP.

Password: If **Without authorization** is disabled, specify the PPP password provided by your ISP.

VPN Server address: Specify the VPN server address provided by your ISP.

Click **Apply** when you are done.



The screenshot shows the D-Link DIR-615 web interface for configuring a PPTP connection. The top navigation bar includes 'Home', 'Settings' (which is the active tab), 'Functions', and 'Management'. Below the navigation is a breadcrumb trail: 'Settings >> Internet >> WAN >> WAN/Adding'. The main configuration area is titled 'Basic' and contains the following fields:

- Connection type:** PPTP
- Without authorization:** (radio button selected)
- Username:** (input field)
- Password:** (input field)
- VPN server address:** (input field)

At the bottom of the form is a blue 'APPLY' button.

PPTP (cont)

All Settings

Connection Type: Select your connection type from drop-down menu:
 For **Dynamic IPv4** refer to page **21**.
 For **Static IPv4** refer to page **24**
 For **Dynamic IPv6** refer to page **27**
 For **Static IPv6** refer to page **30**
 For **PPPoE** refer to page **33**
 For **PPPoE IPv6** refer to page **37**
 For **PPPoE Dual Stack** refer to page **42**
 For **PPTP** refer to page **47**
 For **L2TP** refer to page **51**

Note: this option can only be edited in the WAN/Creating mode.

Enable Connection: Toggle this switch to enable the connection. This is enabled by default.
Disabling this feature may disable your Internet connection.

PPP

Without authorization: Enable this setting to connect without a username and password.
This configuration is uncommon and is disabled by default.

Username: If **Without authorization** is disabled, specify the PPP username provided by your ISP.

Password: If **Without authorization** is disabled, specify the PPP password provided by your ISP.

VPN Server address: Specify the VPN server address provided by your ISP.

PPTP (cont)

MTU: Specify the Maximum Transmission Unit of your Internet connection. You may need to change the MTU for optimal performance with your ISP. The default setting is 1456.

Authentication protocol: Choose from **AUTO**, **PAP**, **CHAP**, **MS-CHAP**, or **MS-CHAPv2**. **AUTO** is selected by default.

Encryption protocol: Choose **No Encryption**, **MPPE 40 125 bit**, **MPPE 40 bit**, or **MPPE 128 bit**.

Keep alive: Toggle this switch to maintain your connection when no activity is detected.

LCP interval: If you have enabled **Keep alive**, specify the LCP Echo frequency in seconds. The default setting is 30.

LCP fails: If you have enabled **Keep alive**, specify the maximum number of LCP fails before the connection is dropped.

Dial on demand: Enable this option to automatically dial a PPPoE connection when data flow is detected.

Maximum idle time: If you have enabled **Dial on demand**, specify a maximum idle time in seconds before the connection will be dropped.

Extra options: Specify extra options if required by your ISP.

Static IP address: Specify the IP address provided by your ISP.

PPP debug: Toggle this switch to enable PPP debug. This feature is disabled by default.

The screenshot shows the D-Link DIR-615 web interface for configuring a PPTP connection. The 'Basic' tab is active, displaying the following configuration parameters:

- Connection type:** PPTP
- Enable connection:**
- Username:** (empty)
- Password:** (empty)
- VPN server address:** (empty)
- MTU:** 1456
- Authentication protocol:** AUTO
- Encryption protocol:** No encryption
- Keep Alive:**
- LCP interval:** 30
- LCP fails:** 3
- Dial on demand:**
- Maximum idle time (in seconds):** 0
- Extra options:**
 - PPP debug:**
 - Enable MPPC:**
- Miscellaneous:**
 - NAT:**
 - Firewall:**
 - Ping:**
 - Isolate connection:**

At the bottom of the page is a blue 'APPLY' button.

PPTP (cont)

Enable MPPC: Toggle this switch to enable Microsoft Point-to-Point Compression (MPPC). This setting is disabled by default.

Miscellaneous

NAT: Toggle this switch to enable Network Address Translation (NAT). This setting is enabled by default.

Firewall: Toggle this switch to enable firewall functionality. This setting is enabled by default.

Ping: Toggle this switch to enable WAN Ping. This setting is disabled by default.

Isolate connection: Toggle this switch to enable connection isolation. This setting is disabled by default.

Click **Apply** when you are done.

