DIR-825M user manual

Chapter 1. Introduction

1.1 Product Description

DIR-825M Wireless Broadband Router supports IEEE 802.11b/g/n/ac standard, dual band, and Gigabit LAN and WAN, thus providing the wireless speed of 867Mbps in the 5GHz frequency band and 300Mbps in the 2.4GHz frequency band at the same time, which is 16 times faster than that of the traditional 11g access point. With its outstanding stability of high-speed wireless transmission and enhanced reliability, the DIR-825M can provide users with excellent multimedia streaming through their mobile devices anywhere,anytime in the home and office.

1.2 Product Features

- **IEEE Compliant Wireless LAN and Wired LAN**
  - Compliant with IEEE 802.11a/b/g/n/ac dual band [2.4G (300Mbps) and 5G (867Mbps)] wireless
  - Equipped with 4x 10/100/1000Mbps Fast Ethernet ports and 1x 10/100/1000Mbps WAN ethernet port which supports auto MDI/MDI-X

- **Fixed Network Broadband Router**
  - Supports WAN connection types: DHCP, static IP, PPPoE
  - Supports DDNS and DHCP Servers

- **Comprehensive Wireless Advanced Features**
  - Supports AP /client / repeater mode
  - Supports WMM (Wi-Fi Multimedia) and wireless QoS to enhance the efficiency of multimedia application
  - Supports multiple SSID
  - Supports TX and RX restrict

Secure Network Connection

- Supports Wi-Fi Protected Setup (WPS)
- Support WEP/WPA/WPA2 wireless security encryption
- Supports NAT firewall, IP / URL-based access control and MAC address filtering

- **Advanced Networking Function for Specific Application**
  - Supports Bandwidth Control (QoS) based on different local IP addresses
  - Supports NTP, Port Forwarding, UPnP and DMZ for various networking applications
  - Supports USB storage(Samba)

- **Easy Installation and Management**
  - Web-based UI and Quick Setup Wizard for easy configuration
  - Remote Management allows configuration from a remote site
  - System status monitoring includes DHCP Client List and System Log

1.3 Product Specifications

Model	DIR-825M 1200Mbps 802.11ac Dual Band Wireless Gigabit Router	
Hardware Specifications		
Interface	WAN Port:	1 x 10/100/1000 Mbps auto MDI/MDI-X RJ45 port
	LAN Port:	4 x 10/100/1000 Mbps auto MDI/MDI-X RJ45 port (LAN1~4)
	USB Port:	1 x USB 2.0, Type A, 5V 500mA
Antenna	Gain:	2x5dBi 2.4g external antenna 2x5dBi 5g external antenna
Button	1 x reset button 1 x WPS button	
LED Indicators	POWR x 1 WAN x 1 LAN x 4 WLAN x 2 WPS x 1 USB x 1	
Material	Plastic	
Dimensions (W x D x H)	192x 118x 31 mm (W x D x H)	
Weight	322g	
Power Requirement	12V DC, 1A	
Power Consumption	9W	
Wireless Interface Specifications		
Standard	IEEE 802.11ac 5GHz IEEE 802.11a/n 5GHz IEEE 802.11b/g/n 2.4GHz	
Frequency Band	Simultaneous 2.4GHz and 5GHz	
Modulation Type	802.11ac: OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM) 802.11a/g/n: OFDM (BPSK / QPSK / 16QAM / 64QAM) 802.11b: DSSS (DBPSK / DQPSK / CCK)	

Data Rates	2.4GHz up to 300Mbps 5GHz up to 867Mbps
Channel	2.4GHz FCC (America): 2.412~2.462GHz (11 Channels) ETSI (Europe): 2.412~2.472GHz (13 Channels)
	5GHz 5150~5250MHz 5250~5350MHz 5470~5725MHz 5725~5825MHz ***The actual channels in application will vary depending on the regulation in different regions and countries.**
Channel Width	802.11ac: 20/40/80MHz 802.11n: 20/40MHz
Max. RF Power / EIRP	2.4GHz: < 30dBm 5GHz: < 30dBm
Receive Sensitivity	2.4GHz 11b (11Mbps): -79dBm 11g (54Mbps): -68dBm 11n (20M) mode: -67dBm 11n (40M) mode: -64dBm
	5GHz 11a: -74dBm 11n (20M) mode: -70dBm 11n (40M) mode: -67dBm 11ac (20M) mode: -67dBm 11ac (40M) mode: -61dBm 11ac (80M) mode: -57dBm
SSID	2.4GHz: 1 Root SSID and 4 Guest SSID 5GHz: 1 Root SSID and 4 Guest SSID
Wireless Management Features	
Encryption Security	WEP WPA/WPA2 personal mixed mode
Wireless Security	Wireless ACL MAC address filtering
	Supports WPS (Wi-Fi Protected Setup)

Max. Supported Clients	2.4GHz wireless: 32 5GHz wireless: 32
Wireless Extender	Supports repeater
Router Features	
Internet Connection Type	Shares data and Internet access for users, supporting the following Internet accesses: ■ ETH Router mode ->DHCP ->Static IP ->PPPoE
Firewall	NAT firewall, SPI firewall
	Built-in NAT server which supports Port Forwarding and DMZ
	Built-in firewall with URL filtering, and MAC address filtering
LAN	Built-in DHCP server supporting static IP address distribution
	Supports packet statistics
USB Sharing	Samba
System Management	Web-based (HTTP) management interface
	Remote management (WAN Access Control)
	Supports UPnP, DDNS
	SNTP synchronization
	System log
Standards Conformance	
IEEE Standards	IEEE 802.11n (2T2R, up to 300Mbps) IEEE 802.11g IEEE 802.11b IEEE 802.11i IEEE 802.3 10BASE-T IEEE 802.3u 100BASE-TX
Other Protocols and Standards	TCP/IP, DHCP, ICMP, NAT, PPPoE, SNTP
Regulatory	CE, RoHS, WEEE

Environment	
Temperature	Operating: 0 ~ 40 degrees C Storage: -40 ~ 70 degrees C
Humidity	Operating: 10 ~ 90% (non-condensing) Storage: 5 ~ 95% (non-condensing)

Chapter 2. Hardware Installation

Please follow the instructions below to connect the DIR-825M to the existing network devices and your computers.

2.1 Hardware Description

- **Dimensions**: 192x 118x 31 mm (W x D x H)

- **Diagram :**

Figure 2-1-1

Figure 2-1-2

2.1.1 Front LED

The front LED provides a simple interface monitoring the router. Figure 2-1-1-1 shows the front LED of the DIR-825M.

Front LED

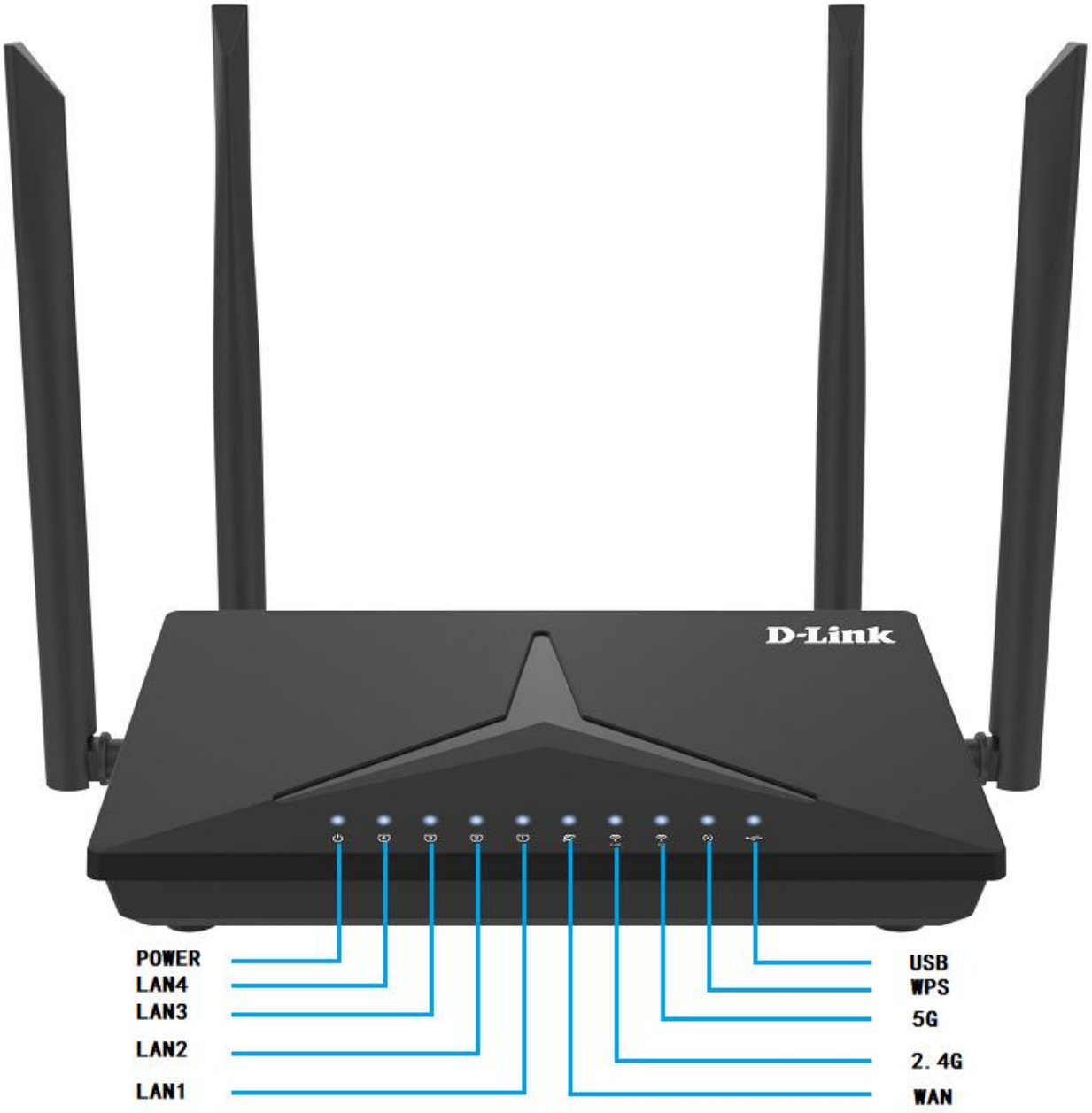


Figure 2-1-1-1 DIR-825M Top View

2.1.2 LED Indications

The LEDs on the front panel indicate instant status of port links, wireless data activity, system power, USB and WPS, and help monitor and troubleshoot when needed. Figure 2-1-1-1 and Table 2-1-2-1 show the LED

indications of the Wireless Router.

LED	STATE	FUNCTION
POWER	On	Device power on
	Off	Device power off
2.4G	On	The 2.4GHz Wi-Fi is activated.
	Flash	Device is transmitting data wirelessly over 2.4GHz.
	Off	The 2.4GHz Wi-Fi is disabled.
5G	On	The 5GHz Wi-Fi is activated.
	Flash	Device is transmitting data wirelessly over 5.8GHz.
	Off	The 5GHz Wi-Fi is disabled.
WPS	Flash	WPS is triggered
	Off	WPS is connected or disable
LAN1-4	On	Link is established.
	Flash	Packets are transmitting or receiving.
	Off	LAN port is not connected.
WAN	On	Link is established.
	Flash	Packets are transmitting or receiving.
	Off	WAN port is not connected.
USB	On	USB connection is established.
	Flash	Data is being transmitted.
	Off	USB connection is not established.

Table 2-1-2-1 LED Indications

2.1.3 Rear Panel

The rear panel provides the physical connectors connected to the power adapter and any other network device. Figure 2-1-3-1 shows the rear panel of the DIR-825M.

Rear Panel

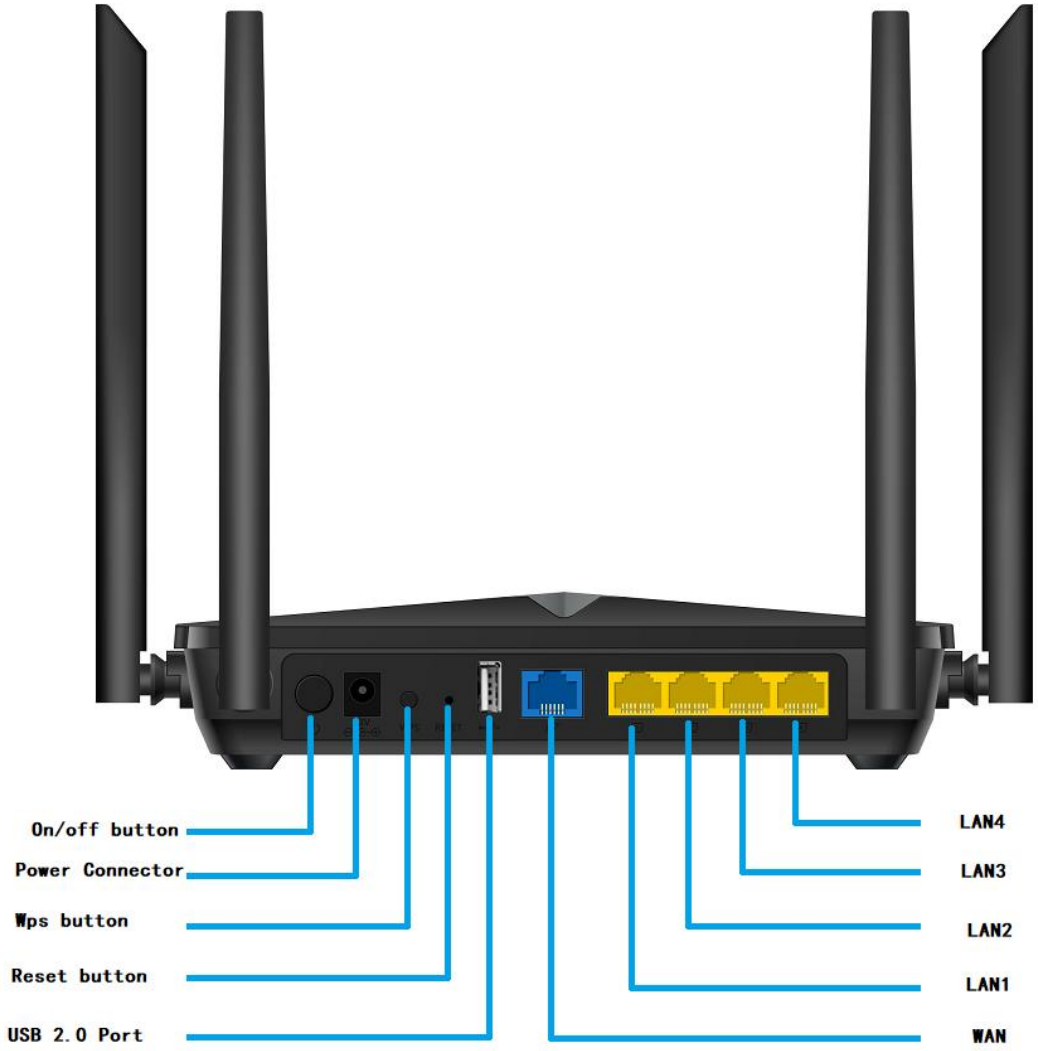


Figure 2-1-3-1 Rear Panel of the DIR-825M

Interface	Description
On/off button	Power On/Off button
Power Connector	Connect to the power adapter provided in the package
WPS	Press it will enable WPS functiont
Reset	Press the Reset button gently for 3 seconds and then release it. The system restores to the factory default settings

USB	USB Port
WAN	Connect to the Cable/xDSL Modem or the Ethernet
LAN1-4	Connect to the user's PC or network devices

Table 2-2 Interface Indications

2.1.4 Bottom panel

Figure 2-1-4-1 bottom of the DIR-825M

Chapter 3. Connecting to the Router

3.1 System Requirements

- Broadband Internet Access Service (Cable/xDSL/Ethernet connection)
- One Cable/xDSL Modem that has an RJ45 connector (not necessary if the Router is connected directly to the Ethernet.)
- PCs with a working Ethernet Adapter and an Ethernet cable with RJ45 connectors
- PC subscribers use Windows XP, Windows Vista, Windows 7/8/10, MAC OS 9 or later, or Linux, UNIX or other platforms compatible with **TCP/IP** protocols
- The above PC is installed with a Web browser

1. The Router in the following instructions means DIR-825M.
2. It is recommended to use Internet Explorer 7.0 or above to access the Router.

3.2 Installing the Router

Before installing the Router, make sure your PC is connected to the Internet through the broadband service successfully at this moment. If there is any problem, please contact your local ISP. After that, please install the Router according to the following steps. Don't forget to pull out the power plug and keep your hands dry.

Step 1. Power off your PC, Cable/xDSL Modem and the Router.

Step 2. Locate an optimum location for the Router. The best place is usually at the center of your wireless network.

Step 3. Connect the PC or Switch/Hub in your LAN to the LAN Ports of the Router with Ethernet cable.

Step 4. Connect the power adapter to the power socket on the Router, and the other end into an electrical outlet. Then power on the Router.

Step 5. Power on your PC and Cable/xDSL Modem.

Chapter 4. Quick Installation Guide

This chapter will show you how to configure the basic functions of your Wireless Router using **Quick Setup** within minutes.

A computer with wired Ethernet connection to the Wireless Router is required for the first-time configuration.

4.1 Manual Network Setup - TCP/IP Configuration

The default IP address of the Wireless Router is **192.168.0.1** and the default Subnet Mask is **255.255.255.0**. These values can be changed as you desire in the web UI of the Wireless Router. In this section, we use all the default values for description.

Whether the Wireless Router is configured via wired or wireless connection, the PC needs to be assigned an IP address first. Before you connect the local PC to the Wireless Router via wired or wireless connection, please configure the IP address for your PC in the following two ways first.

- **Obtaining an IP address automatically**
- **Configuring the IP address manually**

In the following sections, we'll introduce how to install and configure the TCP/IP correctly in **Windows 7**. And the procedures in other operating systems are similar. First, make sure your Ethernet Adapter is working, and refer to the Ethernet adapter's manual if needed.

4.1.1 Obtaining an IP Address Automatically

Summary:

1. Set up the TCP/IP Protocol in "**Obtain an IP address automatically**" mode on your PC.

2. Then the Wireless Router built-in DHCP server will assign IP address to the PC automatically.

If you are sure the DHCP server of Wireless Router is enabled, you can set up the TCP/IP Protocol in "**Obtain an IP address automatically**" mode on your PC. And then the Wireless Router built-in DHCP server will assign an IP address to the PC automatically.

1. Installing TCP/IP Component

1) On the Windows taskbar, click the **Start** button, point to **Control Panel,** and then click it.

2) Under the **Network and Internet** icon, click on t he **View network status and tasks.** And then click **Change adapter settings**.

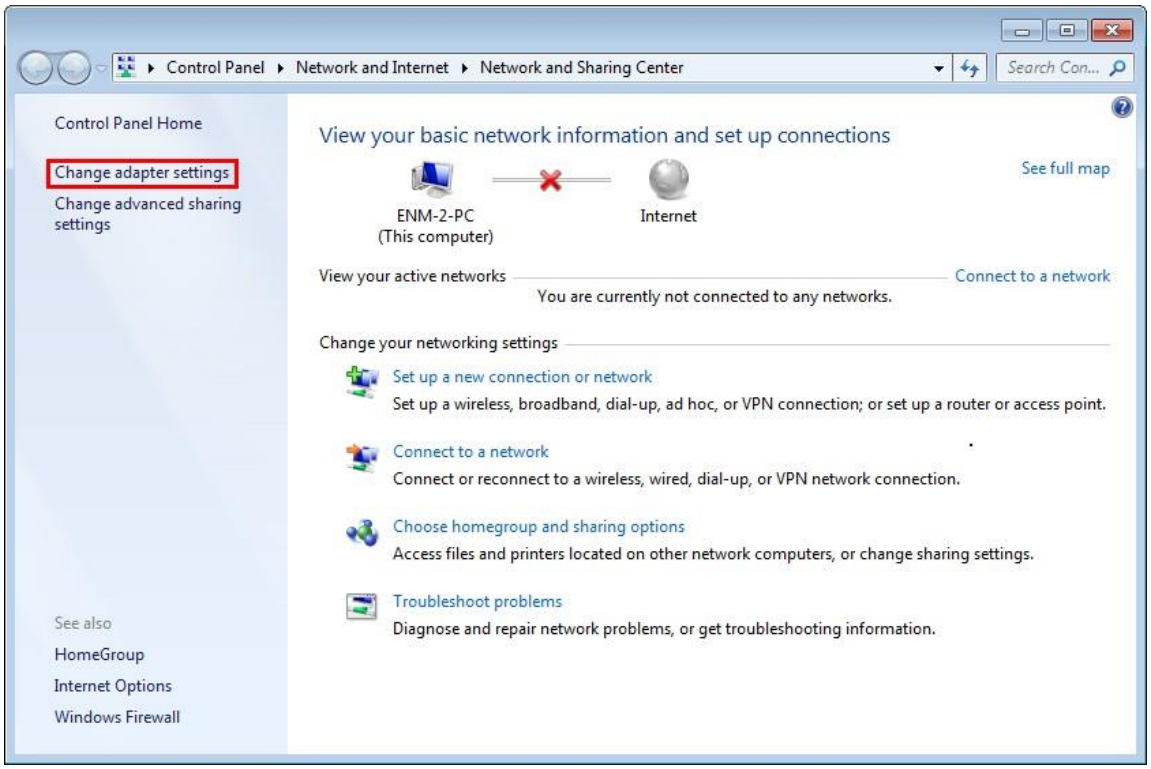


Figure 4-1-1-1 Change Adapter Settings

3) Right-click on the **Wireless Network Connection,** and select **Properties** in the appearing window.

