

USR-G800V2 User Manual

File version: V1.0.1



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1 Quick Start

This chapter is a quick introduction. It is recommended that users read this chapter and follow the instructions to operate it again. Users will have a systematic understanding of this 4G router product.

If user has any question, please submit it back to customer center: <http://h.usriot.com>

1.1 Hardware Test



Figure1 hardware connection

1.2 Network Connection

- Insert SIM card into the router card slot
- Install the WIFI antenna and 4G antenna
- Connect computer and the router LAN port (either LAN1 ~ LAN4) with network cable
- Configure computer network card, select the automatically obtain IP

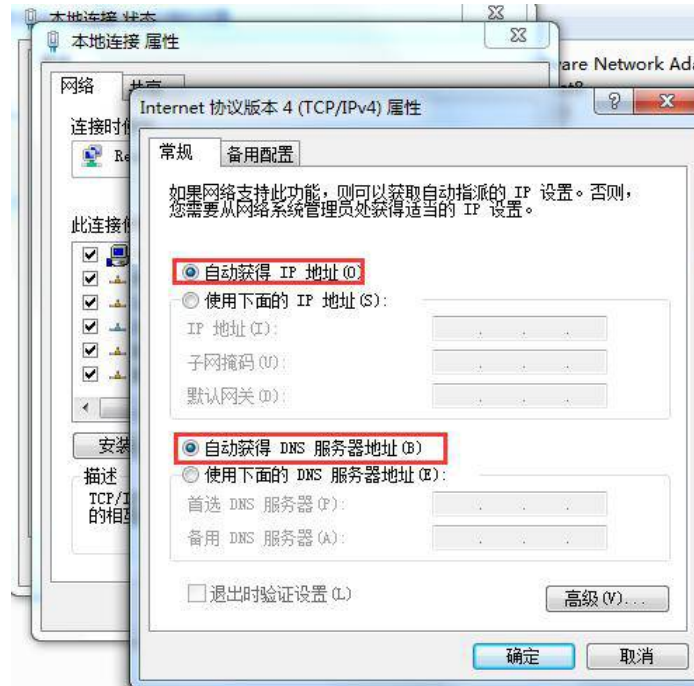


Figure2 network connection

- Use standard DC12V power supply
- After waiting for about 1 minute, the 4G standard light and signal light are on, indicating the success of the router's 4G networking

1.3 Webpage Login and Test

The default parameters of G800V2:

Parameter	Default
Account	root
Password	root
IP	192.168.1.1

Login 192.168.1.1, the account and password are both root.

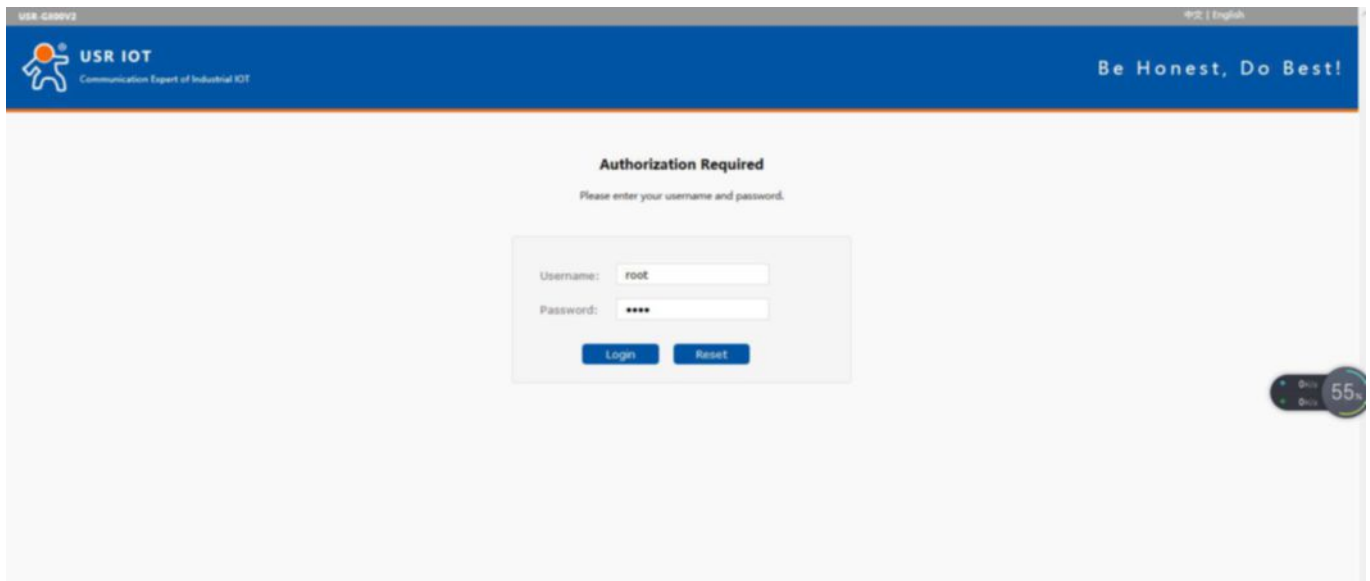


Figure3 login webpage

2 Product Overview

2.1 Product Introduction

USR-G800V2 support wired WAN port, LAN port, WLAN network, and 4G network interface, support serial port to network data transmission function.

2.2 Feature

- Support 4 wired LAN ports and 1 wired WAN port
- Support 1 WLAN
- Support Mini-PCIE interface of 4G communication module
- Support LED status monitoring (display power supply, Work, WAN, LAN, WIFI, 4G network mode and signal strength status)
- Supports transparent data transfer from RS232 to the network
- Support SSH, Telnet, Web multi-platform management configuration
- Support one-click restore factory settings
- Wired network ports all support 10/100mbps
- Support for multiple VPN Client (the PPTP, L2TP/GRE/OPENVPN/SSTP), and support the VPN encryption.
- Support APN automatic network checking, 2/3/4g standard switching, SIM information display, support APN dedicated network card
- Support wired wireless multi-network simultaneous online, multi-network intelligent switching backup function
- Support mandatory portal (WIFIDOG), this feature needs to be customized according to customer requirements
- Support dynamic domain name (DDNS), static routing, PPPOE, DHCP, static IP function.

- Support firewall, NAT, DMZ host, access control black and white list, IP speed limit, MAC speed limit
- Support QOS, traffic service, can limit speed according to the interface
- NTP support, built-in RTC
- Support external hardware watchdog design to ensure system stability

2.3 Basic Parameters

Operation band				
Network type		-E	-AU	-A
4G	FDD-LTE	1/3/5/7/8/20	1/2/3/4/5/6/7/8/28	1/3
	TDD-LTE	38/39/40/41	40	38/39/40/41
3G	WCDMA/HSPA/UMTS	1/8	1/2/5/8	1/8
2G	GPRS/GSM/EDGE	3/8	2/3/5/8	3/8

Item		Info
Product	USR-G800V2	
Ethernet	WAN	WAN*1
	LAN	LAN*4
	Rate	10/100Mbps, Auto MDI/MDIX
WIFI	Wifi	Support 802.11b/g/n
	Antenna	Wifi antenna
	Distance	150m (open field)
SIM card	SIM/USIM card	3V/1.8V SIM card
Antenna	antenna	Full frequency chuck antenna
Button	Reload	Recovery to factory setting
Status light	Status light	Power, WIFI, signal strength, WAN, LAN
Serial port	RS232	*1
	Function	Transparent transmission
Temperature	Work temperature	-20° C~+70° C
	Storage temperature	-40° C~+125° C
Humidity	Work humidity	5%~95%
	Storage humidity	1%~95%
Power	Power	DC 9~36V
	Current	Under DC12V power supply, average 170mA, maximum 289mA

Power consumption parameters

Work style	Voltage	Average current	Max current
LAN(*4)+WAN transmission data (4G normal)	DC 12V	338mA	424mA
LAN(*1)+WAN transmission data (4G normal)		286mA	362mA
LAN(*4)+WAN transmission data (no 4G, WLAN normal)		268mA	314mA
WAN transmission data (WALN normal)		235mA	303mA

2.4 Appearance and Size

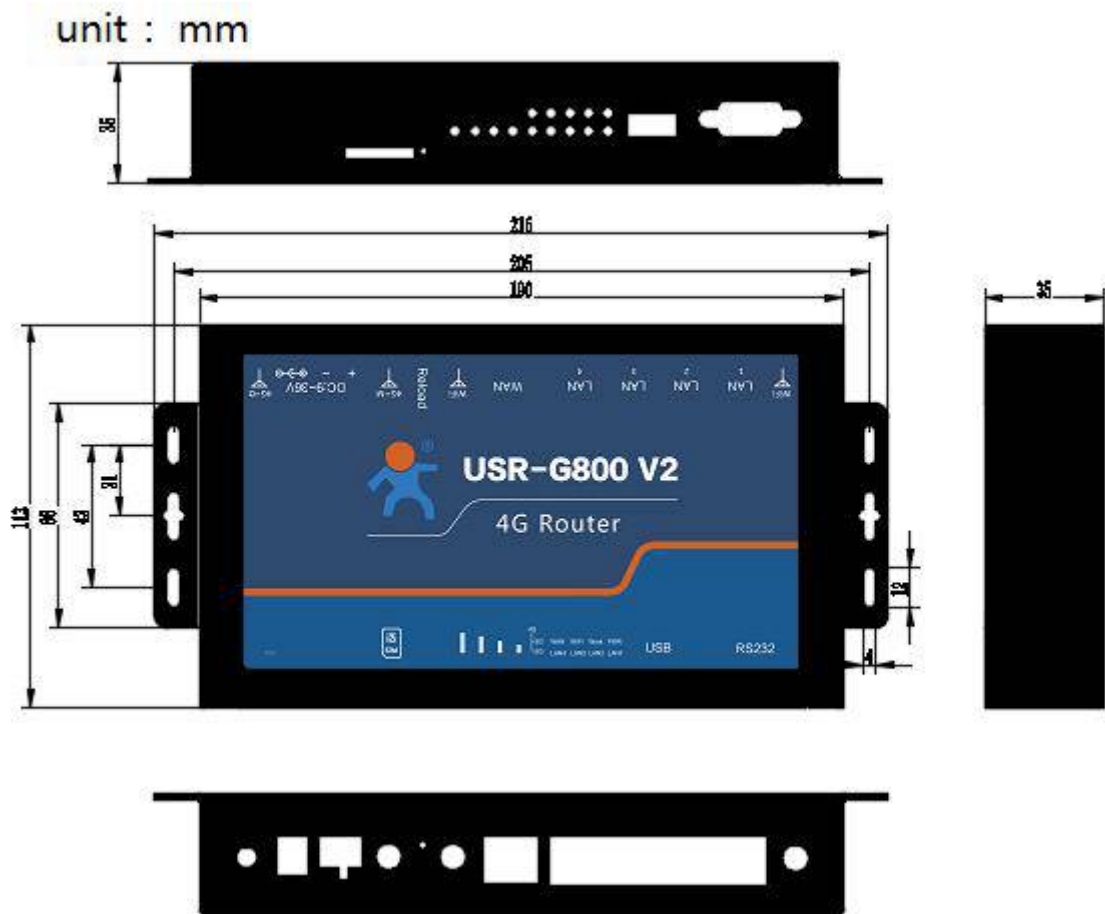


Figure4 hardware

3 Product Function

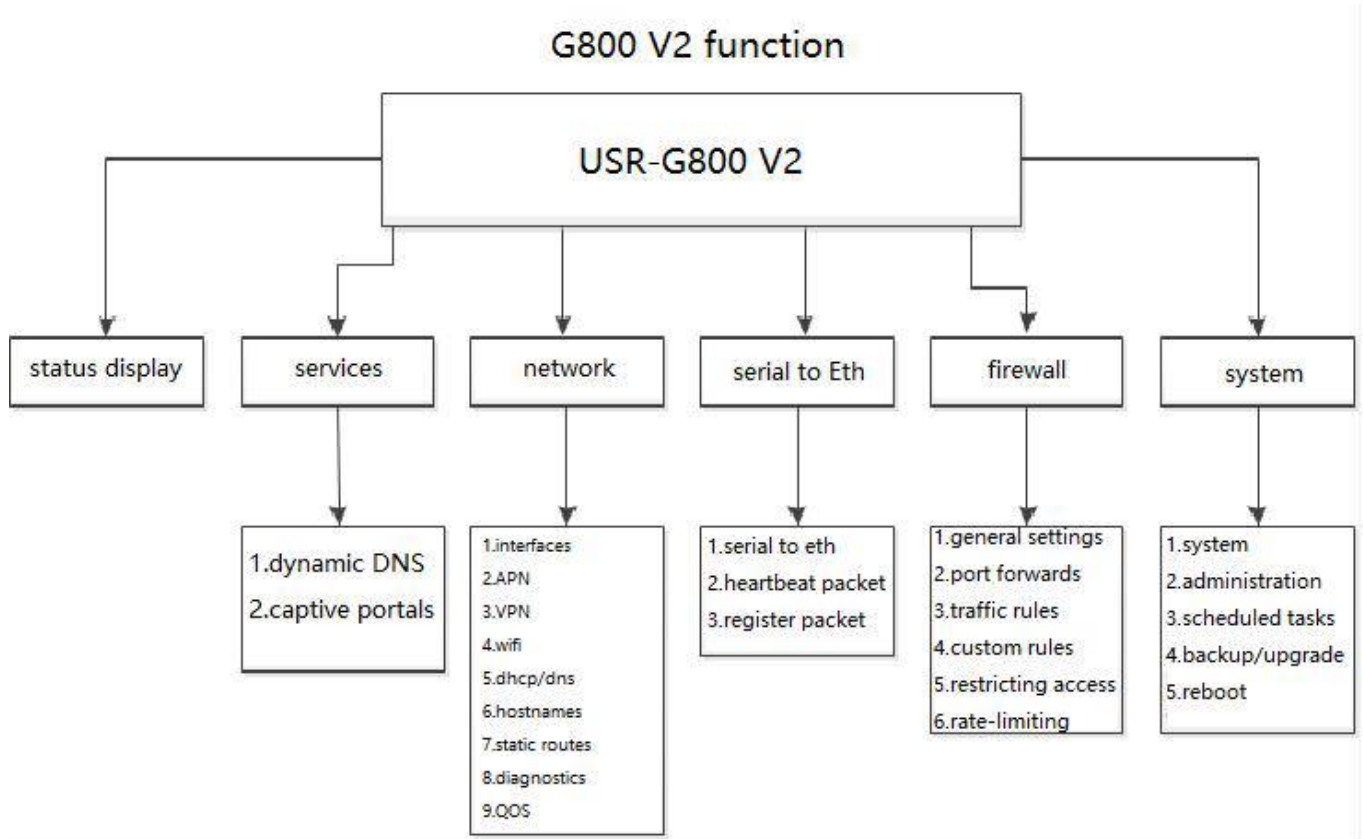


Figure5 G800V2 function

3.1 Configuration Process

Steps:

- Make sure G800 V2 power off
- Put SIM card into G800 V2
- Install WIFI antenna and 4G antenna
- Power on G800 V2 with 12V power adapter
- Wait for 1 minute, when 4G and signal light on, means the success of the router's 4G networking

