AirLive Industrial AIoT M2M

M2M-4G5AC

Web Manual

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Product Description

The AirLive M2M-4G5AC is an industrial 4G wireless router that integrates multiple functions such as Wi-Fi transmission, local resource sharing, cellular mobile Internet access, precise GPS positioning, serial port pass-thru transmission. It provides more processing performance, richer interfaces and higher network connection speed than ordinary industrial routers. This product is suitable for different application types and scenarios, such as car Wi-Fi, video transmission, PLC remote control, smart express cabinet, video surveillance, 4G access application etc.

Features

- Dual-core processor, faster and more powerful processing speed
- Support 4G Network Access
- Industrial grade design, support use in high and cold temperature
- Full Metal enclosure, higher safety index, better corrosion resistance
- Gigabit Network Port Design for faster link communication
- Support network port function definition and customization
- Support Wi-Fi 802.11b/g/n/ac up to 1200Mbps max. data speed
- Maximum Wi-Fi user connection exceeds 60+
- Wide Power Voltage Design
- Linkable to an external serial device
- USB2.0 interface port
- Optional dedicated precise GPS positioning
- Hardware watchdog design prevents downtime and auto-recovery

Main Features

Industrial Application Design

- Adopt high-performance 32-bit dual-core network processor
- Wide voltage input design: 9 ~ 36V
- Industrial grade software and hardware watchdog design, trouble-free and reliable operation in power station, transportation, and industrial control environment application
- Excellent electromagnetic, radiation, and static protection ability
- Industrial grade EMC electromagnetic compatibility and radiation performance, passed the GB/T17626.5-2008 Level 4 test standard
- Industrial grade components, working temperature: -30 ~ +70°C
- Industrial enclosure, suitable for extreme environments
- Fan-less heat dissipation technology effectively reduces the failure rate of the equipment
- SIM card protection design
- Meet the trouble-free and reliable operation under a vibration and shock environment

Rugged, Stable, and Reliable

- A dual watchdog design ensures that the stability of the system
- Apply a complete anti-disconnection mechanism to ensure the end data terminal is always online
- The product passed EMC test requirements
- The Ethernet interface built-in 1.5KV electromagnetic isolation protection GB/T17626.5-2008 (Level 4)
- SIM/UIM interface built-in 1.5KV ESD protection GB/T17626.5-2008 (Level 4)
- Built-in reserve phase protection and overvoltage protection for the power interface

Product Views

LED Description

LED type	State	Description
POW	Long bright	Normal power input
	No Light	Abnormal power input
SYS	Blinking Light	System startup
	Long bright	System exception
	No Light	System exception
WI-FI1	Long bright	2.4G WI-FI On
	No Light	2.4G WI-FI Off
	Blinking Light	Data In/Out
WI-FI2	Long bright	5.8G WI-FI On
	No Light	5.8G WI-FI Off
	Blinking Light	Data In/Out
CELL	Long bright	Cellular Network Connected
	No Light	Not Connected / Abnormal
	Blinking Light	Connecting
NET	Long bright	Internet Connected
	No Light	Internet Network Disconnected
GPS	Long bright	
	No Light	
WAN	Long bright	None / LED is damage
	No Light	Cable Not Connected
	Blinking Light	Data In/Out
LAN	Long bright	None / LED is damage
	No Light	Cable Not Connected
	Blinking Light	Data In/Out

Quick Start

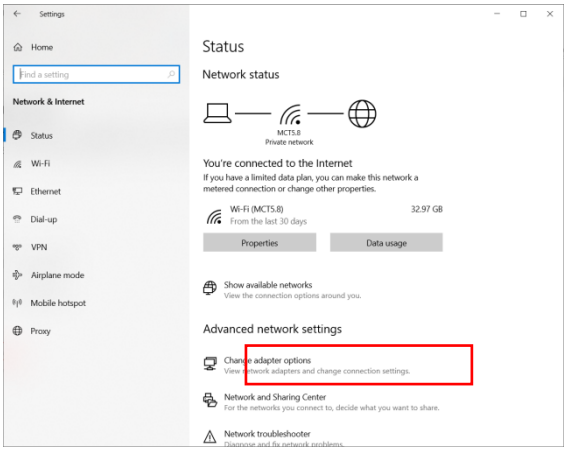
Mounting Accessories

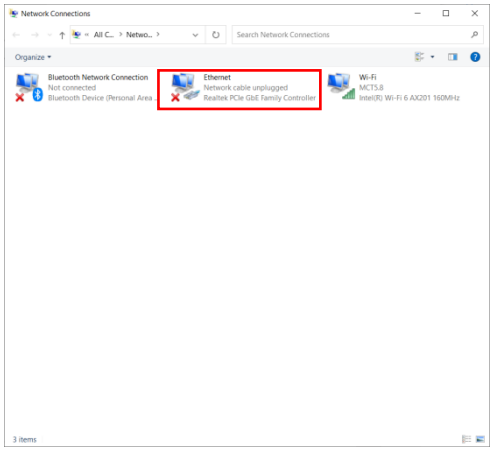
Put the WI-FI antenna, 4G antenna, and SIM card into the designated position according to the interface, connect to the 9-36V DC power supply, observe the indicator light, after the sys light flashes, the router starts normally.

Note: Please do not remove or insert the SIM card with power on, otherwise the SIM card may be damaged.

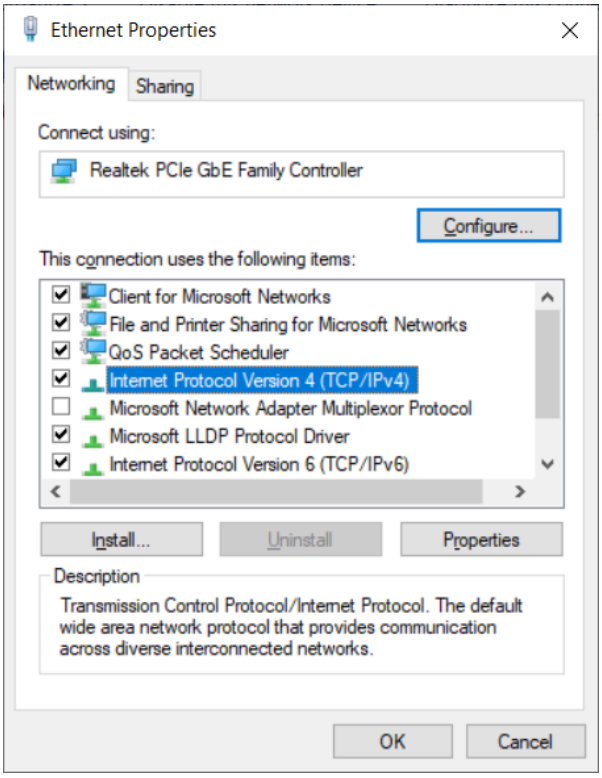
Connect to the Internet

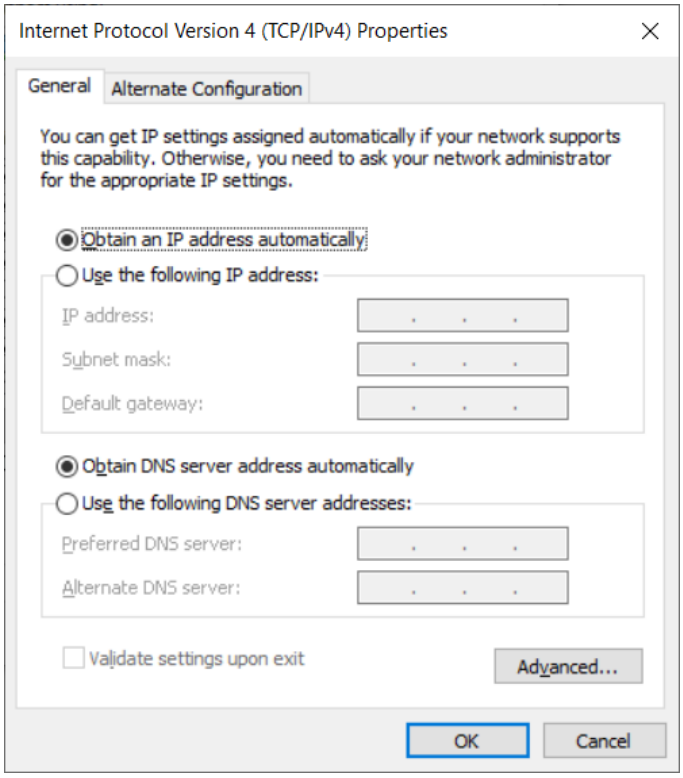
Correctly set your computer network configuration, now take win10 operating system as an example, use it to open "Settings\Network & Internet\Change Adapter Options" in Control Panel. Double-click the "Ethernet" connection icon.





In the pop-up dialog box, click "Properties", select "Internet Protocol Version 4 (TCP/IPv4)", and then click the "Properties" button; select “Obtain an IP address automatically”. After clicking OK to save, the computer will automatically obtain the IP address assigned by the router.





Login to the router

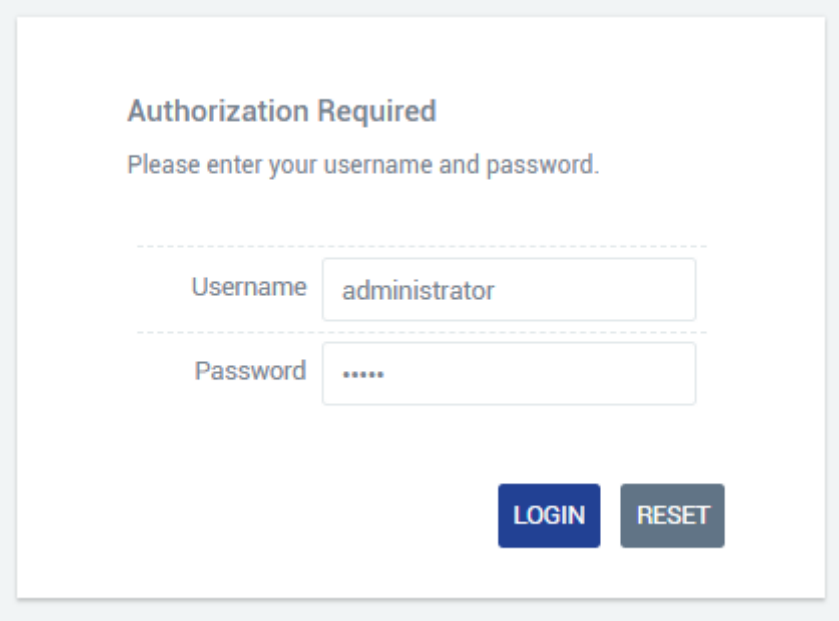
WebUI Login

Open a web browser, key in http://192.168.99.1 in the address bar and press Enter;

Advanced Settings Default Username: administrator, Default Password: admin

Basic Settings Default Username: admin, Default Password: admin

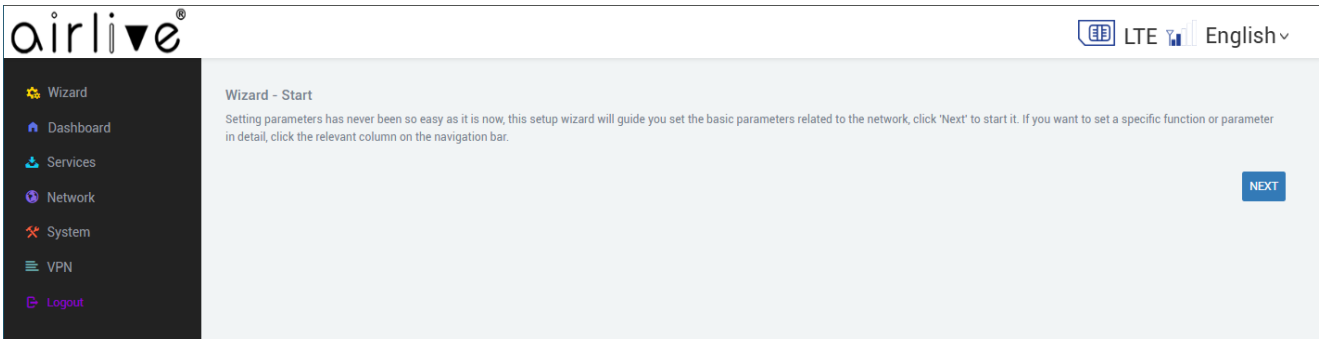
It is recommended to use Google Chrome or Mozilla Firefox browser.



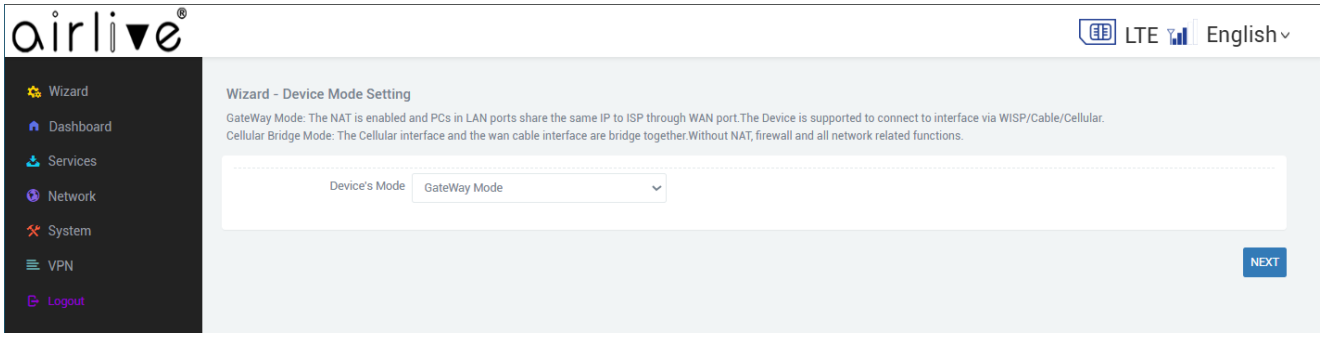
Note: For the first time, after you see the login page you will see the setup wizard page. You can configure the router directly according to the setup wizard.

Setup Wizard

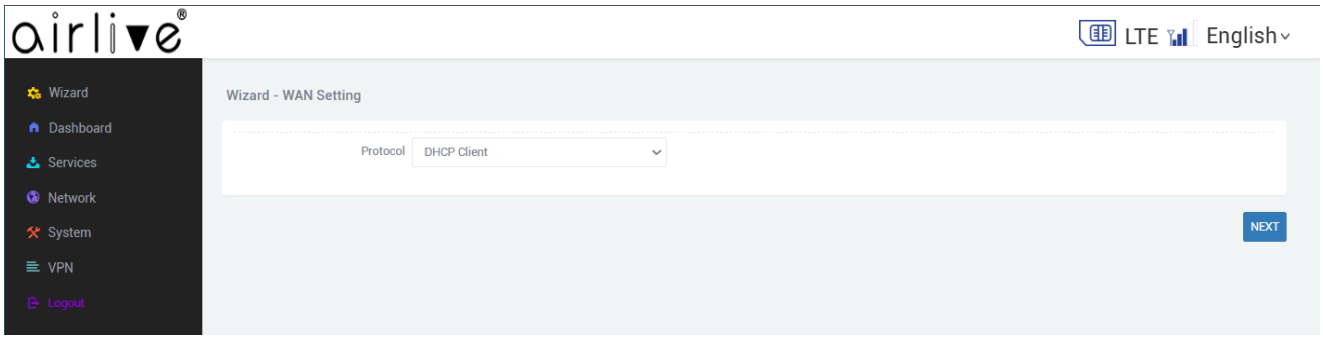
For the first time, after you see the login page you will see the setup wizard page. You can configure the router directly according to the setup wizard.