The screenshot shows the D-Link DIR-615 web interface for configuring a PPTP connection. The 'Connection type' is set to 'PPTP'. Under the 'Miscellaneous' section, the 'Enable MPPC' switch is checked. The 'Miscellaneous' section also includes checkboxes for NAT, Firewall, Ping, and Isolate connection. The 'APPLY' button is visible at the bottom.

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. Choose Basic configuration or All Settings.

Basic

Without authorization: Enable this setting to connect without a username and password. This configuration is uncommon and is disabled by default.

Username: If **Without authorization** is disabled, specify the PPP username provided by your ISP.

Password: If **Without authorization** is disabled, specify the PPP password provided by your ISP.

VPN Server address: Specify the VPN server address provided by your ISP.

Click **Apply** when you are done.

The screenshot shows the D-Link DIR-615 web interface with the following details:

- Header:** D-Link DIR-615 FW:3.0.2, Home, Settings (selected), Functions, Management.
- Current Path:** Settings >> Internet >> WAN >> WAN/Adding
- Section:** Basic
- Form Fields:**
 - Connection type: L2TP
 - Without authorization (radio button selected)
 - Username*
 - Password*
 - VPN server address*
- Buttons:** APPLY

L2TP (cont)

All Settings

Connection Type: Select your connection type from drop-down menu:
 For **Dynamic IPv4** refer to page **21**.
 For **Static IPv4** refer to page **24**
 For **Dynamic IPv6** refer to page **27**
 For **Static IPv6** refer to page **30**
 For **PPPoE** refer to page **33**
 For **PPPoE IPv6** refer to page **37**
 For **PPPoE Dual Stack** refer to page **42**
 For **PPTP** refer to page **47**
 For **L2TP** refer to page **51**

Note: this option can only be edited in the WAN/Creating mode.

Enable Connection: Toggle this switch to enable the connection. This is enabled by default.
Connection: Disabling this feature may disable your Internet connection.

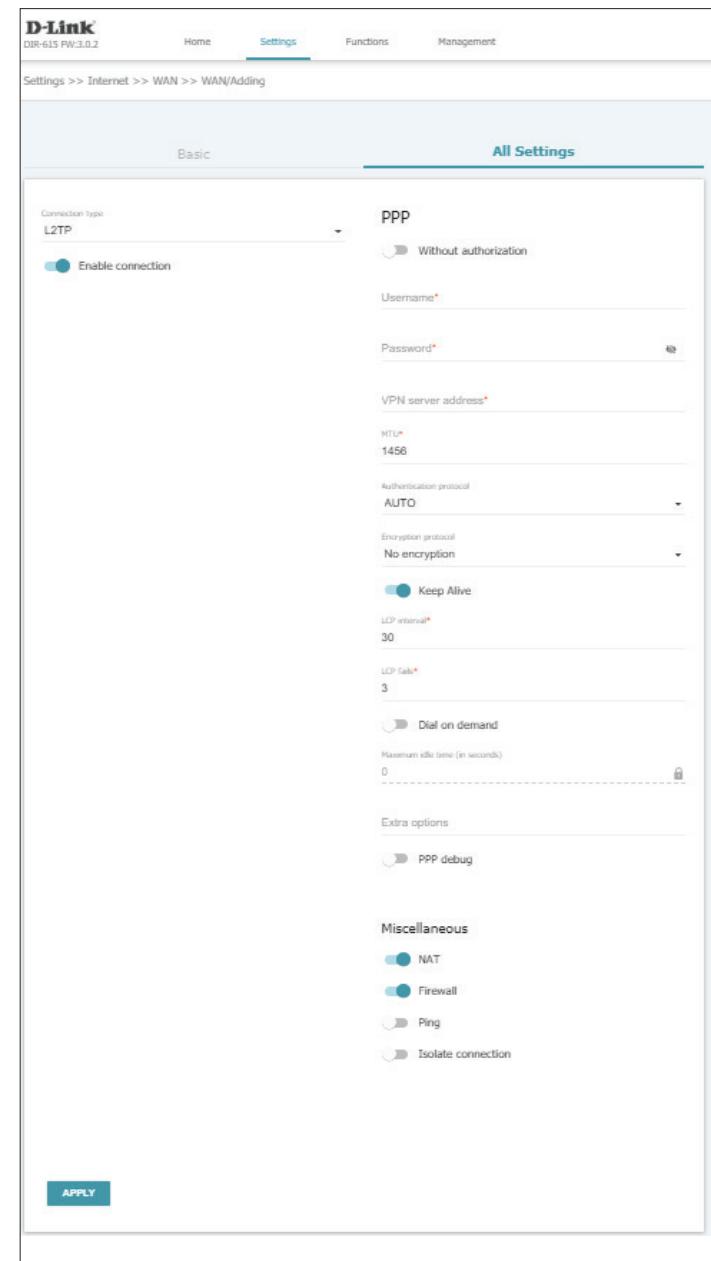
PPP

Without authorization: Enable this setting to connect without a username and password. This configuration is uncommon and is disabled by default.