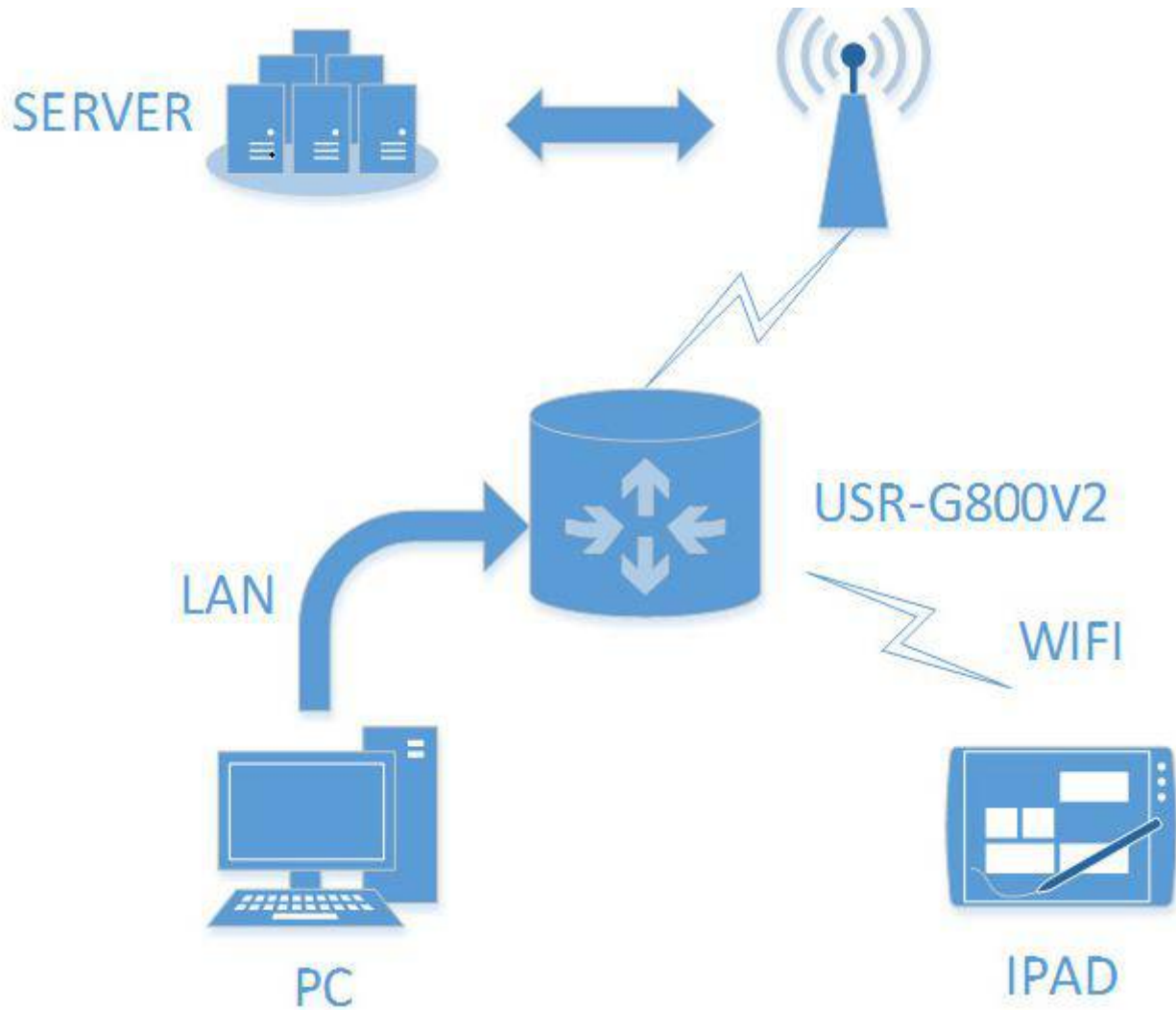


Figure6 networking

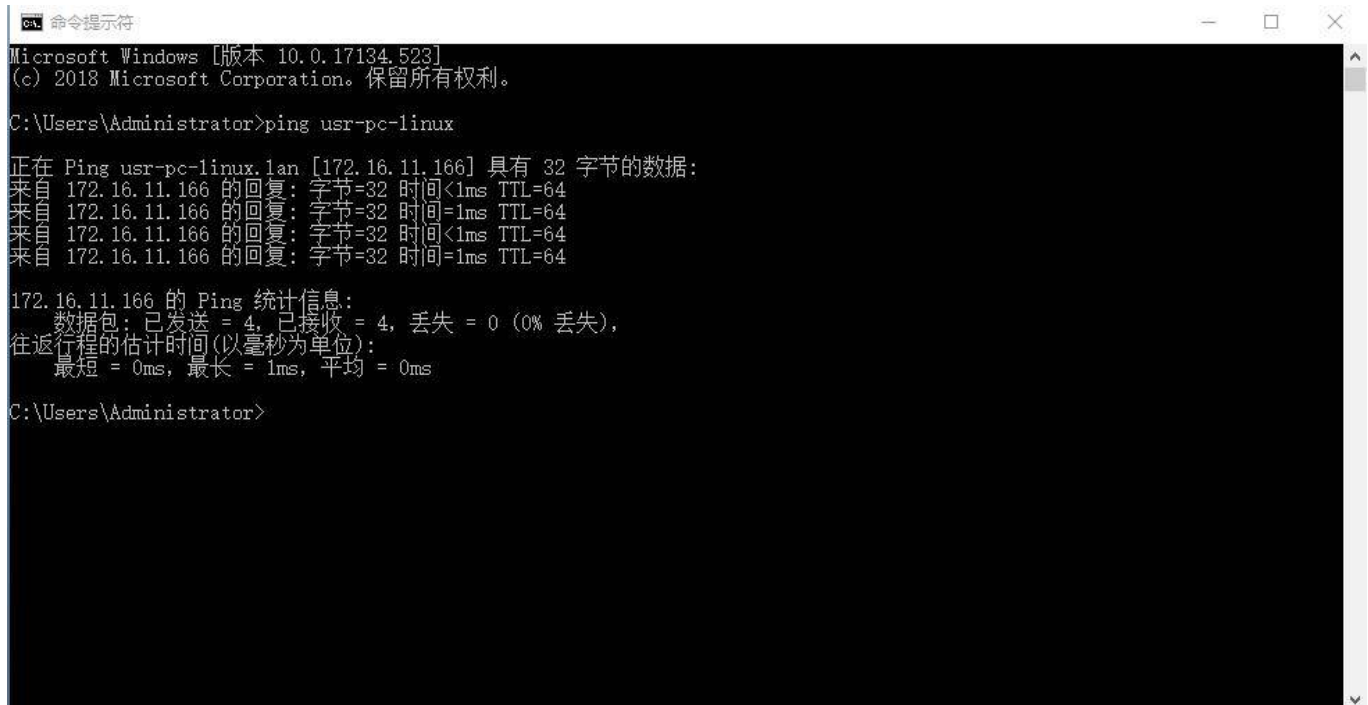
3.2 Basic Function Introduce

3.2.1 Hostnames

Host entries	
Hostname	IP address
usr-pc-linux	172.16.11.166
<div> <div>Add</div> <div> <div>Save</div> <div>Apply</div> </div> </div>	

Figure7 host name page

Users can ping this host name.



```
命令提示符
Microsoft Windows [版本 10.0.17134.523]
(c) 2018 Microsoft Corporation. 保留所有权利。

C:\Users\Administrator>ping usr-pc-linux

正在 Ping usr-pc-linux.lan [172.16.11.166] 具有 32 字节的数据:
来自 172.16.11.166 的回复: 字节=32 时间<1ms TTL=64
来自 172.16.11.166 的回复: 字节=32 时间=1ms TTL=64
来自 172.16.11.166 的回复: 字节=32 时间<1ms TTL=64
来自 172.16.11.166 的回复: 字节=32 时间=1ms TTL=64

172.16.11.166 的 Ping 统计信息:
    数据包: 已发送 = 4, 已接收 = 4, 丢失 = 0 (0% 丢失),
往返行程的估计时间 (以毫秒为单位):
    最短 = 0ms, 最长 = 1ms, 平均 = 0ms

C:\Users\Administrator>
```

Figure8 hostname PING function

Note:

1. this function will effect after reboot
2. no hostname by default

3.2.2 Diagnostics

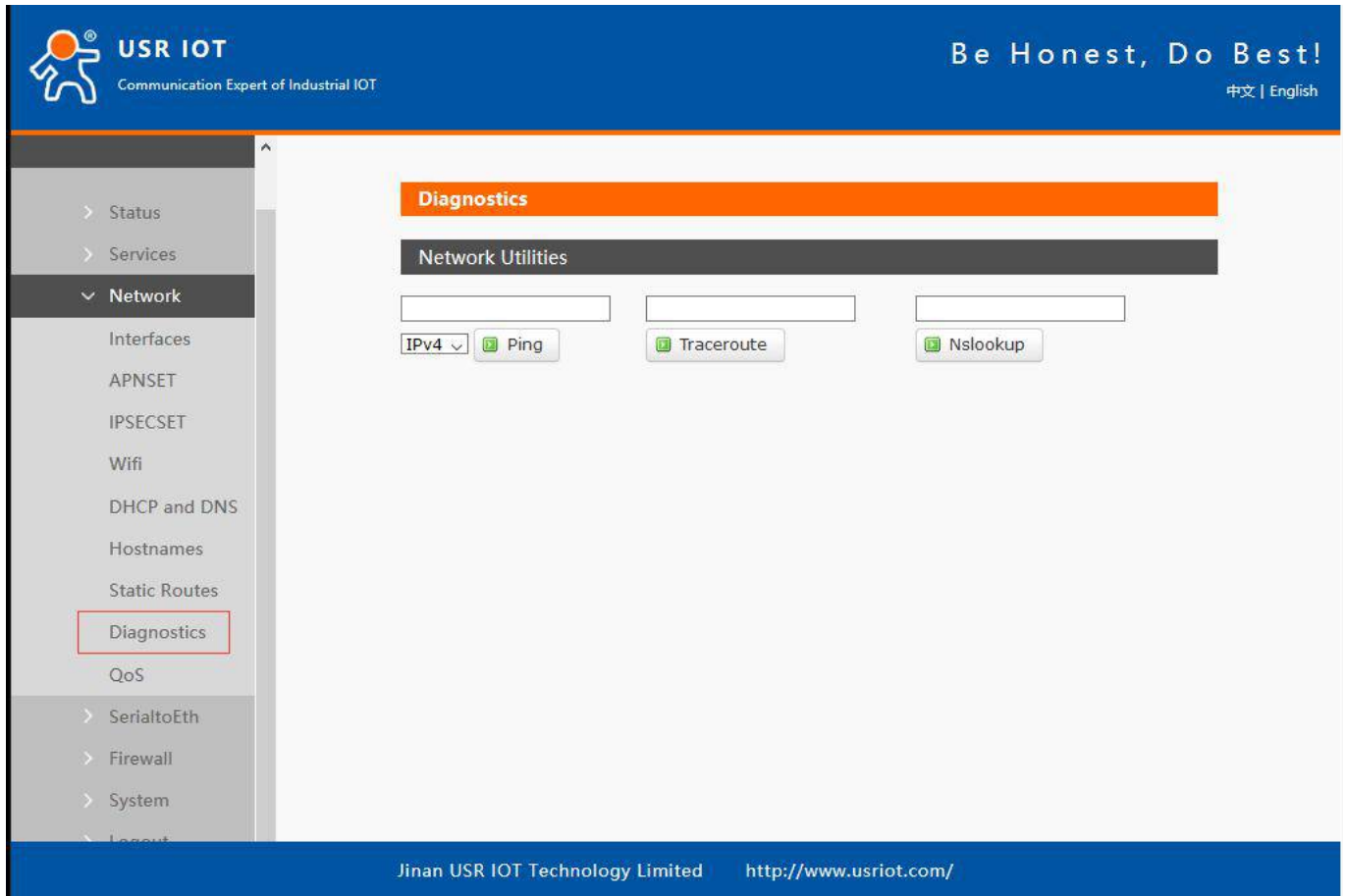
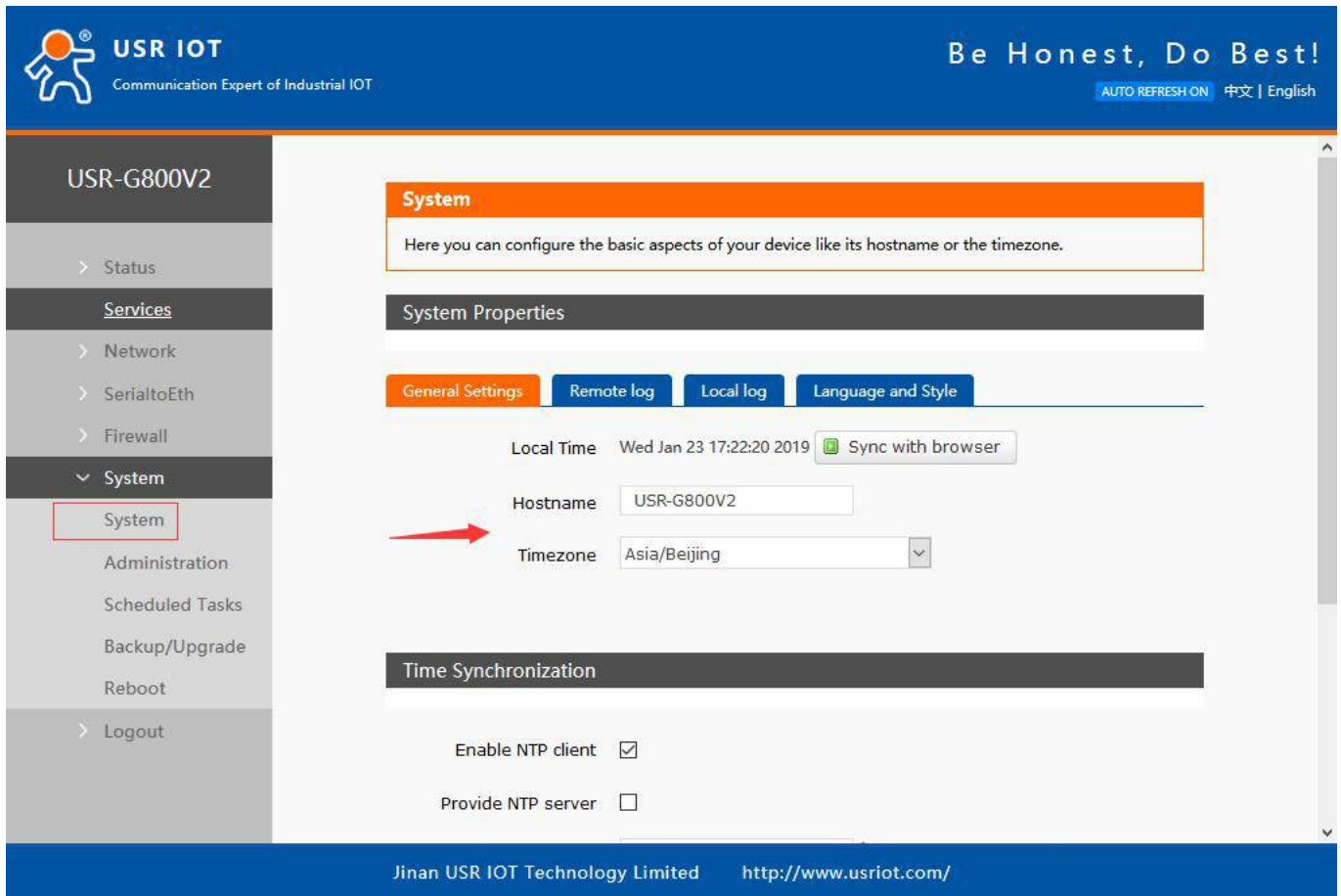


Figure9 diagnostics

Router online diagnostic functions: including Ping tools, routing parsing tools, DNS viewing tools. The Ping tool can test a specific address directly on the router side. Route parsing tool, you can get access to an address, the path through. DNS View Tool, which can resolve domain names to IP addresses.

3.2.3 System



USR IOT
Communication Expert of Industrial IOT

Be Honest, Do Best!

AUTO REFRESH ON 中文 | English

USR-G800V2

> Status

Services

> Network

> SerialtoEth

> Firewall

▼ System

System

Administration

Scheduled Tasks

Backup/Upgrade

Reboot

> Logout

System

Here you can configure the basic aspects of your device like its hostname or the timezone.