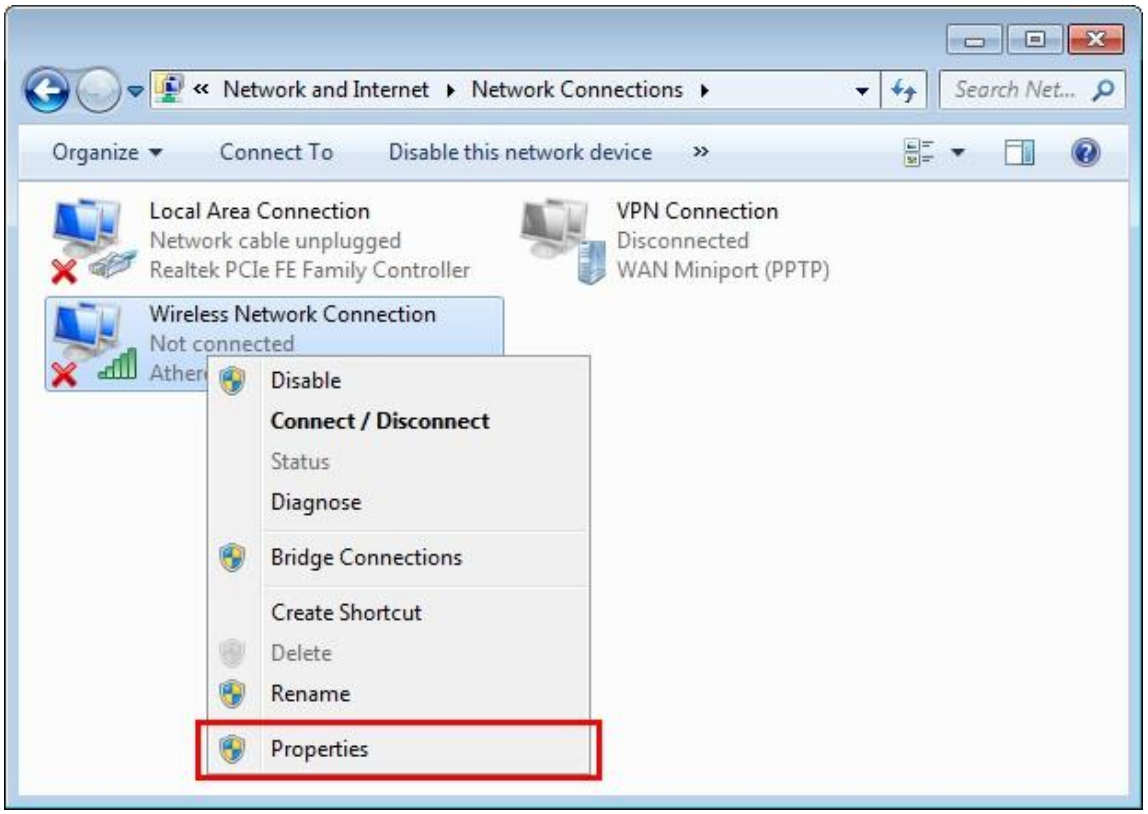


Figure 4-1-1-2 Network Connection Properties

4) In the prompt window shown below, double-click on the **Internet Protocol Version 4(TCP/IPv4)**.

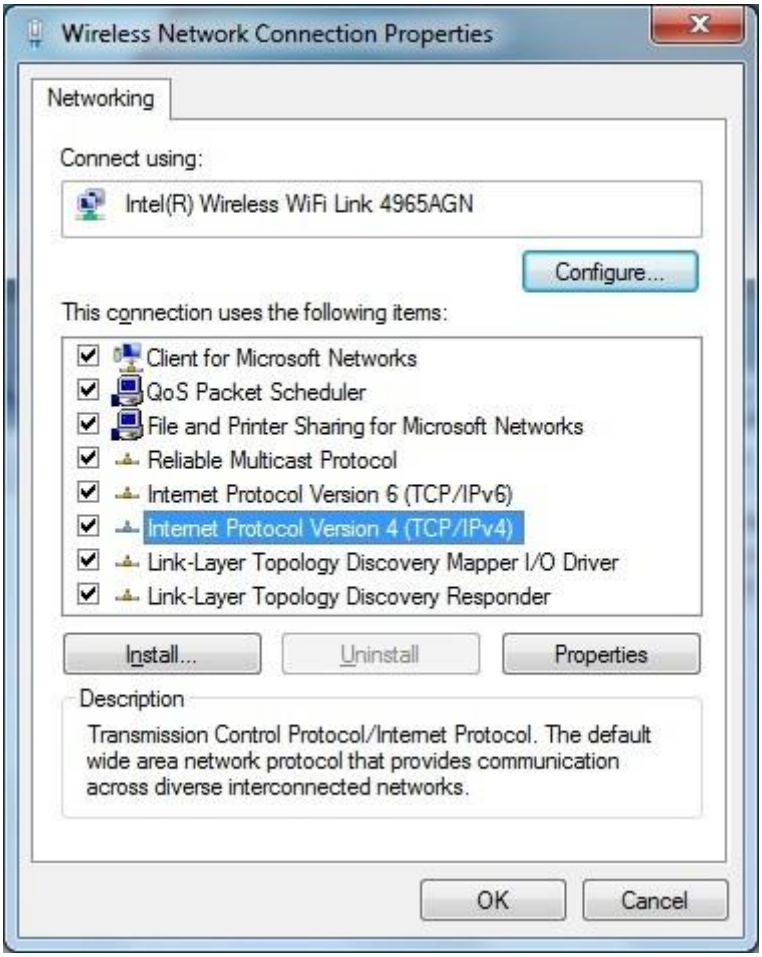


Figure 4-1-1-3 TCP/IP Setting

5) Choose **Obtain an IP address automatically**, and **Obtain DNS server address automatically** as shown in the figure below. Then click **OK** to save your settings.

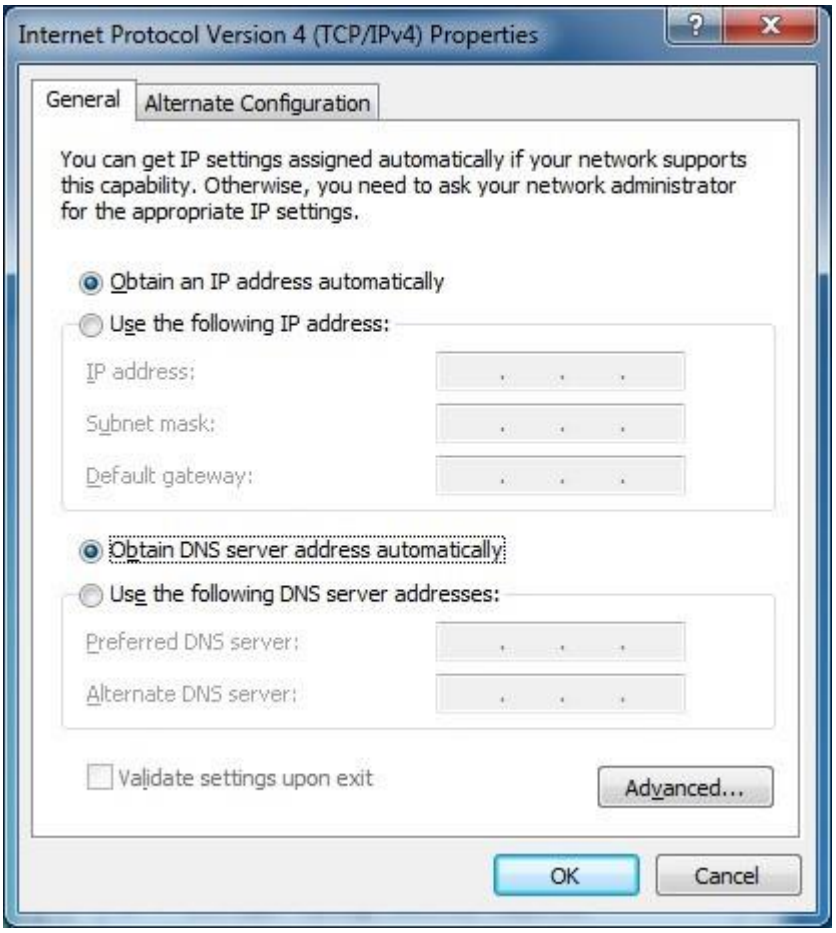


Figure 4-1-1-4 Obtain an IP Address Automatically

4.1.2 Configuring the IP Address Manually

Summary:

- Set up the TCP/IP Protocol for your PC.
- Configure the network parameters. The IP address is ***192.168.0.xxx*** ("xxx" is any number from 2 to 254), Subnet Mask is ***255.255.255.0***, and Gateway is ***192.168.0.1***(The Router's default IP address)

If you are sure the DHCP server of Wireless Router is disabled, you can configure the IP address manually. The IP address of your PC should be 192.168.0.xxx (the same subnet of the IP address of the Wireless Router, and "xxx" is any number from 2 to 254), Subnet Mask is 255.255.255.0, and the Gateway is 192.168.0.1(The default IP address of the Wireless Router)

1) Continue the settings from the last figure. Select **Use the following IP address** radio button.

2) If the LAN IP address of the Wireless Router is 192.168.0.1, enter IP address 192.168.0.x (x is from 2 to 254), and Subnet mask 255.255.255.0

3) Enter the LAN IP address of the Wireless Router (the default IP is 192.168.0.1) into the default gateway field.

4) Select **Use the following DNS server addresses** radio button. In the preferred DNS Server field, you can enter the DNS server IP address provided by your local ISP. Then click OK to save your settings.

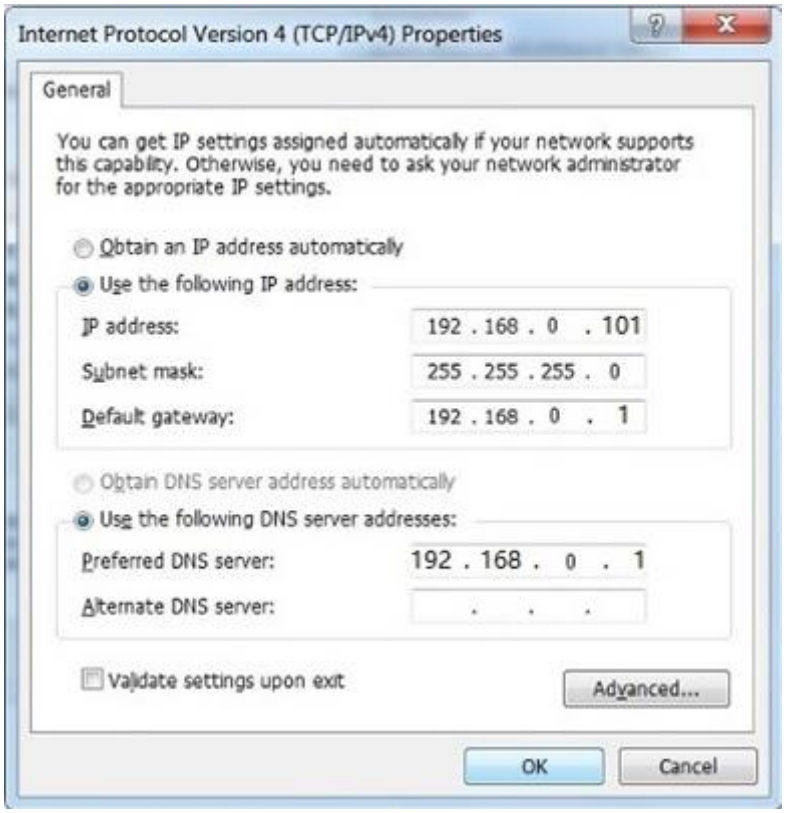


Figure 4-1-2-1 IP and DNS Server Addresses

Now, you can run the Ping command in the **command prompt** to verify the network connection between your PC and the Router. The following example is in **Windows 7** OS. Please follow the steps below:

1. Click on **Start**

2. Type "**cmd**" in the Search box.

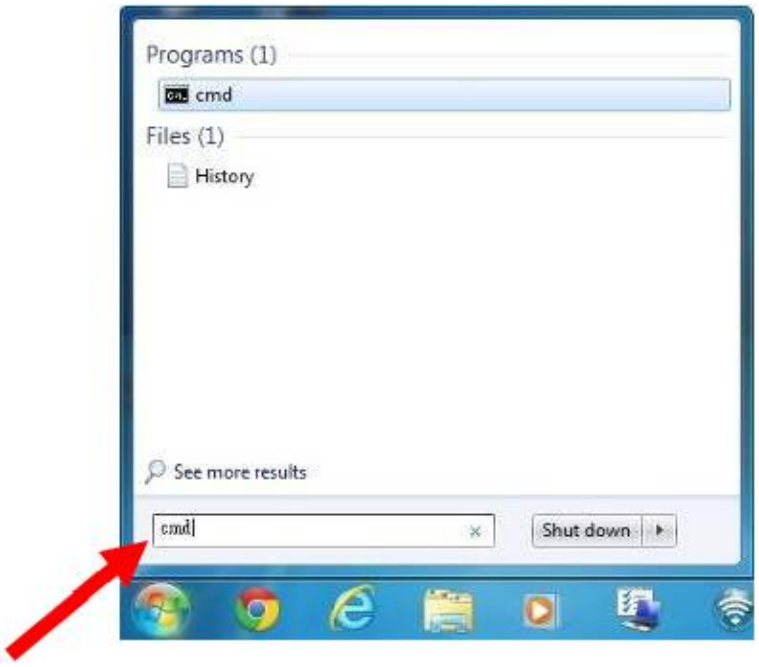


Figure 4-1-2-2

3. Open a command prompt, and type ping **192.168.0.1**, and then press **Enter**.

- If the result displayed is similar to Figure 4-1-2-3, it means the connection between your PC and t he Router has been established well.

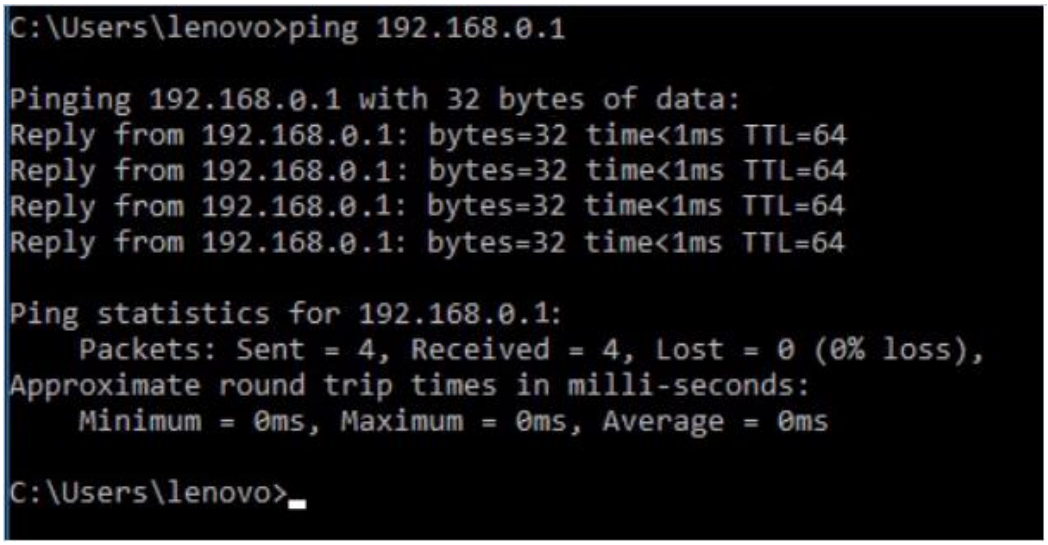


Figure 4-1-2-3 Successful Ping Command

- If the result displayed is similar to Figure 4-1-2-4, it means the connection between your PC and t he Router has failed.

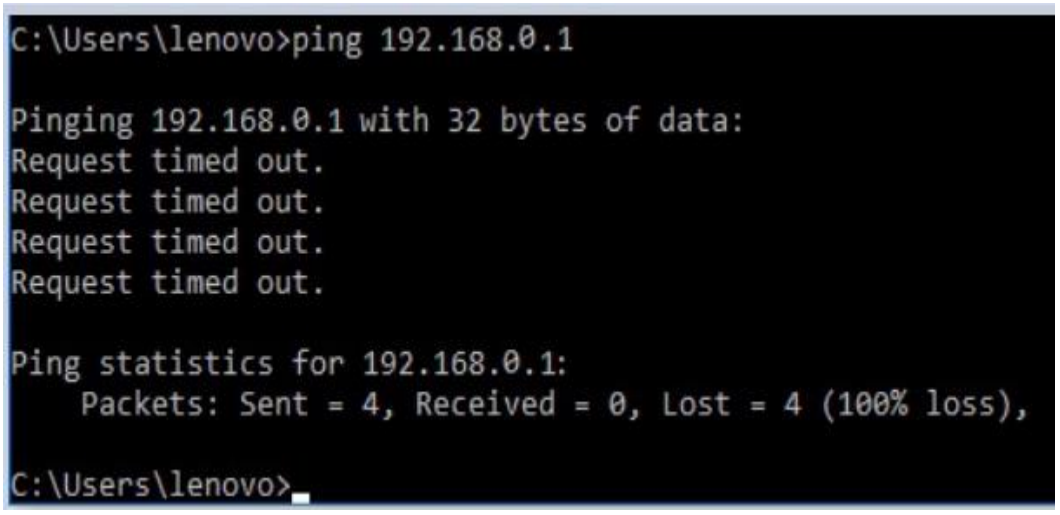


Figure 4-1-2-4 Failed Ping Command

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.

If the Router's IP address is 192.168.0.1, your PC's IP address must be within the range of 192.168.0.2 ~ 192.168.0.254.

4.2 Starting Setup in the Web UI

It is easy to configure and manage the DIR-825M with the web browser.

Step 1. To access the configuration utility, open a web-browser and enter the default IP address http://192.168.0.1in the web address field of the browser.

Figure 4-2-1 Login the Router

After a moment, a login window will appear. Enter **admin** for the User Name and Password, both in lower case letters. Then click the **Log In** button or press the **Enter** key.

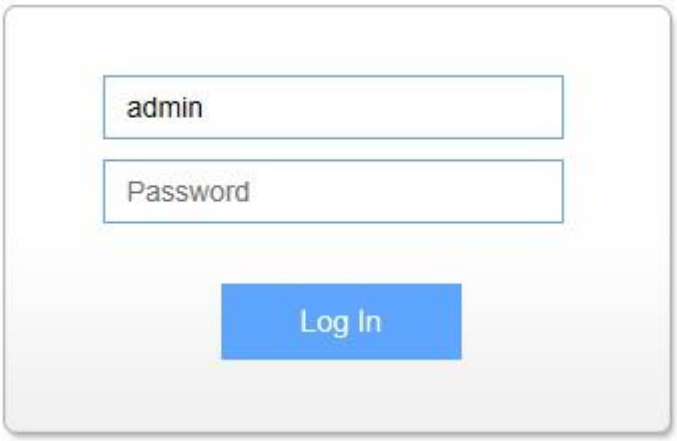


Figure 4-2-2 Login Window

Default IP Address: **192.168.0.1**

Default User Name: **admin**

Default Password: **admin**

Note

If the above screen does not pop up, it may mean that your web-browser has been set to a proxy. Go to Tools menu>Internet Options>Connections>LAN Settings in the screen that appears, cancel the Using Proxy checkbox, and click OK to finish it.