Username: If **Without authorization** is disabled, specify the PPP username provided by your ISP.

Password: If **Without authorization** is disabled, specify the PPP password provided by your ISP.

VPN Server address: Specify the VPN server address provided by your ISP.



L2TP (cont)

MTU: Specify the Maximum Transmission Unit of your Internet connection. You may need to change the MTU for optimal performance with your ISP. The default setting is 1456.

Authentication protocol: Choose from **AUTO**, **PAP**, **CHAP**, **MS-CHAP**, or **MS-CHAPv2**. **AUTO** is selected by default.

Encryption protocol: Choose **No Encryption**, **MPPE 40 125 bit**, **MPPE 40 bit**, or **MPPE 128 bit**.

Keep alive: Toggle this switch to maintain your connection when no activity is detected.

LCP interval: If you have enabled **Keep alive**, specify the LCP Echo frequency in seconds. The default setting is 30.

LCP fails: If you have enabled **Keep alive**, specify the maximum number of LCP fails before the connection is dropped.

Dial on demand: Enable this option to automatically dial a PPPoE connection when data flow is detected.

Maximum idle time: If you have enabled **Dial on demand**, specify a maximum idle time in seconds before the connection will be dropped.

Extra options: Specify extra options if required by your ISP.

Static IP address: Specify the IP address provided by your ISP.

PPP debug: Toggle this switch to enable PPP debug. This feature is disabled by default.

L2TP (cont)

Miscellaneous

NAT: Toggle this switch to enable Network Address Translation (NAT). This setting is enabled by default.

Firewall: Toggle this switch to enable firewall functionality. This setting is enabled by default.

RIP: Toggle this switch to enable Routing Information Protocol (RIP). This setting is disabled by default.

Ping: Toggle this switch to enable WAN Ping. This setting is disabled by default.

Isolate connection: Toggle this switch to enable connection isolation. This setting is disabled by default.

Click **Apply** when you are done.

The screenshot shows the D-Link DIR-615 web interface for configuring a L2TP connection. The top navigation bar includes 'Home', 'Settings' (which is the active tab), 'Functions', and 'Management'. The main title is 'Settings >> Internet >> WAN >> WAN/Adding'. The sub-section title is 'Basic' (with 'All Settings' also visible). The 'Connection type' is set to 'L2TP'. The 'Miscellaneous' section contains the following settings:

Setting	Value
NAT	Enabled
Firewall	Enabled
Ping	Disabled
Isolate connection	Disabled

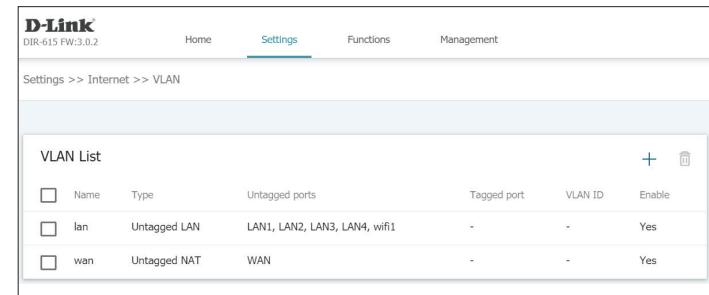
Below these settings is an 'APPLY' button.

VLAN

VLAN tagging allows for services such as Triple-Play to be used, and divides a network into segments that can only be accessed by other devices in the same VLAN.

In the Settings menu on the bar on the top of the page, click **Internet**, then click the **VLAN** link.

Click on any VLAN to configure it. Refer to **VLAN Add/Edit** on page 56 for configuration instructions.



	Name	Type	Untagged ports	Tagged port	VLAN ID	Enable
<input type="checkbox"/>	lan	Untagged LAN	LAN1, LAN2, LAN3, LAN4, wifi1	-	-	Yes
<input type="checkbox"/>	wan	Untagged NAT	WAN	-	-	Yes

VLAN List

Add: Click here to add a new VLAN. Refer to **VLAN Add/Edit on page 56**

Delete: Click here to delete the selected VLAN.