Click Next to enter Quick Configuration - Device Mode Settings, where you can set the device's working mode.



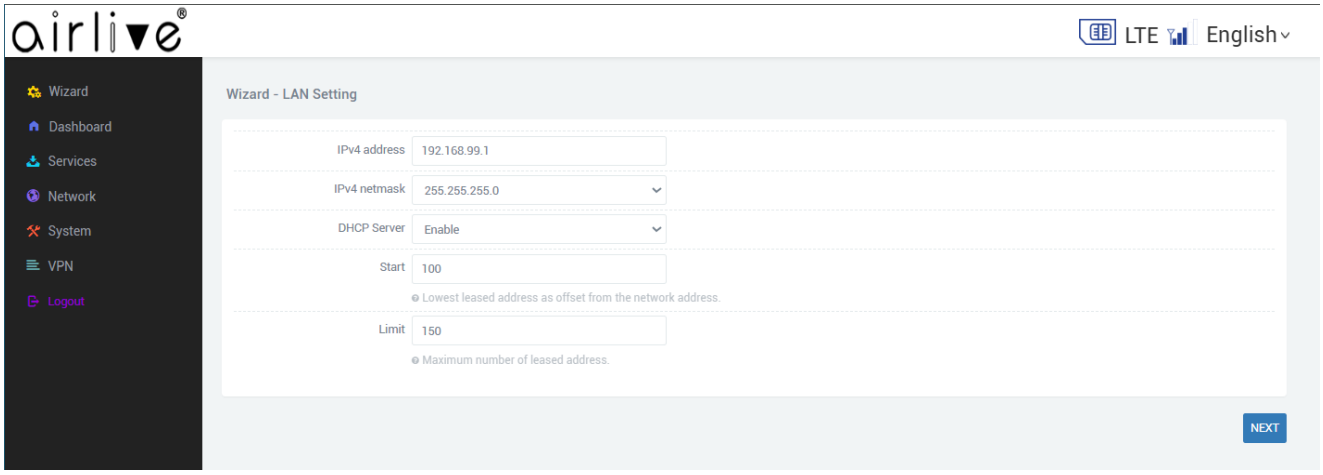
Click Next to enter the Quick Configuration - Wired WAN Configuration interface.



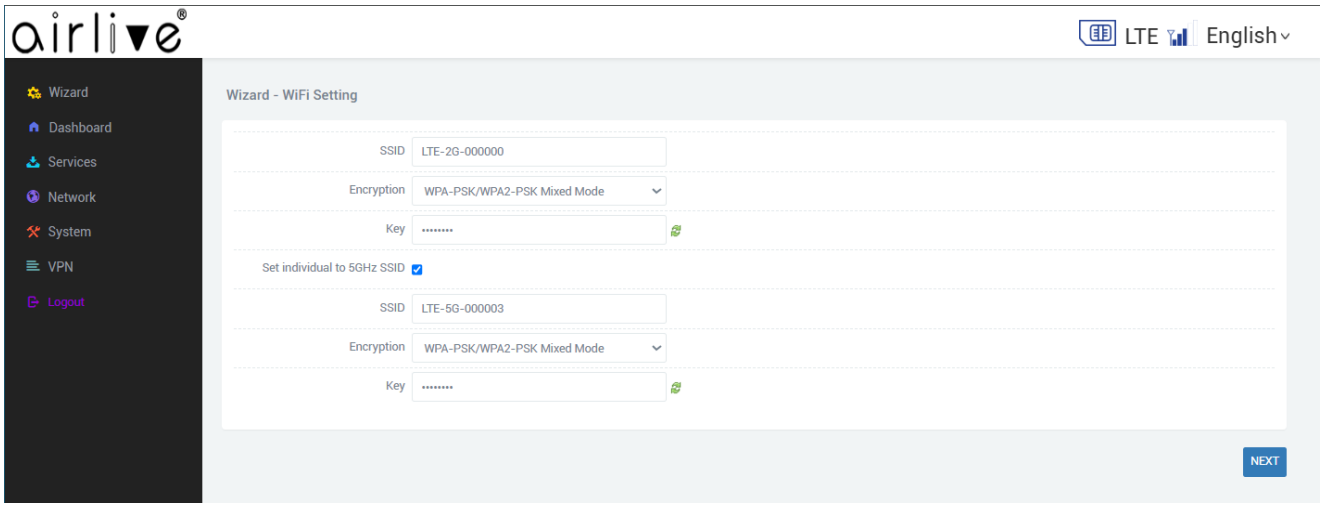
Configure WAN - description of the connection method:

WAN Option	Description	How to Set
DHCP	When connected. Automatically obtain the IP address and subnet mask assigned by the server	No configuration
PPPoE	The router is connected to the optical fiber/Cable, and the account and password provided by the operator are used to dial up the Internet	Setup access username and password
STATIC	Manually assign IP address and subnet mask	Setup IP address, Subnet Mask, Gateway, and DNS.

Click Next to enter the Quick Configuration - Local Address Configuration interface, where you can modify the local IP address and subnet mask.

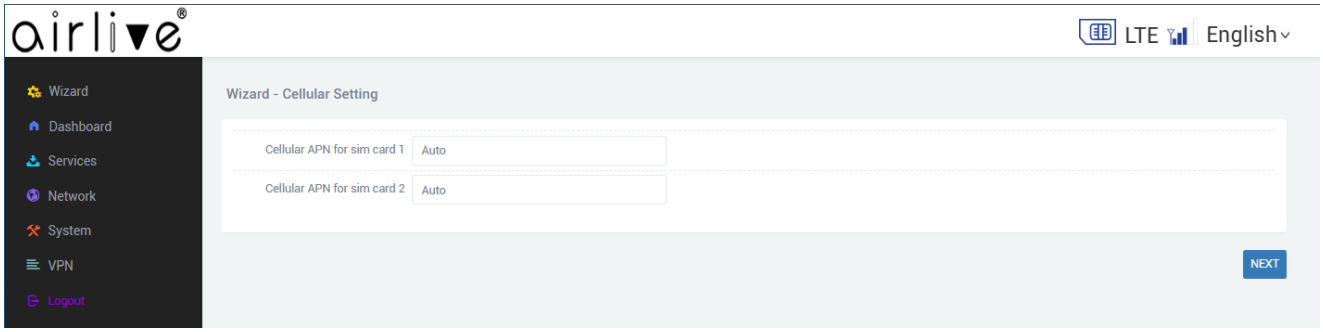


Click Next to enter the quick configuration-Wi-Fi configuration interface.

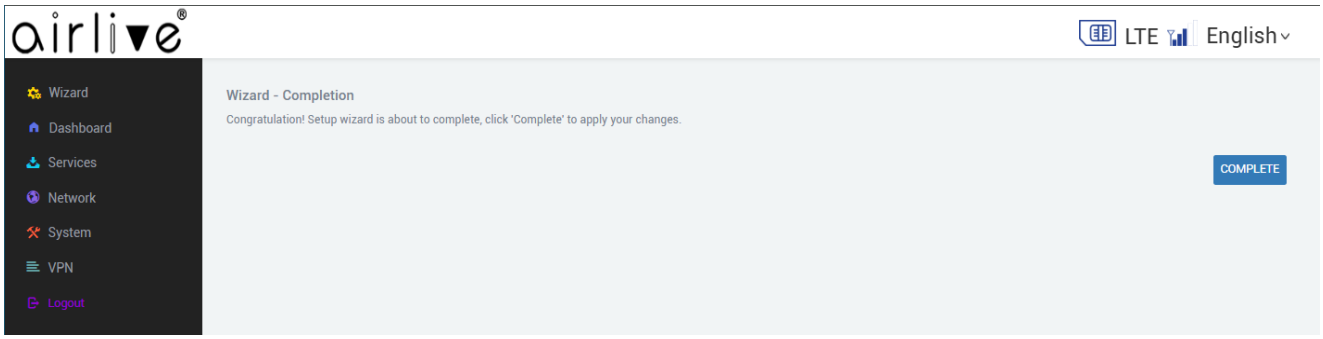


WI-FI Option	**Description**	**How to Set**
WI-FI Name	Wi-Fi SSID Name	You can fill in any name you like
Encryption	Wi-Fi Encryption Method	Click the drop-down box, there are 4 encryption methods for you to choose, of which None means no encryption, any client can directly connect to the Wi-Fi
Password	Other than None option, a password is required for Wi-Fi encryption methods	You can fill in a password of 8~64 digits

Click Next to enter Quick Configuration - Mobile Network APN Settings, where you can set up the APN.



Click Next to enter the Quick Configuration-Complete interface

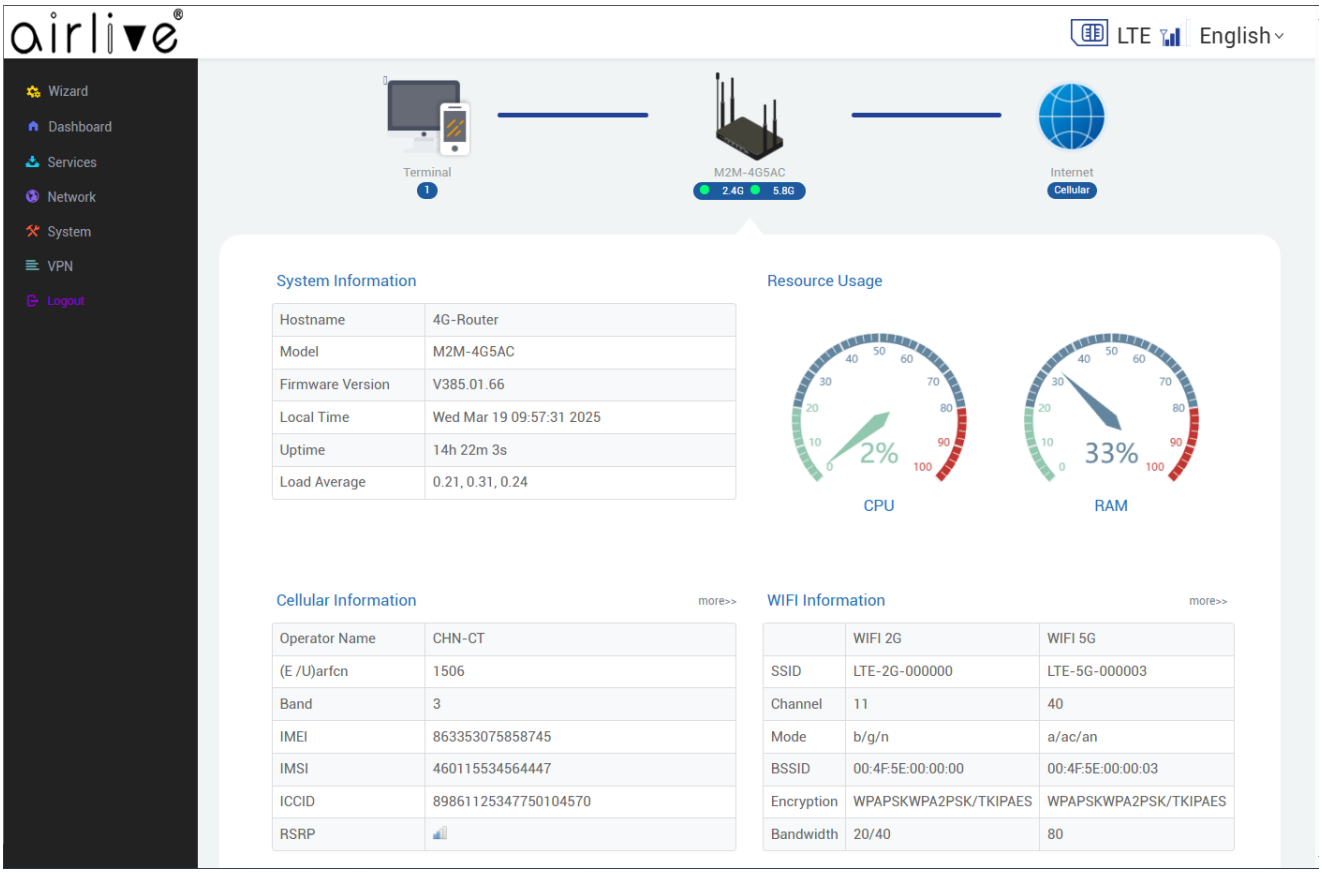


Click Finish and Configure to complete and apply.