The first time login router, it will enter wizard setup, the **Wizard Setup** page screen appears as Figure 4-2-3.

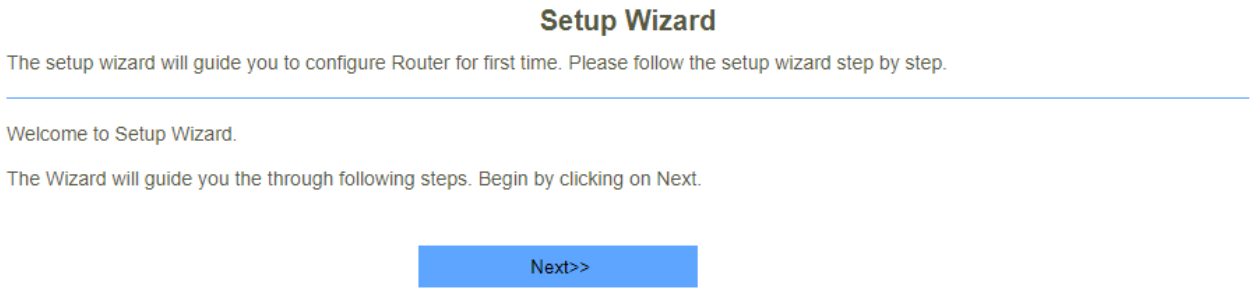


Figure 4-2-3 DIR-825M Web UI Screenshot

Step 2. Choose "**Next**" and you can configure the router Operation Mode by yourself.

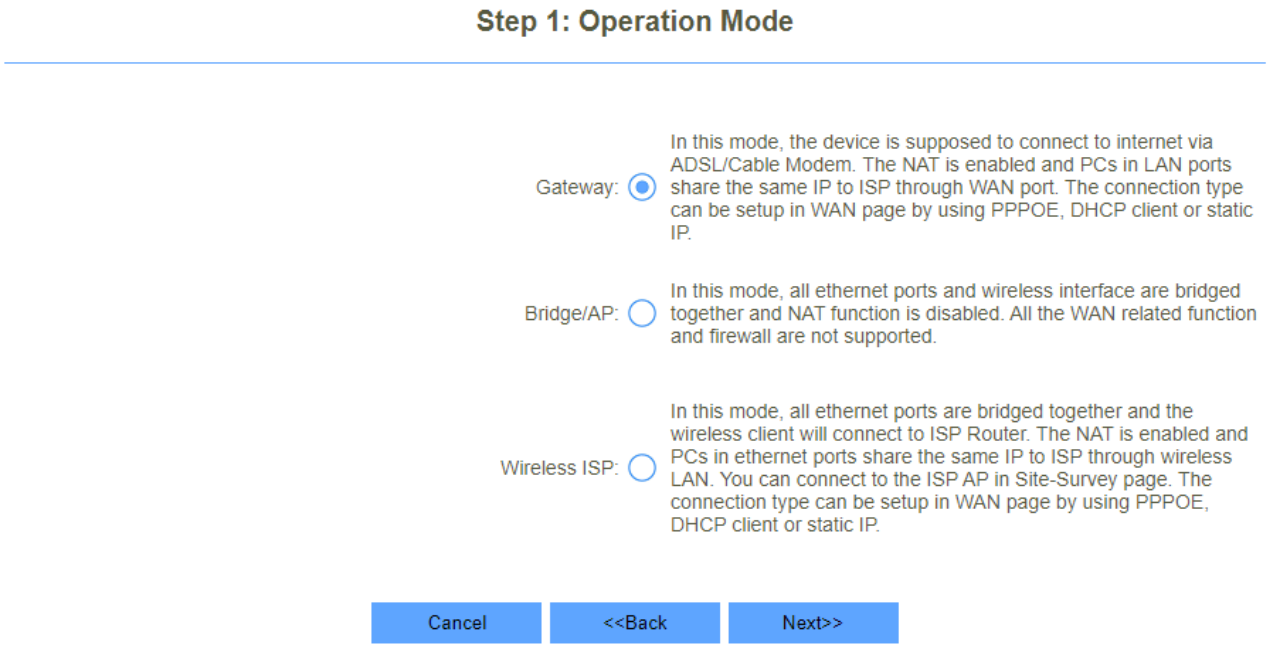


Figure 4-2-4 Configure the Operation Mode.

Step 3. Choose "**Next**" and you can configure the WAN Interface Setup.

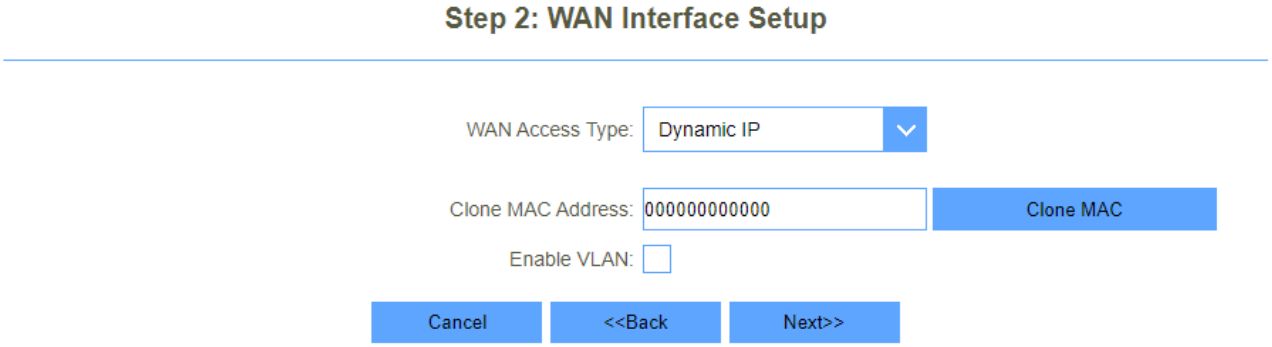


Figure 4-2-5 Configure the Time Zone Setting.

Step 4. Choose "**Next**" and you can configure the LAN Interface Setup.

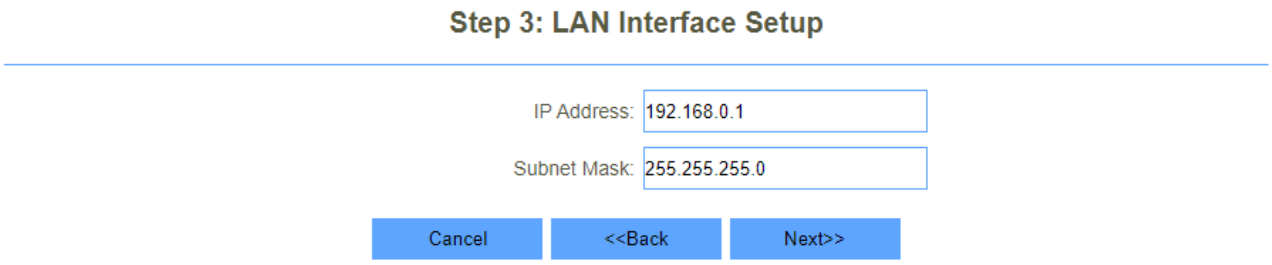


Figure 4-2-6 Configure LAN Interface Setup.

Step 5. Choose "**Next**" and you can configure login password.

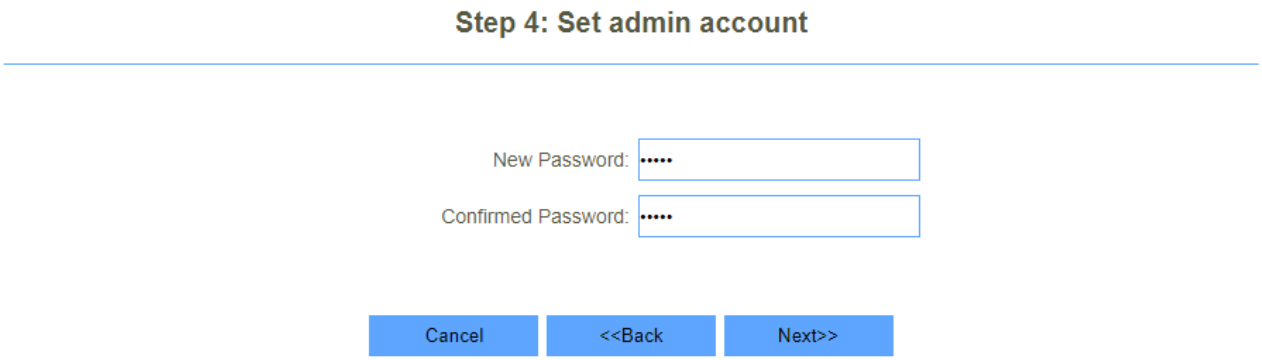


Figure 4-2-7 Configure WAN Interface setup.

Step 6. Choose "**Next**" and you can configure the Wi-Fi Interface Setup.

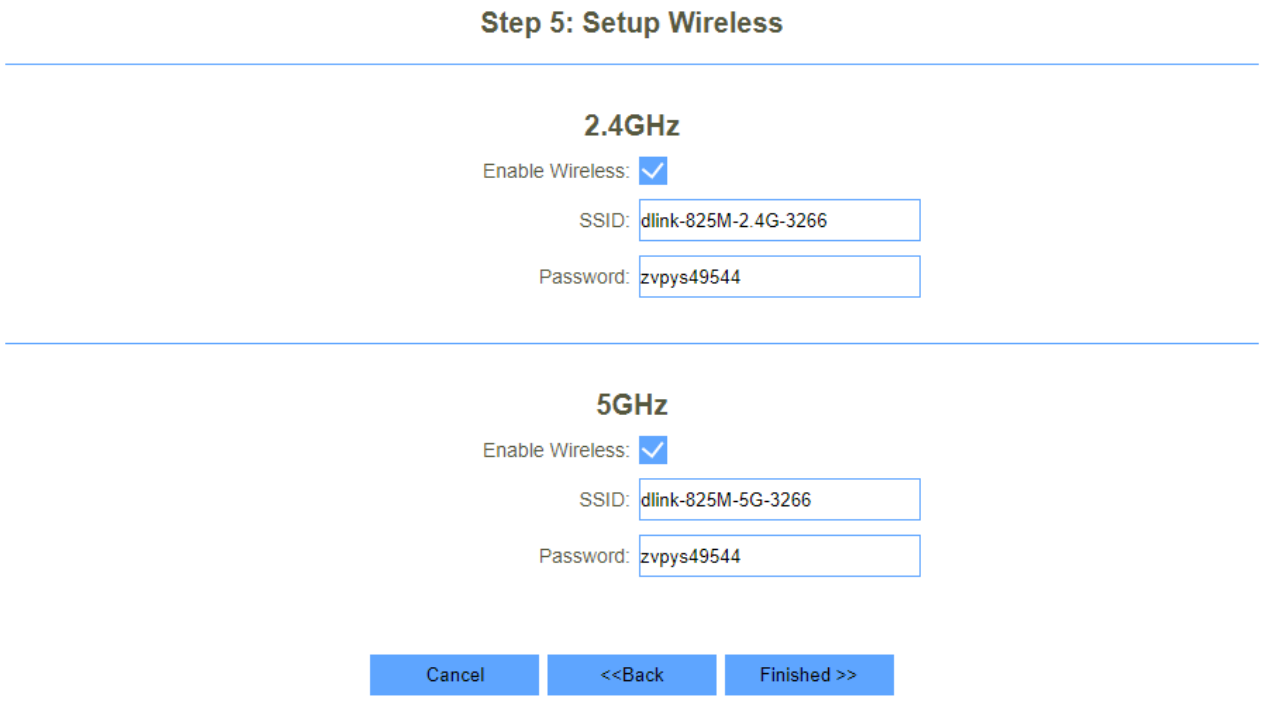


Figure 4-2-8 Configure Wi-Fi Interface setup.

Chapter 5. Configuring the Router

This chapter delivers a detailed presentation of router's functions and features under 4 main menus shown below, allowing you to manage the router with ease.

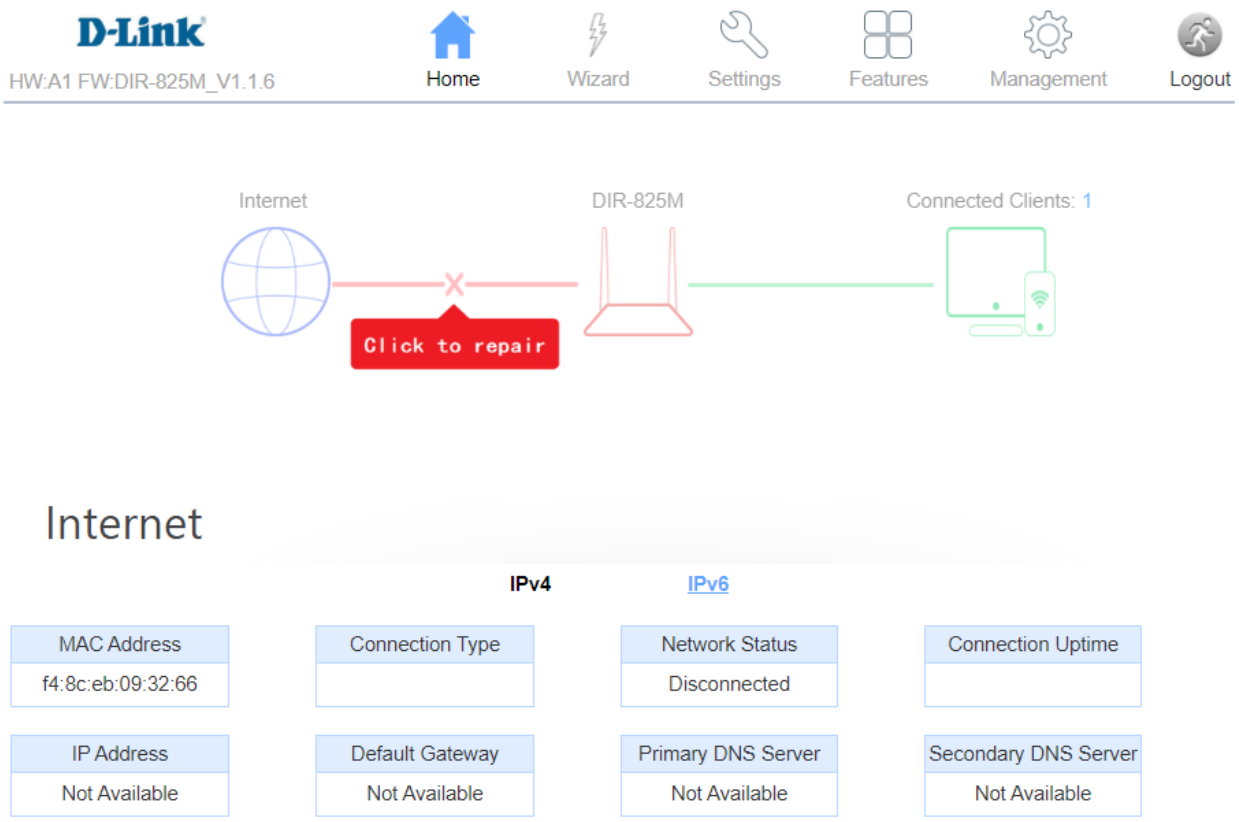


Figure 5-1 Router's Functions

5.1 Home

5.1.1 Internet

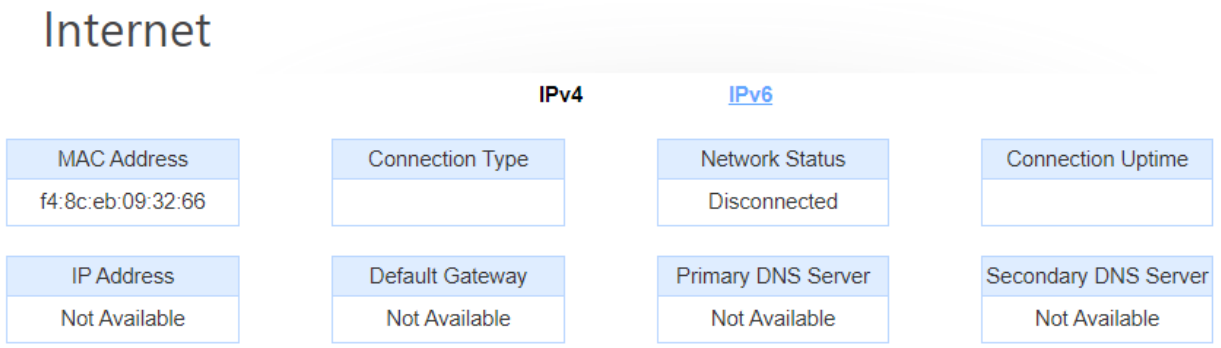


Figure 5-1-1 Router IPv4 Status

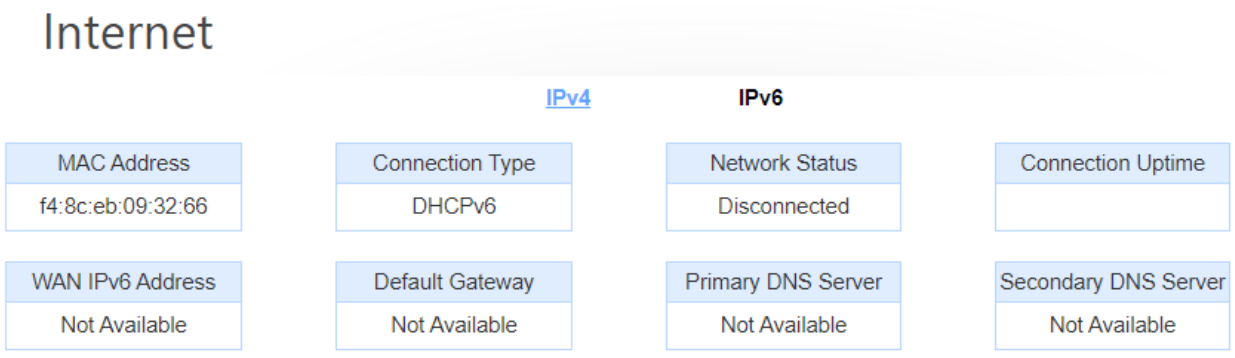


Figure 5-1-1-1 Router IPv6 Status

5.1.2 DIR-825M

On this page, you can view information about the current LAN and Wi-Fi status of the DIR-825M.

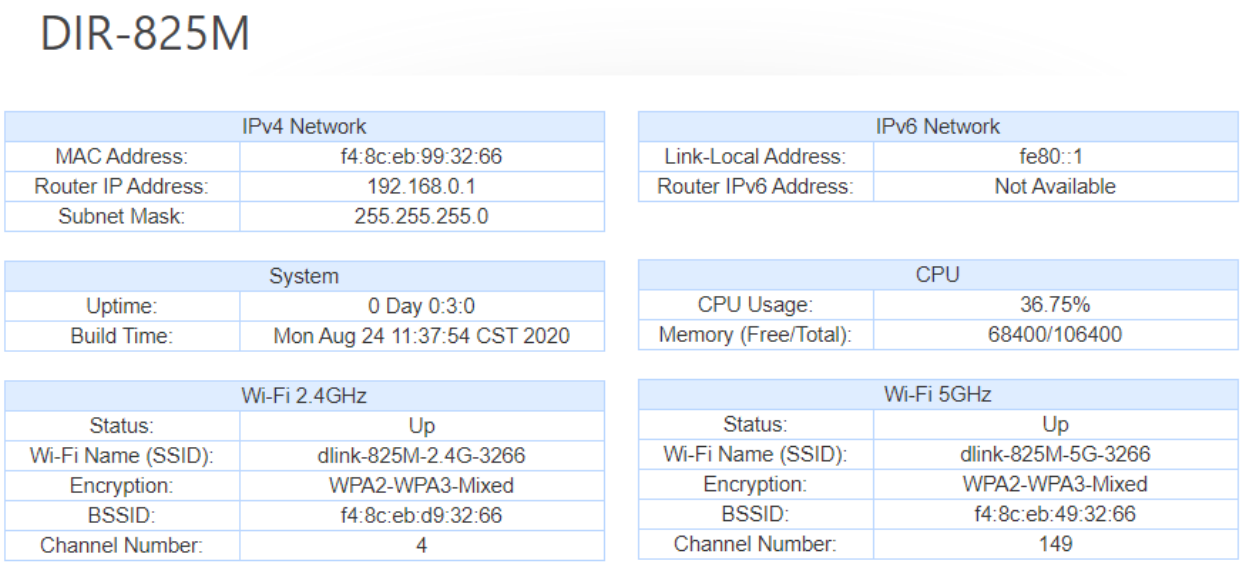


Figure 5-1-2-1 DIR-825M Info

5.1.3 Connected Clients

This page shows the IP addresses and host names of all the PCs in your network

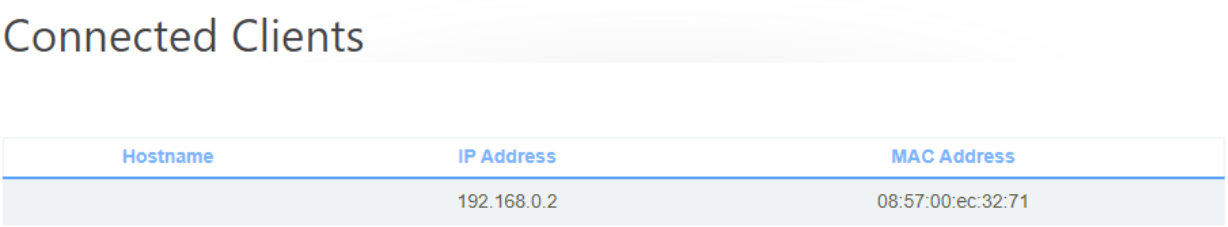


Figure 5-1-3-1 Connected Clients

5.2 Settings

5.2.1 WAN

On this page, you can configure the parameters of the WAN interface.