System Properties

General Settings Remote log Local log Language and Style

Local Time Wed Jan 23 17:22:20 2019 Sync with browser

Hostname USR-G800V2

Timezone Asia/Beijing

Time Synchronization

Enable NTP client ☒

Provide NTP server ☐

Jinan USR IOT Technology Limited <http://www.usriot.com/>

Figure10 hostname and timezone

3.2.4 User Name and Password

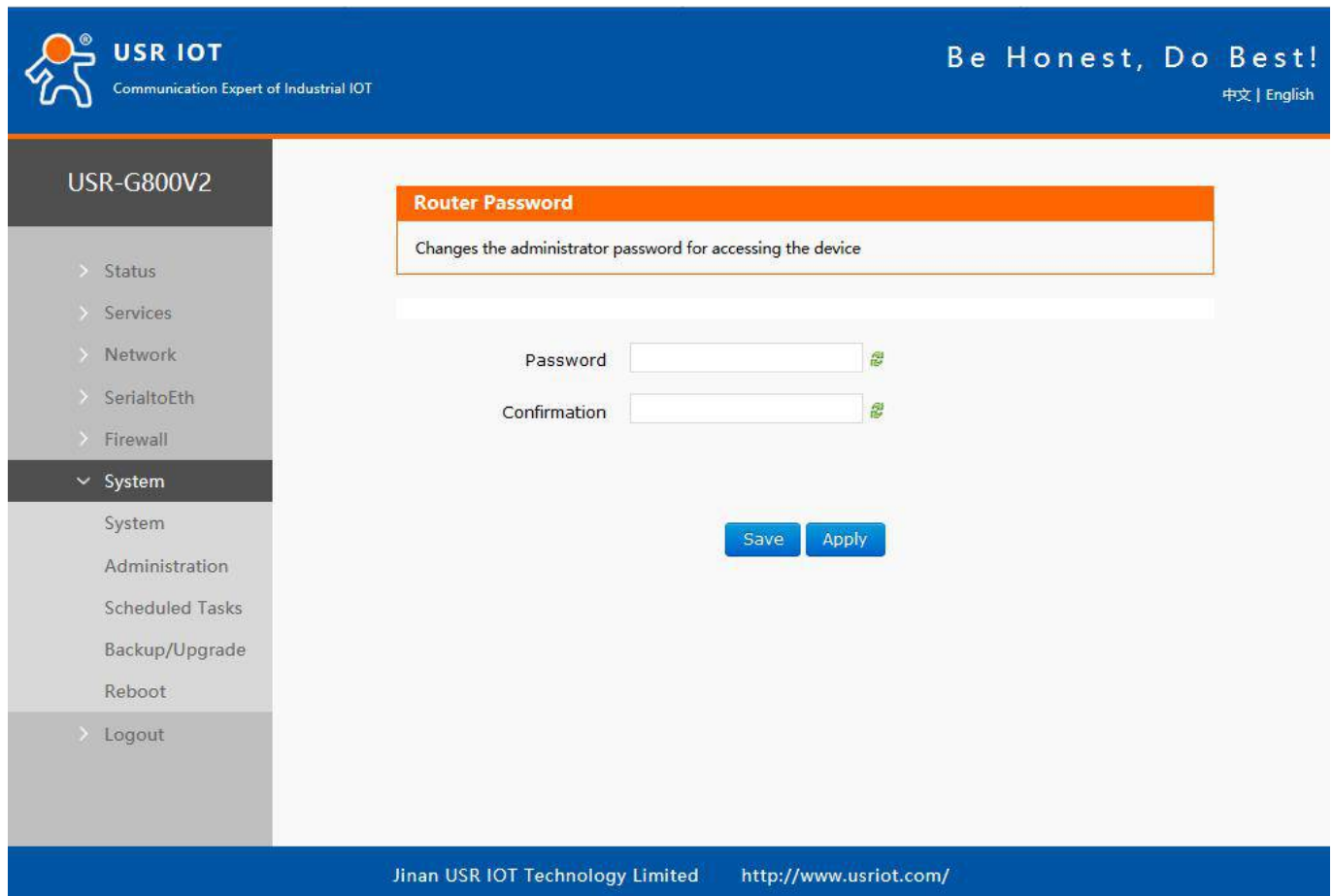


Figure11 password

Note:

Password can be set, default password is root, user name can't be set. This password is mainly used for web server login password

3.2.5 Restore to Factory Settings

The G800V2 router can be restored to the factory parameters through the Reload button (restore factory Settings button).

- Long press 5s above and then release, the router will restore the factory parameter setting and restart by itself
- At the effective moment of restart, SIM card signal light and standard light, 4 lans and WAN ports will be on for 1 second and then off

Or restore to factory settings by webpage:

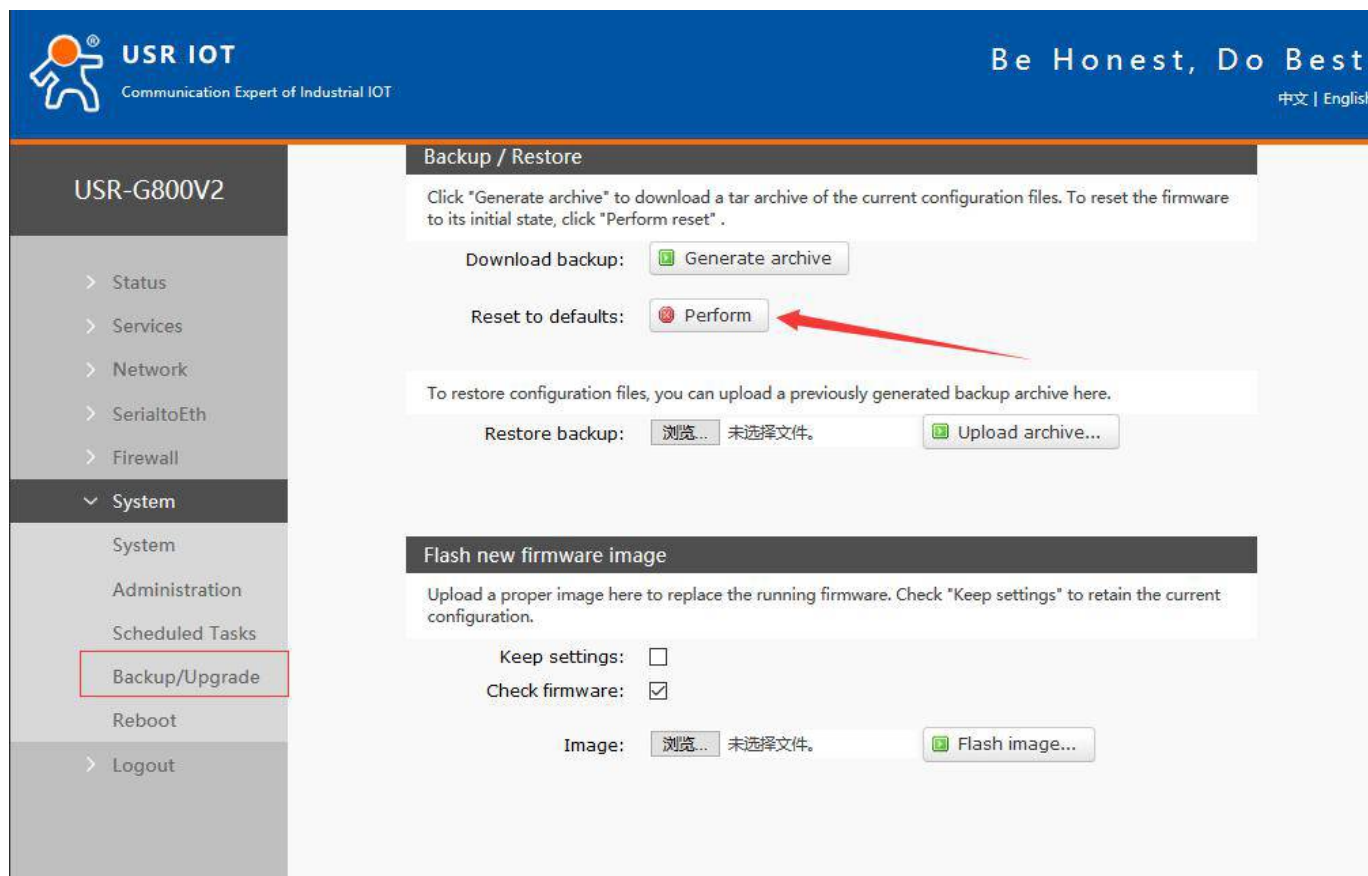


Figure12 restore to factory setting

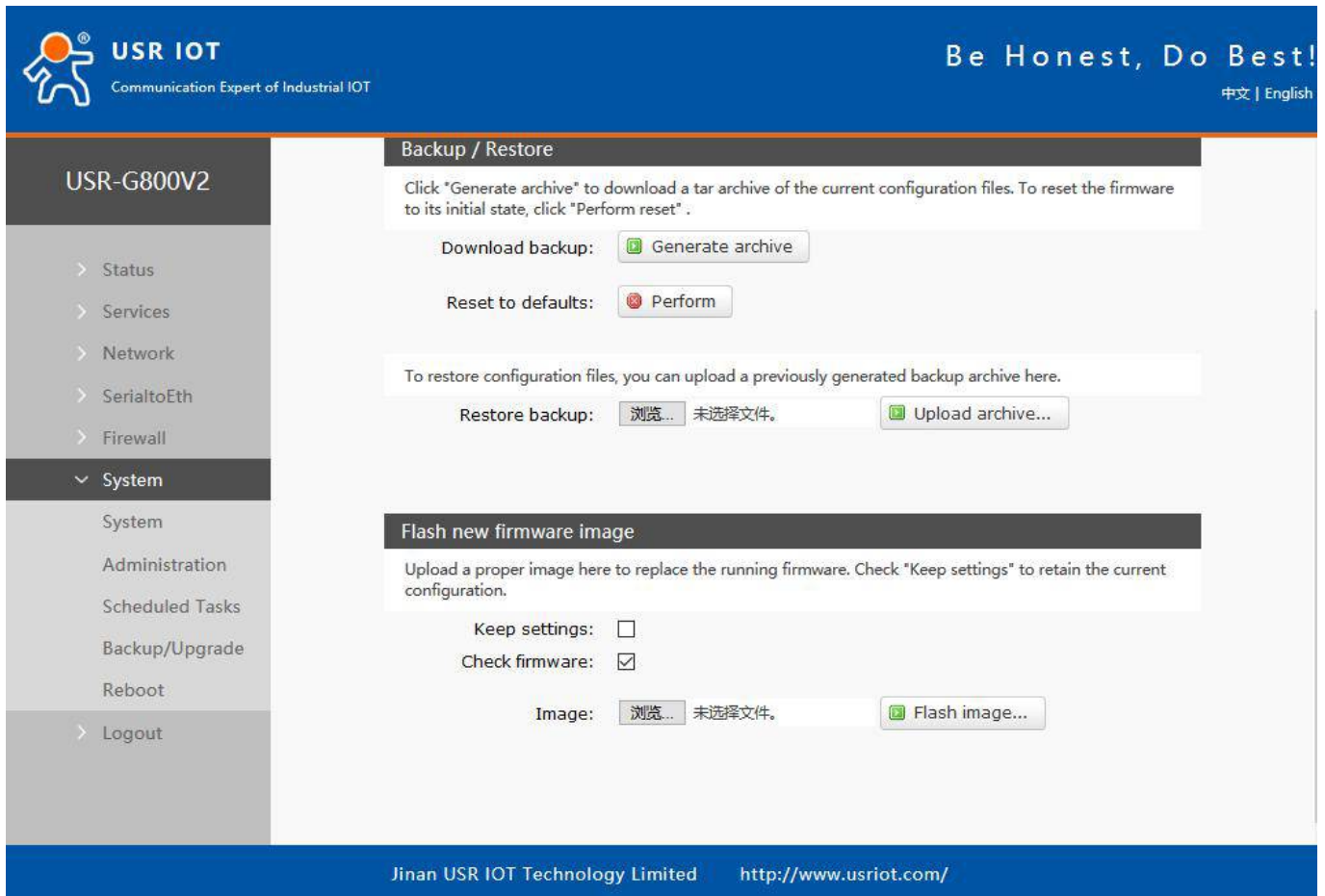
3.2.6 Status Light

Name	Intro
Power	on
Work	Blink every 1S
WAN	WAN port network cable lights up when it is inserted and flashes when it is used for data communication
LAN1-4	LAN port network cable lights up when it is inserted and flashes when it is used for data communication
WLAN	When the WIFI network starts successfully, it will be on. If STA is connected or data is sent or received, it will be bright
2G	When work at 2G, it will on
3G	When work at 3G, it will on
Signal strength 1-4	The more lights the 4G signal intensity indicator lights on, the stronger the signal will be.

Note:

- When the wires are inserted and the network devices at the opposite end are working, the corresponding WAN/LAN indicator will flash; it does not mean that only the wires are plugged in will light up.
- The power lamp will always be on
- When LTE module works at 4G, 2G and 3G indicator lights are on.

3.2.7 FW Upgrade



The screenshot shows the USR IOT web interface for the USR-G800V2 device. The left sidebar contains a menu with options: Status, Services, Network, SerialtoEth, Firewall, System (expanded), Administration, Scheduled Tasks, Backup/Upgrade, Reboot, and Logout. The main content area is divided into two sections:

Backup / Restore

Click "Generate archive" to download a tar archive of the current configuration files. To reset the firmware to its initial state, click "Perform reset".

Download backup:

Reset to defaults:

To restore configuration files, you can upload a previously generated backup archive here.

Restore backup: 未选择文件。

Flash new firmware image

Upload a proper image here to replace the running firmware. Check "Keep settings" to retain the current configuration.

Keep settings: ☐

Check firmware: ☒

Image: 未选择文件。

The footer of the interface displays: Jinan USR IOT Technology Limited <http://www.usriot.com/>

Figure13 FW upgrade

Note:

DO NOT POWER OFF WHEN UPGRADING

3.2.8 Reboot

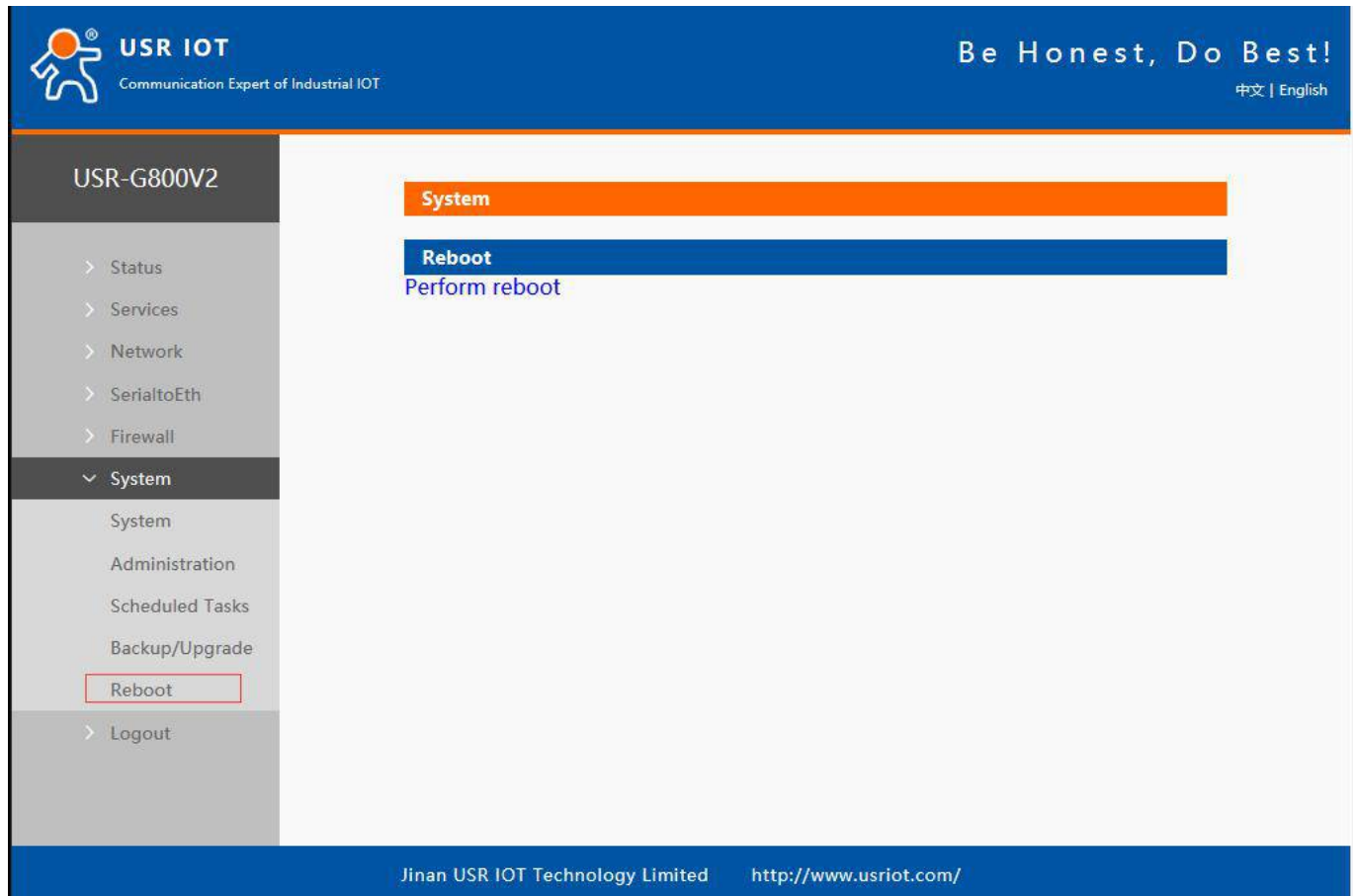
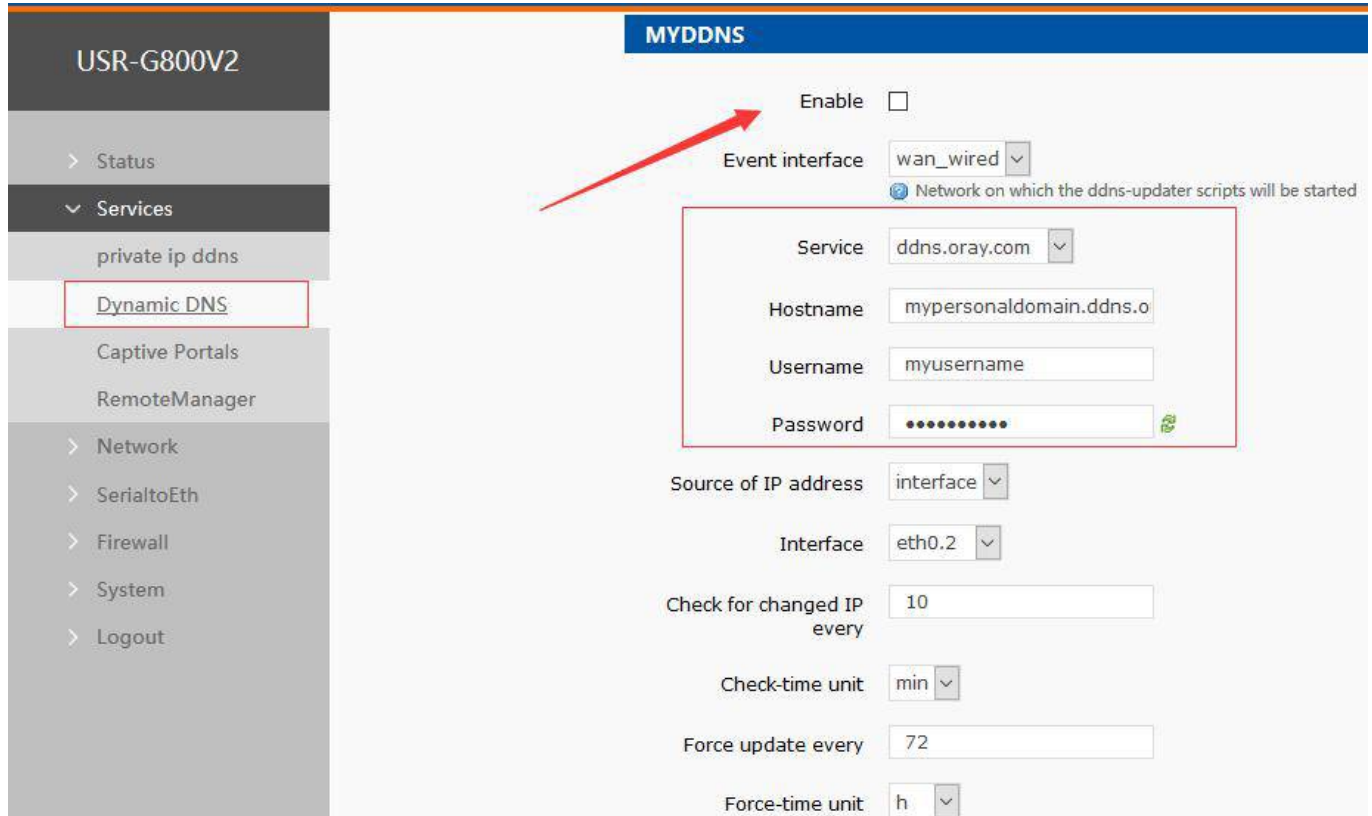


Figure14 reboot

3.3 Advanced Function

3.3.1 DDNS



USR-G800V2

> Status

▼ Services

private ip ddns

Dynamic DNS

Captive Portals

RemoteManager

> Network

> SerialtoEth

> Firewall

> System

> Logout

MYDDNS

Enable ☐

Event interface
Network on which the ddns-updater scripts will be started

Service

Hostname

Username

Password

Source of IP address

Interface

Check for changed IP every

Check-time unit

Force update every

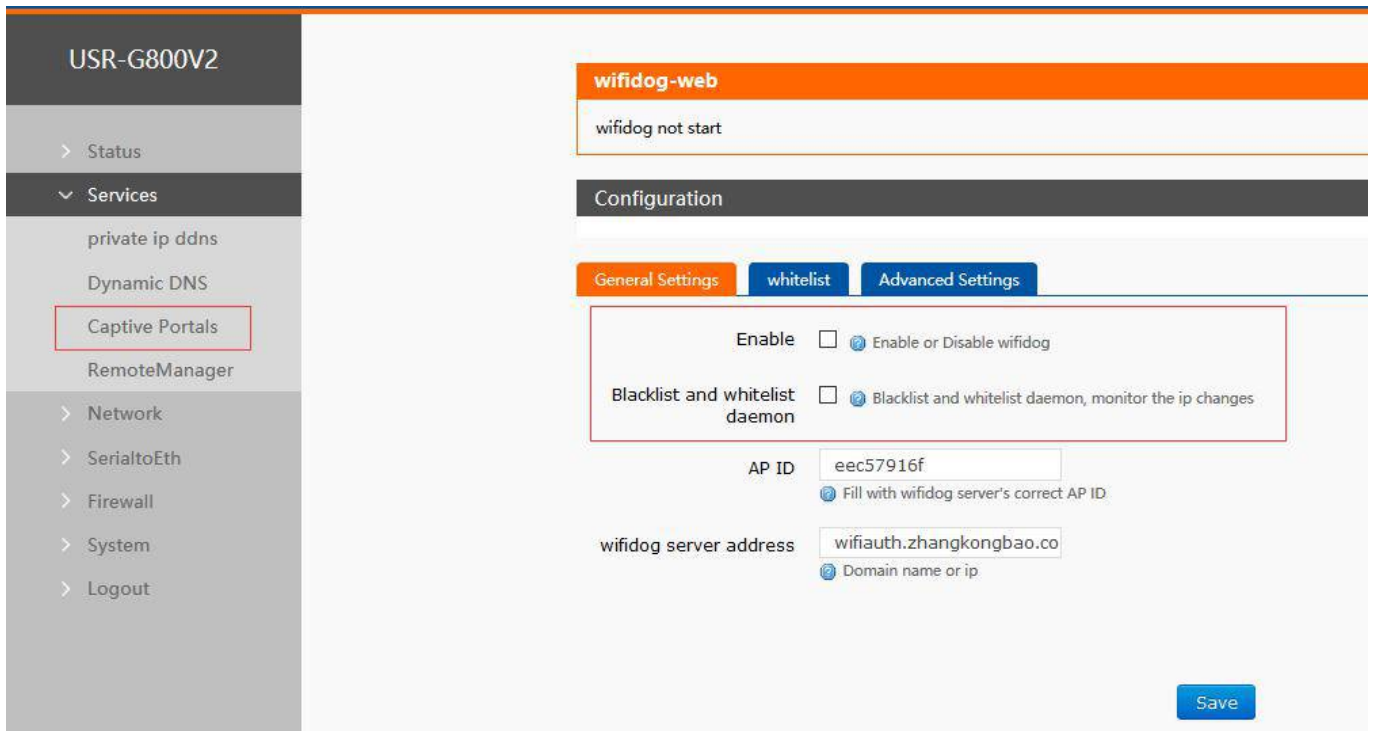
Force-time unit

Figure15 DDNS

Note:

- Disable this function by default;
- Reboot make sure the parameters effect;
- This function cannot be used if the router is on a network that is not assigned to a separate public network IP;
- You can add more than one DDNS domain name for this router.

3.3.2 WIFI-dog



USR-G800V2

- > Status
- ▼ Services
 - private ip ddns
 - Dynamic DNS
 - Captive Portals
 - RemoteManager
- > Network
- > SerialtoEth
- > Firewall
- > System
- > Logout

wifidog-web

wifidog not start

Configuration

General Settings | whitelist | Advanced Settings

Enable ☐ Enable or Disable wifidog

Blacklist and whitelist daemon ☐ Blacklist and whitelist daemon, monitor the ip changes

AP ID Fill with wifidog server's correct AP ID.

wifidog server address Domain name or ip.

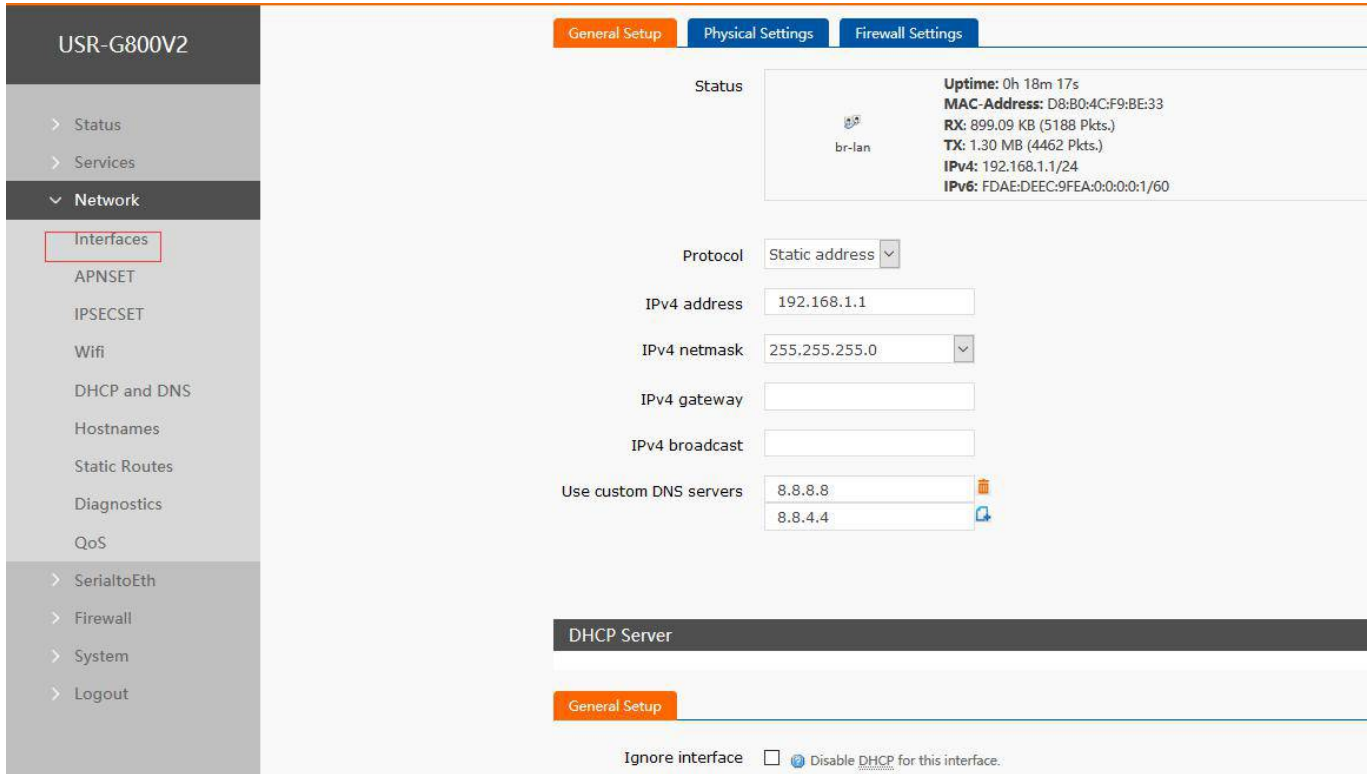
Save

Figure16 WIFI-dog

Function	Parameter	Note
Enable		Disable by default
Daemon		Disable by default
AP ID	eec57916f	
Wifidog server address	wifiauth.zhangkongbao.com (e.g.)	
LAN interface	br-lan	
WAN interface	eth0.2	If u want use 4G, pls fill in eth1
Path of server	/apps/WIFIguanjia/	

3.3.3 LAN

3.3.3.1 DHCP Function



USR-G800V2

- > Status
- > Services
- > Network
 - Interfaces
 - APNSET
 - IPSECSET
 - Wifi
 - DHCP and DNS
 - Hostnames
 - Static Routes
 - Diagnostics
 - QoS
- > SerialtoEth
- > Firewall
- > System
- > Logout

General Setup Physical Settings Firewall Settings

Status

br-lan

Uptime: 0h 18m 17s
 MAC-Address: D8:B0:4C:F9:BE:33
 RX: 899.09 KB (5188 Pkts.)
 TX: 1.30 MB (4462 Pkts.)
 IPv4: 192.168.1.1/24
 IPv6: FDAE:DEEC:9FEA:0:0:0:1/60

Protocol Static address

IPv4 address 192.168.1.1

IPv4 netmask 255.255.255.0

IPv4 gateway

IPv4 broadcast

Use custom DNS servers 8.8.8.8 8.8.4.4

DHCP Server

General Setup

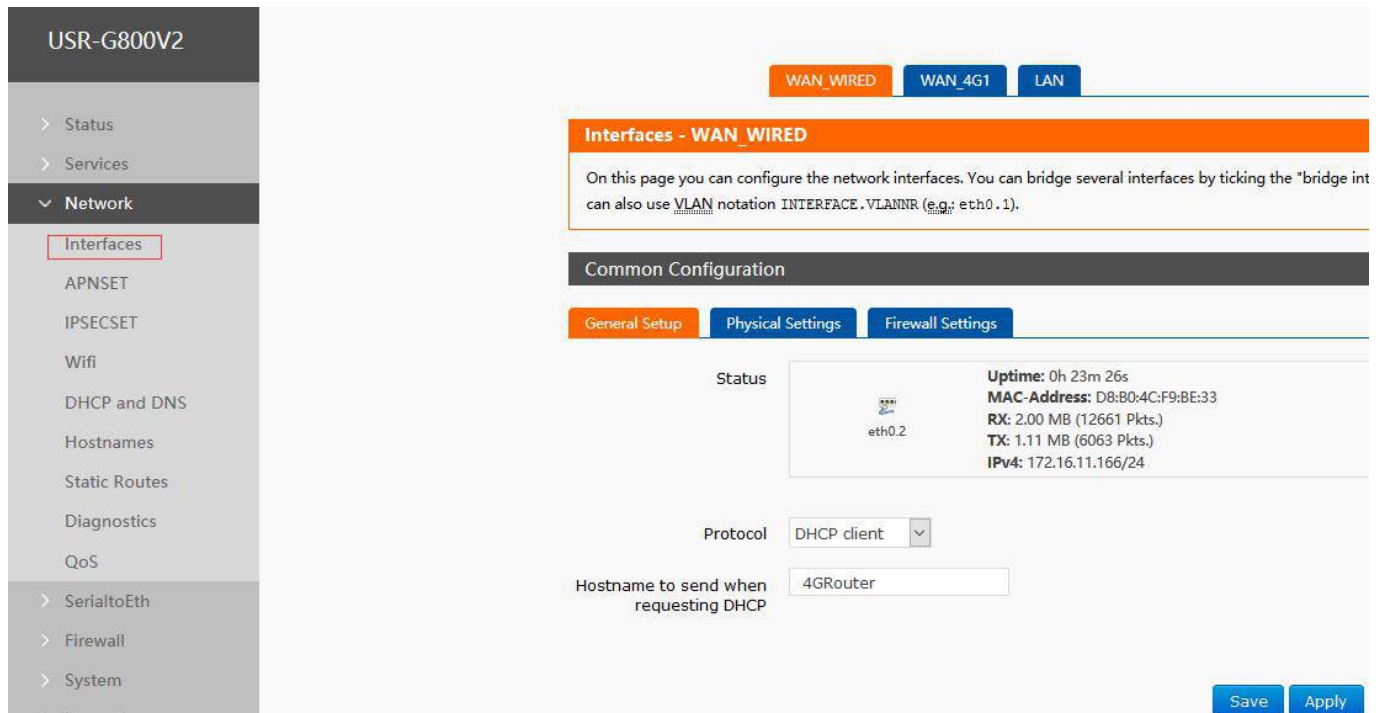
Ignore interface ☐ Disable DHCP for this interface.