Name: This column indicates the name of the VLAN.

Type: This column indicates the type of the VLAN.

Untagged Ports: This column indicates the untagged ports belonging to the VLAN.

Tagged port: This column indicates the tagged ports belonging to the VLAN.

VLAN ID: Indicates the VLAN ID to which the tagged ports belong.

Enable: Indicates whether the VLAN is enabled or not.

VLAN Add/Edit

Name: Specify a name for the VLAN.

Enable: If prompted, toggle this switch.

Type: If prompted, select a VLAN type from the list.

VLAN ID: If prompted, specify the VLAN ID.

Settings >> Internet >> VLAN Edit

Name*
lan

Type
Untagged LAN

Untagged Ports

- LAN1
- LAN2
- LAN3
- LAN4
- wifi1
- wifi2-na

ⓘ The group must include at least one untagged port

Untagged Ports

Untagged Ports: If you have chosen to edit an existing untagged connection, or if you have chosen to add a bridge connection, select the untagged ports to be included in the VLAN.

Note: Ports can only belong to one VLAN at a time, and may need to be freed from other VLANs before changing this setting.

Tagged Ports

VLAN ID: If you have chosen to edit an existing tagged connection, or if you have chosen to add a bridge connection, select the tagged ports to be included in the VLAN.

Click **Apply** when you are done.

Settings >> Internet >> VLAN Edit

Name*
wan

Enable

Use this VLAN settings

Type
Untagged NAT

Untagged Ports

- WAN
- wifi2-na

ⓘ Need to choose WAN or Wi-Fi port

DNS

Domain Name System (DNS) servers convert URLs into IP addresses to make it easier to navigate the internet. This screen allows you to manually configure DNS servers if required by your ISP or if a custom configuration is needed

DNS IPv4/IPv6

Manual: Enable this to specify name servers manually under **Name Server IPv4/IPv6**.

Default Gateway: If the **Manual** switch is set to disabled, apply below Interface setting as default.

Interface: Select the interface to which your DNS settings will apply.

Hosts

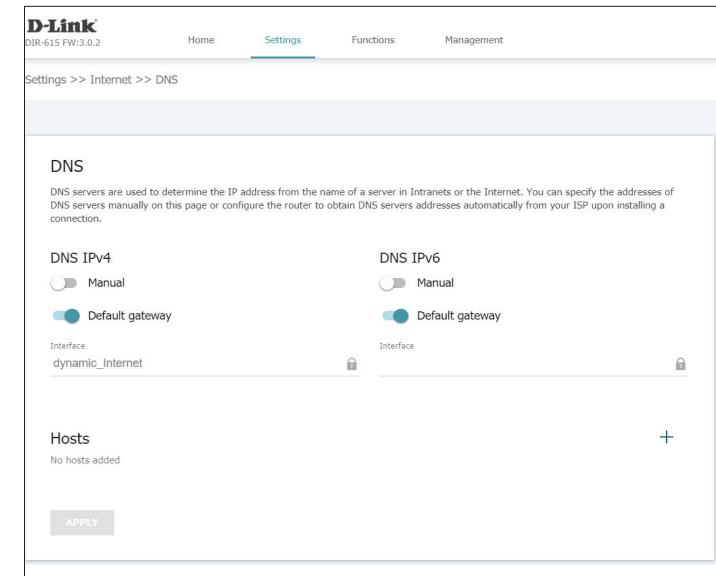
Add: Click **Add** to add a manual entry for DNS resolution. Refer to **Add Hosts** on page **58** for more information.

Delete: Click **Delete** to delete a selected host from the list

IP address: Indicates the IP address of the host.

Name: Indicates the name of the host.

Click **Apply** when you are done.