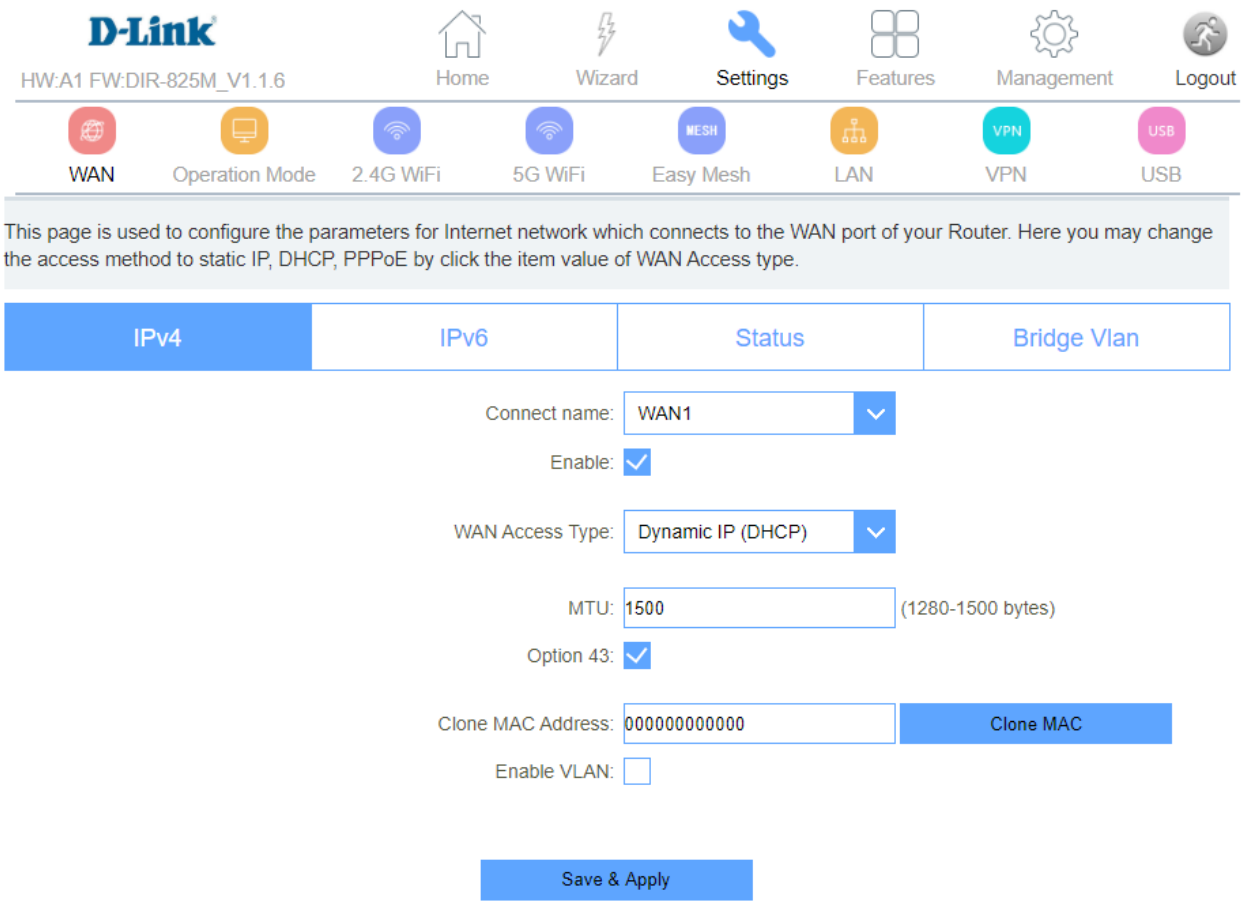


Figure 5-2-1-1 WAN

5.2.1.1. IPv4

There are four wan connection can be use, each wan connection can be configured as difference mode, such as DHCP router mode, PPPoE router mode, Static router mode, and each wan connection can be configured to have VLAN tag, this will more helpful for user to meet different environment usage.

- **DHCP**

Choose “**DHCP**” and the router will automatically obtain IP addresses, subnet masks and gateway addresses from your ISP.

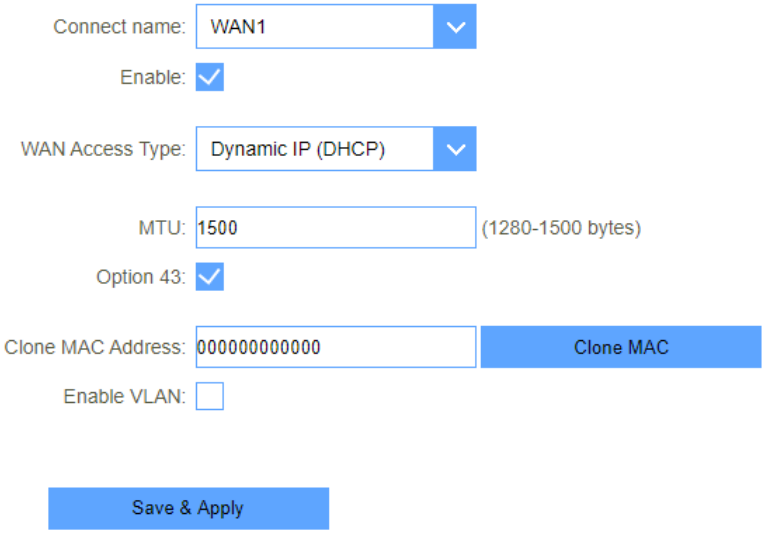


Figure 5-2-1-1-1 DHCP

Object	Description
MTU	You can keep the maximum transmission unit (MTU) as default.
VLAN ID	Enter the VLAN ID value provided by your ISP.
WAN Type	From this feature, user can distinguish different services.
Option 43	CPE get the acs url via Option 43

Static IP

If your ISP offers you static IP Internet connection type, select "**Static IP** " and then enter IP address, subnet mask, primary DNS and secondary DNS information provided by your ISP in the corresponding fields.

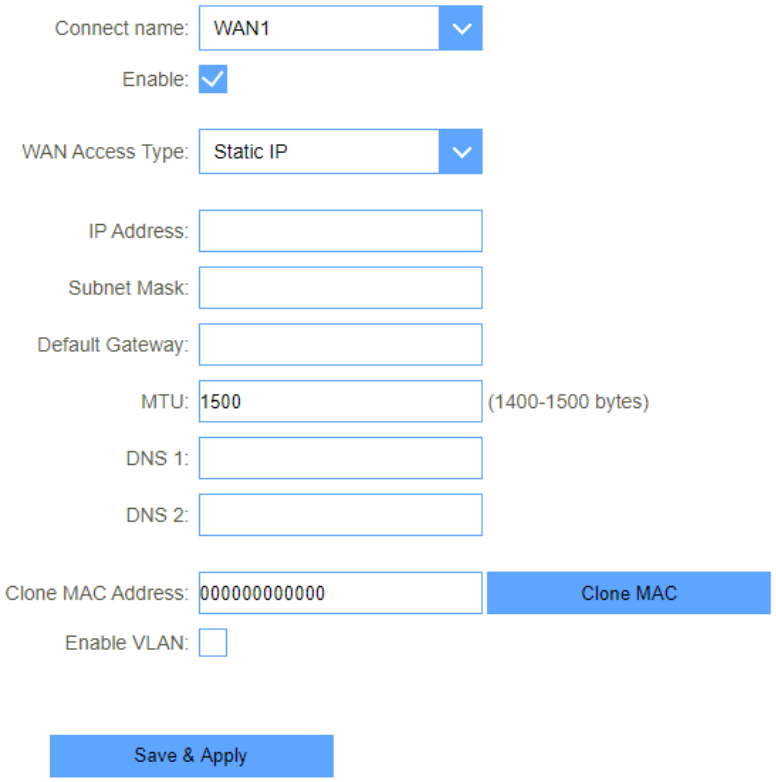


Figure 5-2-1-1-2 Static IP

Object	Description
IP Address	Enter the WAN IP address provided by your ISP. Inquire your ISP if you are not clear.
Subnet Mask	Enter WAN Subnet Mask provided by your ISP.
Default Gateway	Enter the WAN Gateway address provided by your ISP.
DNS 1	Enter the necessary DNS address provided by your ISP.
DNS 2	Enter the other DNS address if your ISP provides you with 2 such addresses, and it is optional.
MTU	You can keep the maximum transmission unit (MTU) as default.
VLAN ID	Enter the VLAN ID value provided by your ISP.
WAN Type	From this feature, user can distinguish different services.

PPPoE

Select PPPoE, if your ISP is using a PPPoE connection and provide you with PPPoE user name and password information.

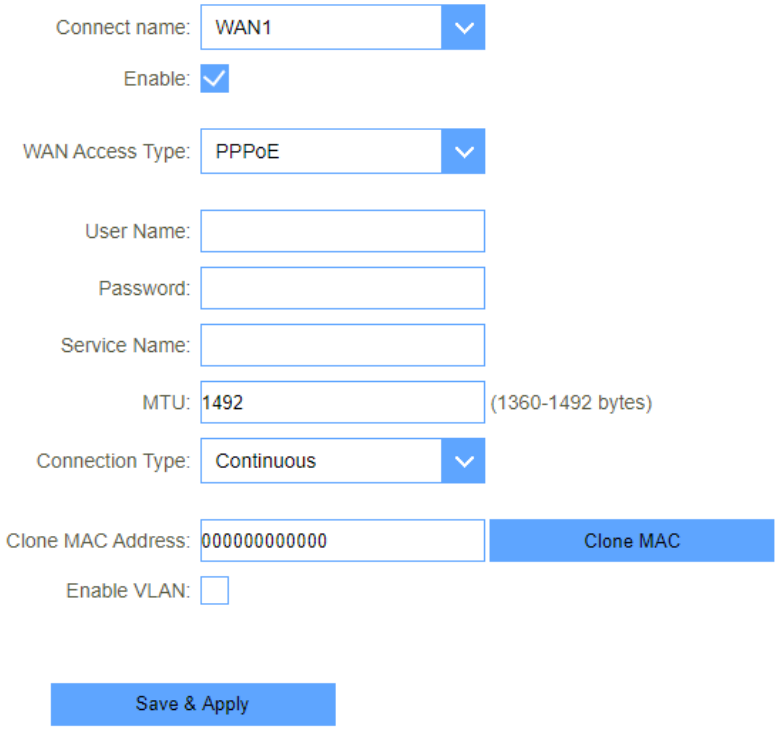


Figure 5-2-1-1-3 PPPoE

Object	Description
Username	Enter the User Name provided by your ISP.
Password	Enter the password provided by your ISP.
VLAN ID	Enter the VLAN ID value provided by your ISP.
WAN Type	From this feature, user can distinguish different services.
Service Name	Type the name of this router.
MTU	You can keep the maximum transmission unit (MTU) as default.
Connection Type	Select “Continuous”, “Connect on Demand” or “Manual”.

5.2.1.2. IPv6

You can config IPv6 in this page. It’s support 3 kinds of IPv6 origin types.

Figure 5-2-1-2-1 IPv6 Static

Object	Description
Origin Type	Current origin type STATIC.
IP Address	WAN IPv6 address.
Default Gateway	WAN IPv6 default gateway.
DNS	WAN IPv6 DNS.
Enable MLD Proxy	Enable or disable MLD.

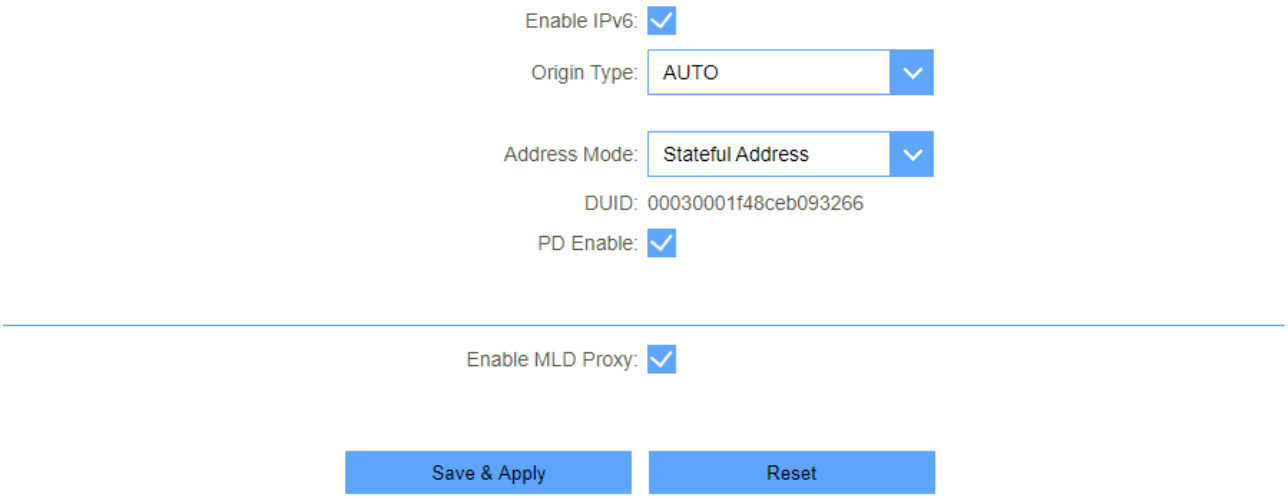


Figure 5-2-1-2-2 **IPv6 auto**

Object	Description
Origin Type	Current origin type AUTO.
Address Mode	WAN IPv6 address mode, including stateless and stateful address mode.
PD Enable	WAN IPv6 prefix delegation.
Rapid-commit Enable	Rapid commit switch.
DNS	WAN IPv6 DNS.
Enable MLD Proxy	Enable or disable MLD.

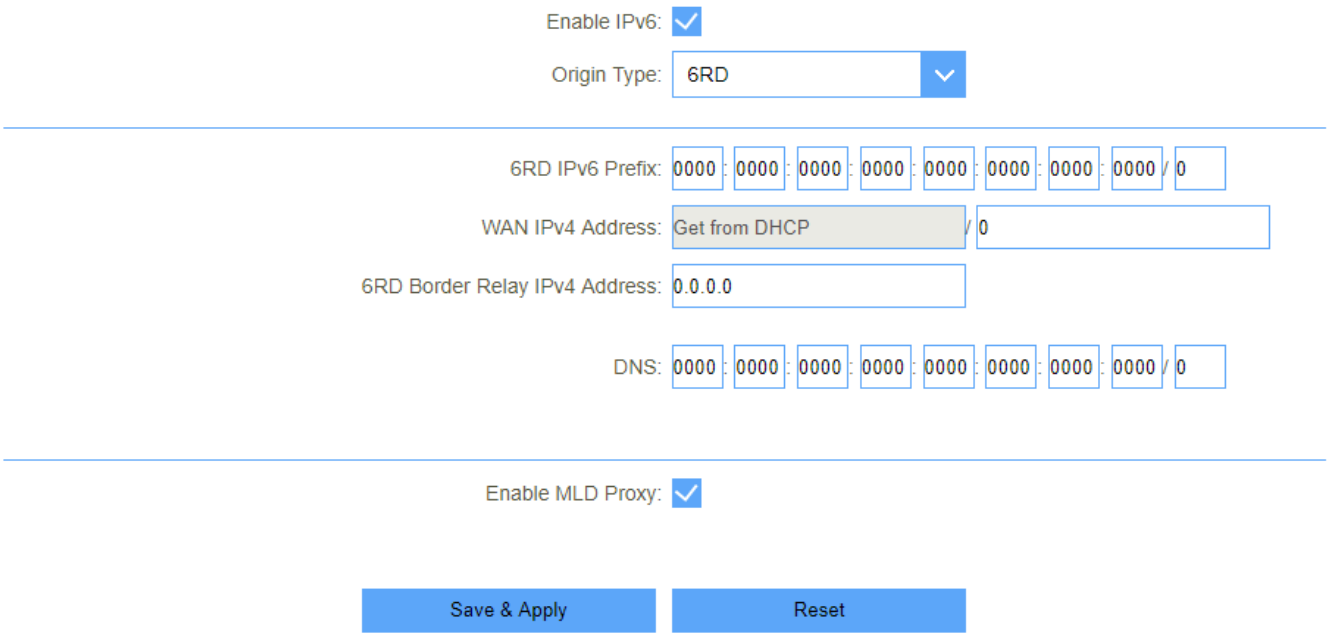


Figure 5-2-1-2-3 **IPv6 6RD**

Object	Description
Origin Type	Current origin type 6RD.
6RD IPv6 Prefix	WAN IPv6 prefix delegation
WAN IPv4 Address	WAN IPv4 address.
6RD Border Relay IPv4 Address	Border Relay IPv4 Address.
DNS	WAN IPv6 DNS.
Enable MLD Proxy	Enable or disable MLD.

5.2.1.3. Status

This page will show all the status of the wan connections.

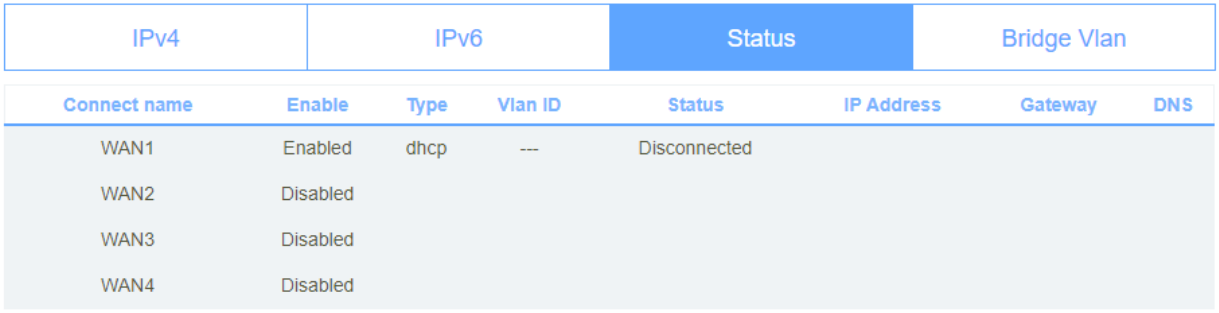


Figure 5-2-1-3-1 Status

5.2.2 Operation Mode

You can setup different modes to LAN and WLAN interface for NAT and bridging function.