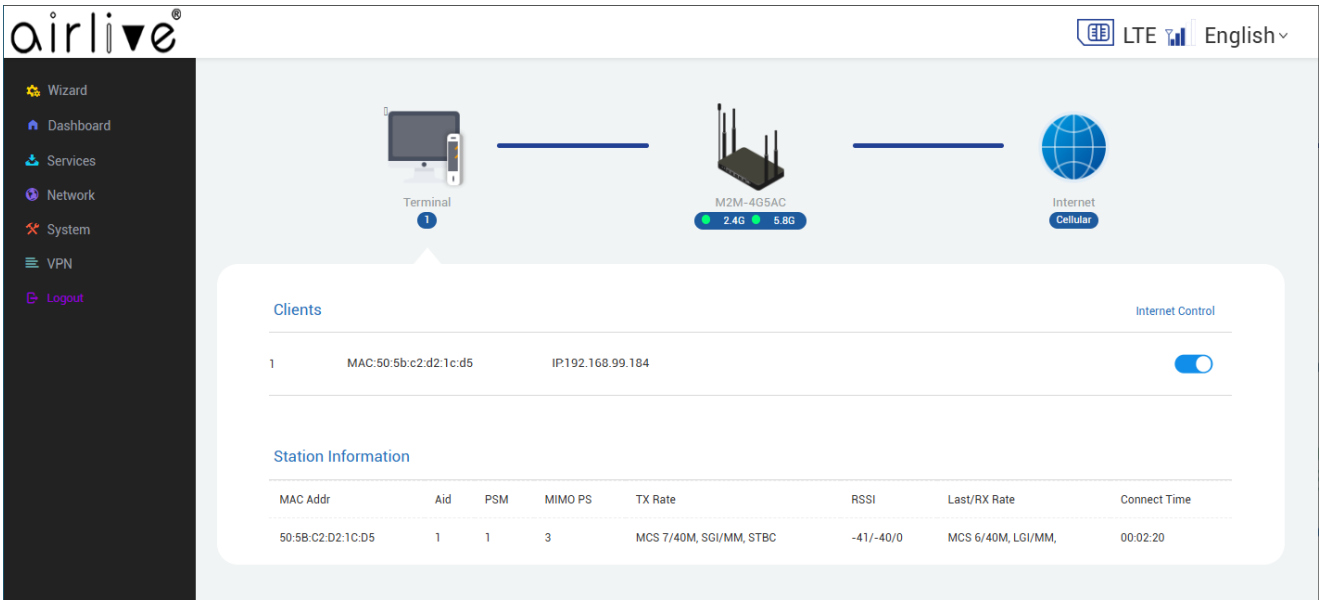
Section Page function introduction

Device Status

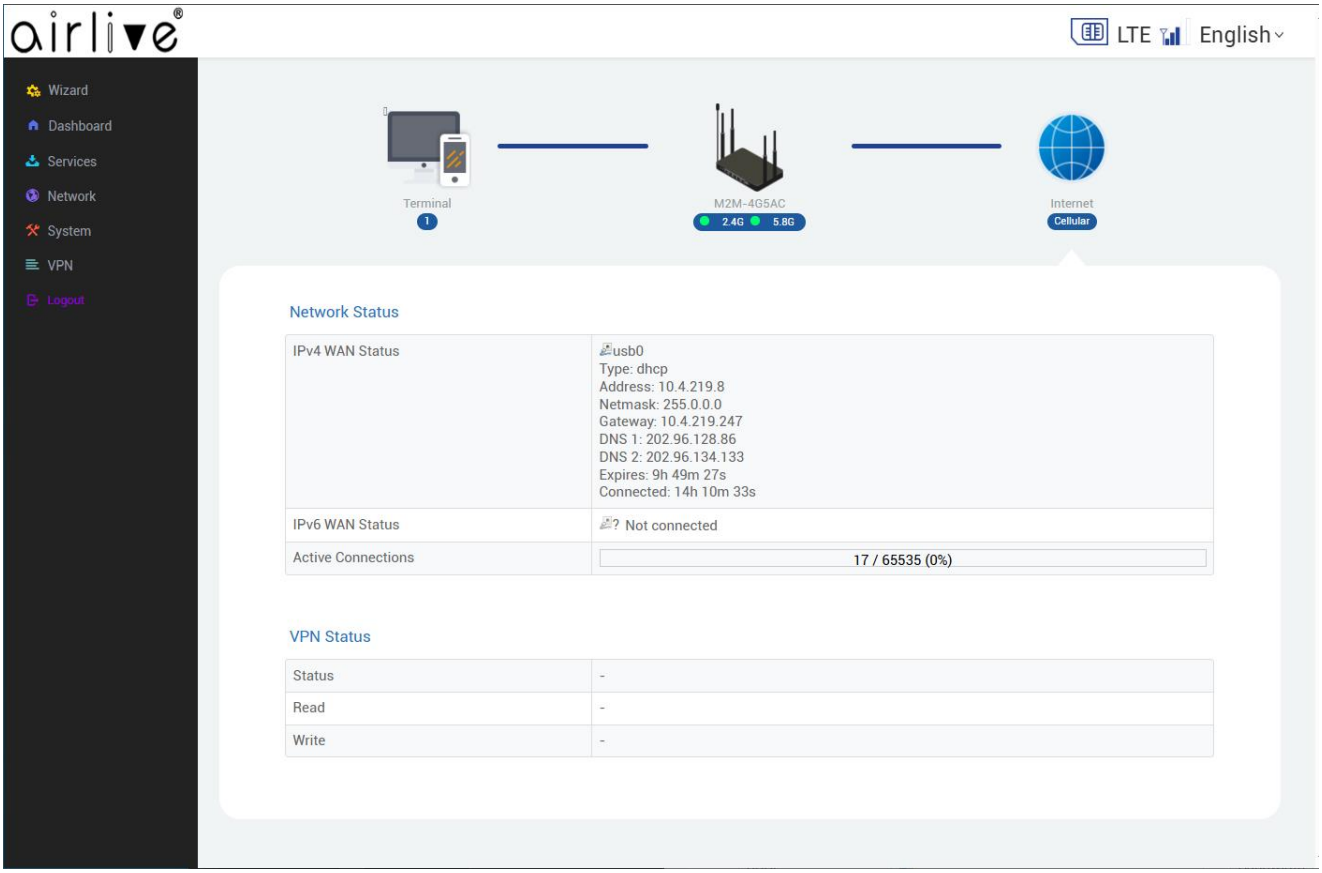
Through the status page (Dashboard), you can see the router's version number, 4G information, Wi-Fi information, network connection and other basic information.



By clicking the computer icon on the upper left, you can enter the user management page, where you can view the user's connection status and manage the user's Internet access.

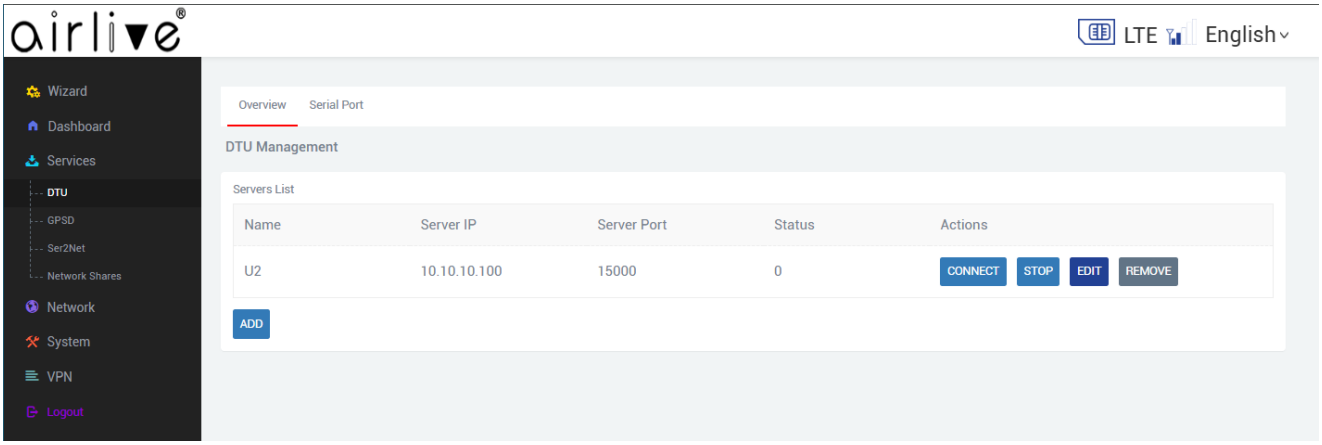


By clicking the globe icon on the upper right, you can enter the page to view the dial-up, relay, and network connections.



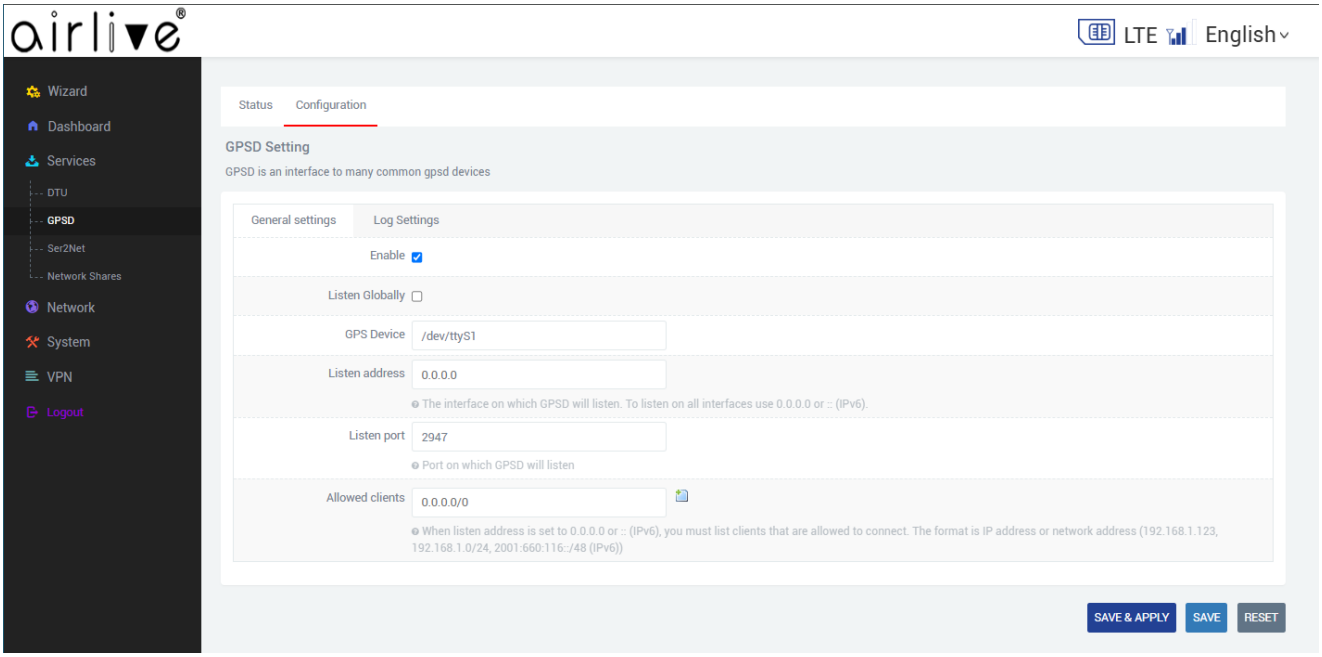
Services – DTU

This page provides the DTU client and serial port configuration for the router.



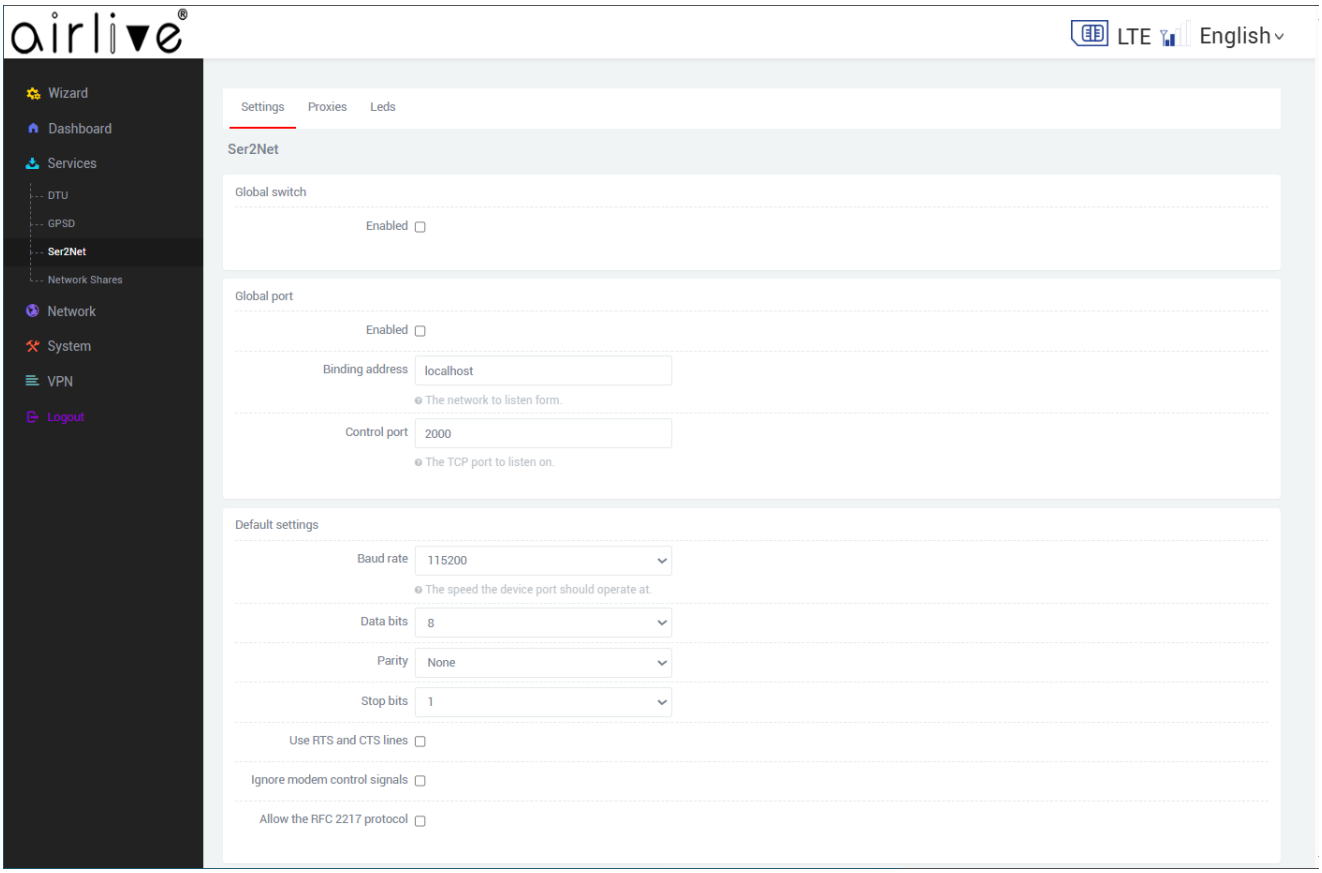
Services – GPSD

This page provides the GPS positioning function and configuration of the router.



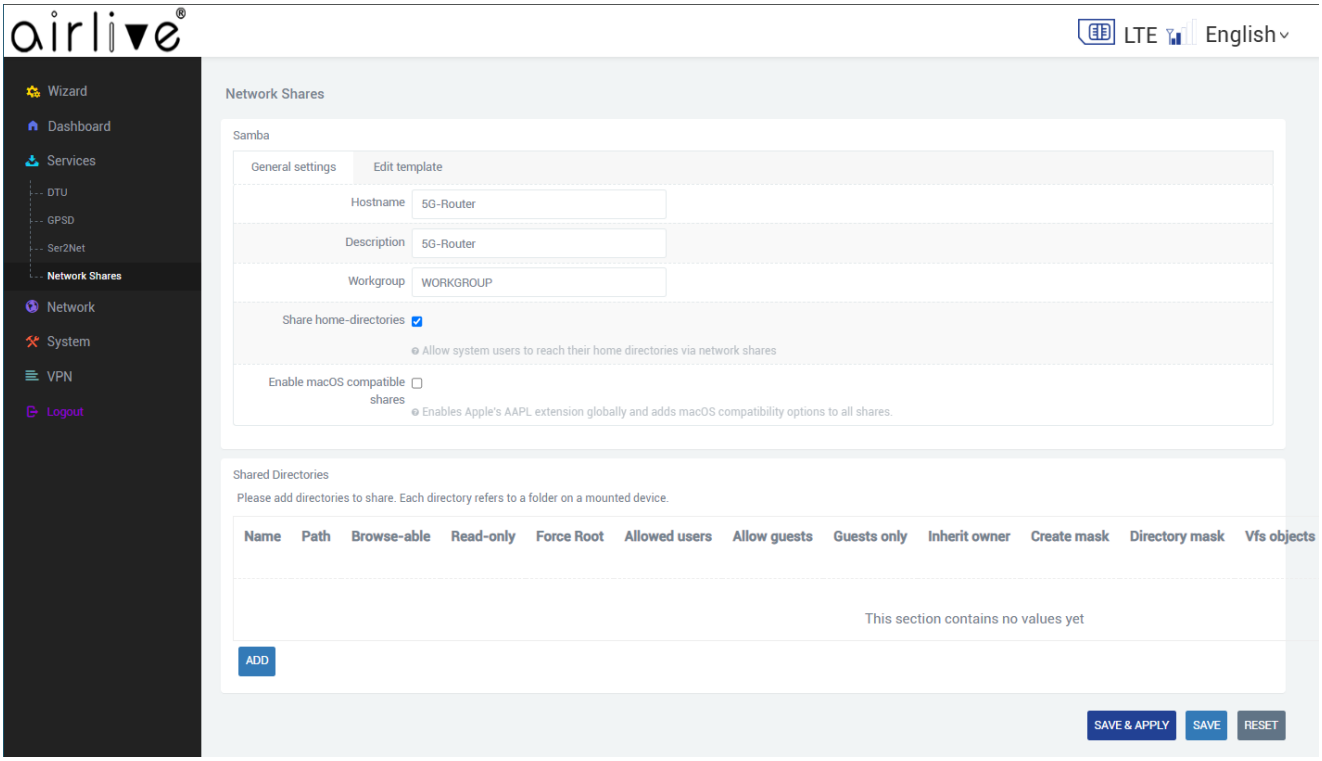
Services – Ser2Net

This page provides the DTU server and serial port configuration of the router.