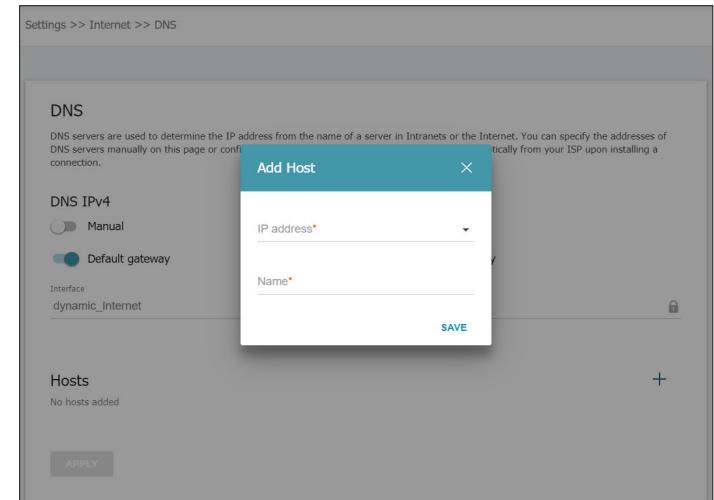
Add Hosts

Edit Host

IP address: Specify the IP address of the host, or select from the drop-down menu.

Name: Enter a name for the specified host.

Click **Save** when you are done.



WAN Failover

WAN Failover allows the device to switch to another WAN or Internet connection in the event that the primary connection becomes unavailable.

Enable: Toggle to enable WAN Failover.

Basic connection: Select your primary internet connection from the drop-down menu.

Backup connection: Select the backup connection from the drop-down menu

Test host (IP): Specify a test host IP address the router will use to determine the status of the connection. The default setting is 8.8.8.8, which is Google DNS.

Check interval: Specify the frequency to check your connection in seconds. The default setting is 10 seconds.

Timeout check: Specify the amount of time in seconds the device will wait before considering a ping to have timed out.

Number of inspections of active connection: Specify the number of consecutive failures before switching to the backup connection.

Number of inspection of inactive connection: Specify the number of consecutive successes before switching to the primary connection.

Click **Apply** when you are done.

The screenshot shows the 'WAN Failover' configuration page for a D-Link DIR-615 router. The 'Settings' tab is selected. The page includes the following fields:

- Enable:** A toggle switch that is currently turned on (blue).
- Basic connection:** A dropdown menu set to "dynamic_internet".
- Backup connection:** A dropdown menu currently empty.
- Test host (IP)*:** The value is "8.8.8.8".
- Check interval (in seconds)*:** The value is "10".
- Timeout check (in seconds)*:** The value is "3".
- Number of inspections of active connection*:** The value is "3".
- Number of inspections of inactive connection*:** The value is "5".

At the bottom of the page is a blue "APPLY" button.

Wireless network

From this page you can configure your wireless network settings. There are two tabs for 2.4 GHz and 5 GHz. 802.11n/g/b operate on 2.4 GHz, while 802.11ac/n/a operates over 5 GHz. 2.4 GHz and 5 GHz networks are configured independently.

General Settings

Enable Wireless: Toggle this switch to enable wireless access.

Wireless mode: Select a wireless mode from the list.

Select channel automatically: Toggle this switch to enable to allow the router to automatically select an operating channel.

Enable additional channels: Toggle this switch to enable higher channels on the 5 GHz band. Note: This feature is only supported over 5 GHz.

Channel: If **Select channel automatically** is disabled, select the channel your router will use.

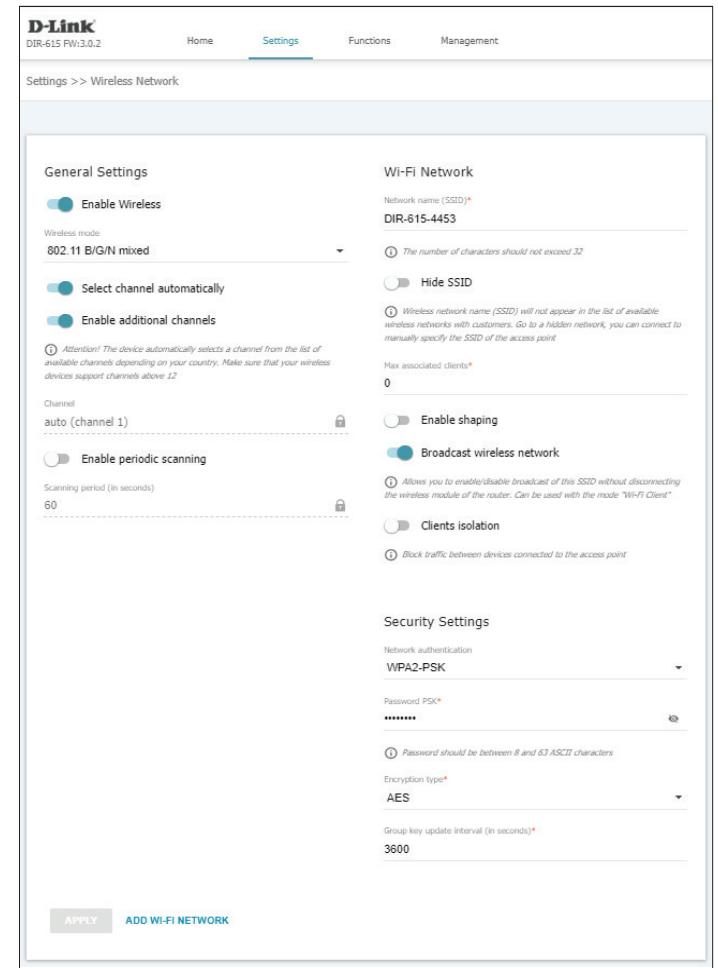
Enable periodic scanning: Toggle this switch to periodically scan for an optimal channel.