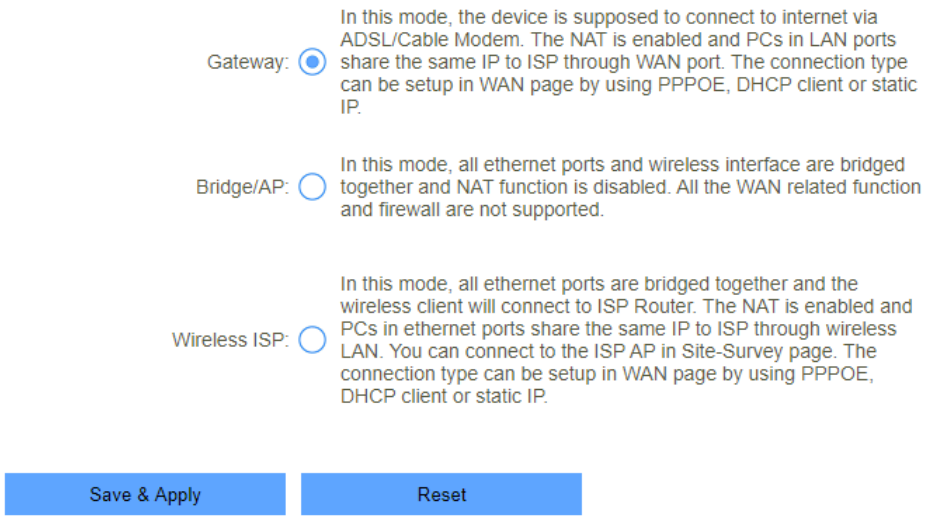


Figure 5-2-3-1 Operation Mode

5.2.3 Wi-Fi

5.2.3.1. Wi-Fi

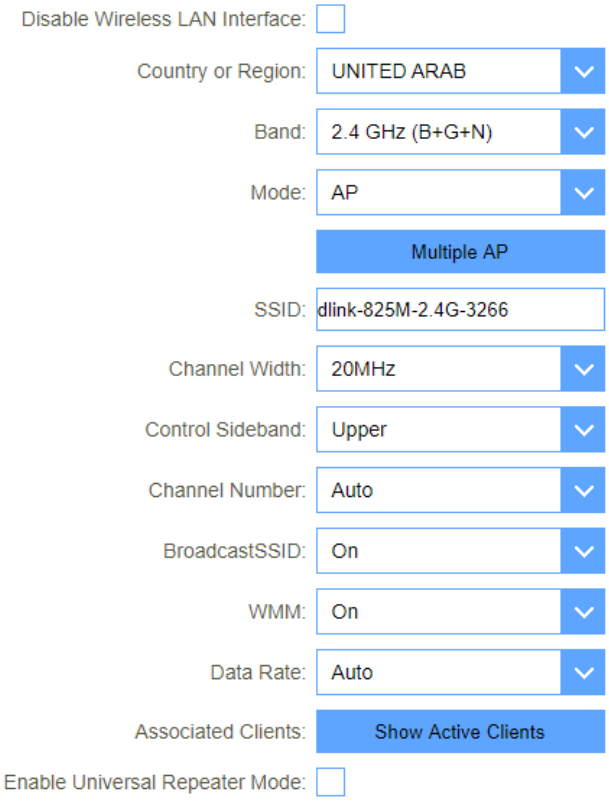


Figure 5-2-4-1-1 2.4GHz Wi-Fi

Object	Description
Disable Wireless LAN Interface	You may choose to enable or disable Wireless function.
Band	Set the wireless mode to which you need. Default is "**Mixed 802.11b/g/n**". It is strongly recommended that you set the Band to "802.11b/g/n", and al l of 802.11b, 802.11g, and 802.11n wireless stations can connect to the DIR-825M
Mode	WLAN working mode, such AP, client, WDS and AP+WDS.
MultipleAP	You can set guest SSID from this button.
Network Type	You can config WLAN network type with this parameter.
SSID	Set a name (SSID) for your wireless network. The ID of the wireless network. User can access the wireless network through it only. However, if you switch to Client Mode, this field becomes the SSID of the AP you want to connect with.
Channel Width	Select a proper channel bandwidth to enhance wireless performance. When there are 11b/g and 11n wireless clients, please select the 802.11n mode of 20/40MHz frequency band.
Control Sideband	Control channels are only applicable if your gateway is operating at

	40 MHz bandwidth and the 802.11n mode is configured as Automatic.
Channel Number	For an optimal wireless performance, you may select the least interferential channel. It is advisable that you select an unused channel or “Auto” to let device detect and select the best possible channel for your wireless network to operate on from the drop-down list.
BroadcastSSID	You may choose to visible or invisible SSID broadcast. When it is enabled, the router SSID will be broadcast in the wireless network, so that it can be scanned by wireless clients and they can join the wireless network with this SSID.
WMM	WMM provides basic Quality of service (QoS) features to IEEE 802.11 networks. WMM prioritizes traffic according to four Access Categories: voice, video, best effort, and background.
Associated Clients	This option shows you all the clients which connected to this SSID.
Enable Universal Repeater Mode	Repeater mode

5.2.3.2. Security

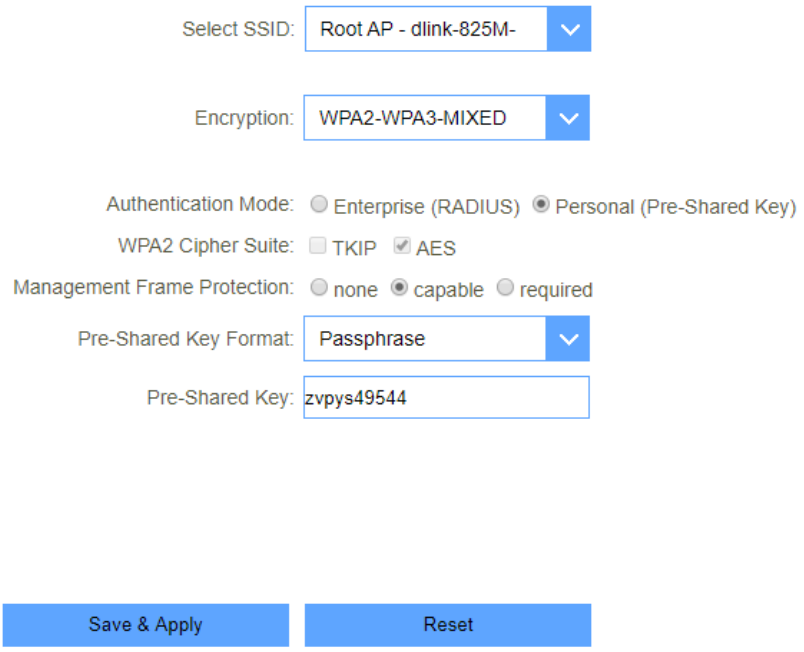


Figure 5-2-4-2-1 Wi-Fi security

Object	Description
Select SSID	Set a name (SSID) for your wireless network. User can access the wireless network through the ID only. However, if you switch to client mode, this field becomes the SSID of the AP you want to connect with.
Encryption	Select the security mode from the **Encryption** dropdown list. There are 6 options in the Security Mode dropdown list: ■ **Disable** ■ **WEP** ■ **WPA2** ■ **WPA-Mixed** ■ **WPA3** ■ **WPA2-WPA3-MIXED**
Pre-Shared Key	Enter the Wi-Fi password

5.2.3.3. ACL

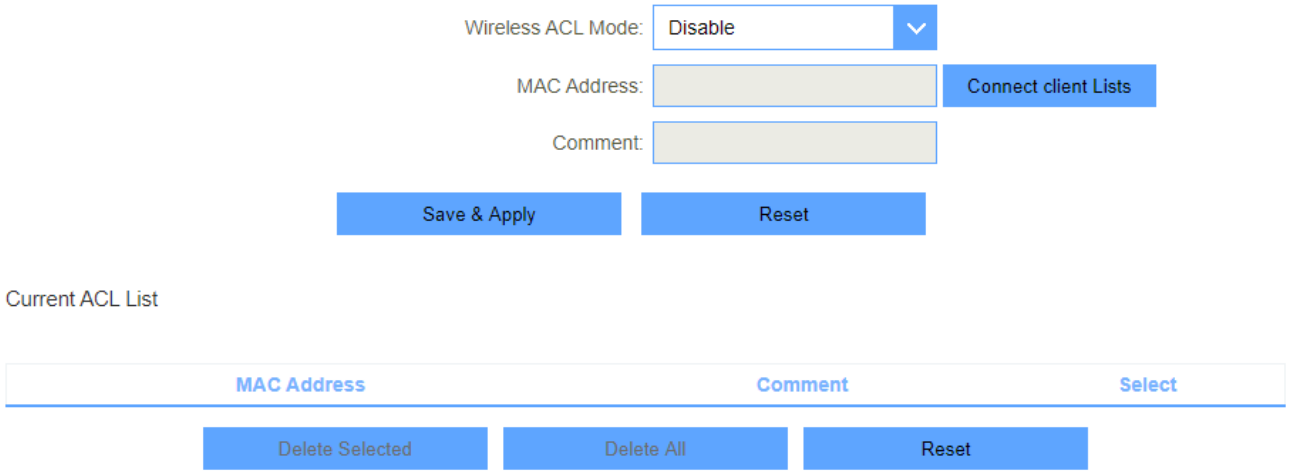


Figure 5-2-4-3-1 Wi-Fi security

Object	Description
Wireless ACL Mode	If you choose 'Allowed Listed', only those clients whose wireless MAC addresses are in the access control list will be able to connect to your Access Point. When 'Deny Listed' is selected, these wireless clients on the list will not be able to connect the Access Point.
MAC Address	The MAC address of the client.
Comment	Comment

5.2.3.4. Site Survey

This page provides tool to scan the wireless network. If any Access Point or IBSS is found, you could choose to connect it manually when client mode is enabled.

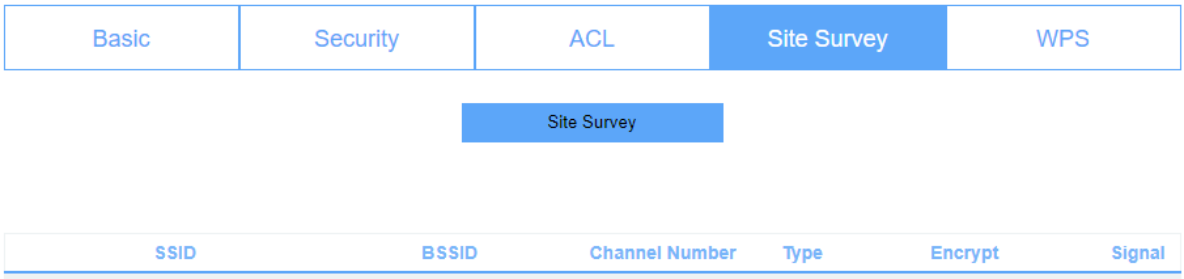


Figure 5-2-4-4-1 Site Survey

5.2.3.5. WPS

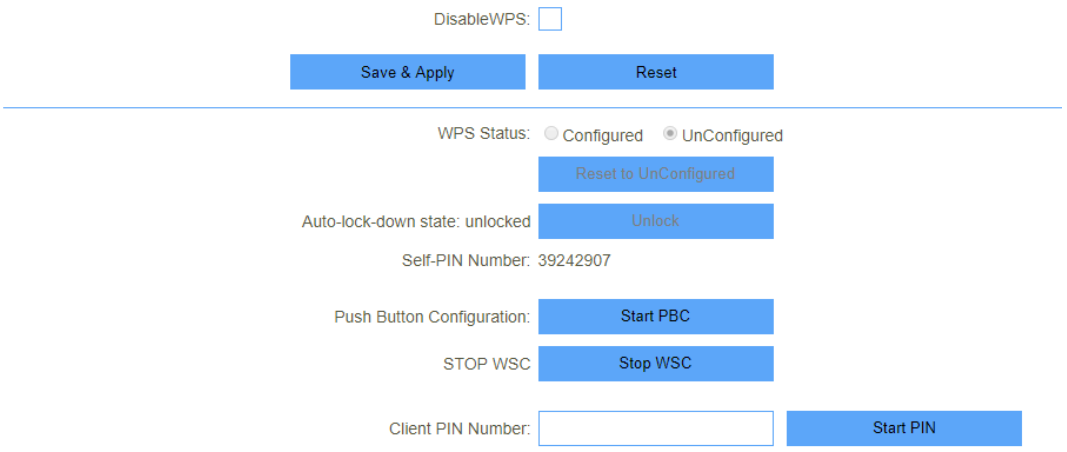


Figure 5-2-4-5-1 WPS

Object	Description
WPS	This page allows you to change the setting for WPS (Wi-Fi Protected Setup). Using this feature could let your wireless client automatically synchronize its setting and connect to the Access Point in a minute without any hassle.
Disable WPS	Enable or disable WPS function.

5.2.3.6. Wireless Schedule

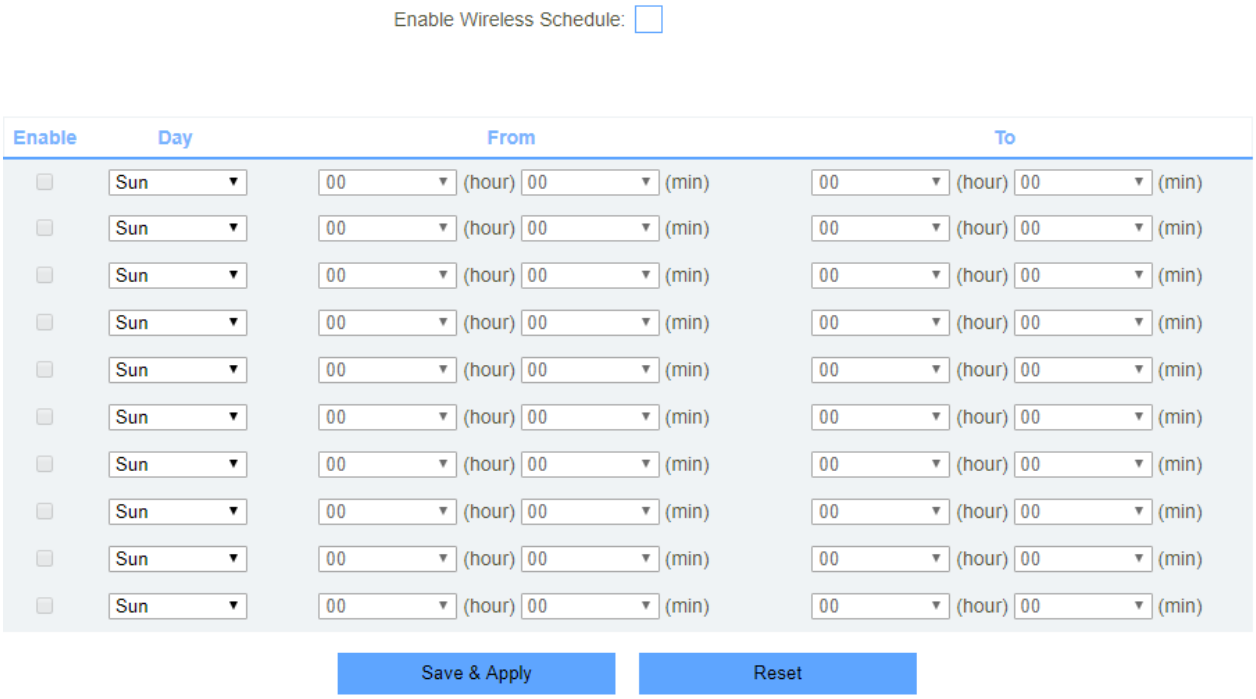


Figure 5-2-4-6-1 Wireless Schedule

5.2.3.7. Easy Mesh

Config a router as controller, and other config to agent, after config,Agent router dhcp server will disable.

Trigger the WPS push button on one of the device. (User can choose either to press the physical push button, or Click “Start PBC” on the Web-UI)

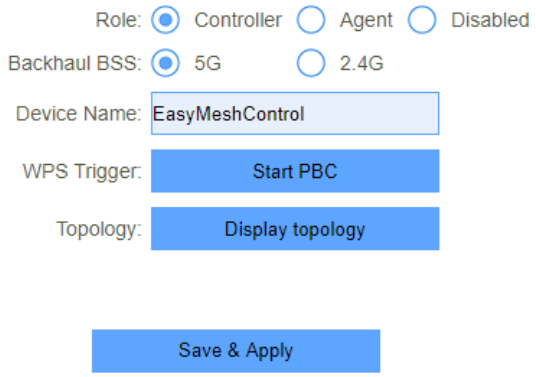


Figure 5-2-4-7-1 Easy Mesh Controller

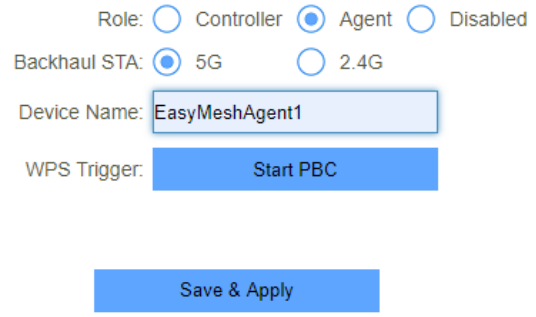


Figure 5-2-4-7-2 Easy Mesh Agent

After mesh connected success, Click controller router “Display topology”, it will shown as follows net topology, agent ip will change and get it from controller dhcp server.

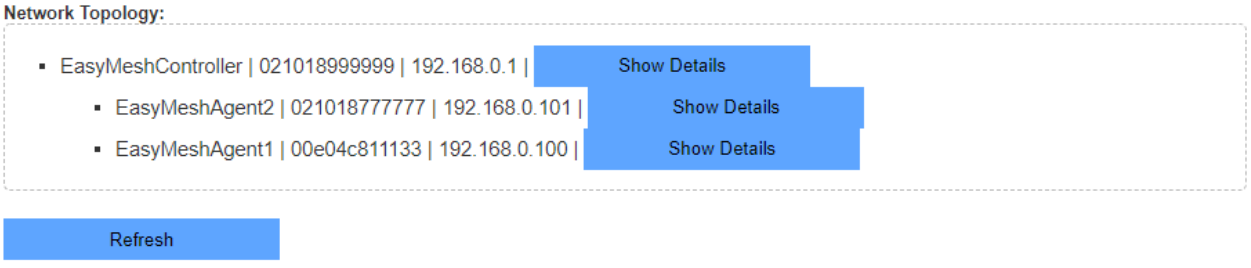


Figure 5-2-4-7-3 Topology

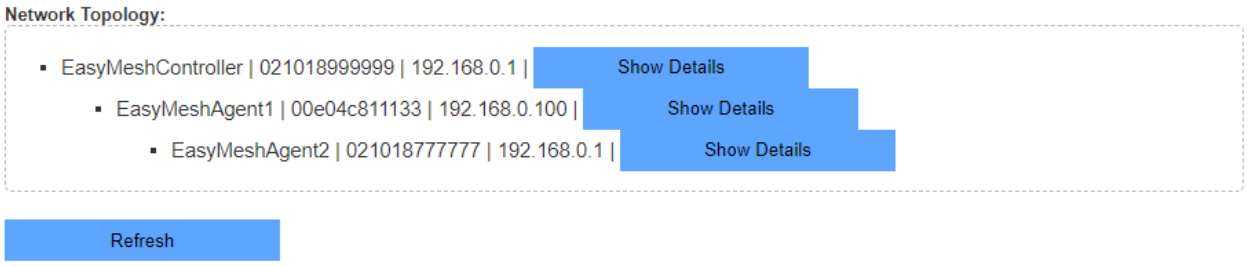


Figure 5-2-4-7-4 Topology

5.2.4 LAN

5.2.4.1. IPv4

This page is used to configure the parameters for local area network which connects to the LAN port of your Access Point. Here you may change the setting for IP address, subnet, DHCP, etc.

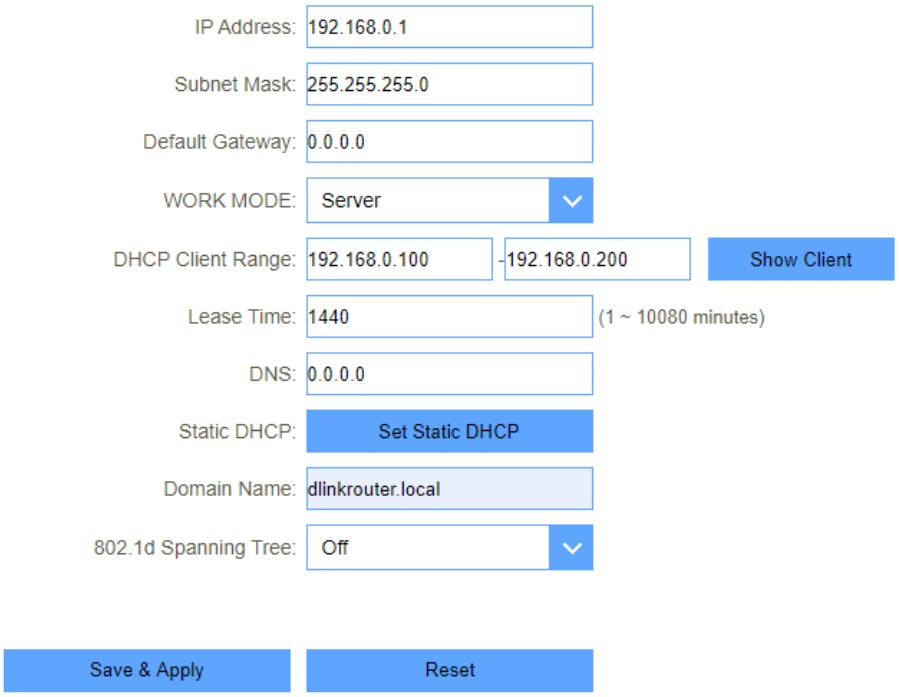


Figure 5-2-5-1-1 LAN IPv4

Object	Description
LAN IP Address	Router's LAN IP. The default is **192.168.0.1**. You can change it according to your needs.
Subnet Mask	Router's LAN subnet mask.
WORK MODE	If it is selected, the router serves as the DHCP server and automatically assigns IP addresses to all computers in the LAN.
DHCP Client Range	Enter the start and end IP address of all the available successive IPs.
Lease Time	Select the time for using one assigned IP from the dropdown list. After the lease time, the AP automatically assigns new IP addresses to all connected computers.