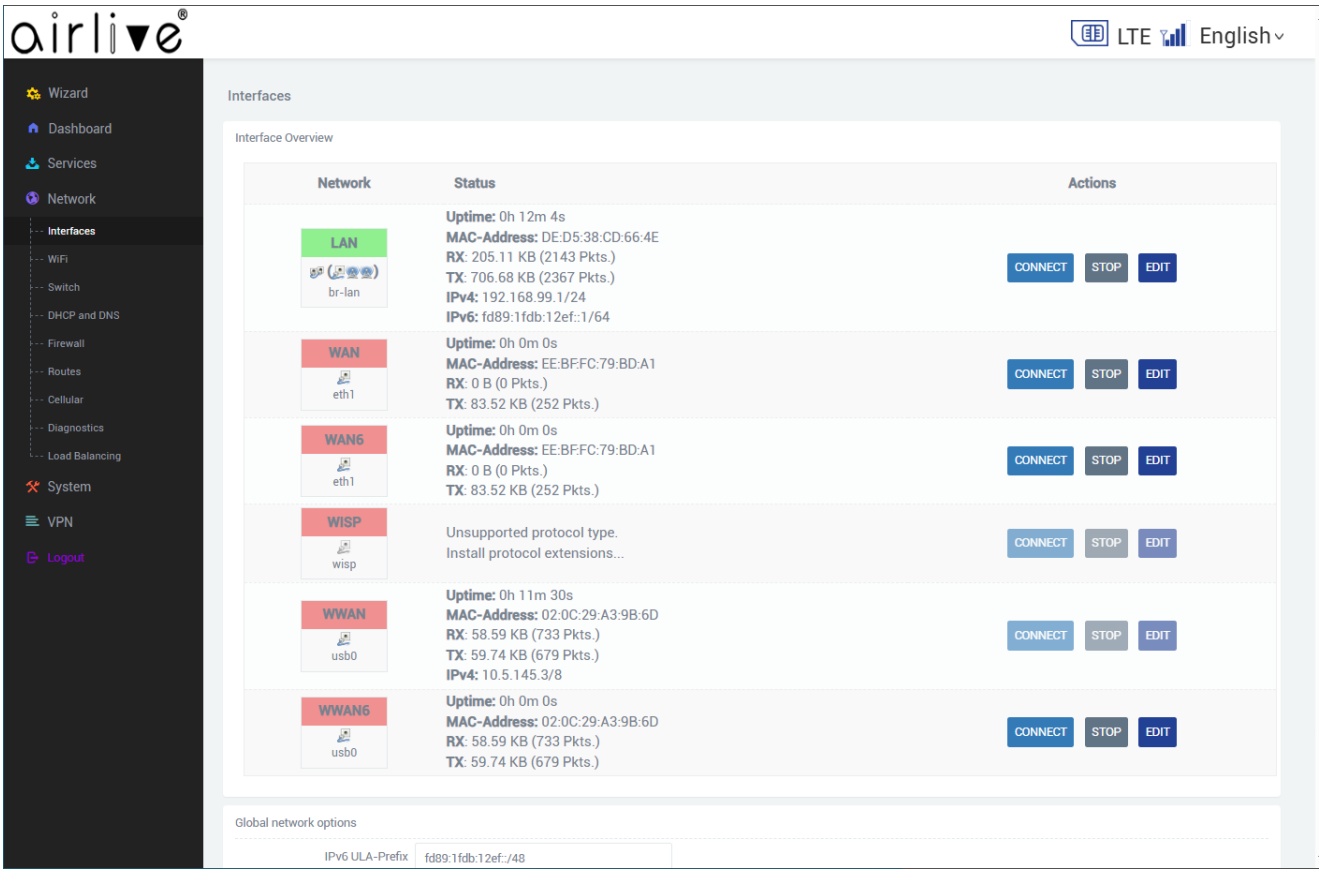
Services – Network Shares

This page provides the network storage sharing function and configuration.

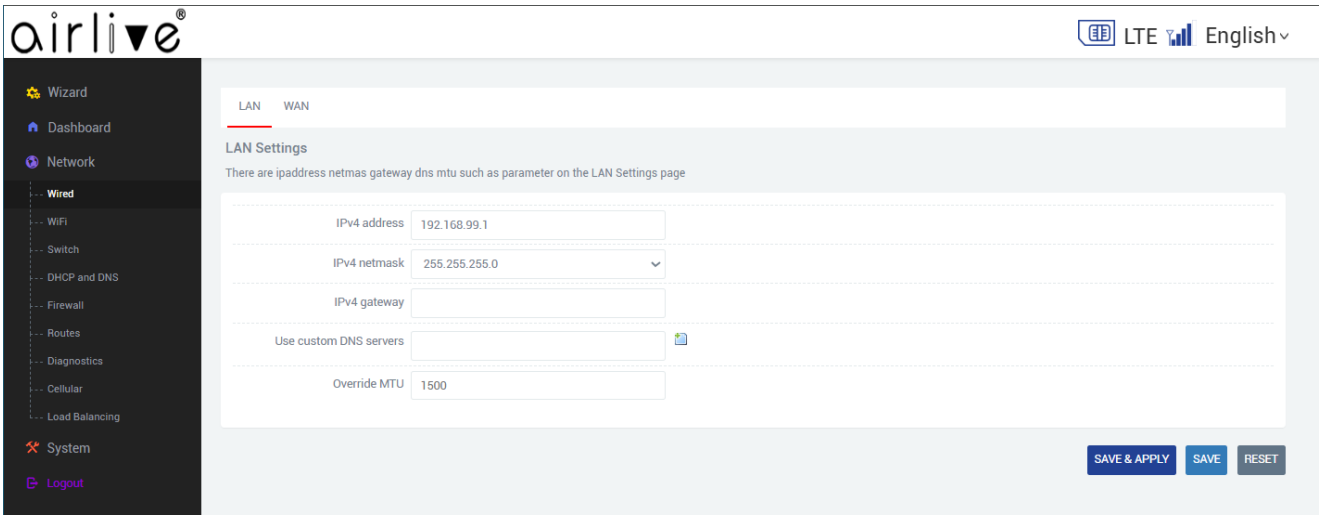


Network – Interfaces

Configure and view the parameters of the router's LAN and WAN ports.



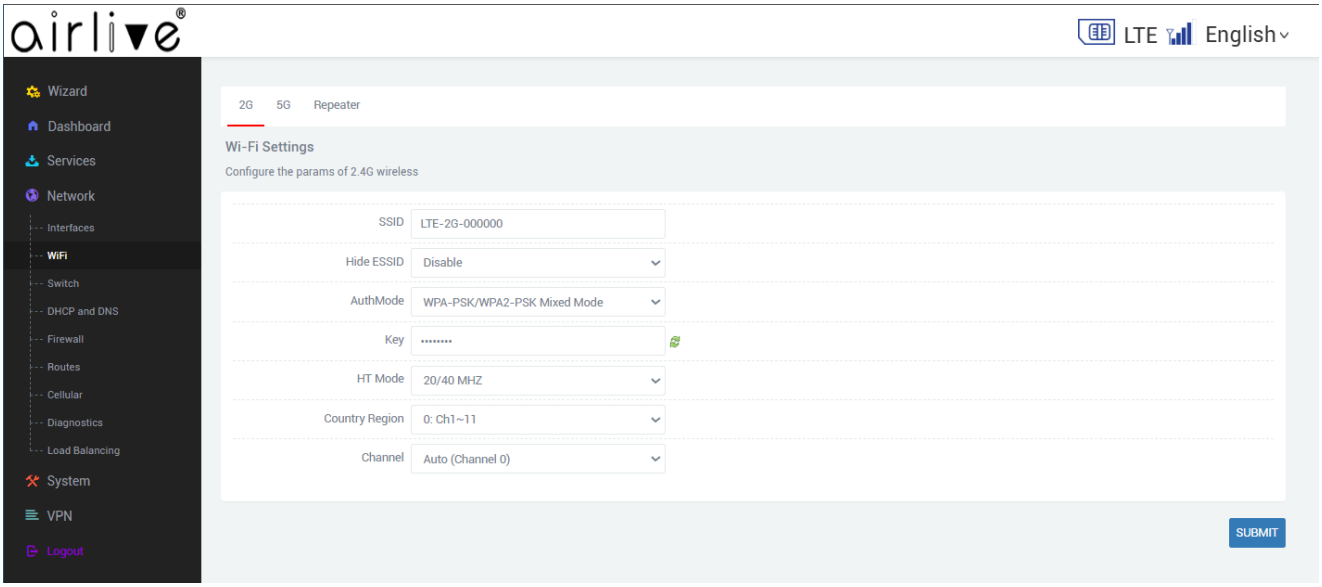
You can use the admin account to log in to the router page, the wired network can set the WAN port and LAN port of the router using simple configuration.



Network – Wi-Fi

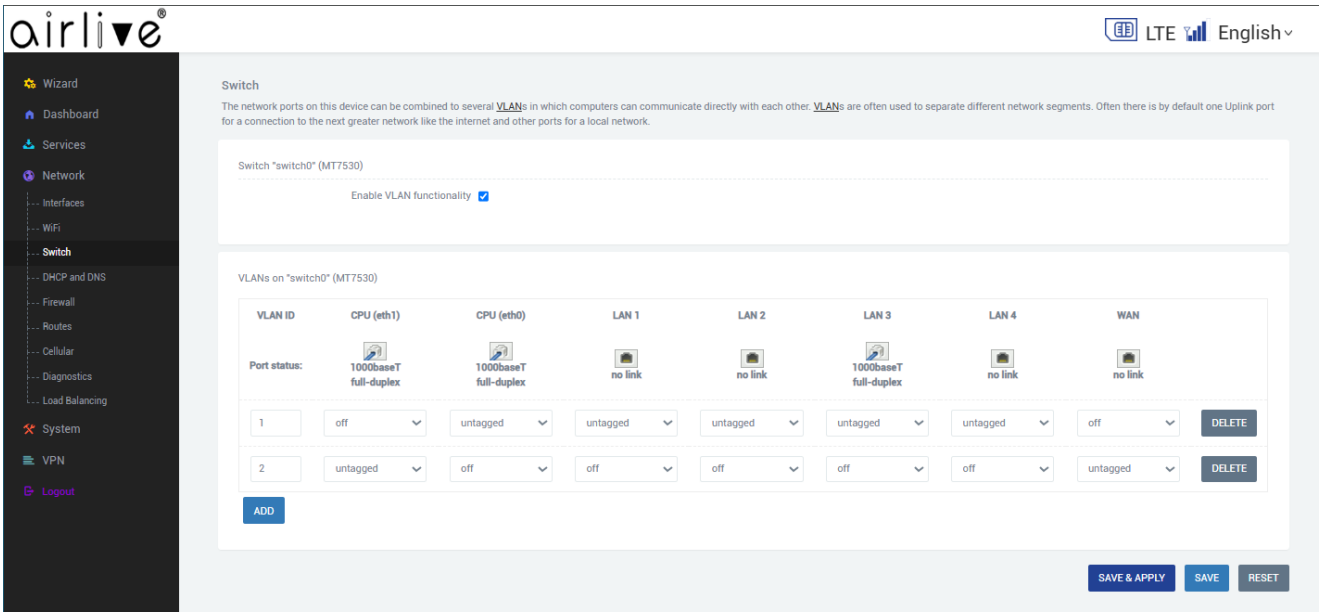
Configure and view the parameters of 2.4G and 5.8G wireless routers.

You can set the Wi-Fi name, encryption, channel and other common parameters. Also, Wi-Fi can be set up as a Wi-Fi relay for the router.



Network – Switch

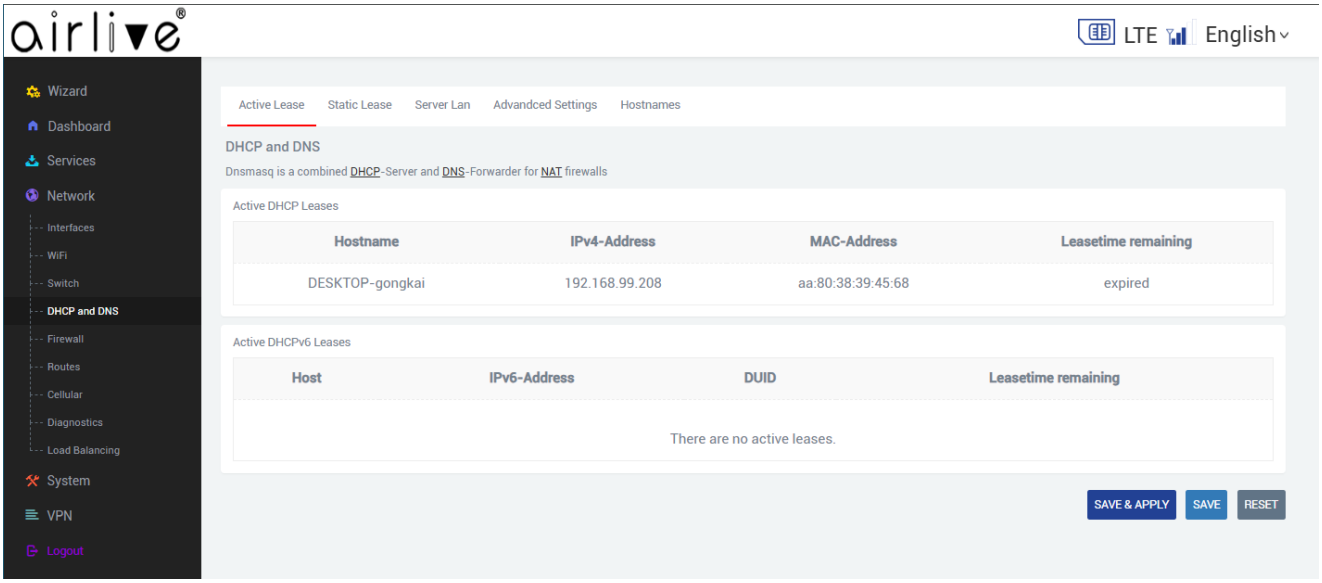
Configure and view the parameters of the VLAN for switch functionality.