Scanning period: If **Enable periodic scanning** is enabled, specify the amount of time in seconds between scans.

Wi-Fi Network

Network name (SSID): Specify the desire SSID for your wireless network. All devices must connect to this SSID.

Hide SSID: Toggle this switch to prevent SSID broadcasting. Clients will still need to enter the correct SSID to connect to your network.



Wireless network (cont)

Max Associated Clients: Specify the maximum number of clients that can be connected at one time. Enter 0 for unlimited clients. The default setting is 0.

Enable shaping: Toggle this switch to enable shaping. This setting is disabled by default.

Shaping (Mbps/s): If **Enable shaping** is set to enable, specify the shaping threshold in Mbps/second.

Broadcast wireless network: Toggle this switch to disable broadcasting of a wireless network. This is useful if the router is being configured as a Wi-Fi client. This setting is enabled by default.

Clients isolation: Toggle this switch to prevent Wi-Fi clients from interacting with each other.

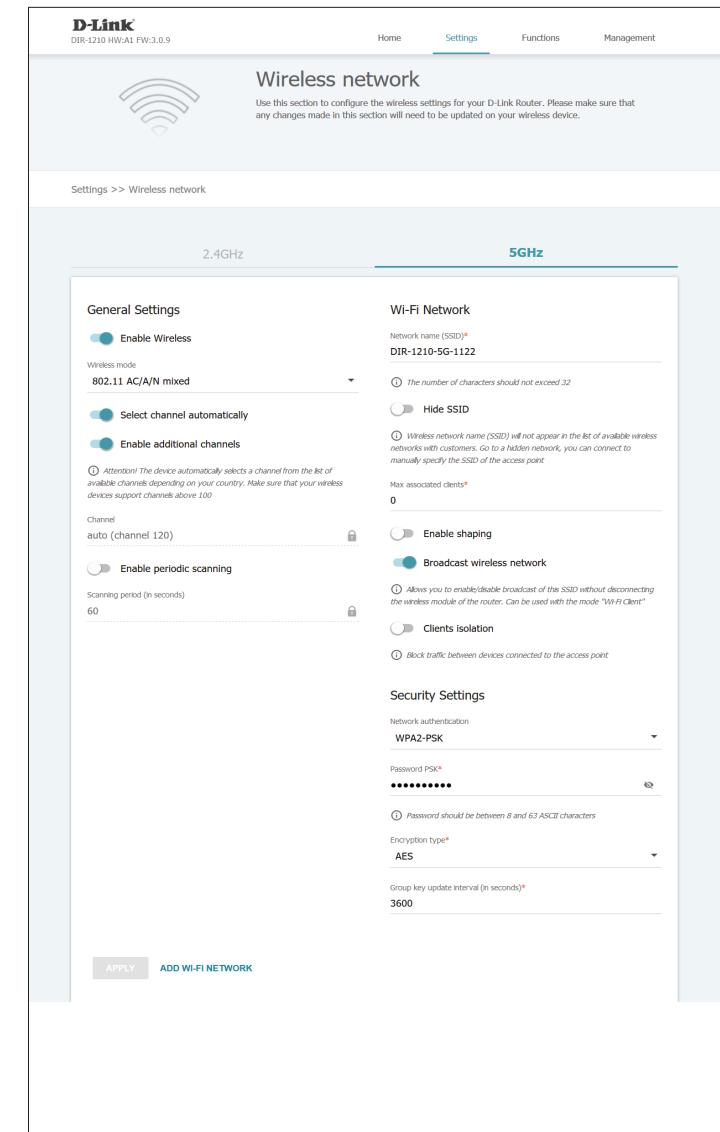
Security Settings

Network authentication: Select **Open**, **WPA-PSK**, **WPA2-PSK**, **WPA-PSK/WPA2-PSK mixed**, **WPA**, **WPA2**, or **WPA/WPA2 mixed**. The default and recommended setting is WPA2-PSK.