Static DHCP	This page allows you reserve IP addresses, and assign the same IP address to the network device with the specified MAC address any time it requests an IP address. This is almost the same as when a device has a static IP address except that the device must still request an IP address from the DHCP server.
Domain Name	Set the domain name of the Router.
802.1d Spanning Tree	Enable or disable spanning tree function.

5.2.4.2. Static DHCP

If user want to reserve specific IP for some device, you can bind the mac and the IP in this page.

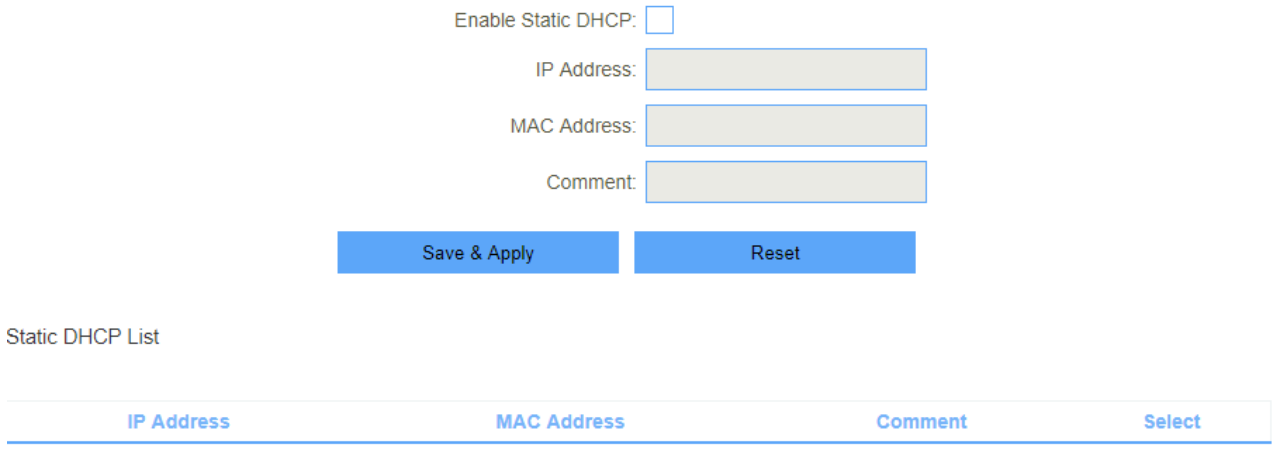


Figure 5-2-5-2-1 Static DHCP

5.2.4.3. IPv6

This page shows the information of IPv6.

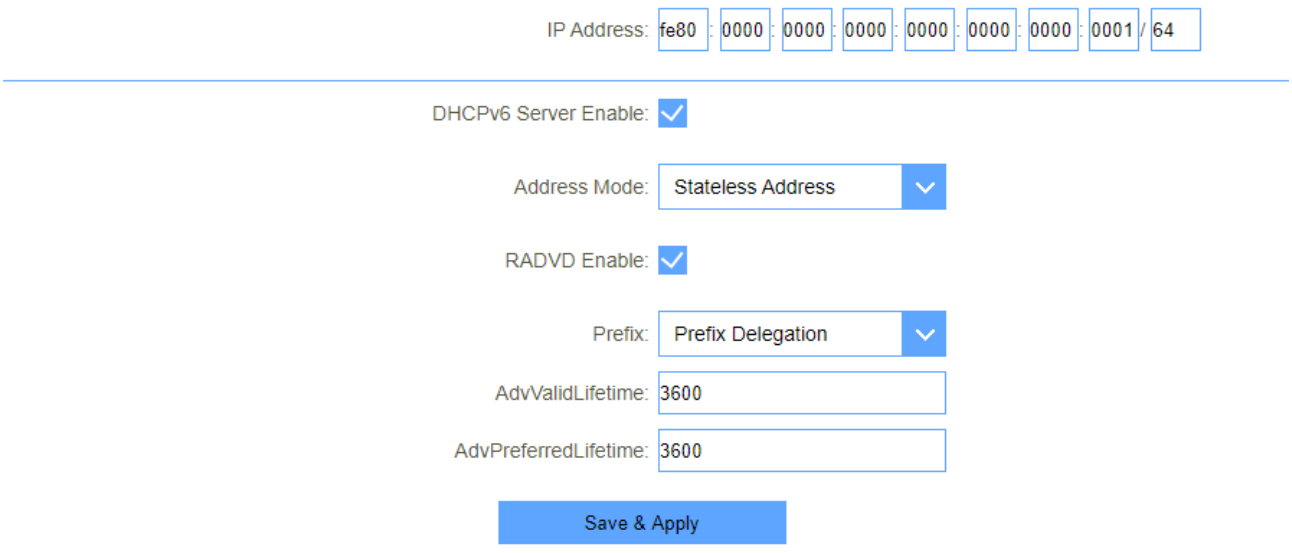


Figure 5-2-5-3-1 IPv6

Object	Description
IP Address	Router's LAN IPv6 address.
DNS Addr	Router's LAN DNS server.
Interface Name	If it is selected, the router serves as the DHCP server and automatically assigns IPv6 addresses to all computers in the LAN.
Addrs Pool	Enter the start and end IPv6 address of all the available successive IPv6 address.

5.2.4.4. TUNNEL 6 over 4

This page used for Tunnel 6 over 4.

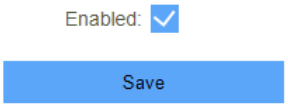


Figure 5-2-26 TUNNEL 6 over 4

Object	Description
Enable	Enable or disable tunnel 6 over 4.

5-2-5-4-1 TUNNEL 6 over 4

5.2.5 VPN

5.2.5.1. PPTP

This page is used to configure the parameters for Internet network which connects to the PPTP server.

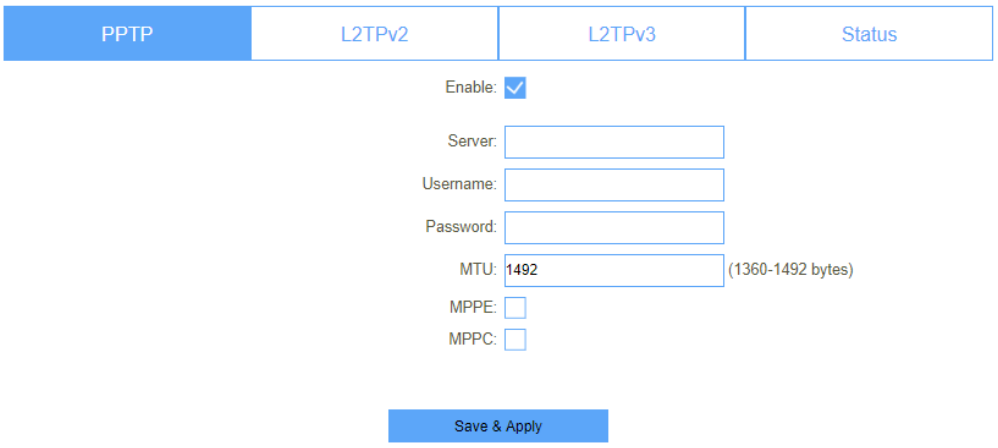


Figure 5-2-6-1-1 PPTP

Object	Description
Server	Type the name of PPTP Server.
Username	Enter the user name provided by your ISP.
Password	Enter the password provided by your ISP.
MTU	You can keep the maximum transmission unit (MTU) as default.

5.2.5.2. L2TPv2

This page is used to configure the parameters for Internet network which connects to the L2TPv2 server.

Figure 5-2-6-2-1 LT2P

Object	Description
Server	Type the name of L2TP Server.
Username	Enter the user name provided by your ISP.
Password	Enter the password provided by your ISP.
MTU	You can keep the maximum transmission unit (MTU) as default.

5.2.5.3. L2TPv3

This page is used to configure the parameters for Internet network which connects to peer by L2TPv3.

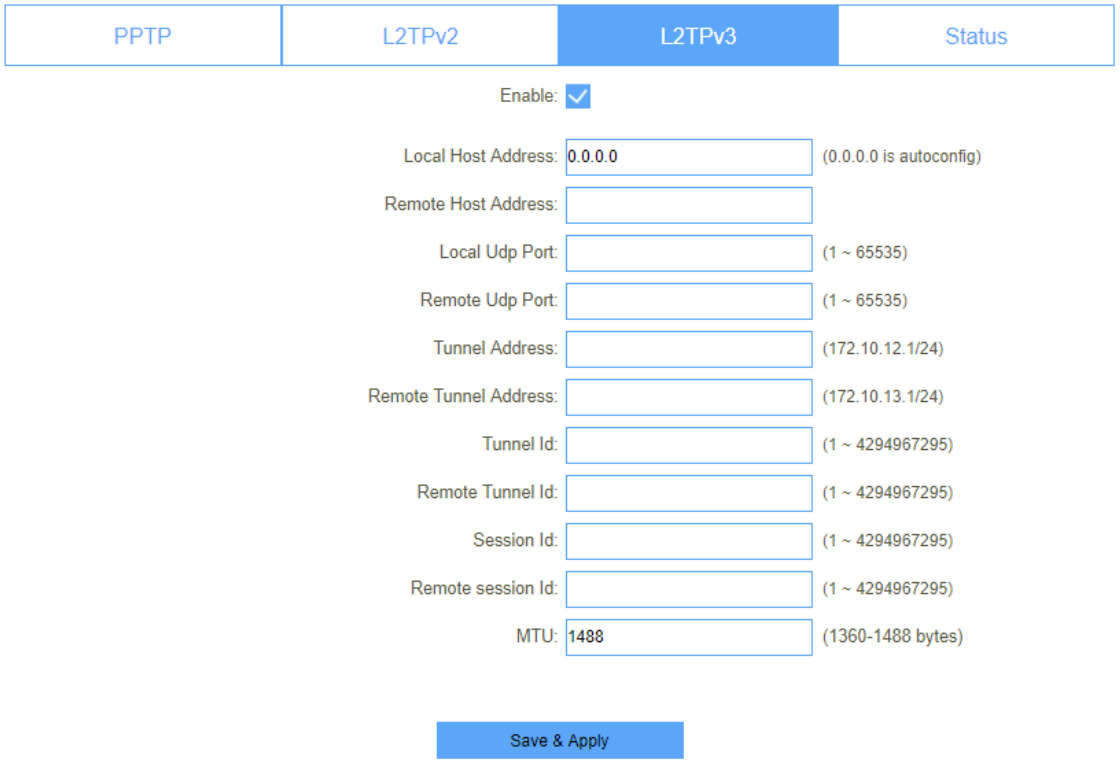


Figure 5-2-6-3-1 L2TPv3

Object	Description
Local Host Address	The address of the LAN side device of local , eg:192.168.0.2
Remote Host Address	The address of the LAN side device of remote host , eg:192.168.8.2
Local Udp Port	Lan side device udp port.
Remote Udp Port	Remote device udp port
Tunnel Address	Wan interface ip address
Remote Tunnel Address	Remote device wan interface ip address
Tunnel Id	Local device tunnel id
Remote Tunnel Id	Remote device tunnel id
Session Id	Local device session id
Remote session Id	Remote device session id
MTU	You can keep the maximum transmission unit (MTU) as default.

5.2.5.4. GRE

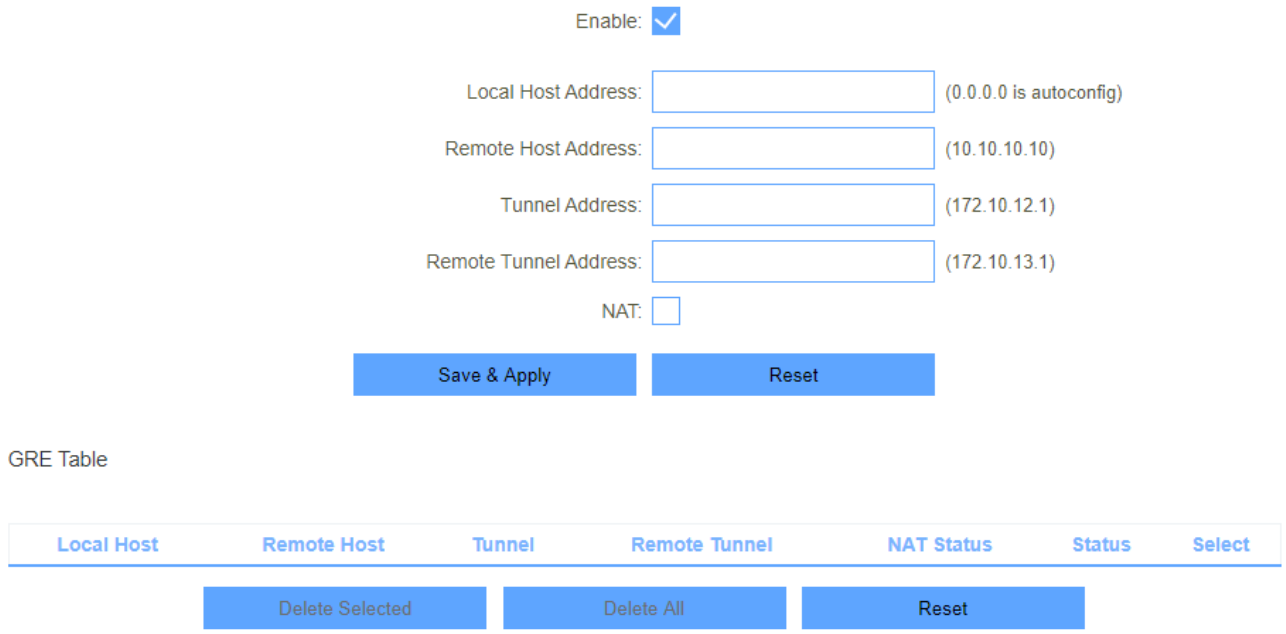


Figure 5-2-6-4-1 GRE

5.2.5.5. Status

This page shows the status information for PPTP , L2TPv2 and L2TPv3

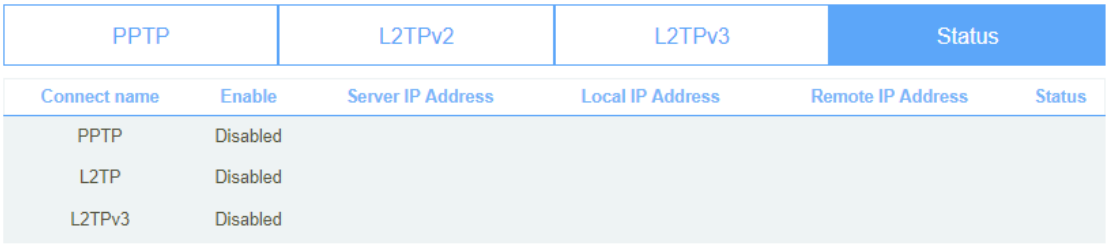


Figure 5-2-6-5-1 VPN status

5.2.6 USB

The DIR-825M has a built-in USB port which can be connected to an external USB storage device for file sharing.

5.2.6.1. Disk information

This page shows disk information. You can access the U disk using \\x.x.x.x on the computer.

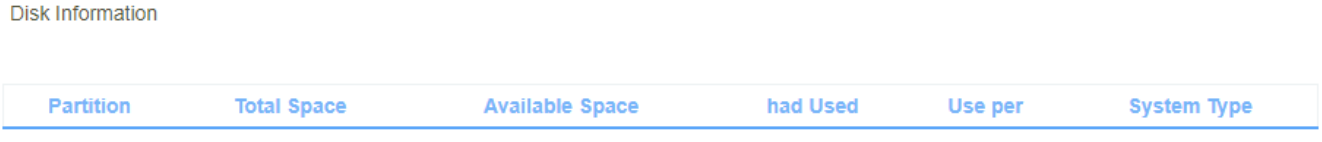


Figure 5-2-7-1-1 Disk information

5.2.6.2. DLNA

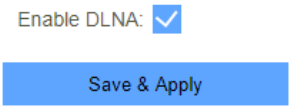


Figure 5-2-7-2-1 DLNA

5.2.6.3. FTP

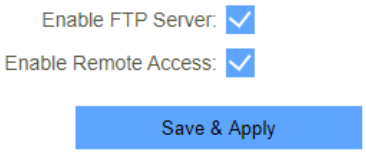


Figure 5-2-7-3-1 FTP

5.3 Features

5.3.1 QoS

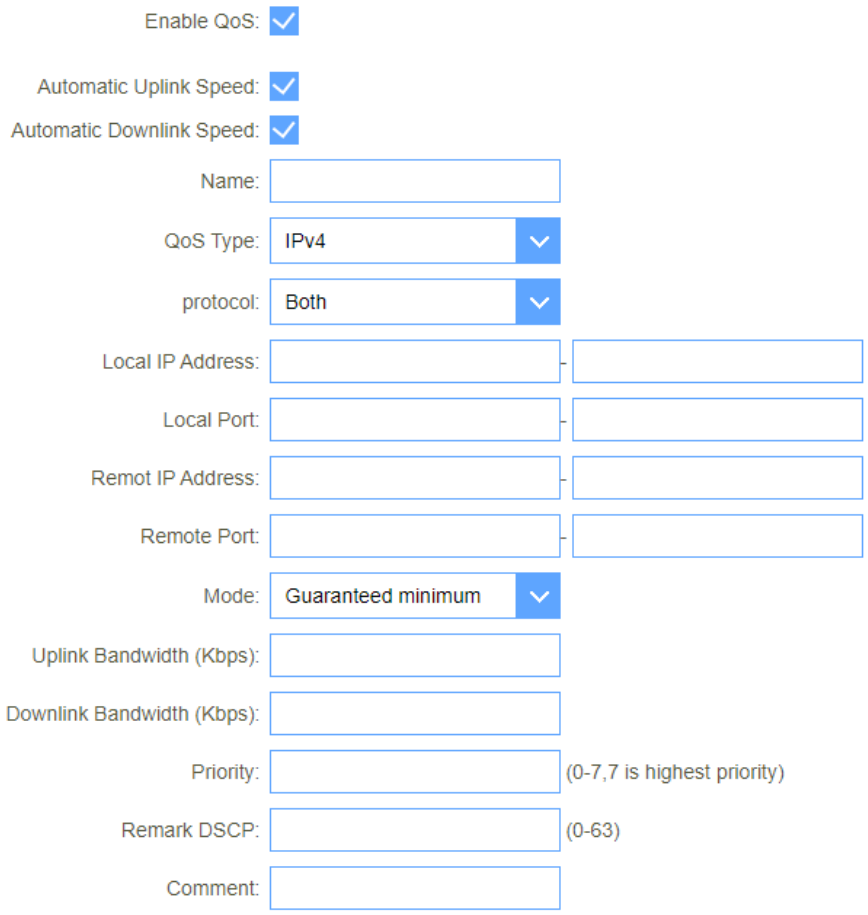


Figure 5-3-1-1 QoS

Object	Description
Automatic Uplink Speed	Automatic uplink speed.
Manual Uplink Speed (Kbps)	Set the download speed of your Internet access
Automatic Downlink Speed	Automatic downlink speed.
Manual Downlink Speed (Kbps)	Set the upload speed of your Internet access

Name	QoS rule name.