Network – DHCP and DNS

Configure and view router DHCP and DNS parameters.

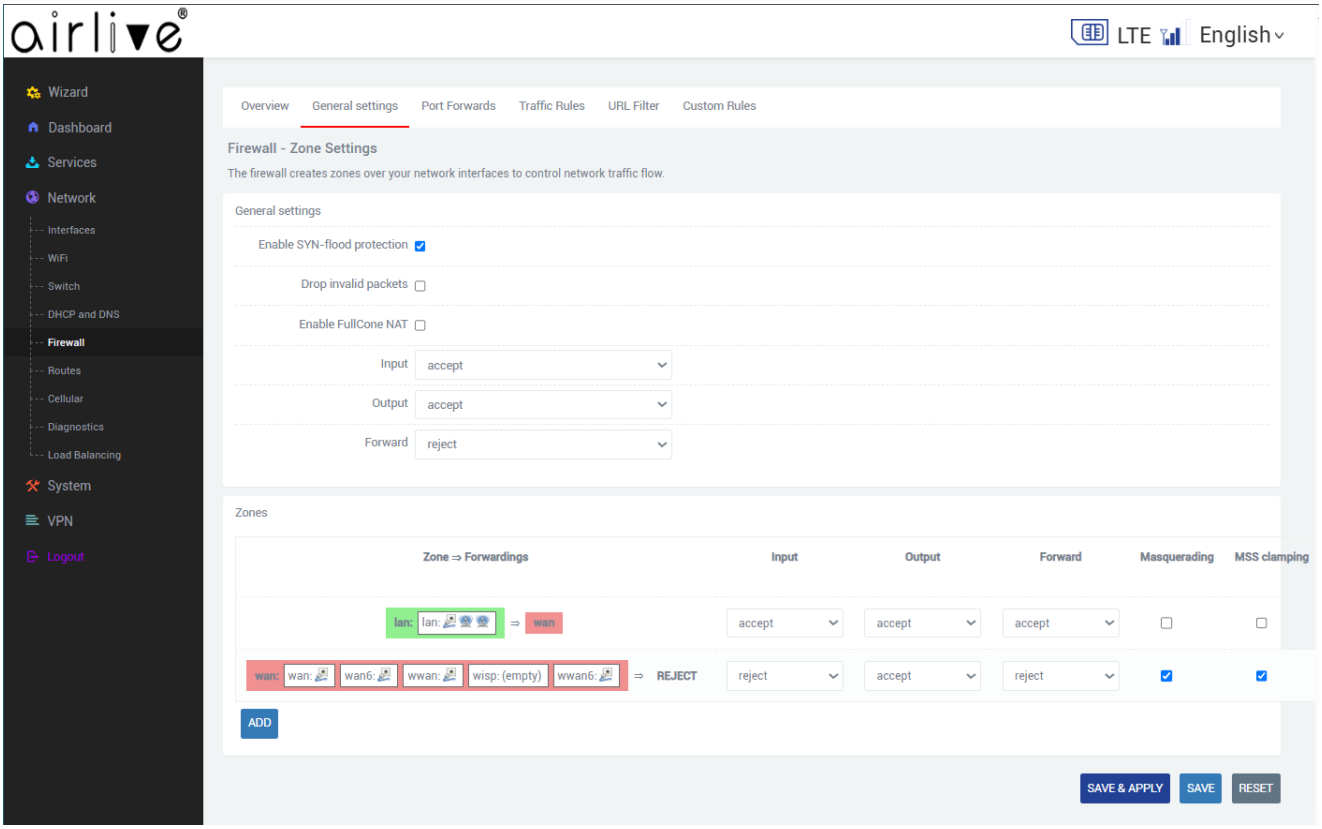
In the DHCP server configuration, you can do the IP address and MAC address binding. You can also set the DHCP allocation method. Since the settings on this page may affect the Internet access, it is recommended that to get someone with computer network knowledge to do the setup.



Network – Firewall

Configure and view the parameters of the router firewall.

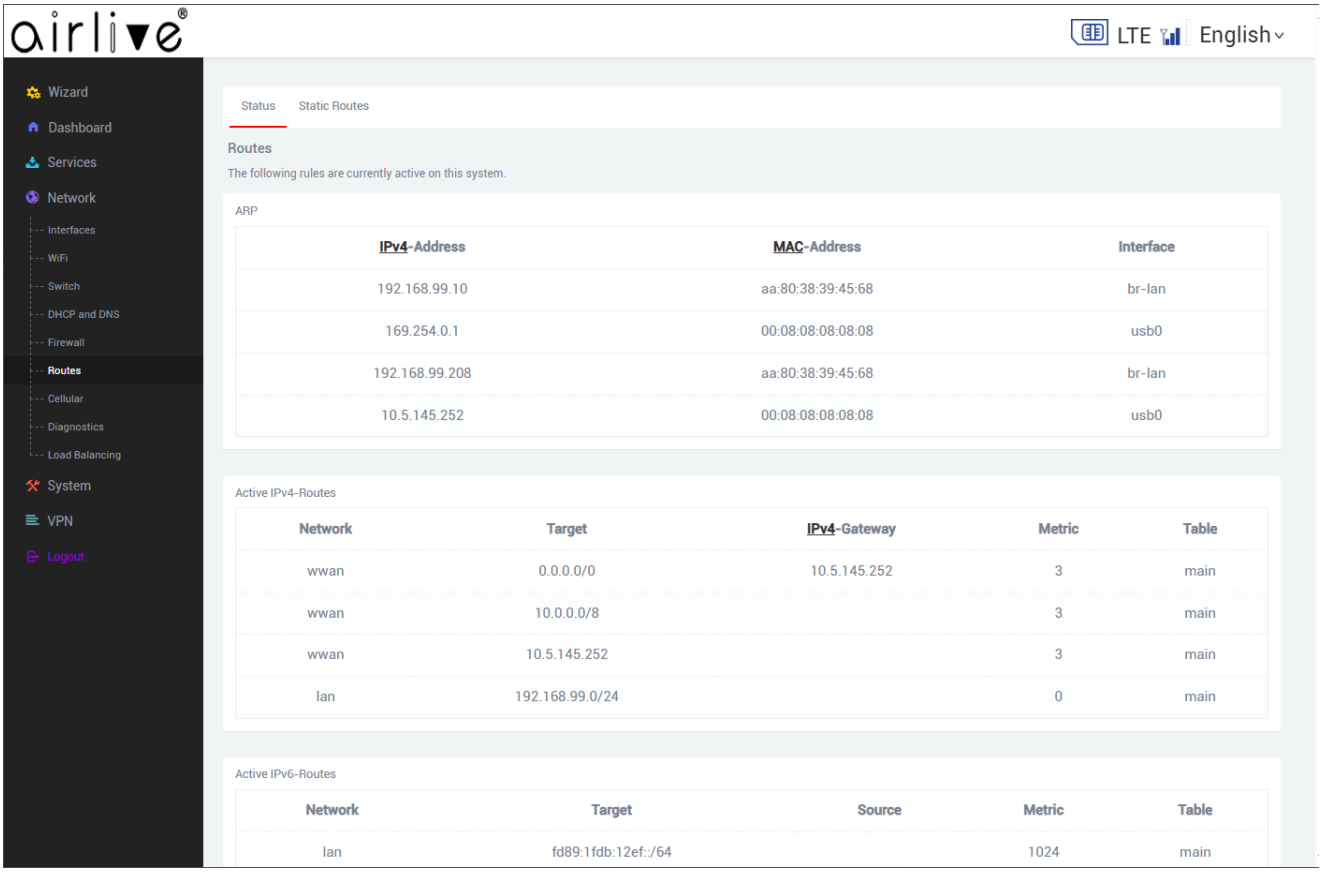
You can set the firewall rules of the router. Since the settings on this page may affect the Internet access, it is recommended that to get someone with computer network knowledge to do the setup.



Network – Routes

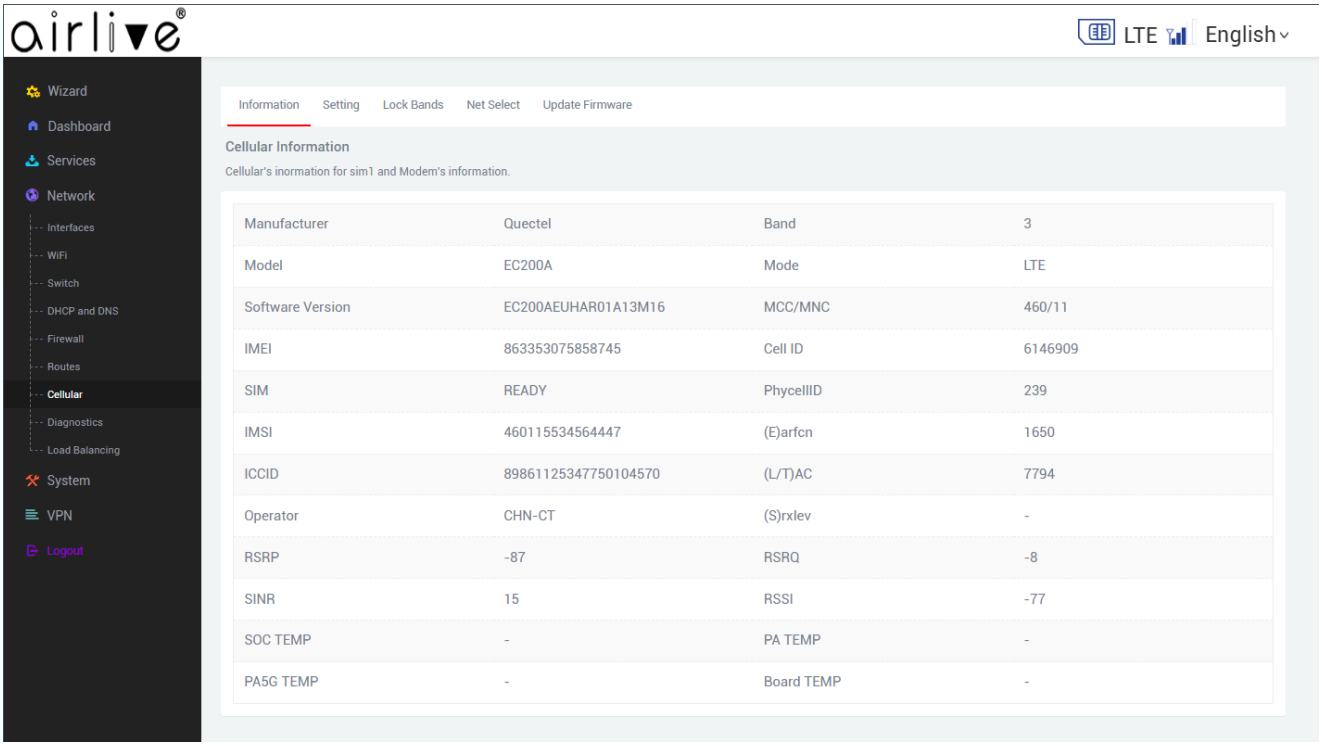
Configure and view the parameters of the router routing table.

Set up static routing rules in the router. Since the settings on this page may affect the Internet access, it is recommended that to get someone with computer network knowledge to do the setup.



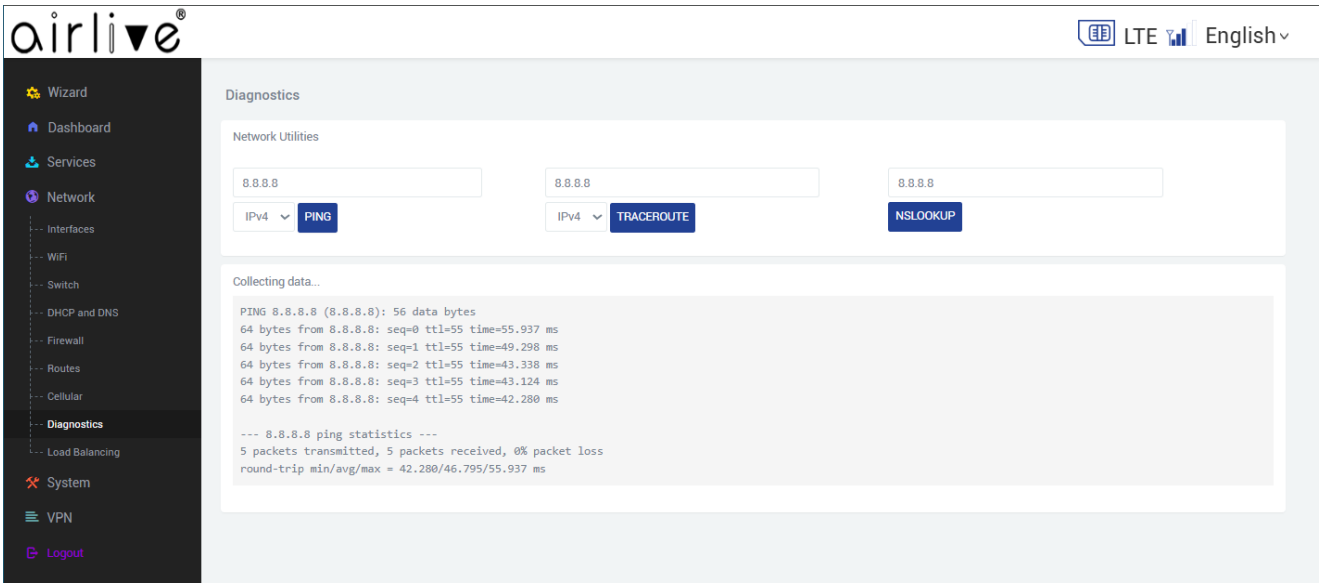
Network – Cellular

Configure and view router cellular network parameters, including information about mobile networks and mobile network settings.