Figure17 DHCP

Note:

- DHCP range 192.168.1.100~192.168.1.250
- Leasetime 12h by default
- The start and limit can be customize

3.3.4 WAN



The screenshot displays the USR-G800V2 web interface. On the left, a sidebar menu shows 'Network' expanded with 'Interfaces' selected. The main content area has tabs for 'WAN_WIRED', 'WAN_4G1', and 'LAN'. Under 'WAN_WIRED', there's a description: 'On this page you can configure the network interfaces. You can bridge several interfaces by ticking the "bridge int" can also use VLAN notation INTERFACE.VLANNR (e.g.: eth0.1)'. Below this is a 'Common Configuration' section with tabs for 'General Setup', 'Physical Settings', and 'Firewall Settings'. The 'General Setup' tab is active, showing the 'Status' of the 'eth0.2' interface with details like Uptime, MAC-Address, RX/TX statistics, and IPv4. The 'Protocol' is set to 'DHCP client' and the 'Hostname to send when requesting DHCP' is '4GRouter'. 'Save' and 'Apply' buttons are at the bottom right.

Figure18 WAN

Note:

- DHCP Client mode by default
- Support DHCP Client, static IP, PPPOE mode

3.3.5 WIFI

- The G800V2 router is an AP, and other wireless terminals can access its WLAN network.
- Supports up to 24 wireless STA connections.
- WLAN and LAN port exchange
- The maximum coverage of WIFI is 150m in the open area
- The RFswitch is on by default.

USR-G800V2

Status

> Services

Network

Interfaces

APNSET

IPSECSET

Wifi

DHCP and DNS

Hostnames

Static Routes

Diagnostics

QoS

> SerialtoEth

> Firewall

> System

> Logout

General Setup

Advanced Settings

Status

Mode: Master | SSID: USR-G800V2-BE33

0% BSSID: D8:B0:4C:F9:BE:32 | Encryption: -

Channel: 10 (2.457 GHz) | Tx-Power: 0 dBm

Signal: 0 dBm | Noise: 0 dBm

Bitrate: 300.0 Mbit/s | Country: 00

Radio on/off

on

Network Mode

802.11b/g/n

Channel

auto

Band Width

40MHz

Interface Configuration

General Setup

Wireless Security

ESSID

USR-G800V2-BE33

Mode

Access Point

Network

☒ lan:

☐ wan_4g1:

☐ wan_wired:

Choose the network(s) you want to attach to this wireless interface or fill out the create field to define a new network.

Hide ESSID

☐

Figure19 WIFI

Name	Parameter
SSID name	USR-G800V2-XXXX (xxxx means the last 4 bits of MAC address)
Wifi password	www.usr.cn
channel	Auto
Band width	40MHz
Encryption	WPA2-PSK

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Network

Interfaces

APNSET

IPSECSET

Wifi

DHCP and DNS

Hostnames

Static Routes

Diagnostics

QoS

SerialtoEth

Firewall

System

Logout

Network Mode
 802.11b/g/n

Channel
 auto

Band Width
 40MHz

Interface Configuration

General Setup
 Wireless Security

ESSID
 USR-G800V2-BE33

Mode
 Access Point

Network
 ☒ lan:
 ☐ wan_4g1:
 ☐ wan_wired:

Choose the network(s) you want to attach to this wireless interface or fill out the create field to define a new

Hide ESSID
 ☐

Save
 Apply

Figure20 change SSID

Network

Interfaces

APNSET

IPSECSET

Wifi

DHCP and DNS

Hostnames

Static Routes

Diagnostics

QoS

SerialtoEth

Firewall

System

Logout

Radio on/off
 on

Network Mode
 802.11b/g/n

Channel
 auto

Band Width
 40MHz

BSSID: D8:B0:4C:F9:BE:32 | Encryption: -
 Channel: 10 (2.457 GHz) | Tx-Power: 0 dBm
 Signal: 0 dBm | Noise: 0 dBm
 Bitrate: 300.0 Mbit/s | Country: 00

Interface Configuration

General Setup
 Wireless Security

Encryption
 WPA2-PSK

Cipher
 Force CCMP (AES)

Key

Save
 Apply

Figure21 wireless security

Modify whether to turn on the wireless function (turn off the radio frequency, as shown below, effective immediately).

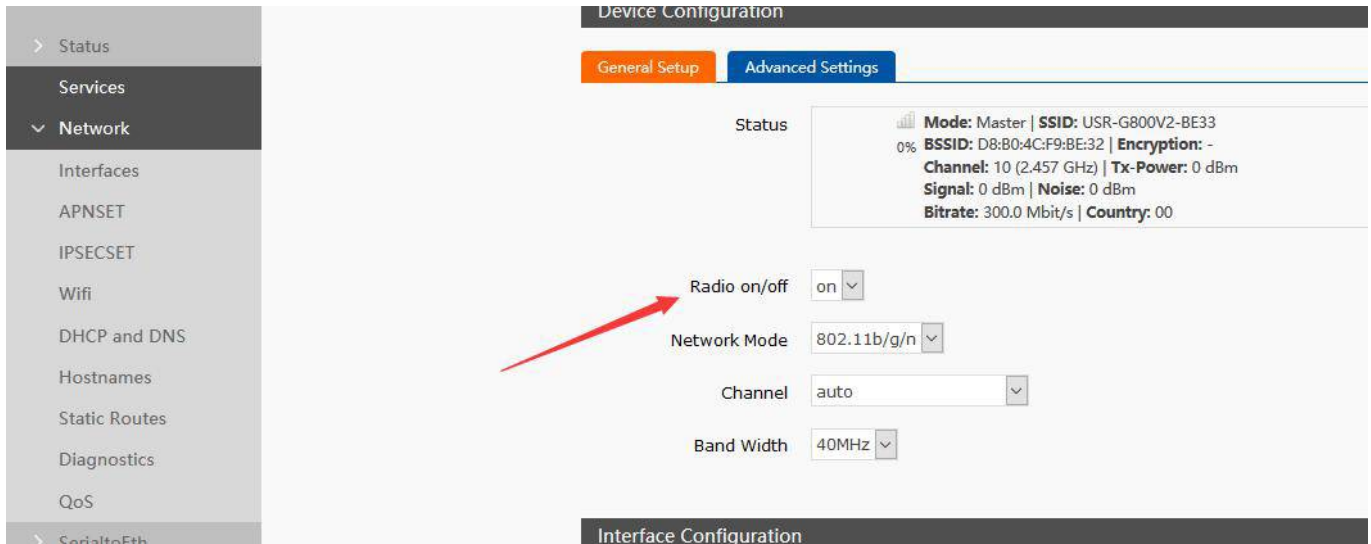


Figure22 radio on/off

3.3.6 4G Interface

3.3.6.1 APN

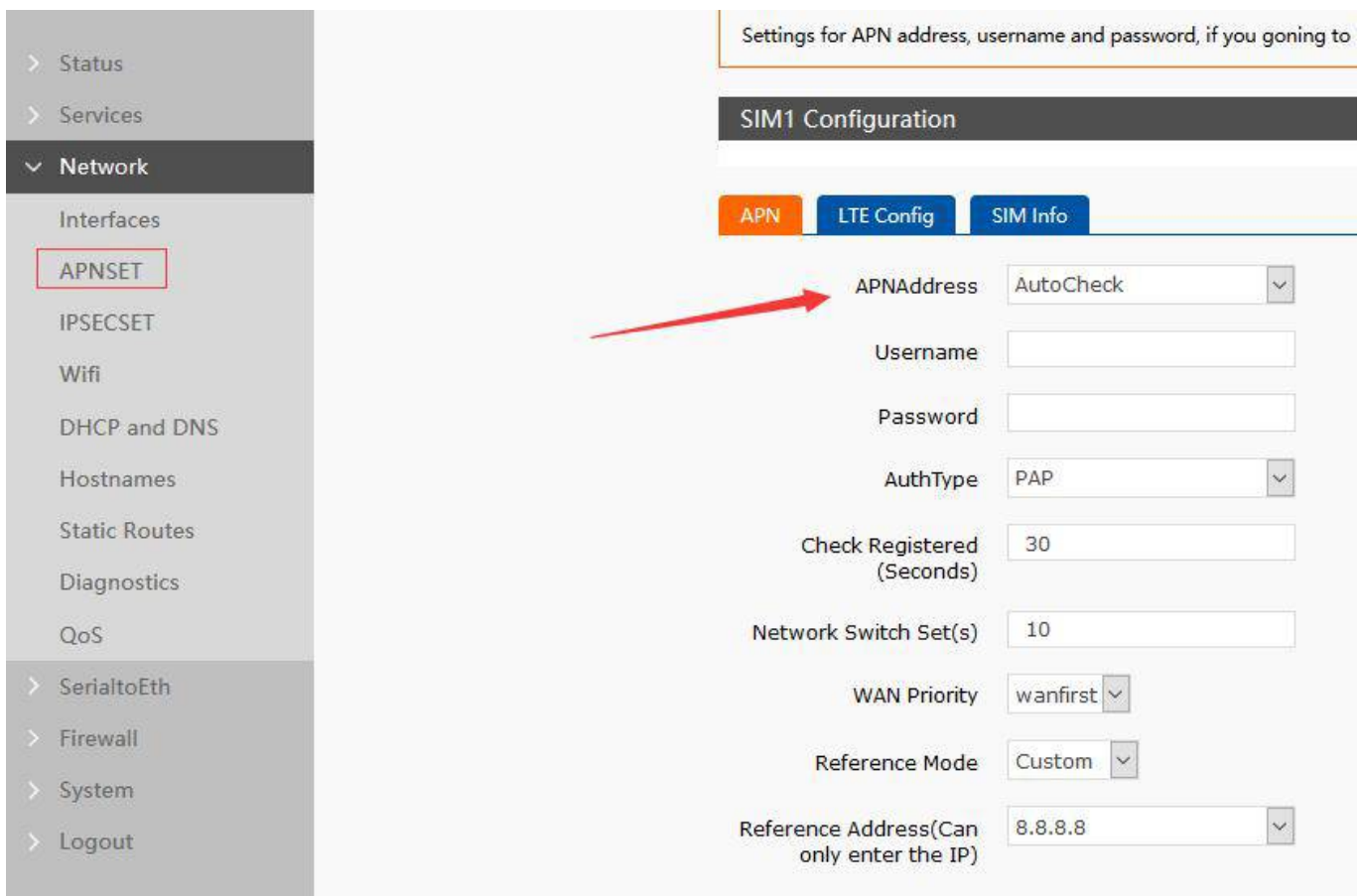


Figure23 APN

Ask operator for SIM card APN information and fill in.

> Status
 > Services
 > **Network**
 Interfaces
 APNSET
 IPSECSET
 Wifi
 DHCP and DNS
 Hostnames
 Static Routes
 Diagnostics
 QoS
 > SerialtoEth
 > Firewall
 > System
 > Logout

Settings for APN address, username and password, if you going to use an APN card

SIM1 Configuration

APN

LTE Config

SIM Info

APNAddress
 Username
 Password
 AuthType
 Check Registered (Seconds)
 Network Switch Set(s)
 WAN Priority
 Reference Mode
 Reference Address(Can only enter the IP)

Figure24 APN setup page

LTE configuration is as follows:

When the default is set to automatic, the priority is 4G>3G>2G. You can also manually force the switch between standard and priority.

> Services
 > **Network**
 Interfaces
 APNSET
 IPSECSET
 Wifi
 DHCP and DNS
 Hostnames
 Static Routes
 Diagnostics

SIM1 Configuration

APN

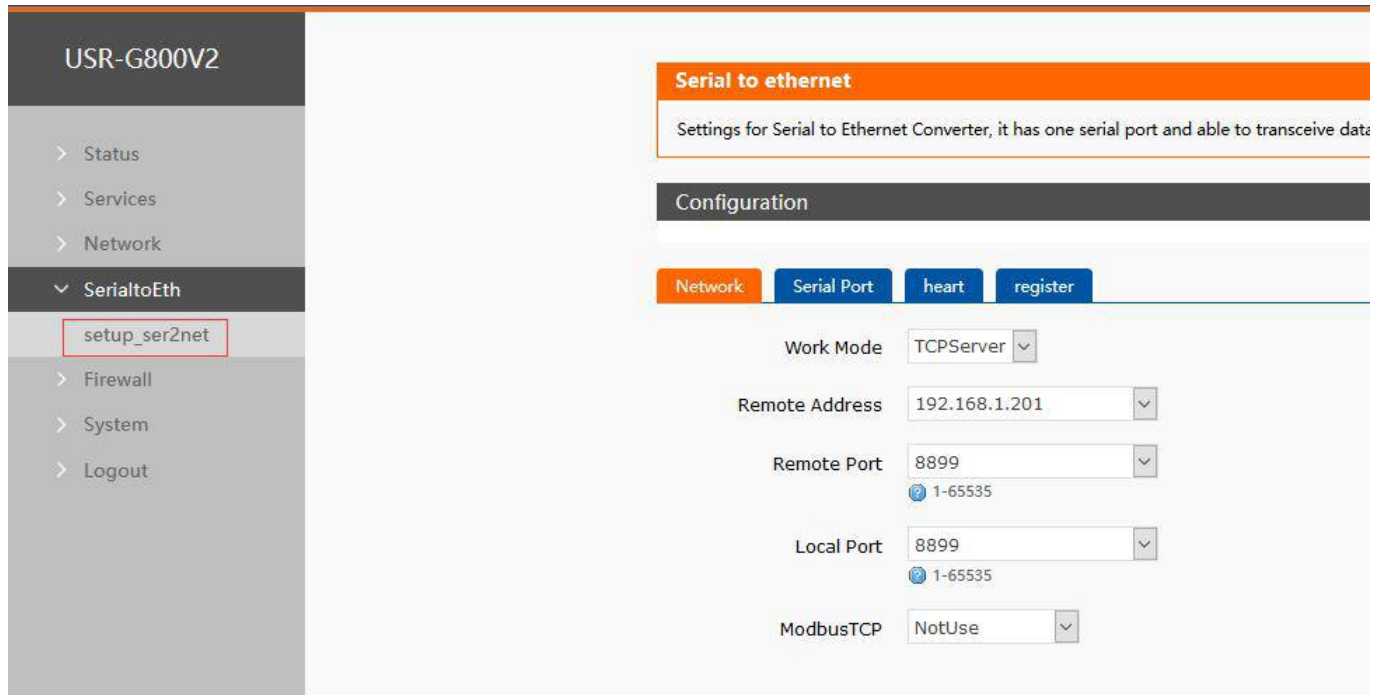
LTE Config

SIM Info

Mode(Please Select 2/3/4G,When selecting auto, default 4G>3G>2G)
 Priority(When selecting auto, default 4G>3G>2G)

Figure24 LTE configuration

3.3.7 Serial Port to Ethernet



USR-G800V2

- > Status
- > Services
- > Network
- ▼ **SerialtoEth**
 - setup_ser2net**
 - > Firewall
 - > System
 - > Logout

Serial to ethernet

Settings for Serial to Ethernet Converter, it has one serial port and able to transceive data