If you have selected **WPA-PSK**, **WPA2-PSK**, or **WPA-PSK/WPA2-PSK mixed**:

Password: Specify a wireless password. Each device connecting to your network must enter this password.

Encryption type: Select an encryption type.



Wireless network (cont)

Group key update interval: Specify an update interval in seconds. The default setting is 3600.

If you have selected WPA, WPA2, or WPA/WPA2 mixed

WPA2 Pre-authentication: Toggle this switch to enable WPA pre-authentication.

IP address RADIUS server: Specify the IP address of the RADIUS authentication server.

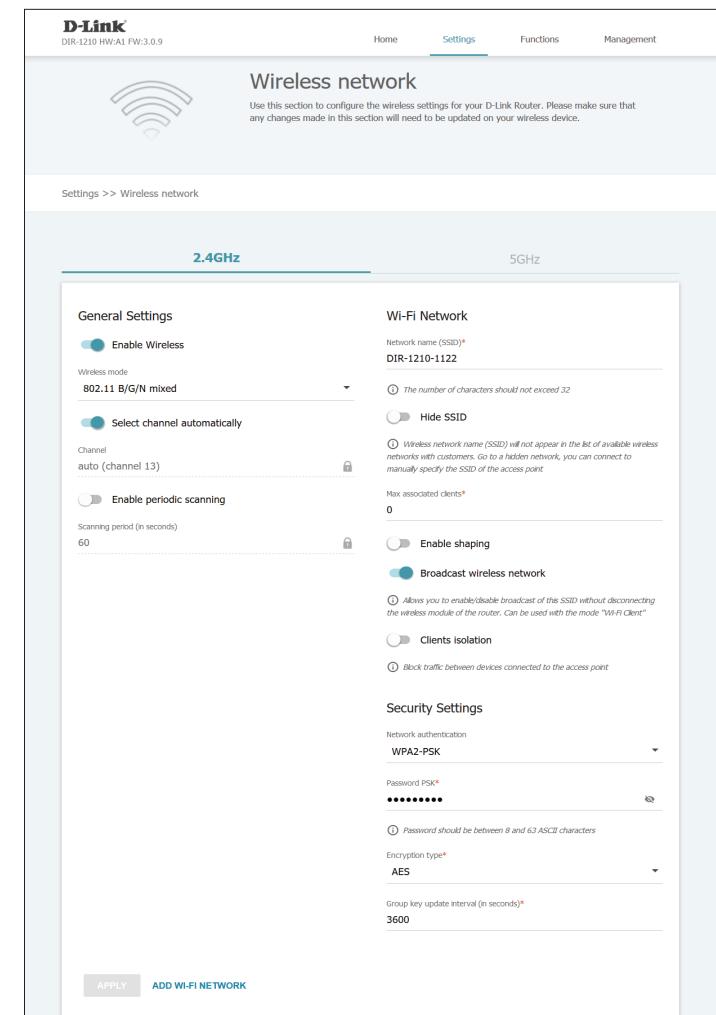
RADIUS server port: Specify the port of the RADIUS authentication software.

RADIUS encryption key: Specify the RADIUS encryption key.

Encryption type: Select the encryption type. As of this writing, only AES is supported.

Group key update interval: Specify an update interval in seconds. The default setting is 3600.

Click **Apply** 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 **IPv4** and **IPv6** to configure their respective settings.

IPv4

Local IP Address

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

If you change the IP address, once you click **Apply** you will need to enter the new IP address in your browser to access the configuration utility.

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

Gateway IP *For Access Point, Repeater, and Client modes only.*

Address: Specify the gateway IP address which is used by the router to connect to the internet. (Optional)

Hostname: Specify the device domain name and URL to access the management utility. The default URL is **http://dlinkrouter.local/**

Dynamic IP Addresses

Mode of Dynamic IP address assignment: Select **Disable**, **DHCP server**, or **DHCP relay**. The default setting is **DHCP server**.