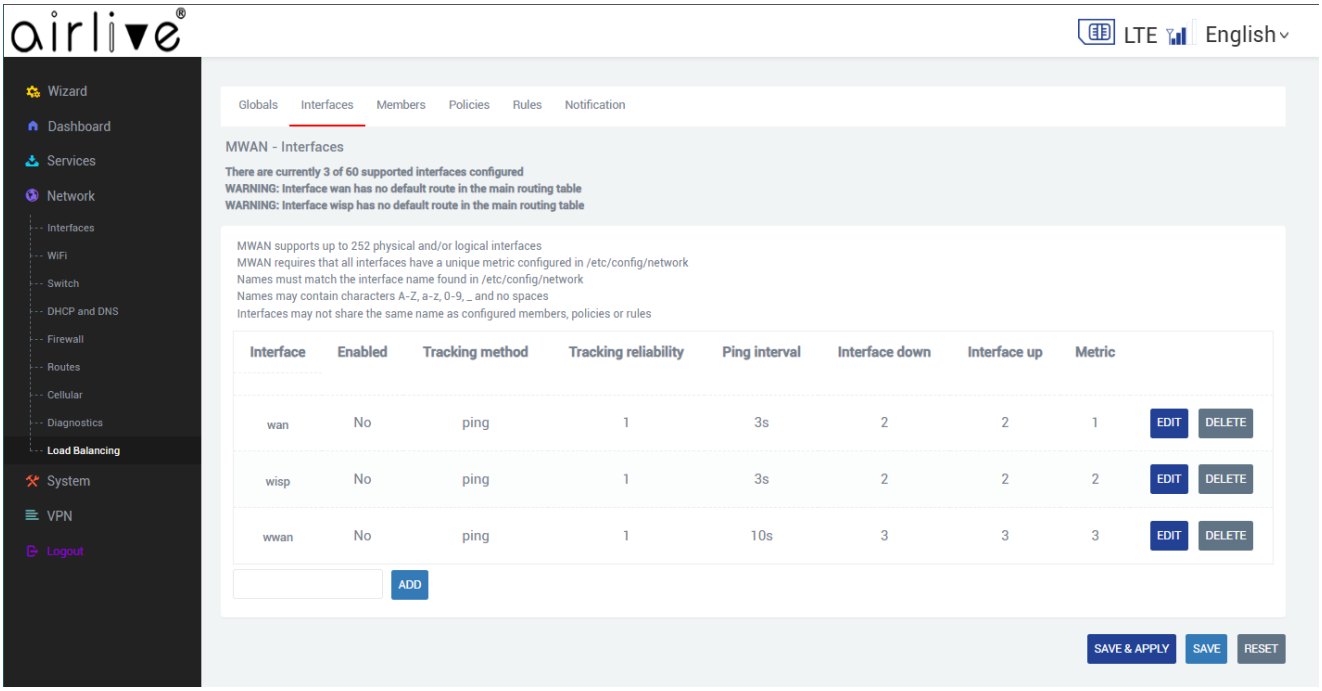
Network – Diagnostics

You can use the functions to check the network status of the router



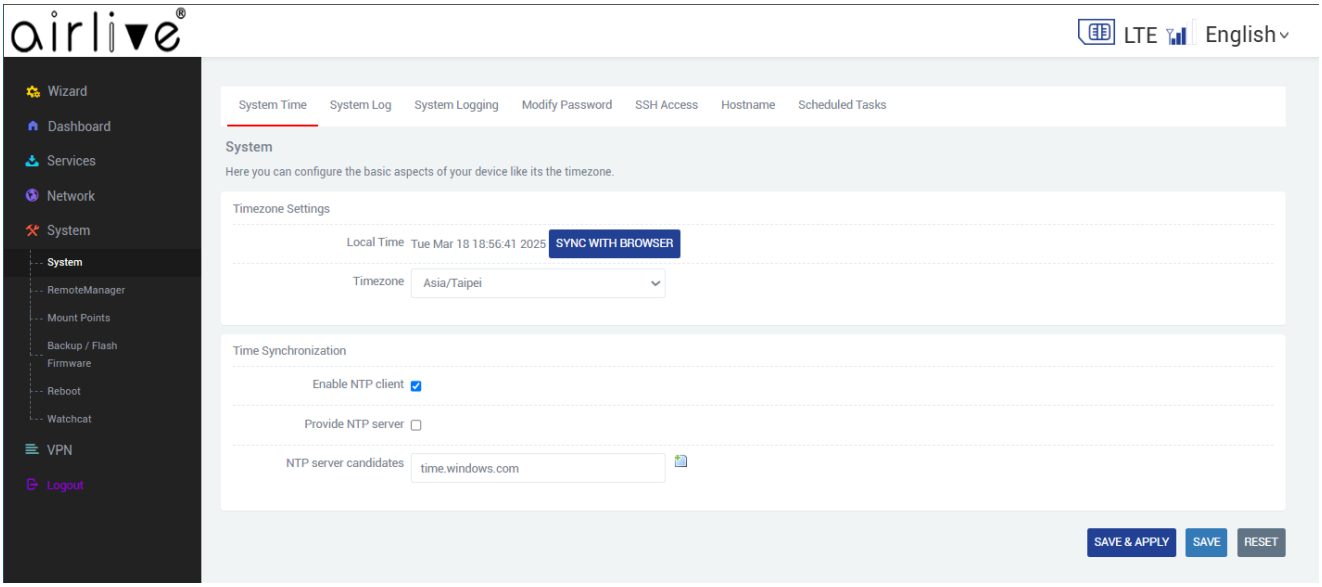
Network – Load Balancing

Configure and view parameters for router load balancing.



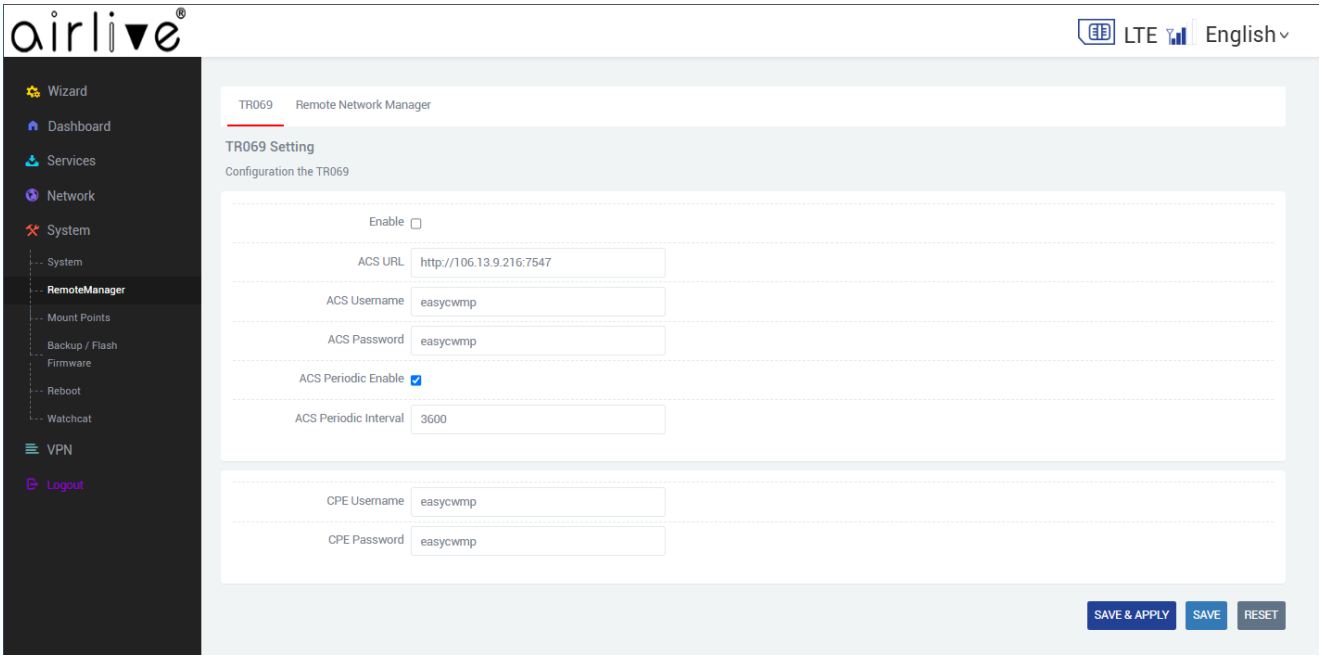
System – System

You can configure the router's time zone, import and export configuration, firmware upgrade, change system language.



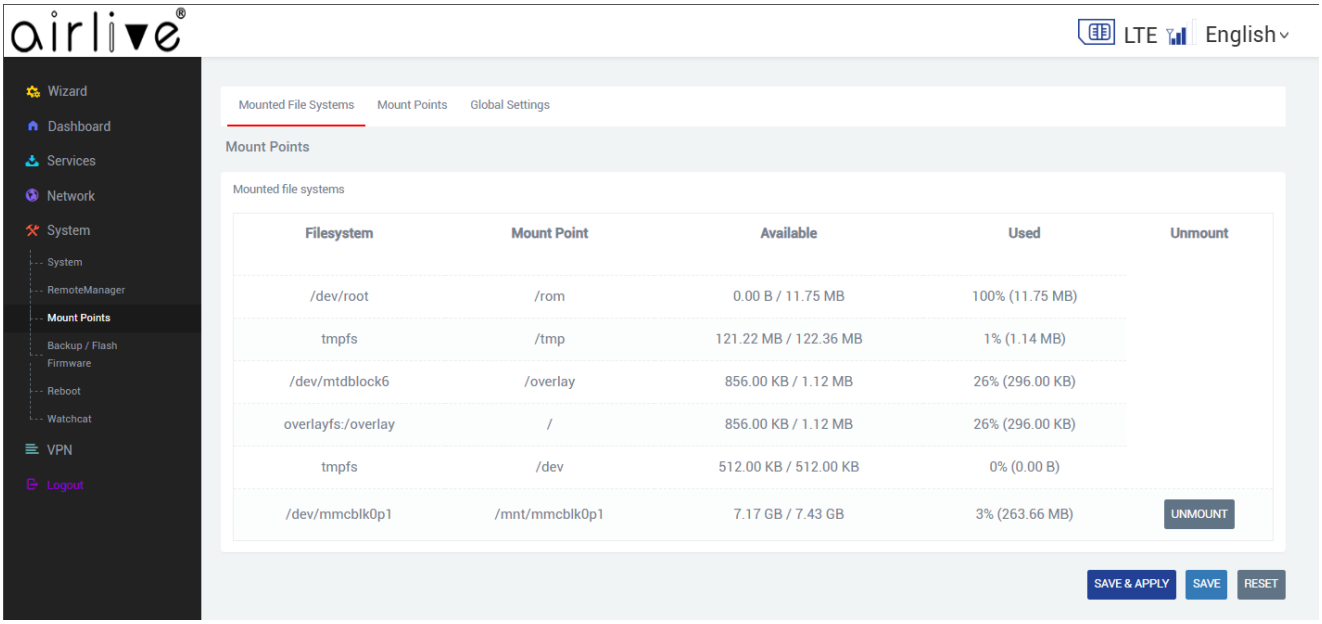
System – RemoteManager

You can configure and view the information of TR069.



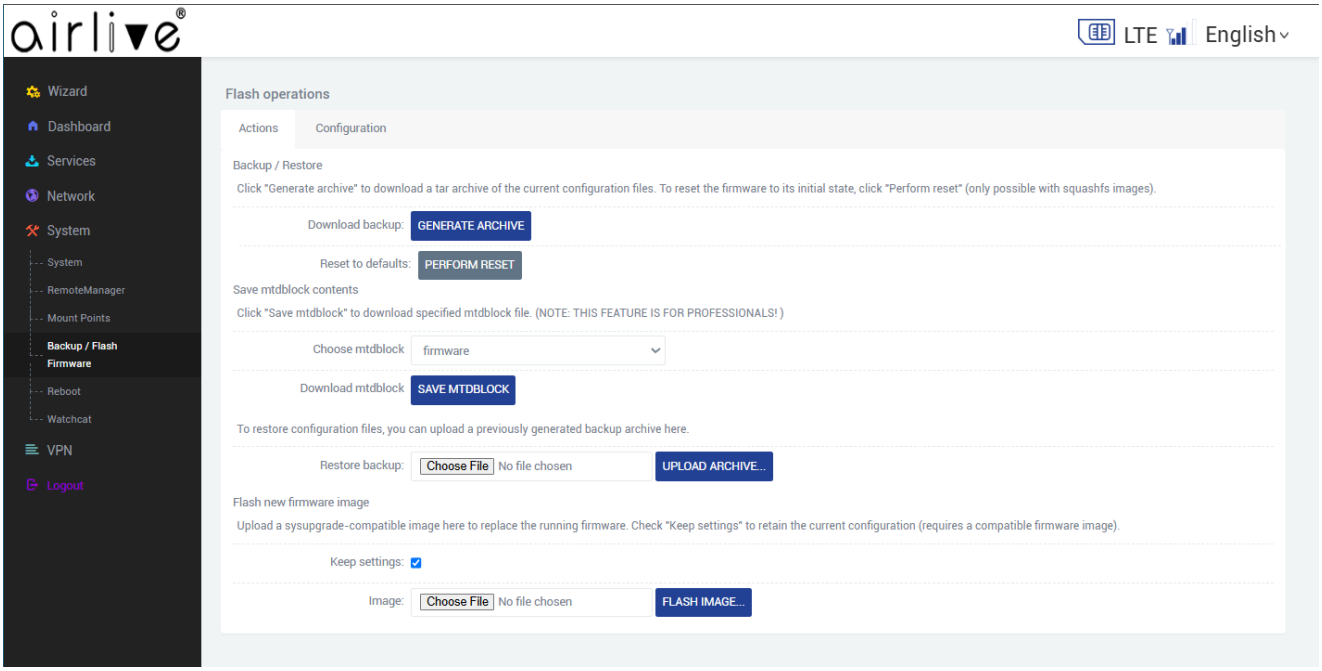
System – Mount Points

You can configure and view information about disk mount points.



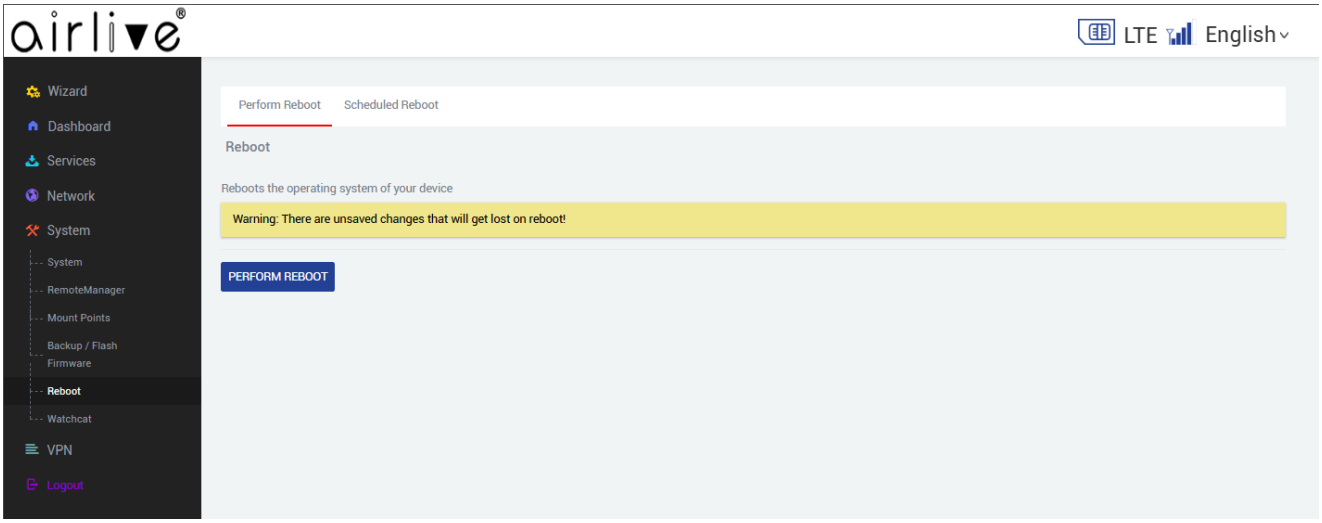
System – Backup/Flash Firmware

You can perform backup and restore router configuration, restore factory settings, and upgrade router firmware.