Configuration

Network Serial Port heart register

Work Mode: TCPServer

Remote Address: 192.168.1.201

Remote Port: 8899 (1-65535)

Local Port: 8899 (1-65535)

ModbusTCP: NotUse

Figure25 serial port to Ethernet

Note:

- Transparent transmission work mode:
 - TCP Server
 - TCP Client
 - UDP Server
 - UDP Client
- Support MODBUS TCP
- Support setup of baudrate, data bit, parity bit, stop bit
- Can't customize baudrate
- RS232, hardware flow control is not supported
- When working with TCP Server, the maximum number of client connections is 128

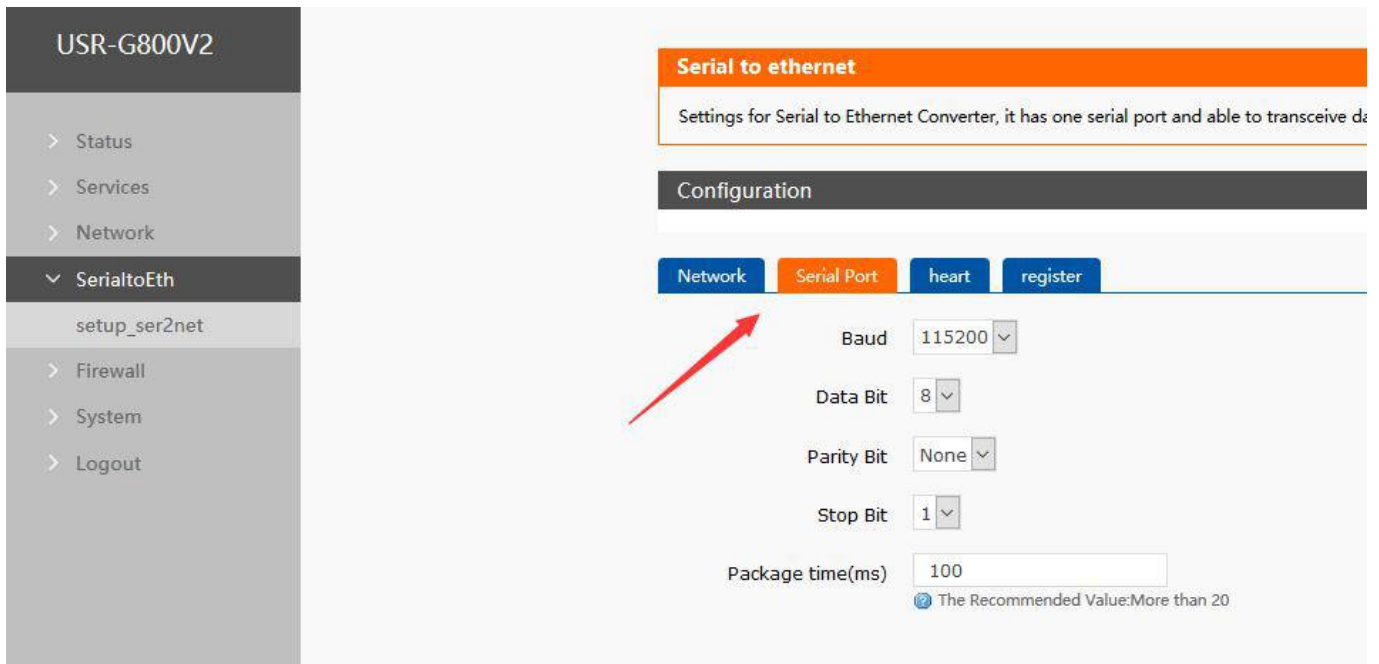


Figure25 serial port parameters

- Package mechanism: packaged time calculated according to the baud rate, packing length of 1460 bytes, it cannot be changed.
- Support domain server and the function of the serial port to send a heartbeat and registration packet
- Heartbeat package: we choose works as TCP Client, the heartbeat time is set to be send every 5 seconds. The data content is hexadecimal data.
- Heartbeat packets and registration packet is disable by default

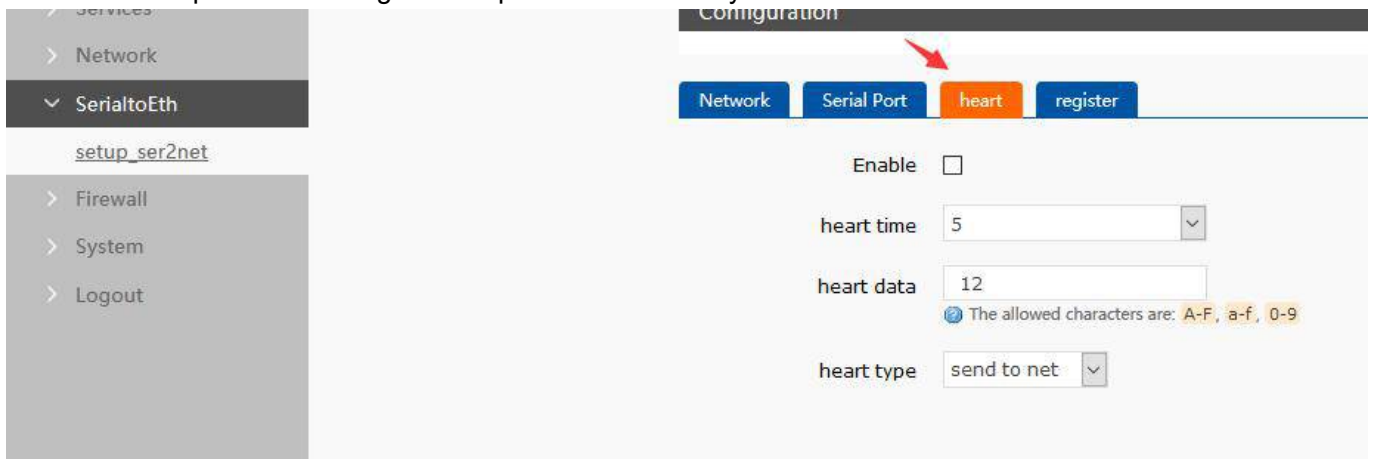


Figure26 heartbeat package

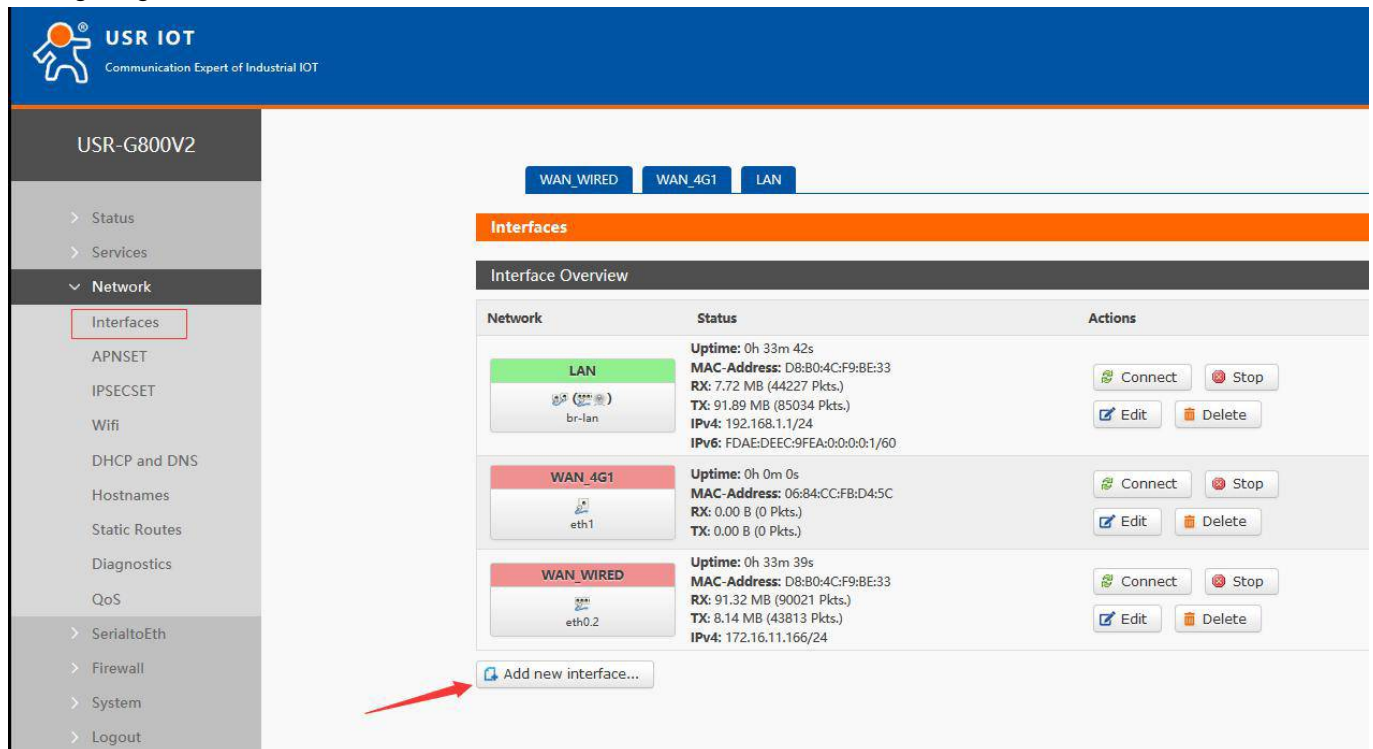
3.3.8 VPN Client(PPTP、L2TP、IPSEC、OPENVPN、GRE、SSTP)

3.3.8.1 PPTP

PPTP is a point-to-point tunnel protocol. It uses a TCP (port 1723) connection to maintain the tunnel. It uses the general route encapsulation (GRE) technology to encapsulate the data into PPP data frames and transmit them through the tunnel. It encrypts or compresses the load data in the encapsulated PPP frames. MPPE encrypts PPP frames through encryption keys generated by MS-CHAP, MS-CHAP V2 or EAP-TLS

authentication processes.

Configuring PPTP Client:



USR-G800V2

Navigation: Status, Services, **Network** (Interfaces, APNSET, IPSECSET, Wifi, DHCP and DNS, Hostnames, Static Routes, Diagnostics, QoS, SerialtoEth, Firewall, System, Logout)

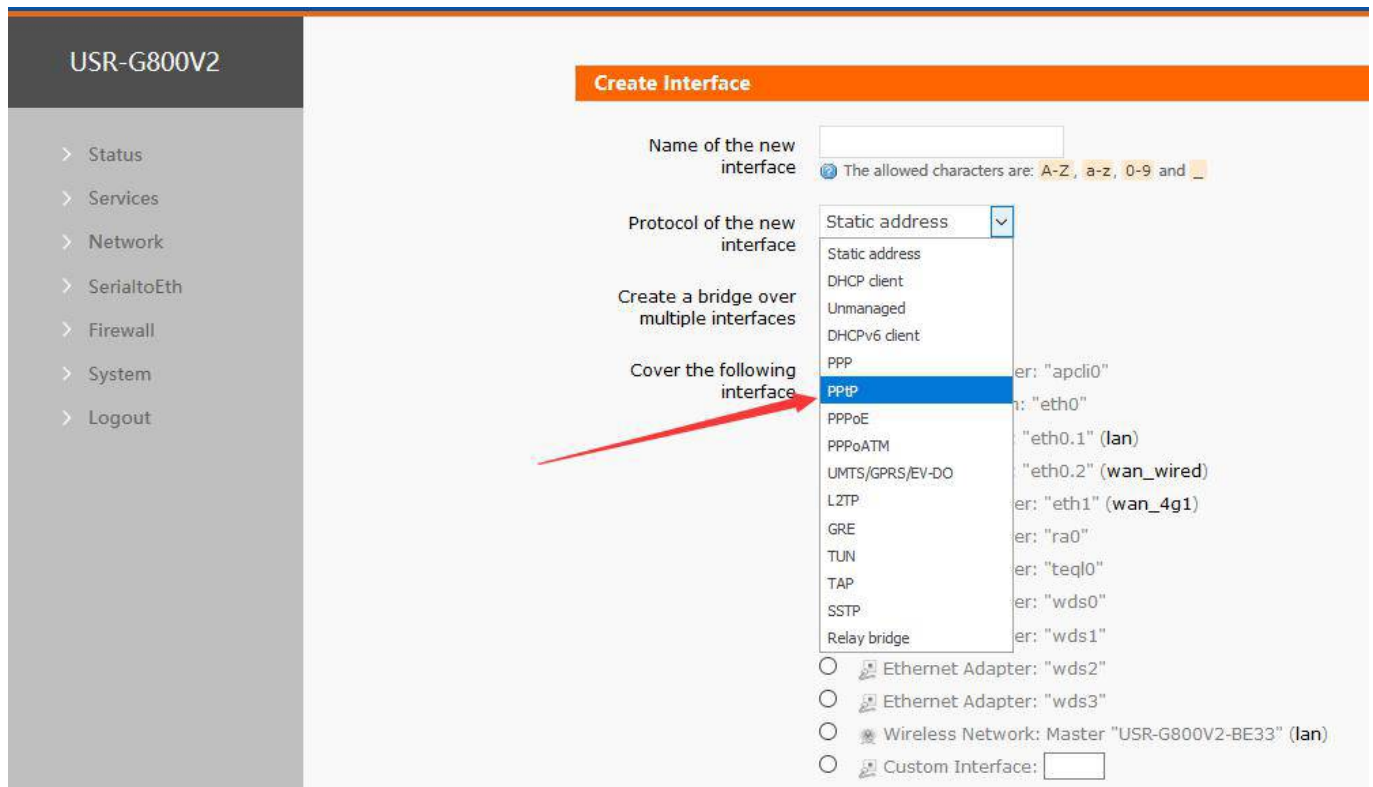
Interfaces

Interface Overview

Network	Status	Actions
LAN br-lan	Uptime: 0h 33m 42s MAC-Address: D8:B0:4C:F9:BE:33 RX: 7.72 MB (44227 Pkts.) TX: 91.89 MB (85034 Pkts.) IPv4: 192.168.1.1/24 IPv6: FDAE:DEEC:9FEA:0:0:0:1/60	Connect, Stop, Edit, Delete
WAN_4G1 eth1	Uptime: 0h 0m 0s MAC-Address: 06:84:CC:FB:D4:5C RX: 0.00 B (0 Pkts.) TX: 0.00 B (0 Pkts.)	Connect, Stop, Edit, Delete
WAN_WIRED eth0.2	Uptime: 0h 33m 39s MAC-Address: D8:B0:4C:F9:BE:33 RX: 91.32 MB (90021 Pkts.) TX: 8.14 MB (43813 Pkts.) IPv4: 172.16.11.166/24	Connect, Stop, Edit, Delete

[Add new interface...](#)

Figure27 add interface



Create Interface

Name of the new interface:

Protocol of the new interface: **PPP** (The allowed characters are: A-Z, a-z, 0-9 and _)

Create a bridge over multiple interfaces: ☐

Cover the following interface:

Options:

- ☐ Ethernet Adapter: "wds2"
- ☐ Ethernet Adapter: "wds3"
- ☐ Wireless Network: Master "USR-G800V2-BE33" (lan)
- ☐ Custom Interface:

Figure28 create PPTP

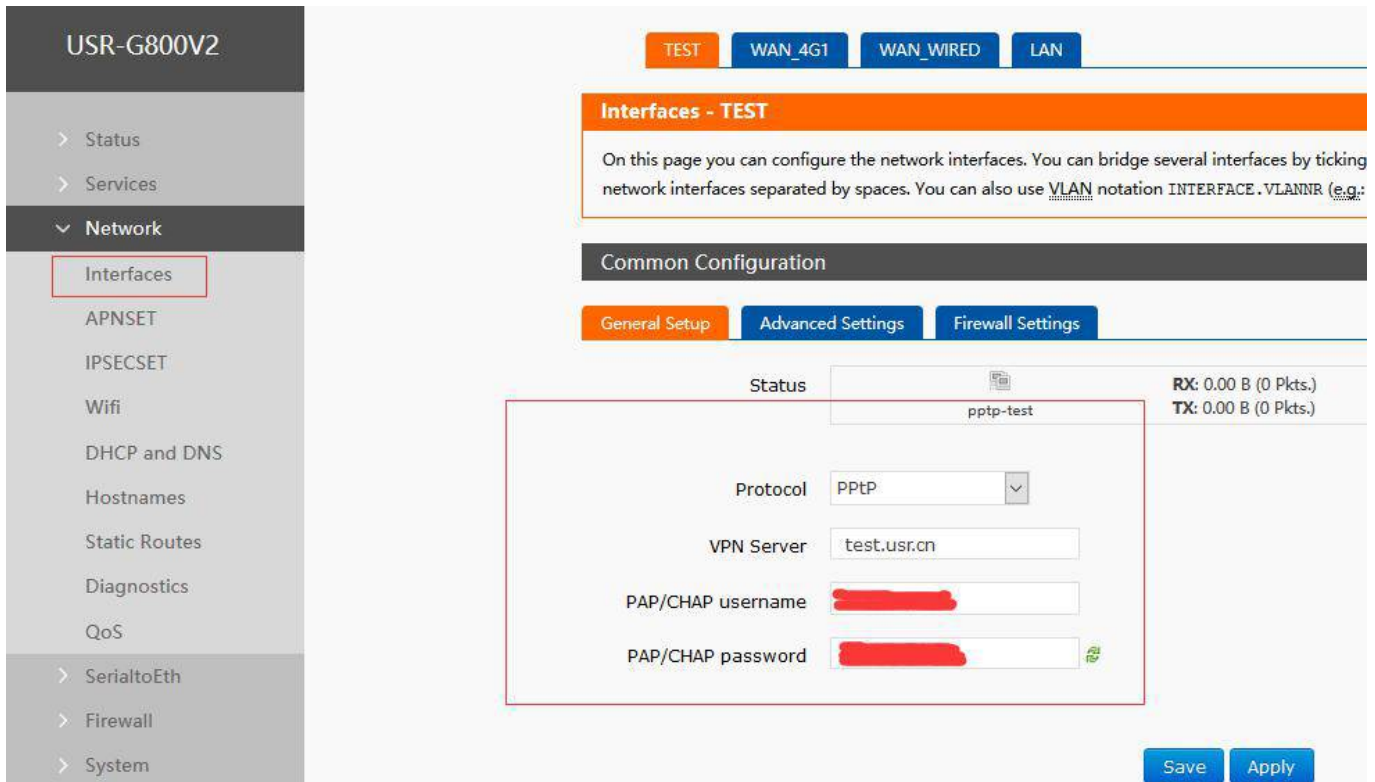



Figure29 setting page

Note:

1. Server is built to see if only MPPE encryption is supported. Only MSChapV2 encryption can be selected in the client advanced settings.
2. In the firewall area, we choose WAN because we dial at the WAN port and then click to save and apply.
3. When the "VPN" interface in the router page has run time (non-zero), it indicates that the current VPN has been successfully started and can access the VPN network.

3.3.8.2 L2TP

G800V2 supports tunnel password authentication, CHAP authentication and other authentication methods. Encryption supports MPPE encryption and L2TP OVER IPSEC pre-shared key encryption.



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USR-G800V2

- > Status
- > Services
- > **Network**
 - Interfaces
 - APNSET
 - IPSECSET
 - Wifi
 - DHCP and DNS
 - Hostnames
 - Static Routes
 - Diagnostics
 - QoS
 - > SerialtoEth
 - > Firewall
 - > System
 - > Logout

WAN_WIRED
WAN_4G1
LAN


Interfaces

Interface Overview

Network	Status	Actions
LAN  br-lan	Uptime: 0h 33m 42s MAC-Address: D8:B0:4C:F9:BE:33 RX: 7.72 MB (44227 Pkts.) TX: 91.89 MB (85034 Pkts.) IPv4: 192.168.1.1/24 IPv6: FDAE:DEEC:9FEA:0:0:0:0:1/60	Connect Stop Edit Delete
WAN_4G1  eth1	Uptime: 0h 0m 0s MAC-Address: 06:84:CC:FB:D4:5C RX: 0.00 B (0 Pkts.) TX: 0.00 B (0 Pkts.)	Connect Stop Edit Delete
WAN_WIRED  eth0.2	Uptime: 0h 33m 39s MAC-Address: D8:B0:4C:F9:BE:33 RX: 91.32 MB (90021 Pkts.) TX: 8.14 MB (43813 Pkts.) IPv4: 172.16.11.166/24	Connect Stop Edit Delete

Add new interface...

Figure30 add interface



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USR-G800V2

- > Status
- > Services
- > **Network**
 - > SerialtoEth
 - > Firewall
 - > System
 - > Logout

Create Interface

Name of the new interface

The allowed characters are: A-Z, a-z, 0-9 and _

Protocol of the new interface

v

L2TP

Static address

DHCP client

Unmanaged

DHCPv6 client

PPP

PPtP

PPPoE

PPPoATM

UMTS/GPRS/EV-DO

L2TP

GRE

TUN

TAP

SSTP

Relay bridge

Back to Overview
Submit

Figure31 L2TP

USR-G800V2

- > Status
- > Services
- > Network
- > SerialtoEth
- > Firewall
- > System
- > Logout

Common Configuration

General Setup
Advanced Settings
Firewall Settings

Auth Type

No Authby
No Authby
Only MSChapV2
MSChapV2 EAP PAP CHAP
L2TP OVER IPSEC

Set Static Ip

Tunnel Auth Password
Enable

Enable IPv6 negotiation on the PPP link

Use default gateway
☒
If unchecked, no default route is configured

Use gateway metric

Custom Subnet Mask Enabled
☐
If unchecked, default Subnet Mask is 255.255.255.255

Use DNS servers advertised by peer
☒
If unchecked, the advertised DNS server addresses are ignored

LCP echo failure threshold
Presume peer to be dead after given amount of LCP echo failures, use 0 to ignore failures

LCP echo interval
Send LCP echo requests at the given interval in seconds, only effective in conjunction with failure threshold

Figure32 auth type

USR-G800V2

- > Status
- > Services
- > Network
 - Interfaces
 - APNSET
 - IPSECSET
 - Wifi
 - DHCP and DNS
 - Hostnames
 - Static Routes
 - Diagnostics
 - QoS
- > SerialtoEth
- > Firewall

Common Configuration

General Setup
Advanced Settings
Firewall Settings

Auth Type

No Authby

Set Static Ip

Tunnel Auth Password
☒

Tunnel Auth Password
character: 1-16

Enable IPv6 negotiation on the PPP link
☐

Use default gateway
☒
If unchecked, no default route is configured

Use gateway metric

Custom Subnet Mask Enabled
☐
If unchecked, default Subnet Mask is 255.255.255.255

Use DNS servers advertised by peer
☒
If unchecked, the advertised DNS server addresses are ignored

Figure33 setting page

Note:

When selecting L2TP OVER IPSEC encryption, IPSEC configuration can refer to IPSEC configuration.

3.3.8.3 IPSEC

IPSEC protocol is not a single protocol. It provides a set of architecture for data security between application

and IP layer, including network authentication protocols AH, ESP, IKE and some algorithms for network authentication and encryption. AH protocol and ESP protocol are used to provide security services, IKE protocol is used for key exchange.

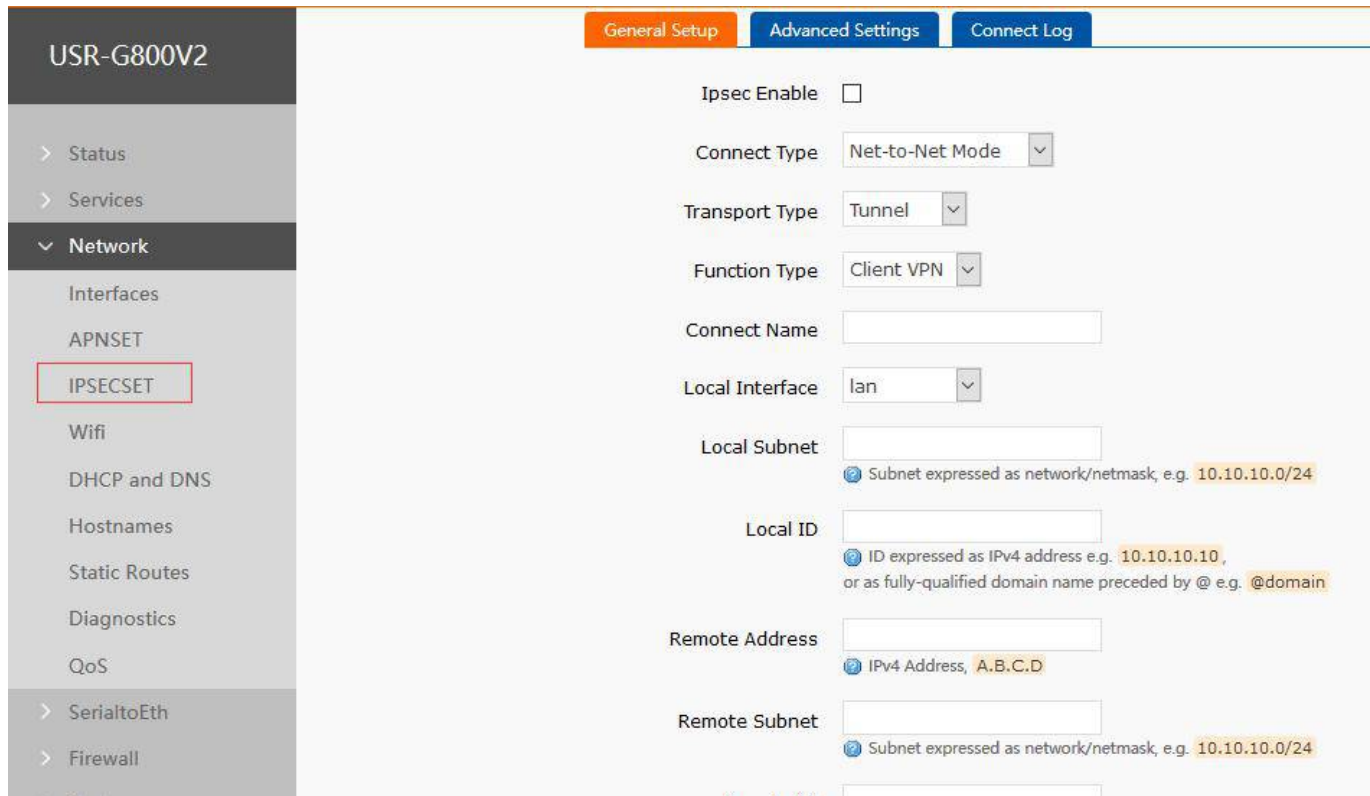
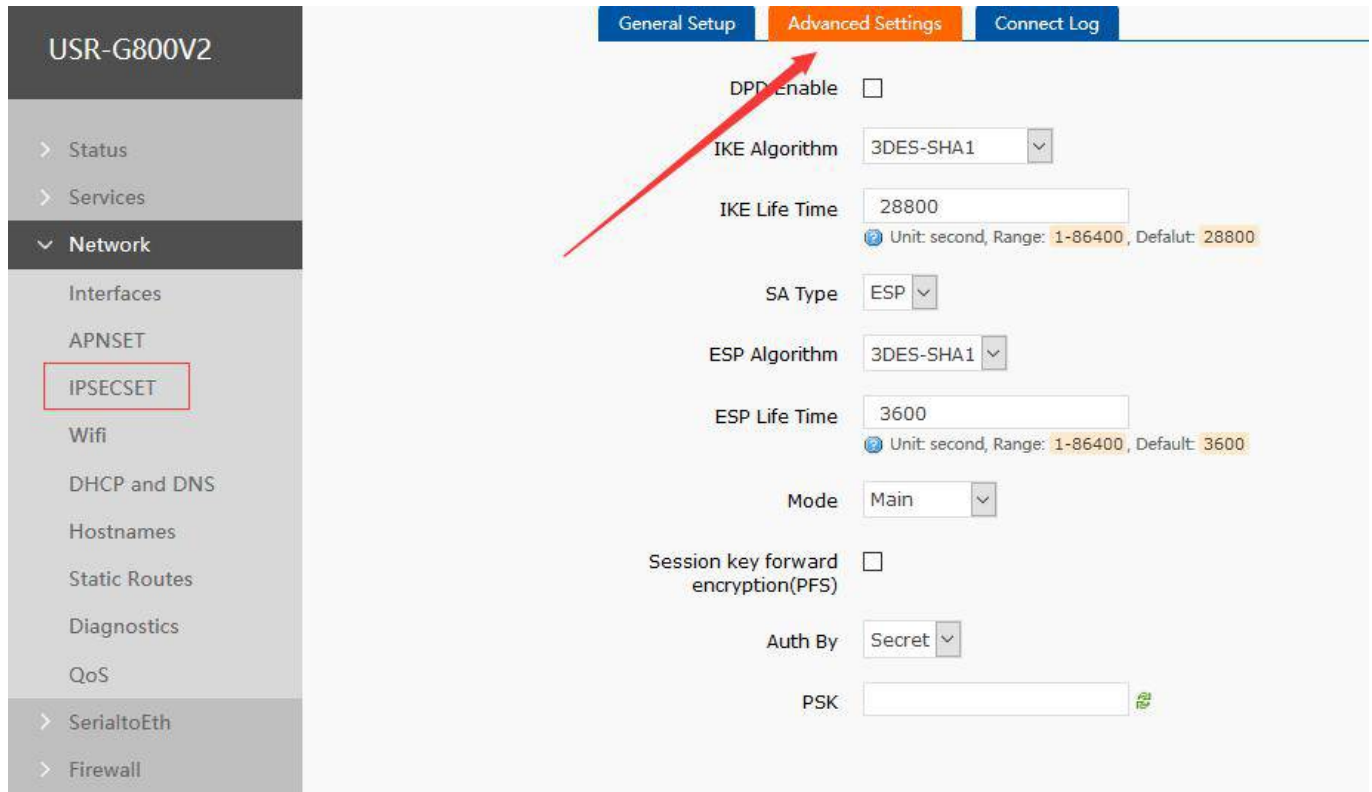


Figure34 setting page

- Application mode selection: Net-to-Net mode (site-to-site or gateway-to-gateway), Road Warrior mode (end-to-site or PC-to-gateway)
- Transport mode selection: It can be divided into tunnel mode and transmission mode. You can choose from the transport type.
- Functional types: can be divided into VPN client and VPN server.
- Connection name: The name used to indicate the connection must be unique.
- Local interface: The local address through which you can choose wan_wired, wan_4g
- Remote address: IP/domain name on the other end.
- Local Terminals: IPSEC protects subnets and subnet masks. If you choose the client of Road Warrior mode, you do not need to fill in.
- Remote Terminals: IPSEC end-to-end protection subnet and subnet mask.
- Local identifier: Channel local identifier, which can be IP or domain name. Note that when you customize a domain name, add @
- Remote identifier: Channel-to-end identifier, which can be IP or domain name. Note that when you customize a domain name, add @



The screenshot shows the 'Advanced Settings' page for the 'IPSECSET' configuration on a USR-G800V2 device. The left sidebar lists various network settings, with 'IPSECSET' selected. The main configuration area includes the following options:

- DPD Enable:** A checkbox that is currently unchecked.
- IKE Algorithm:** A dropdown menu set to '3DES-SHA1'.
- IKE Life Time:** A text input field set to '28800'. Below it, a tooltip indicates 'Unit: second, Range: 1-86400, Default: 28800'.
- SA Type:** A dropdown menu set to 'ESP'.
- ESP Algorithm:** A dropdown menu set to '3DES-SHA1'.
- ESP Life Time:** A text input field set to '3600'. Below it, a tooltip indicates 'Unit: second, Range: 1-86400, Default: 3600'.
- Mode:** A dropdown menu set to 'Main'.
- Session key forward encryption(PFS):** A checkbox that is currently unchecked.
- Auth By:** A dropdown menu set to 'Secret'.
- PSK:** A text input field that is currently empty.