The screenshot shows the D-Link DIR-615 web interface with the following details:

- Local IP Address:** IP address: 192.168.0.1, Mask: 255.255.255.0
- Dynamic IP Addresses:**
 - Mode of dynamic IP address assignment: DHCP server
 - Start IP: 192.168.0.100
 - End IP: 192.168.0.200
 - Lease time (in minutes): 1440
 - DNS relay
- DHCP Options:** No rule created for DHCP options
- Static IP Addresses:** In order to assign an IP address to a MAC address, select a device from the list of connected clients or add a new device
- KNOWN CLIENTS:** (button)

IPv4 (cont)

Start IP: If **DHCP server** has been selected, specify the starting IP address in the DHCP server pool.

End IP: If **DHCP server** has been selected, specify the end IP address in the DHCP server pool.

Lease Time: If **DHCP server** has been selected, specify the lease time in minutes for DHCP-issued IP addresses.

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.

External DHCP server IP: If **DHCP relay** has been selected, specify the external DHCP server from which IP addresses should be assigned. Click on the **Add** button to add more server IPs.

Static IP Addresses

Known Clients: Click this button to select a current host to add to the table of reserved static IP address. See **Clients List** below.

Add: Click this button to manually reserve a local IP address.

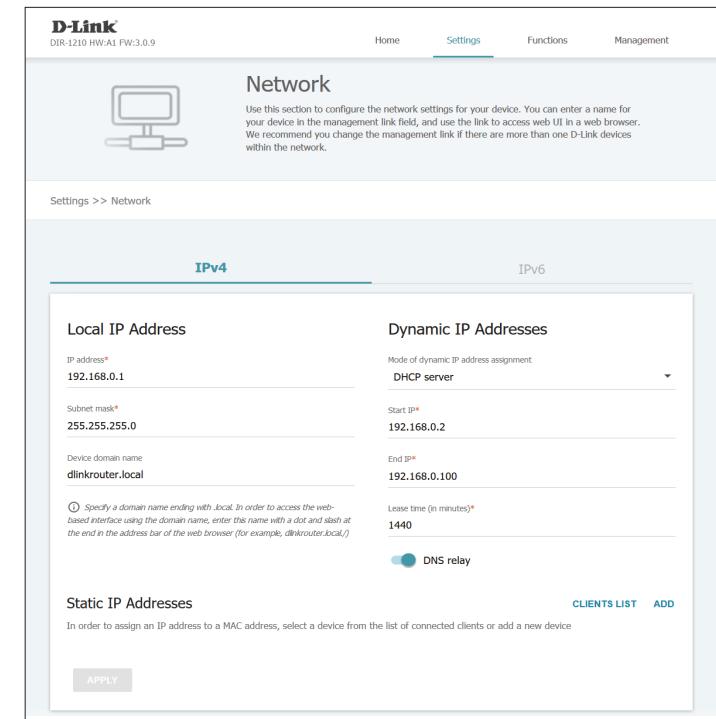
Delete: Click this button to delete a selected reserved IP address.

IP address: Indicates the reserved static IP.

MAC address: Indicates the MAC address for which the IP is reserved.

Hostname: Indicates the hostname of the client for which the IP is reserved.

Click **Apply** when you are done.



IPv4 (cont)

Clients List

Clients list: Click the corresponding client(s) on this list to automatically add their information to the Static IP Addresses list.

Refresh: Click here to refresh the connected clients list.

Click **OK** to save changes or click the X in the upper right hand corner to cancel changes.

Clients List X

Select clients for which you want to specify MAC-IP pairs (set a fixed IP address in the local area network for a device with a certain MAC address)

<input type="checkbox"/>	192.168.0.5 (Galaxy-Tab-S2) fc:42:03:95:55:87
<input type="checkbox"/>	192.168.0.7 (08514PCWIN10) f8:bc:12:99:3f:35

REFRESH **OK**

Add/Static IP Addresses

IP address: Specify the IP address you wish to reserve for the given client.

MAC address: Specify the MAC address of the client for which the IP address is reserved.

Hostname: Specify the Hostname of the client for which the IP address is reserved.

Click **Apply** to save changes or click the X in the upper right hand corner to cancel changes.

Static IP X

IP address*	<input type="text"/>
MAC address*	<input type="text"/>
Hostname	<input type="text"/>

APPLY