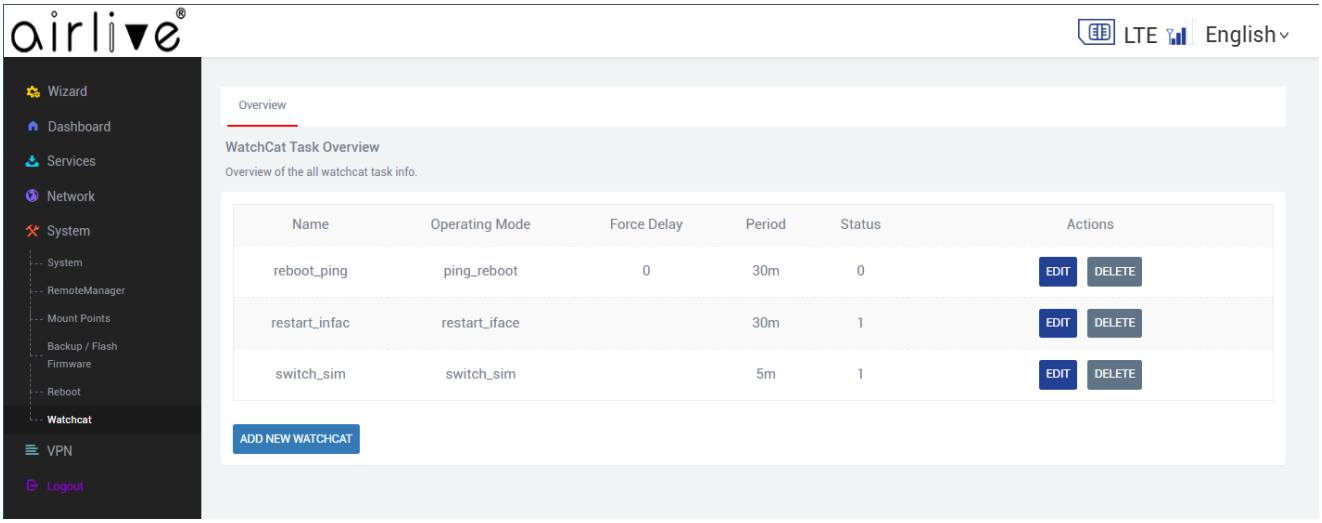
System – Reboot

You can restart the router immediately or periodically.



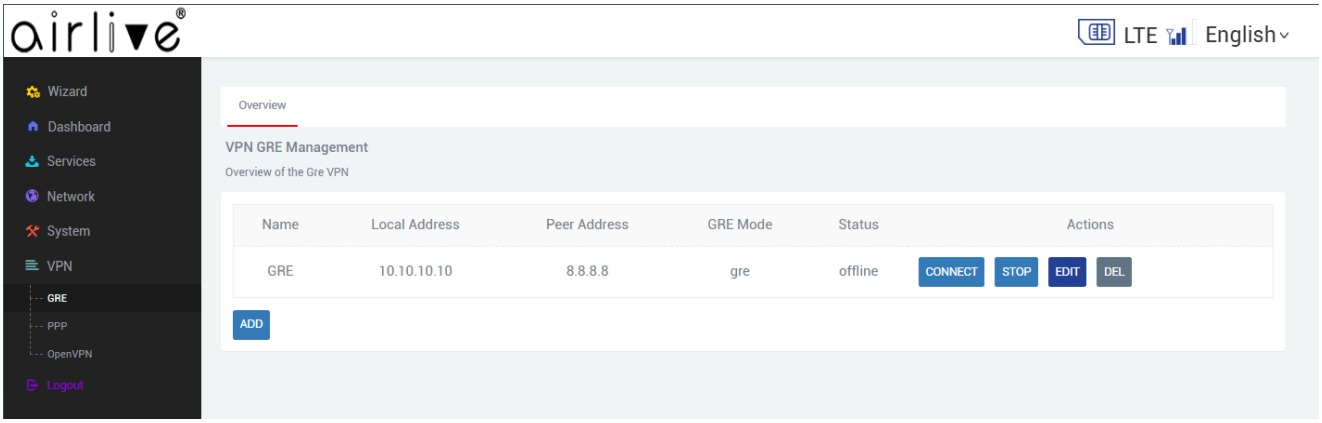
System – Watchcat

You can set some scheduled tasks based on the operating mode.



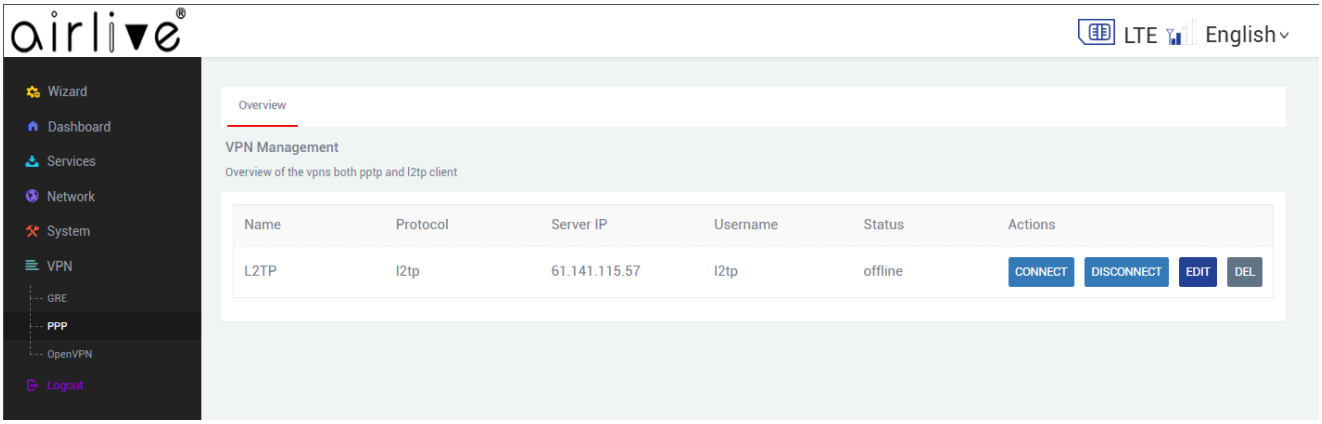
VPN – GRE

You can configure GRE VPN on this page.



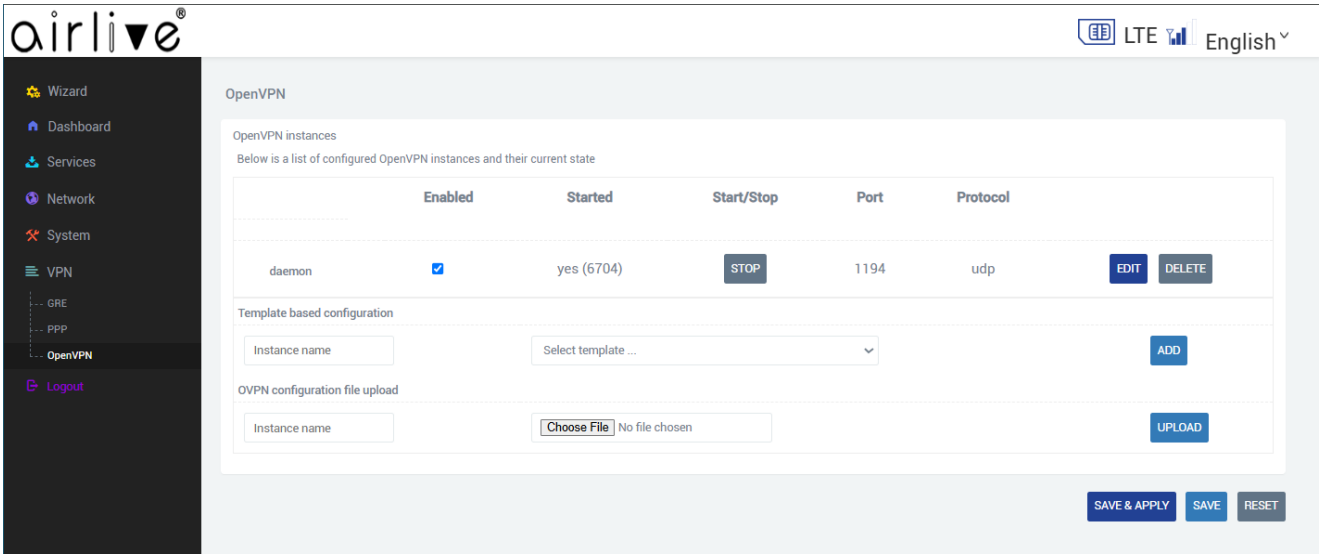
VPN – PPP

You can configure PPTP/L2TP VPN client on this page.



VPN – OpenVPN

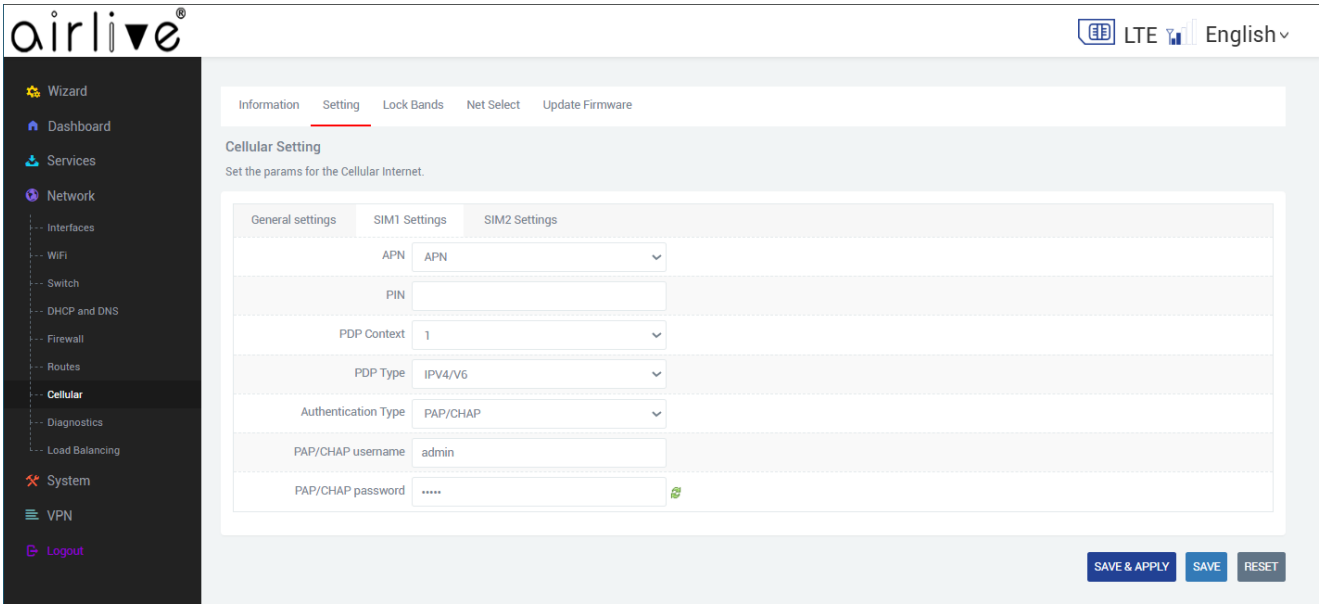
You can configure OpenVPN on this page.



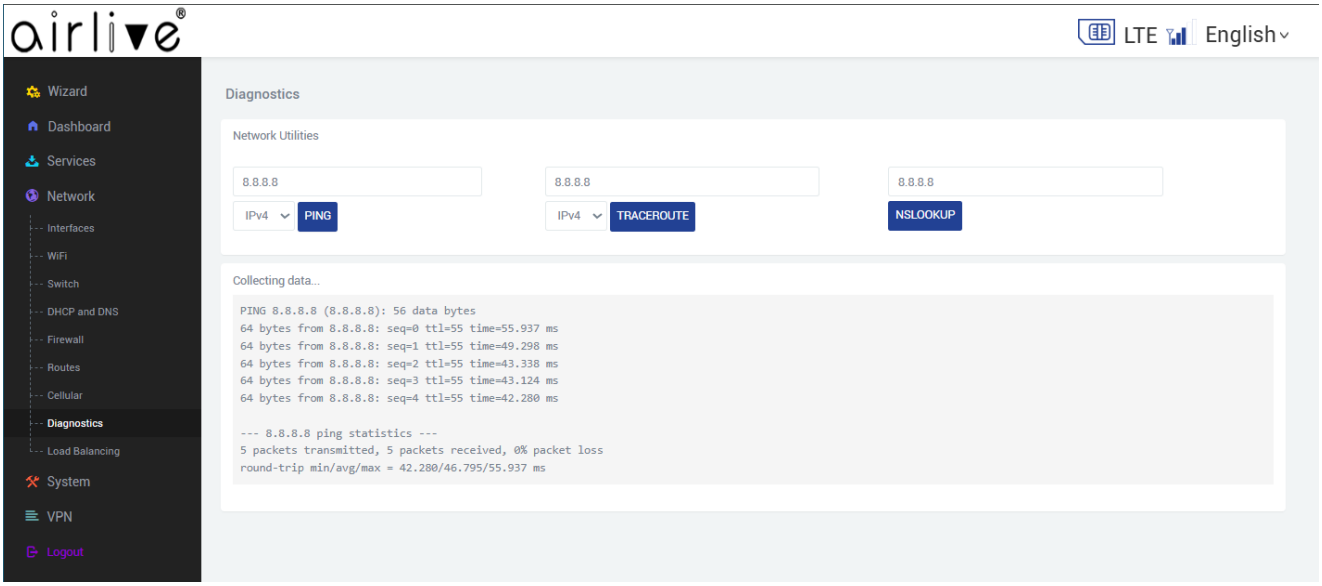
Typical Application – APN/VPDN Dedicated Network Card

When the user's card uses a private network card with APN function, the router can be modified according to the following configuration, so that the router can connect to the private network normally.

1. Find the Cellular Network in the Network menu, click "Set Cellular Network", fill in the APN or VPDN parameters provided by the operator in the corresponding position, and click "SAVE & APPLY".