5.3.2 Firewall

5.3.2.1. Advanced

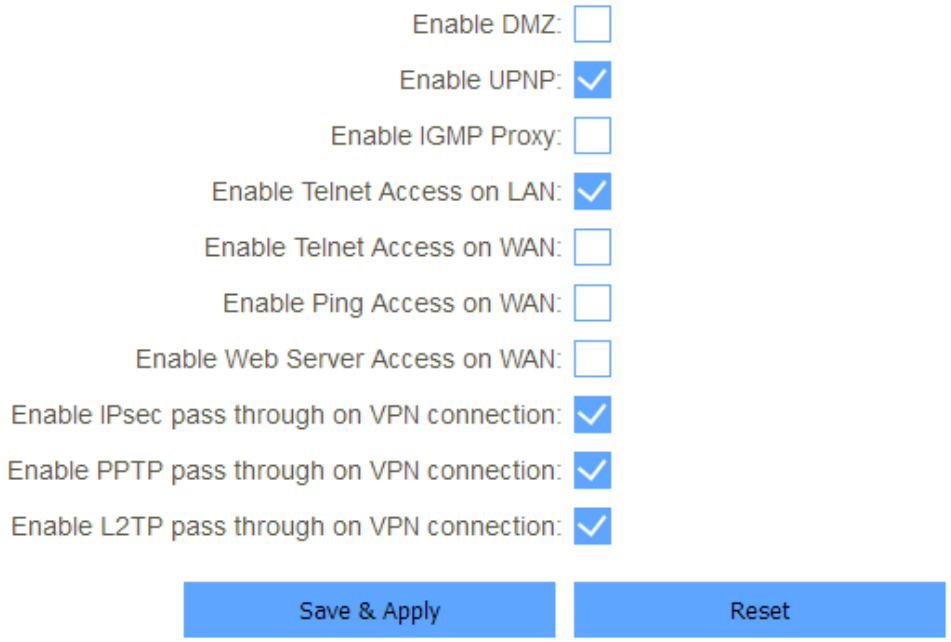


Figure 5-3-2-1-1 Advanced

Object	Description
Enable DMZ	Enable or disable DMZ function
Enable UPnP	Enable or disable UPnP function
Enable IGMP Proxy	Enable or disable IGMP Proxy function
Enable Telnet Access on LAN	Enable or disable Telnet by lan access
Enable Telnet Access on WAN	Enable or disable Telnet by wan access
Enable Ping Access on WAN	Enable or disable Enable Ping Access on WAN function
Enable Web Server Access on WAN	Enable or disable Enable Web Server Access on WAN function.
Enable IPSec pass through on VPN connection	Enable or disable IPSEC to pass through IPSEC communication data.

Enable PPTP pass through on VPN connection	Enable or disable PPTP to pass through PPTP communication data.
Enable L2TP pass through on VPN connection	Enable or disable L2TP to pass through L2TP communication data.

5.3.2.2. Dos

A denial-of-service (DoS) attack is characterized by an explicit attempt by hackers to prevent legitimate users of a service from using that service.

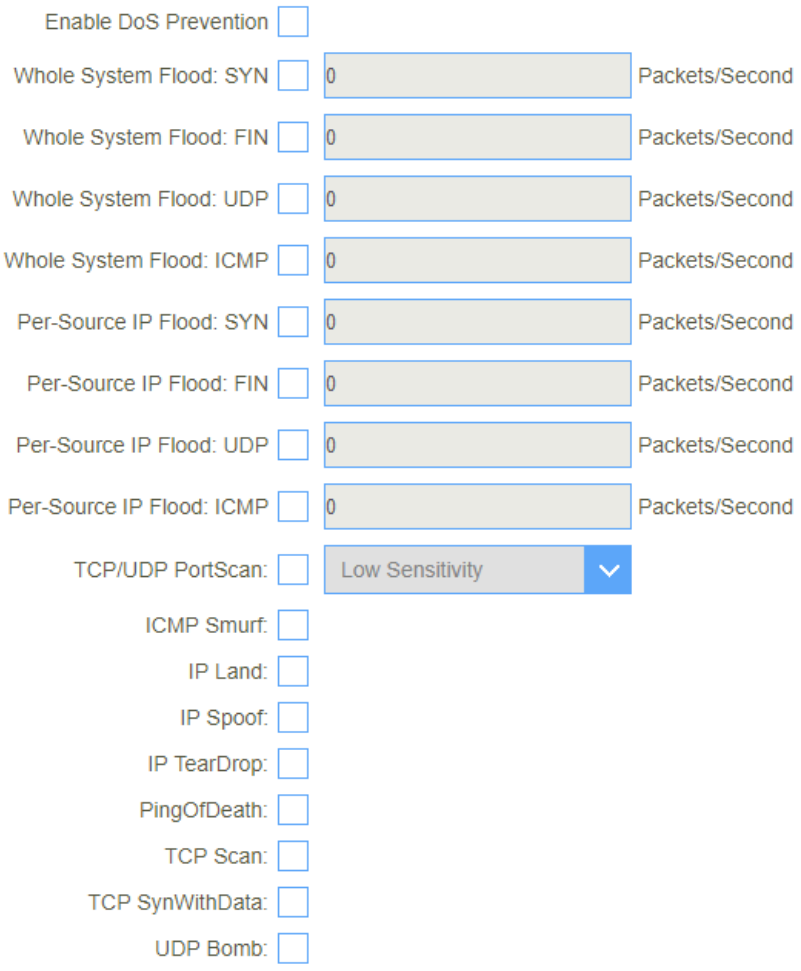


Figure 5-3-2-2-1 DoS

5.3.2.3. IP Filtering

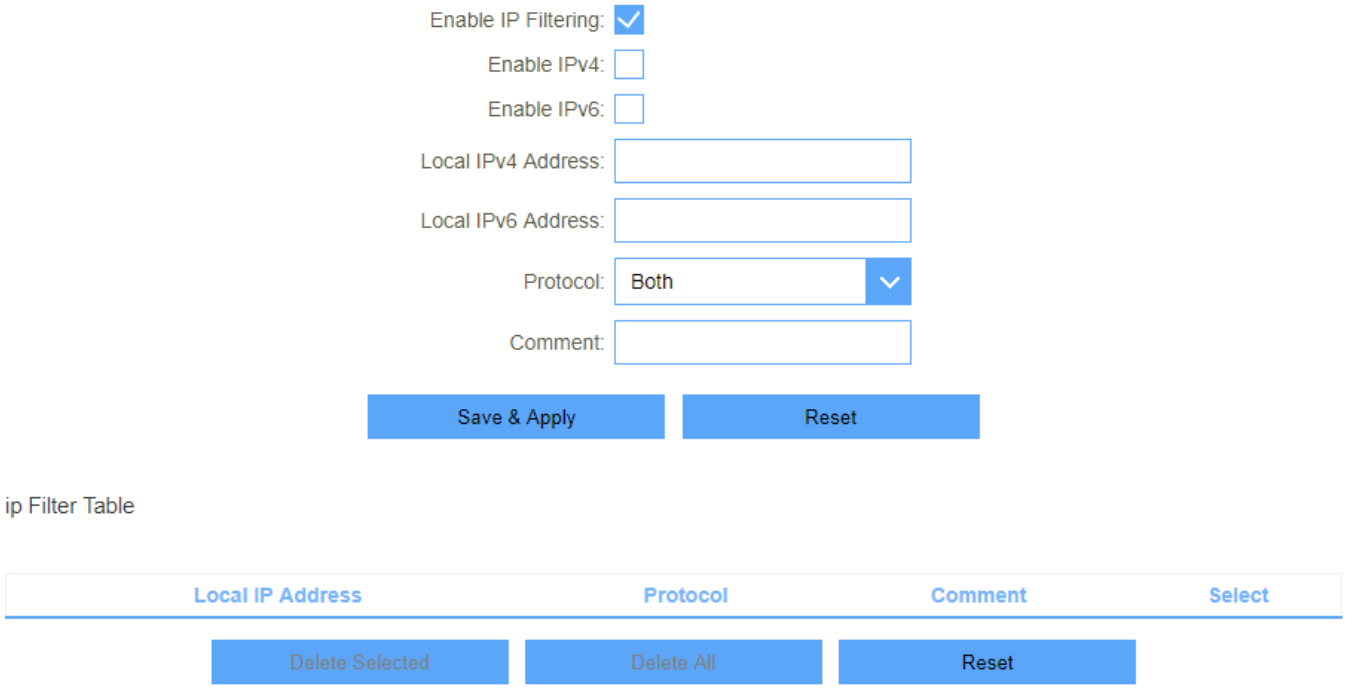


Figure 5-3-2-3-1 IP Filtering

Object	Description
Enable IP Filtering	Enable or disable IP Filtering function.
Enable IPv4	Enable or disable IPv4 Filtering feature.
Enable IPv6	Enable or disable IPv6 Filtering feature.
Local IPv4 Address	Set LAN side source IPv4 address
Local IPv6 Address	Set LAN side source IPv6 address
Protocol	Select “TCP”, “UDP” or” Both”
Comment	Comment for the rule.

5.3.2.4. Port Filtering

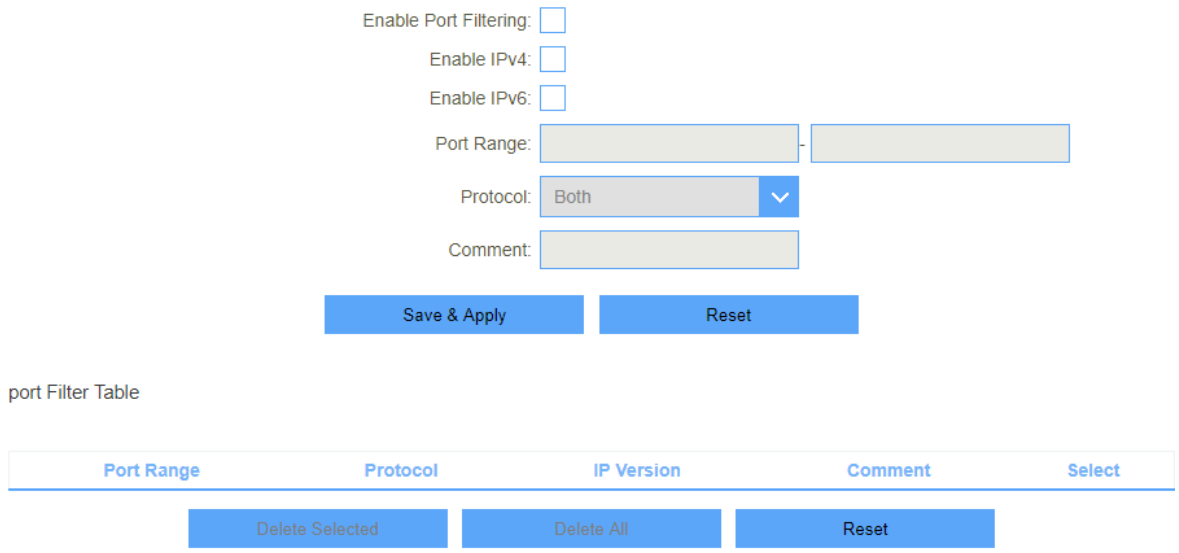


Figure 5-3-2-4-1 Port Filtering

Object	Description
Enable Port Filtering	Enable or disable IP Filtering function.
Enable IPv4	Enable or disable IPv4 Port Filtering feature.
Enable IPv6	Enable or disable IPv6 Port Filtering feature.
Port Range	Set the port range for port filtering
Protocol	Select “TCP”, “UDP” or” Both”
Comment	Comment for the rule.

5.3.2.5. MAC Filtering

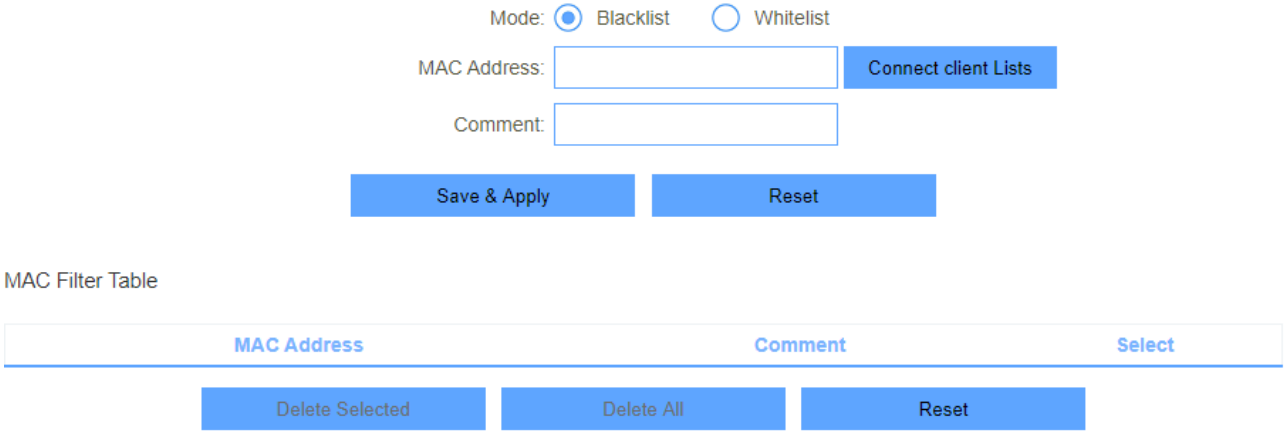


Figure 5-3-2-5-1 MAC Filtering

Object	Description
Model	You can set working model here, Black and White.
MAC Address	Enter a MAC address
Comment	Comment info.

5.3.3 Port Forwarding

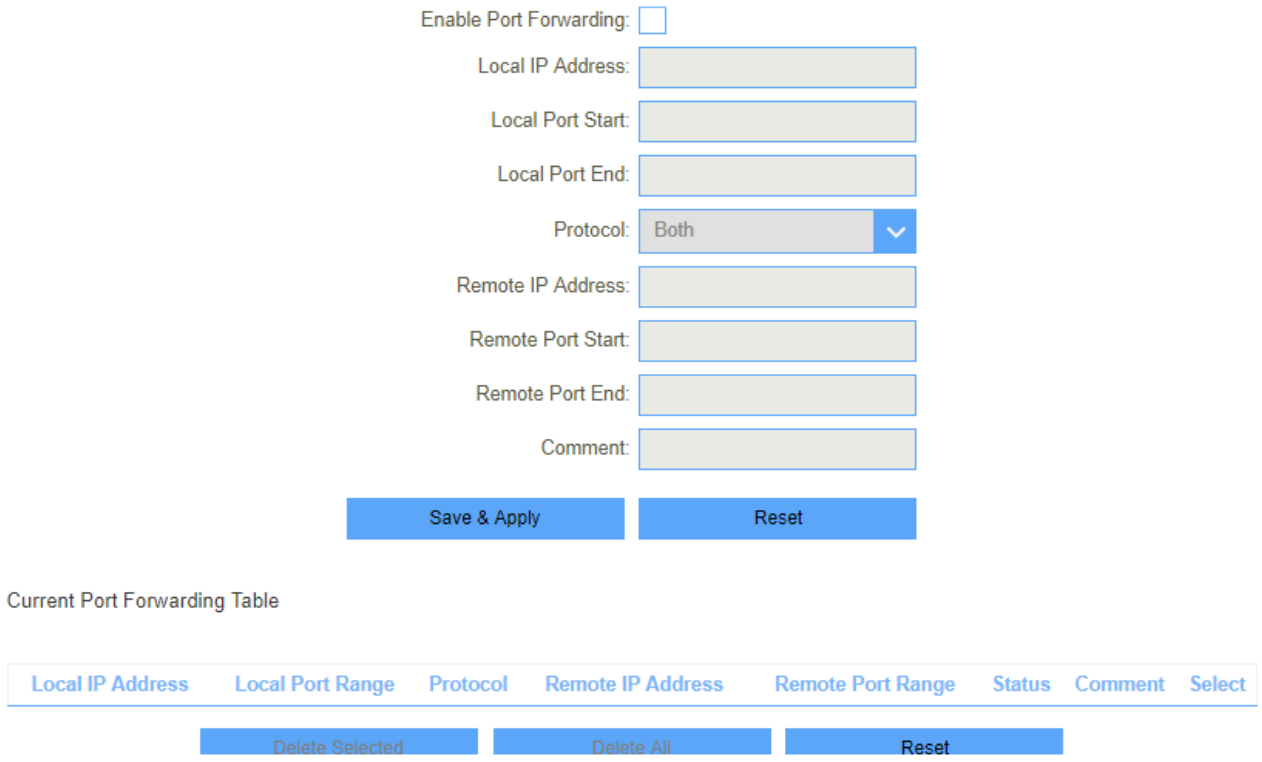


Figure 5-3-3-1 Port Forwarding

Object	Description
Enable Port Forwarding	Enable or disable Port Forwarding function.
Local IP Address	Enter a LAN IP address
Local Port Start	Enter LAN side start port.
Local Port End	Enter LAN side end port.
Protocol	Select “TCP”, “UDP” or “Both”.
Remote IP Address	Enter a WAN IP address
Remote Port Start	Enter the external start port
Remote Port End	Enter the external end port
Comment	Enter the port number

5.3.4 URL Filter

URL filter is used to deny LAN users from accessing the internet. Block those URLs which contain keywords listed below. Please note: URL Filter can not filter the HTTPS encrypted domain name.

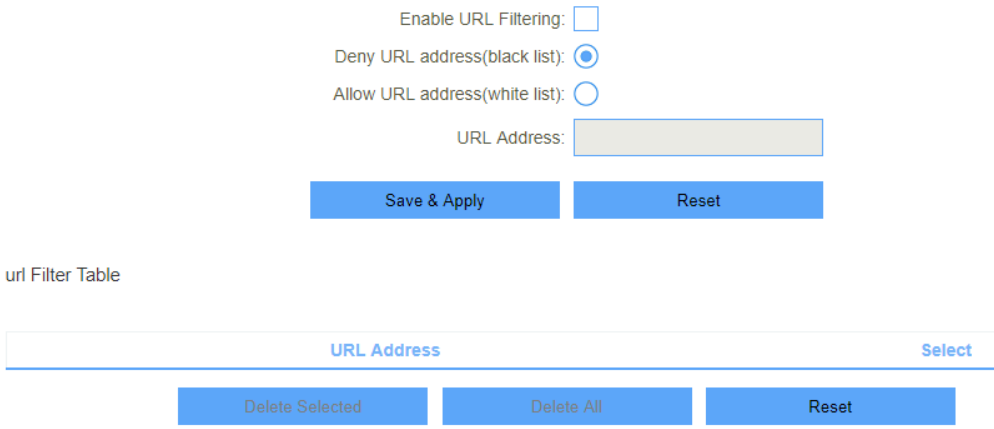


Figure 5-3-4-1 URL Filter

Object	Description
Enable URL Filtering	Enable or disable URL Filtering function.
Deny URL address (black list)	Blocking access to the URL list.
Allow URL address (white list)	Allowing access to the URL list.
URL Address	Block or allow access URL.

5.3.5 Route

This menu shows you the current default route and static route. Static Route reduces route selection problems and corresponding data overload and accelerates data packet forwarding.

5.3.5.1. Default Route

You can select which wan connection as default gateway route.if not ,system will auto select a connect up wan as default gateway route.

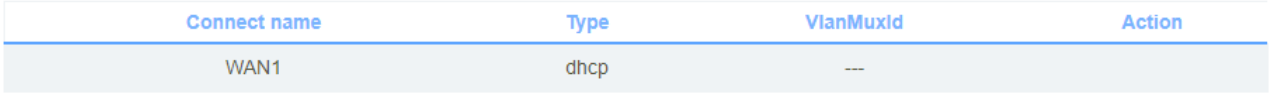


Figure 5-3-5-1-1 Default Route

5.3.5.2. Static Route

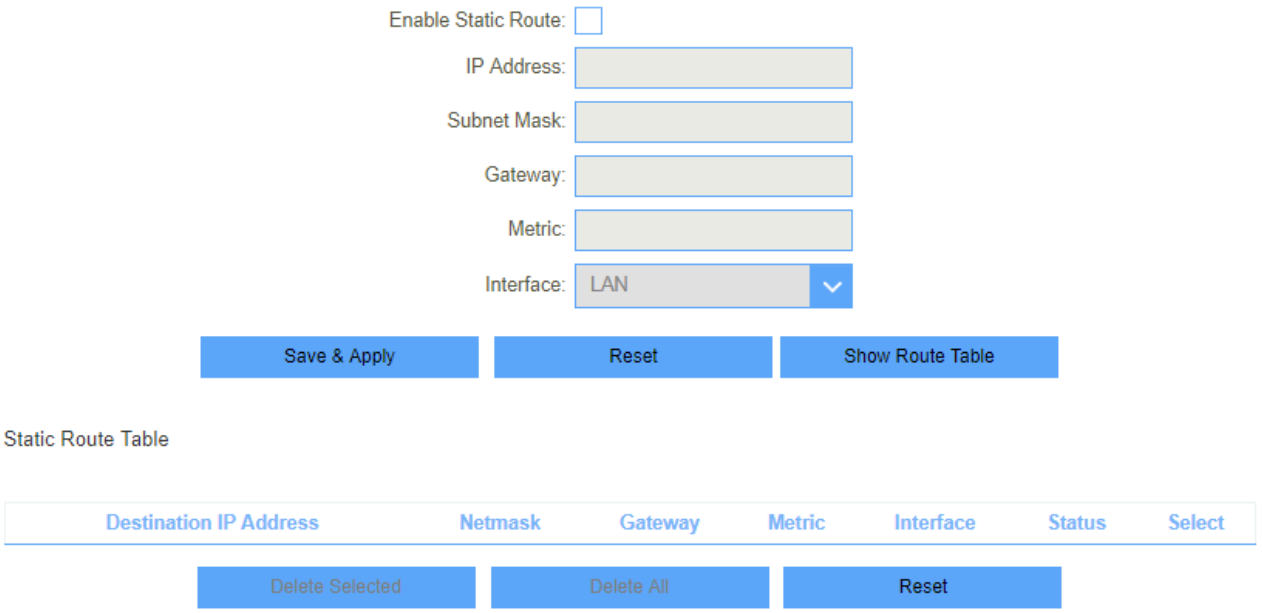


Figure 5-3-5-2-1 Static Route

Object	Description
Enable Static Route	Enable or disable Static route.
IP Address	Enter the destination network
Subnet Mask	Enter the network mask
Gateway	Enter the network gateway
Metric	Enter the routing metric
Interface	Select the interface

5.3.6 Dynamic DNS

The Wireless Router supports **Dynamic Domain Name Service** (**DDNS**). The dynamic DNS service allows a dynamic public IP address to be associated with a static host name in any of the many domains, and allows access to a specified host from various locations on the Internet. Click a hyperlinked URL in the form of hostname.dyndns.org and allow remote access to a host. Many ISPs assign public IP addresses using DHCP, so locating a specific host on the LAN using the standard DNS is difficult. For example, if you are running a public web server or VPN server on your LAN, DDNS ensures that the host can be located from the Internet even if the public IP address changes. DDNS requires that an account be set up w ith one of the supported DDNS service providers

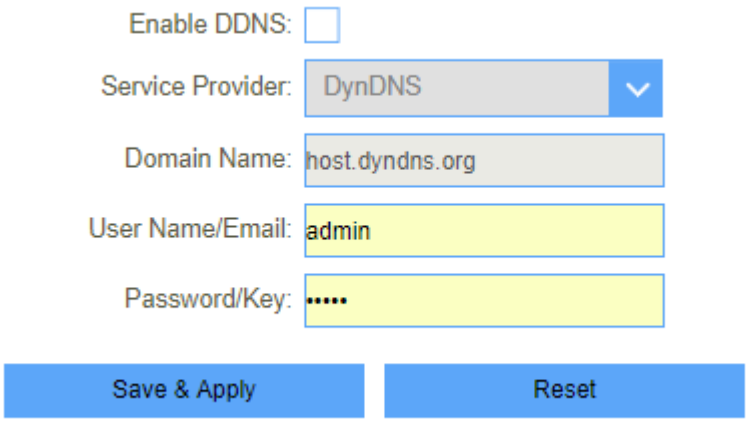


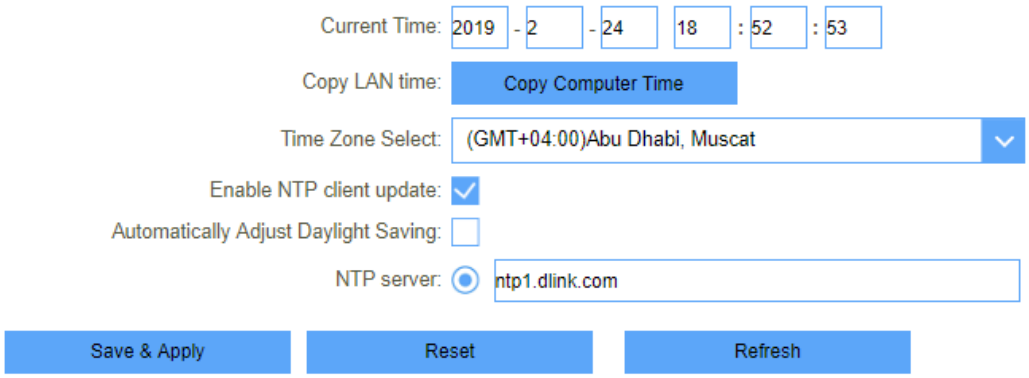
Figure 5-3-6-1 DDNS

Object	Description
Server Provider	Select server from the drop-down list ■ DynDNS ■ TZO
Domain Name	Enter the host name
User Name/Email	Enter the user name
Password/Key	Enter the password

5.4 Management

5.4.1 Time

5.4.1.1. NTP Server



Object	Description
Current Time	Select the time zone in your area
Copy LAN time	Copy time from computer.
Time Zone Select	Select time zone from the drop box.
Enable NTP client update	Enable or disable NTP client update.
Automatically Adjust Daylight Saving	Enable or disable daylight saving if you need this function
NTP Server	Select the well know NTP Server.
Manual IP Setting	Enter the server manually.

Figure 5-4-1-1-1 NTP Server

5.4.1.2. Auto Reboot

This feature can do the Reboot automatically at a specified time. Please note: “Auto Reboot” depend on the “NTP Server”, you have to enable the 'NTP Server' when use this feature.

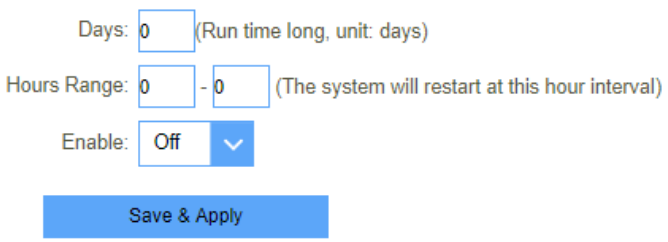


Figure 5-4-1-2-1 Auto Reboot

5.4.2 System Log

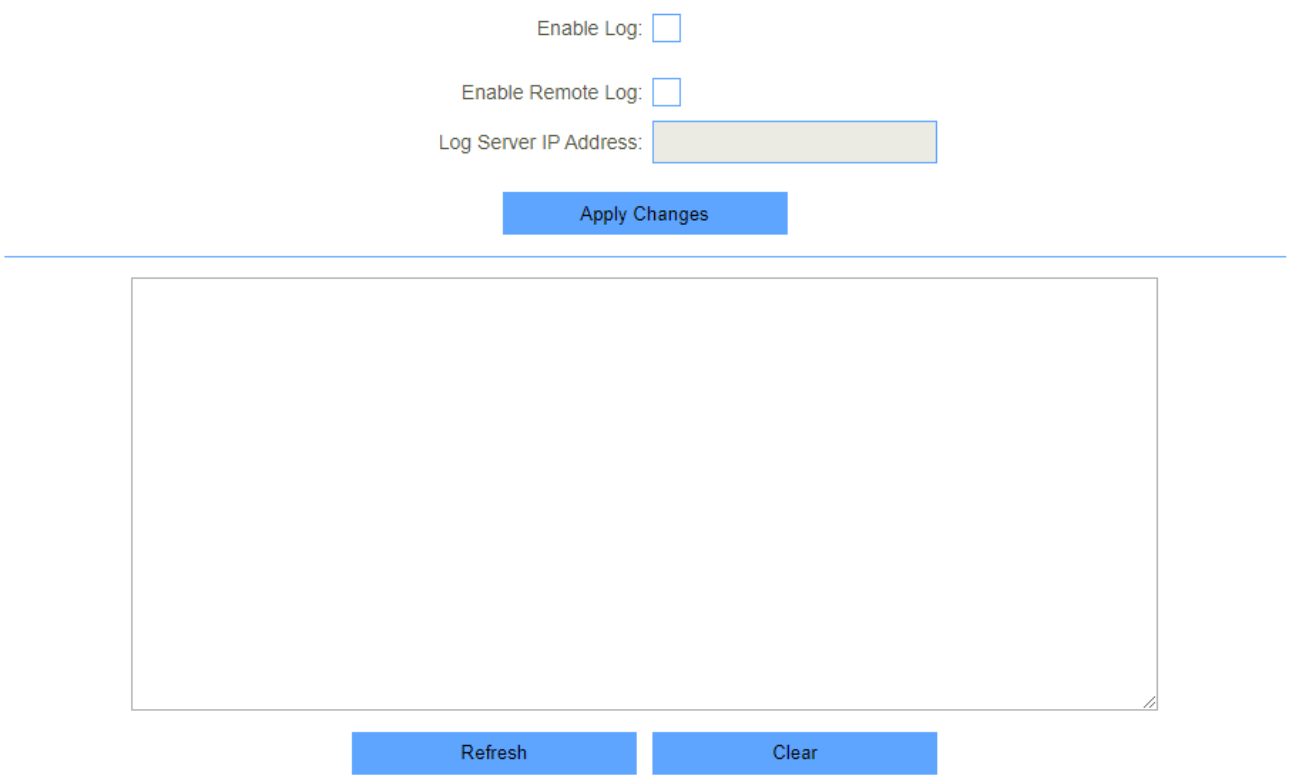


Figure 5-4-2-1 System Log

Object	Description
Enable Log	Enable or disable Log function.
Enable Remote Log	Enable or disable “Logging to Syslog Server”
Log Server IP Address	Enter the Syslog server IP address

5.4.3 System Settings

5.4.3.1. Administrator

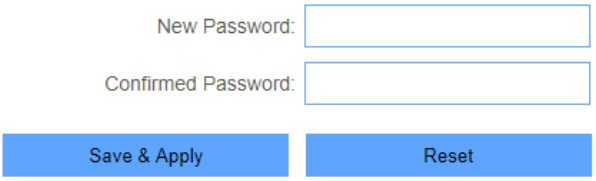


Figure 5-4-3-1-1 Administrator

Object	Description
Password	Enter the new password.
Confirmed Password	Enter the new password again.

5.4.3.2. System

This screen allows you to back up, restore, and erase the router's current settings. Once you have the router working correctly, you should back up the information to have it available if something goes wrong. When you back up the settings, they are saved as a file on your computer. You can restore the router's settings from this file.

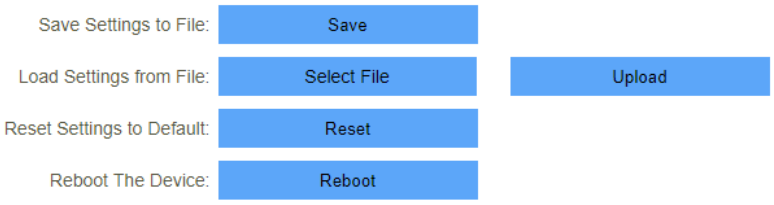


Figure 5-4-3-2-1 System

Object	Description
Save settings to file	Save the setting to local PC
Load settings from File	Load the settings from local PC
Reset Settings to Default	Restore the device to factory default
Reboot the device	Press the button to reboot the device

When you load new configuration, the original configuration will be lost. Please back up the current configuration before loading a new one. In this way, if the new configuration file has an error, you can load the backup file.

DO NOT shut down your router when loading a configuration file. Otherwise, the router may be damaged.

5.4.4 Statistics

5.4.4.1. User Statistics

This page shows each user's total traffic statistics.

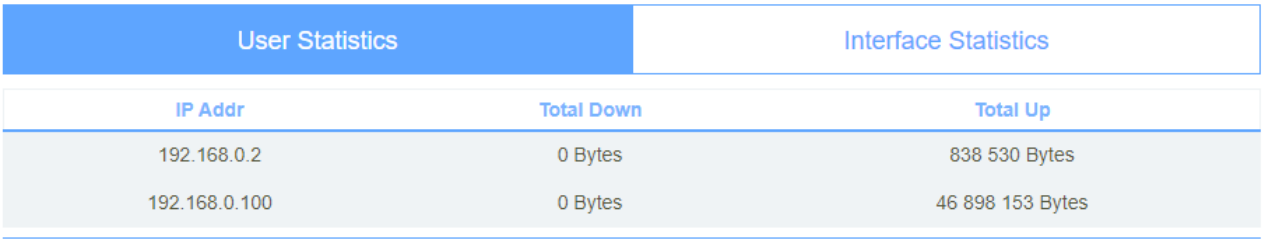


Figure 5-4-4-1-1 User Statistics

5.4.4.2. Interface Statistics

This page shows the packet counters for transmission and reception regarding to wireless and Ethernet networks.

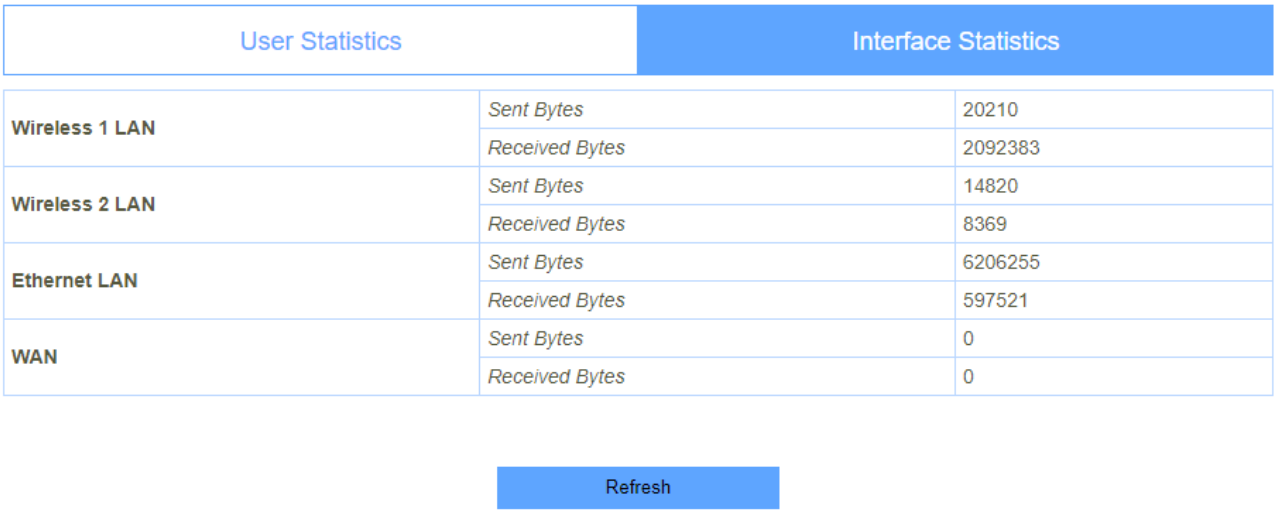


Figure 5-4-4-2-1 Interface Statistics

5.4.5 TR069

This page is used to configure the TR069. Here you may change the setting for the ACS's parameters.

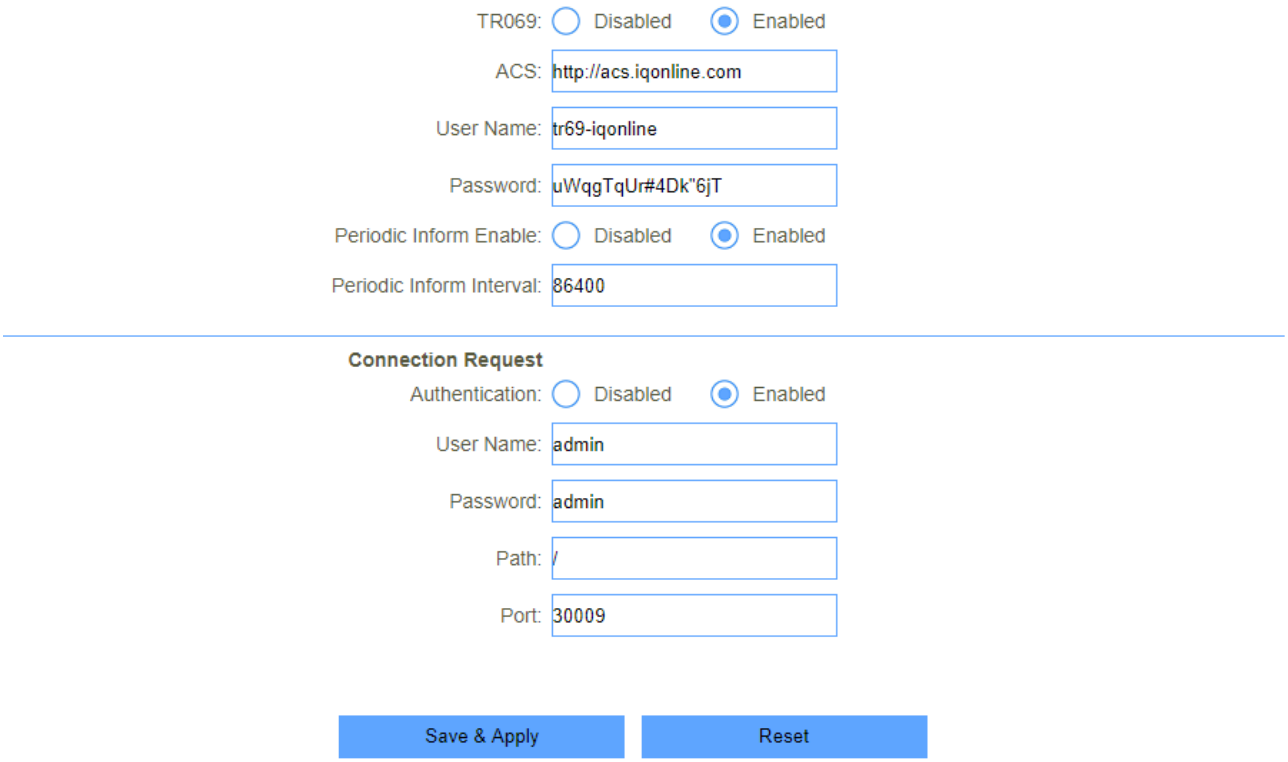


Figure 5-4-5-1 TR069

Object	Description
TR069	Enable or disable TR069.
ACS	ACS server domain or IP Address.
User Name	User name for connection to ACS.
Password	Password for connection to ACS.
Periodic Inform Enable	Enable or disable periodic inform.
Periodic Inform Interval	Periodic inform interval.
Connection Request User Name	User Name used form ACS connection to TR069.
Connection Request Password	Password used form ACS connection to TR069.
Path	Connection request path.
Port	Connection port.

5.4.6 SNMP

SNMP is a application for network managment .

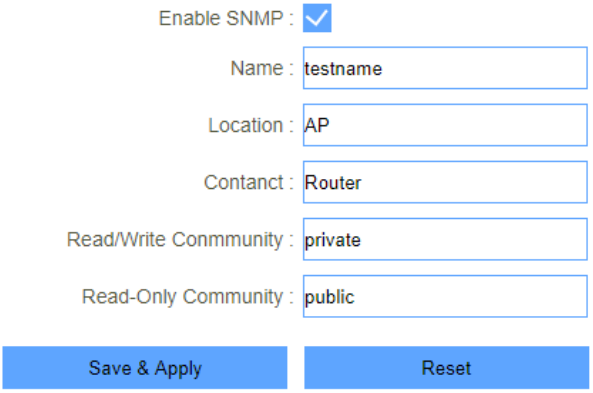


Figure 5-4-6-1 SNMP

5.4.7 Upgrade

5.4.7.1. Firmware Upgrade

You install new version of the router's software using this page. From time to time, we may release new versions of the Router's firmware. Firmware updates contain improvements and fixes the current problems. On this page, you can check the firmware version and upgrade firmware.

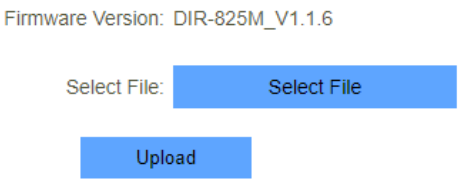


Figure 5-4-7-1-1 Upgrade

Note

DO NOT turns off the power or press the Reset button when updating the firmware. Otherwise, the router may be damaged.

AT	BE	CY	CZ	DK	EE	FI
FR	DE	EL	HU	IE	IT	LV
LT	LU	MT	NL	PL	PT	SK
SI	ES	SE	UK	BG	RO	HR