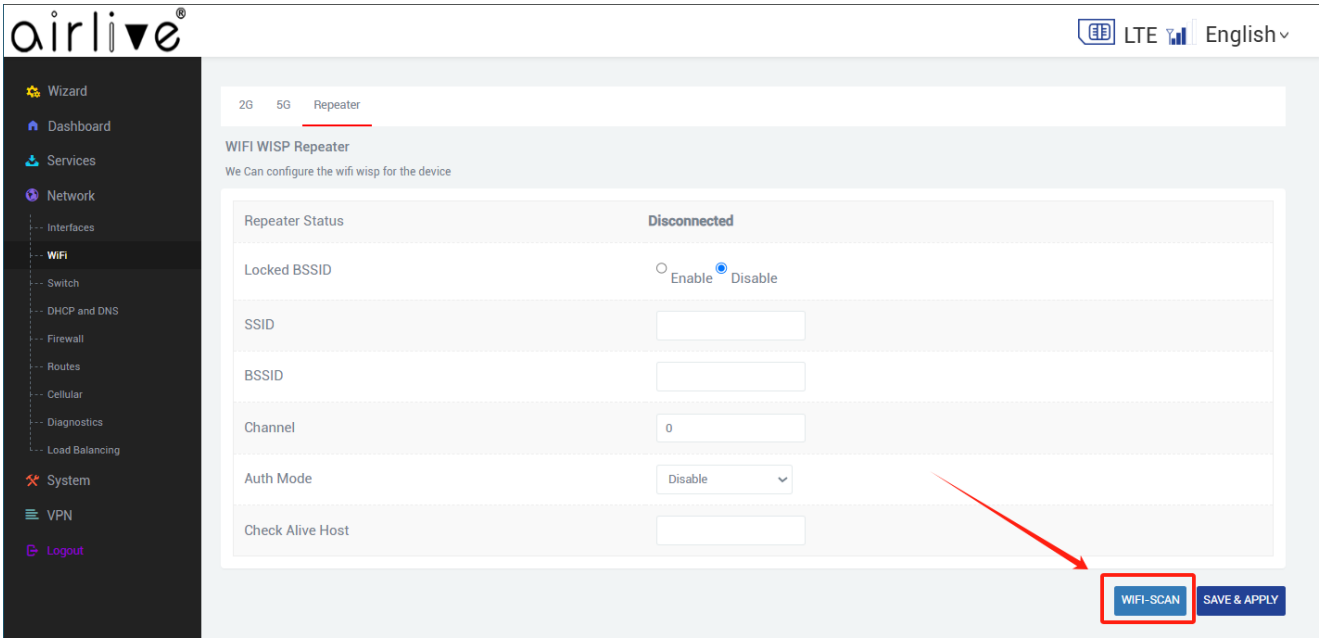
2. Check the network by ping to a server address via the network diagnosis page to determine whether the connection is normal and working.

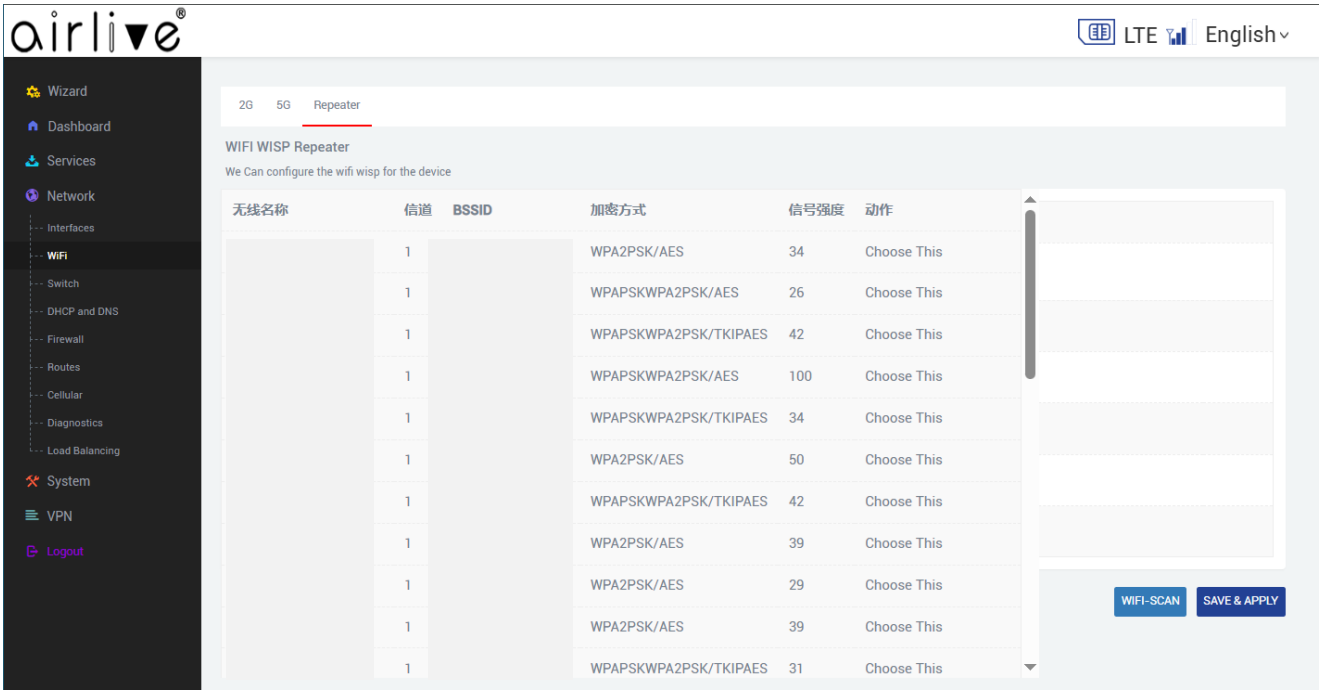


Typical Application – Wi-Fi Relay / Repeater

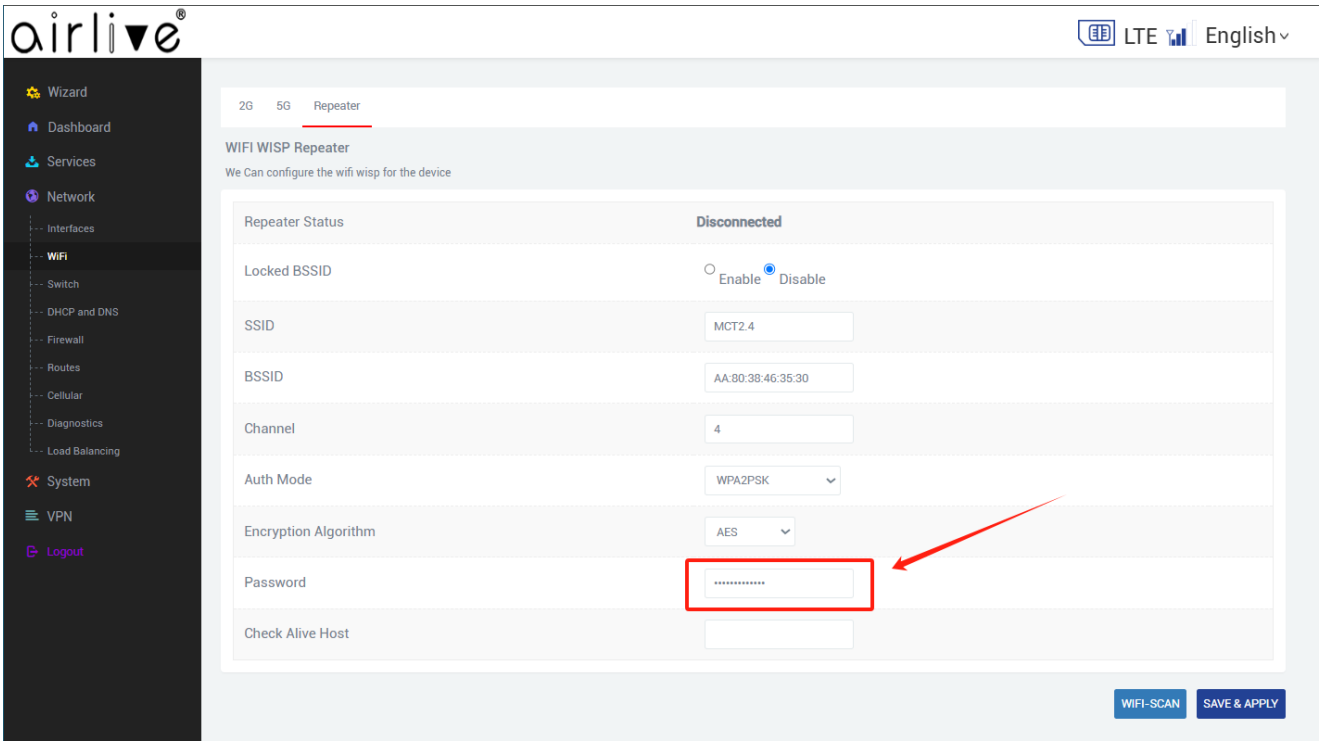
The wireless repeater function is to use the router's Wi-Fi as the wireless client terminal to connect to another existing Wi-Fi hotspot. This solution can use the network of the other router or hotspot to reduce the use of cellular traffic. The specific configuration is as follows:

1. Open the configuration page of "Network" --> "Wi-Fi"--> "Repeater". Click "WI-FI-SCAN" to search for surrounding networks.

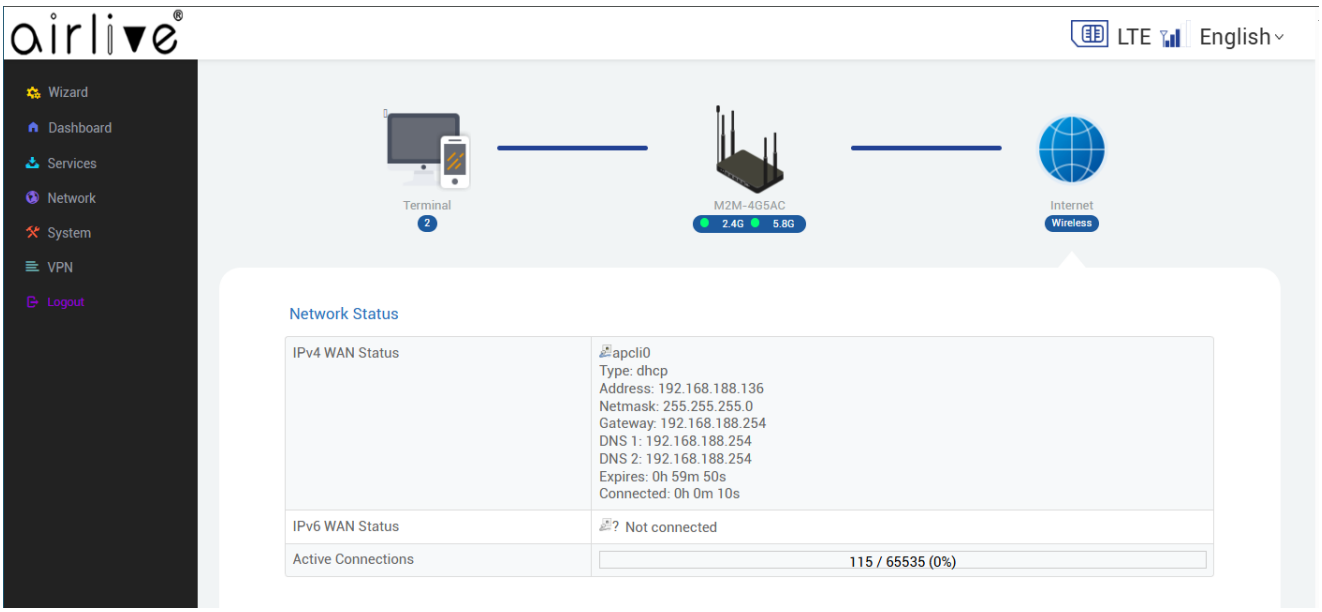




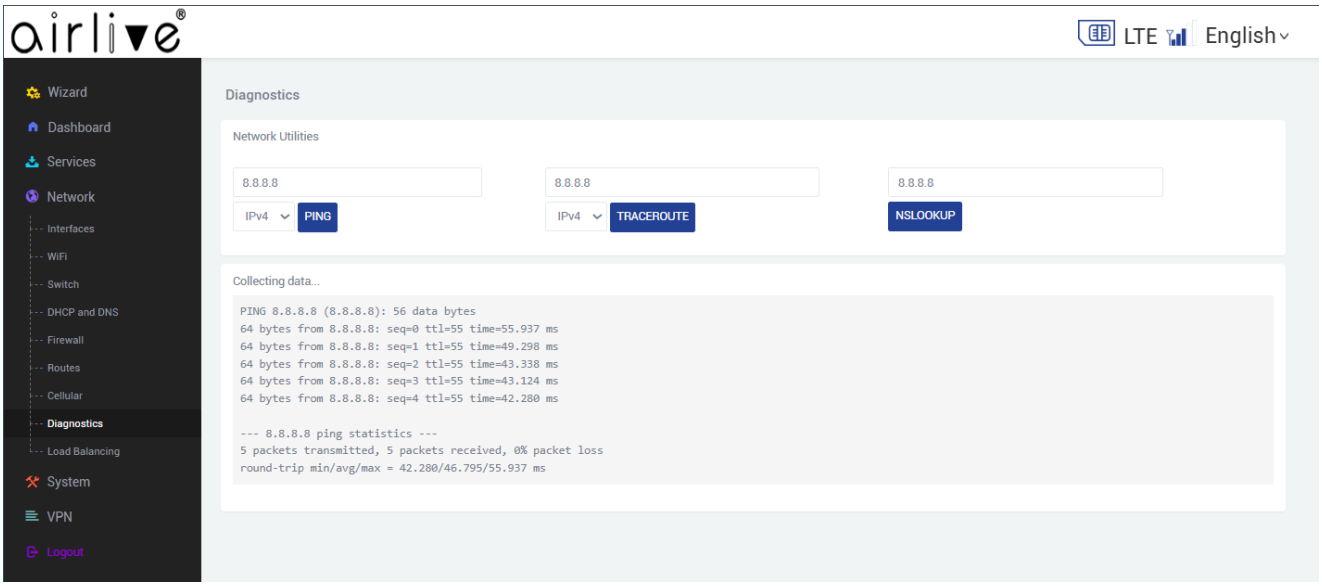
2. Select the hotspot you want to connect to and click "Connect". The router will automatically fill in the parameters of the hotspot into the column field according. If the hotspot has a password, you need to manually fill in the password and click "SAVE & APPLY".



3. Click the icon on the status page. When the router has obtained the IP address from the uplink (Wi-Fi hotspot or Router), the relay of the router is connected normally.



4. Perform packet ping to the gateway address of the uplink network via the network diagnostics page to determine whether or not the connection is normal



Typical Application – Port Mapping

"Port Forwarding" can be found in the firewall page. You can map the port that needs to be translated and forwarded to the corresponding intranet IP and click "SAVE & APPLY" to apply the configuration.