Figure35 setting page


- Start DPD Detection: Whether to Enable this Function
- DPD time interval: Set the time interval of connection detection (DPD).
- DPD timeout: Set the connection detection (DPD) timeout.
- DPD operation: Set up the operation of connection detection.
- IKE encryption: The first stage includes IKE encryption mode, integrity scheme and DH switching algorithm.
- IKE life cycle: Set IKE life cycle in seconds, default: 28800.
- SA type: ESP and AH can be selected in the second stage.
- ESP Encryption: Select the corresponding encryption mode and integrity scheme.
- ESP Life Cycle: Set ESP Life Cycle, Unit: s, Default: 3600
- Mode: The negotiation mode defaults to the main mode, and the barbaric mode can be chosen.
- Session Key Forward Encryption (PFS): Whether PFS is enabled
- Authentication method: At present, it supports the authentication method of pre-shared key.

Note:

After the configuration is successful, ISAKMP SA established flag in the connection log indicates that IPSEC VPN was created successfully.

3.3.8.4 OPENVPN

OPEN VPN is an application layer VPN implementation based on Openssl library. It supports certificate-based two-way authentication, that is, the client needs to authenticate the server, and the server also needs to authenticate the client.


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USR-G800V2

- > Status
- > Services
- > **Network**
 - Interfaces
 - APNSET
 - IPSECSET
 - Wifi
 - DHCP and DNS
 - Hostnames
 - Static Routes
 - Diagnostics
 - QoS
 - > SerialtoEth
 - > Firewall
 - > System
 - > Logout

WAN_WIRED
WAN_4G1
LAN

Interfaces

Interface Overview

Network	Status	Actions
LAN  br-lan	Uptime: 0h 33m 42s MAC-Address: D8:B0:4C:F9:BE:33 RX: 7.72 MB (44227 Pkts.) TX: 91.89 MB (85034 Pkts.) IPv4: 192.168.1.1/24 IPv6: FDAE:DEEC:9FEA:0:0:0:1/60	<div>  Connect  Stop </div> <div>  Edit  Delete </div>
WAN_4G1  eth1	Uptime: 0h 0m 0s MAC-Address: 06:84:CC:FB:D4:5C RX: 0.00 B (0 Pkts.) TX: 0.00 B (0 Pkts.)	<div>  Connect  Stop </div> <div>  Edit  Delete </div>
WAN_WIRED  eth0.2	Uptime: 0h 33m 39s MAC-Address: D8:B0:4C:F9:BE:33 RX: 91.32 MB (90021 Pkts.) TX: 8.14 MB (43813 Pkts.) IPv4: 172.16.11.166/24	<div>  Connect  Stop </div> <div>  Edit  Delete </div>




 Add new interface...
 

Figure36 add interface


USR IOT
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USR-G800V2

- > Status
- > Services
- > **Network**
 - > SerialtoEth
 - > Firewall
 - > System
 - > Logout

Create Interface

Name of the new interface
The allowed characters are: A-Z, a-z, 0-9 and _

Protocol of the new interface

Static address

Create a bridge over multiple interfaces

Cover the following interface

Static address
 DHCP client
 Unmanaged
 DHCPv6 client
 PPP
 PPPoE
 PPPoATM
 UMTS/GPRS/EV-DO
 LZTP
 GRE
TUN
 TAP
 SSTP
 Relay bridge

er: "apcli0"
 n: "eth0"
 "eth0.1" (lan)
 "eth0.2" (wan_wired)
 er: "eth1" (wan_4g1)
 er: "ra0"
 er: "teql0"
 er: "wds0"
 er: "wds1"

☐ Ethernet Adapter: "wds2"
☐ Ethernet Adapter: "wds3"
☐ Wireless Network: Master "USR-G800V2-BE33" (lan)
☐ Custom Interface:


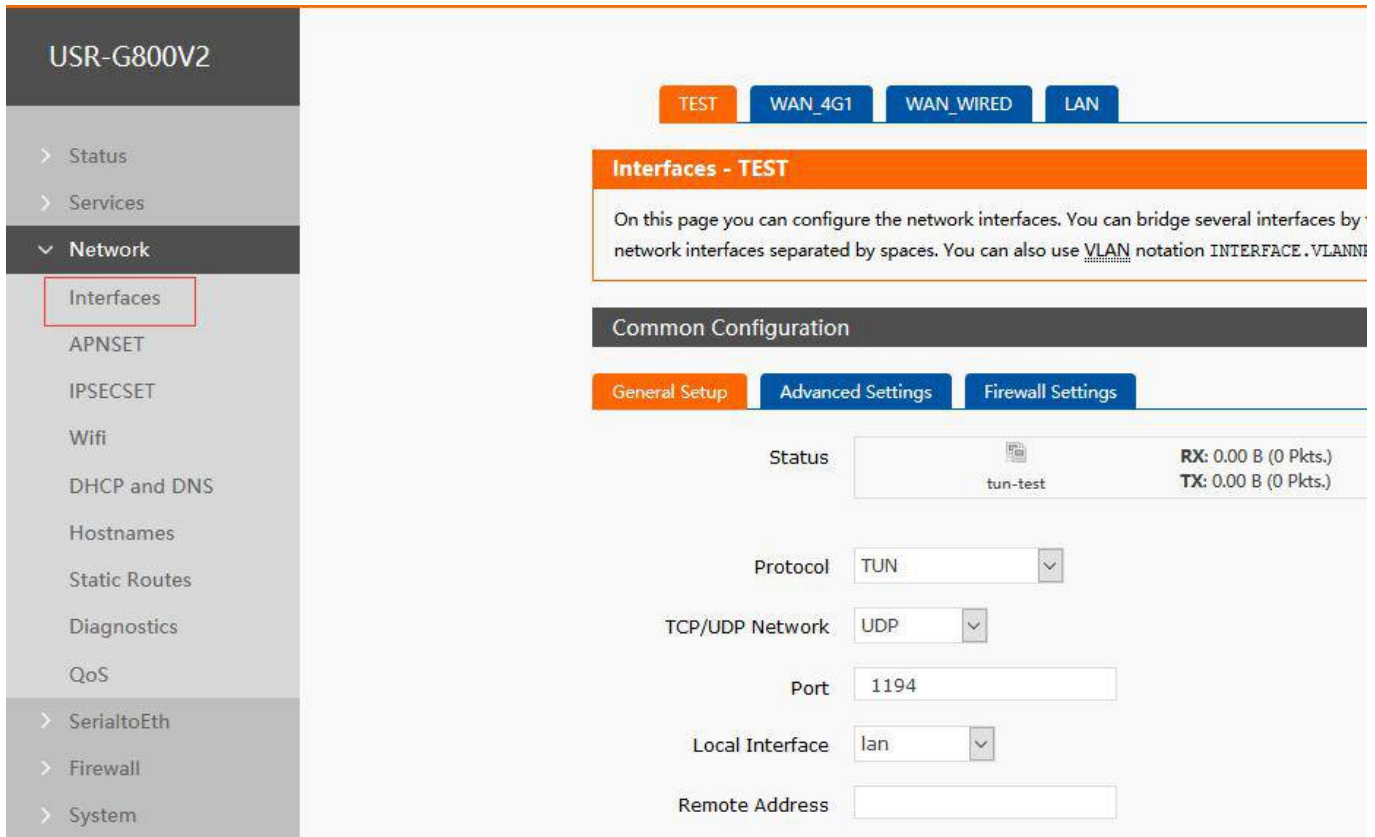


Figure37 setting page



USR-G800V2

- > Status
- > Services
- ▼ **Network**
 - Interfaces**
 - APNSET
 - IPSECSET
 - Wifi
 - DHCP and DNS
 - Hostnames
 - Static Routes
 - Diagnostics
 - QoS
- > SerialtoEth
- > Firewall
- > System


TEST | WAN_4G1 | WAN_WIRED | LAN

Interfaces - TEST

On this page you can configure the network interfaces. You can bridge several interfaces by network interfaces separated by spaces. You can also use VLAN notation INTERFACE.VLANID

Common Configuration

General Setup | Advanced Settings | Firewall Settings

Status:  tun-test **RX:** 0.00 B (0 Pkts.) **TX:** 0.00 B (0 Pkts.)

Protocol: TUN

TCP/UDP Network: UDP

Port: 1194

Local Interface: lan

Remote Address:

Figure38 setting page

- Protocol: TUN (Routing Mode) or TAP (Bridge Mode) .
- Channel protocol: UDP or TCP
- Port: The listening port of OPENVPN client.
- Home interface: wan_wrid or wan_4g.
- Remote address: IP/domain name of the server.
- Local Tunnel Address: You can set the local tunnel address, such as 192.168.10.1, if not fill in, default server automatic allocation.
- Remote Tunnel Address: You can set the opposite tunnel address, such as 192.168.10.1, if not fill in, default server automatic allocation.

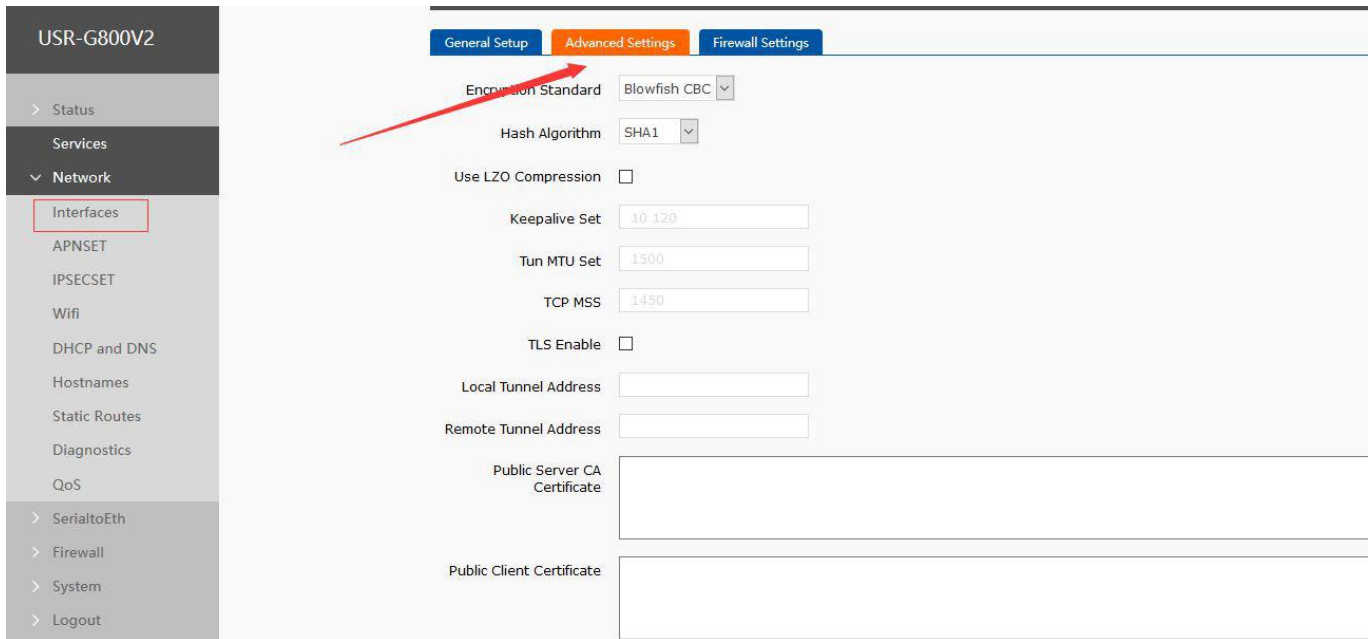


Figure39 setting page


- Encryption Standards: Channel Encryption Standards include Blowfish CBC, AES-128 CBC, AES-192 CBC, AES-256 CBC and AES-512 CBC.
- Use LZO compression: Enable or disable transmission data using LZO compression.
- Keep-alive settings: default is 10 120
- TUN MTU Settings: Set MTU Values for Channels
- TCP MSS: Maximum Segmentation Size of TCP Data
- TLS Authentication Key: Authentication Key for Secure Transport Layer
- Public Service CA Certificate: A Certificate Common to Server and Client
- Public Client Certificate: Client Certificate
- Client Private Key: Client Key

Note:

Before the connection between client and server, Ca certificate, client certificate, client key, TLS authentication key, which need to be provided by server.

3.3.8.5 GRE

GRE (Generic Routing Encapsulation) protocol is for some network layer protocol (such as IP and IPX) datagram Encapsulation, make the datagram is encapsulated to in another transmission in the network layer protocol (IP). The GRE uses Tunnel technology, which is the third-tier Tunnel protocol of the Virtual Private Network.



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USR-G800V2

- > Status
- > Services
- > Network
 - Interfaces
 - APNSET
 - IPSECSET
 - Wifi
 - DHCP and DNS
 - Hostnames
 - Static Routes
 - Diagnostics
 - QoS
 - > SerialtoEth
 - > Firewall
 - > System
 - > Logout

WAN_WIRED
WAN_4G1
LAN

Interfaces

Interface Overview

Network	Status	Actions
LAN  br-lan	Uptime: 0h 33m 42s MAC-Address: D8:B0:4C:F9:BE:33 RX: 7.72 MB (44227 Pkts.) TX: 91.89 MB (85034 Pkts.) IPv4: 192.168.1.1/24 IPv6: FDAE:DEEC:9FEA:0:0:0:1/60	<div style="display: flex; justify-content: space-around;"> Connect Stop </div> <div style="display: flex; justify-content: space-around;"> Edit Delete </div>
WAN_4G1  eth1	Uptime: 0h 0m 0s MAC-Address: 06:84:CC:FB:D4:5C RX: 0.00 B (0 Pkts.) TX: 0.00 B (0 Pkts.)	<div style="display: flex; justify-content: space-around;"> Connect Stop </div> <div style="display: flex; justify-content: space-around;"> Edit Delete </div>
WAN_WIRED  eth0.2	Uptime: 0h 33m 39s MAC-Address: D8:B0:4C:F9:BE:33 RX: 91.32 MB (90021 Pkts.) TX: 8.14 MB (43813 Pkts.) IPv4: 172.16.11.166/24	<div style="display: flex; justify-content: space-around;"> Connect Stop </div> <div style="display: flex; justify-content: space-around;"> Edit Delete </div>

Add new interface...

Figure40 setting page

USR-G800V2

- > Status
- > Services
- > Network
 - > SerialtoEth
 - > Firewall
 - > System
 - > Logout

Create Interface

Name of the new interface

The allowed characters are: A-Z, a-z, 0-9 and _

Protocol of the new interface Static address

Static address

DHCP client

Unmanaged

DHCPv6 client

PPP

PPPoE

PPPoATM

UMTS/GPRS/EV-DO

L2TP

GRE

TUN

TAP

SSTP

Relay bridge

Cover the following interface

☐ Ethernet Adapter: "wds2"
 ☐ Ethernet Adapter: "wds3"
 ☐ Wireless Network: Master "USR-G800V2-BE33" (lan)
 ☐ Custom Interface:

Figure41 setting page

USR-G800V2

> Status

> Services

> Network

Interfaces

APNSET

IPSECSET

Wifi

DHCP and DNS

Hostnames

Static Routes

Diagnostics

QoS

> SerialtoEth

> Firewall

> System

> Logout

TEST WAN_4G1 WAN_WIRED LAN

Interfaces - TEST

On this page you can configure the network interfaces. You can bridge several interfaces by tick network interfaces separated by spaces. You can also use VLAN notation INTERFACE.VLANNR (e.g. eth0.100)

Common Configuration

General Setup Advanced Settings Firewall Settings

Status

gre-test

RX: 0.00 B (0 Pkts.)

TX: 0.00 B (0 Pkts.)

Protocol

GRE

Remote Address

Local Address

Remote Tunnel Address

Local Tunnel Address

Save Apply

Figure42 setting page

USR-G800V2

> Status

> Services

> Network

Interfaces

APNSET

IPSECSET

Wifi

DHCP and DNS

Hostnames

Static Routes

Diagnostics

QoS

> SerialtoEth

TEST WAN_4G1 WAN_WIRED LAN

Interfaces - TEST

On this page you can configure the network interfaces. You can bridge several interfaces by tick network interfaces separated by spaces. You can also use VLAN notation INTERFACE.VLANNR (e.g. eth0.100)

Common Configuration

General Setup Advanced Settings Firewall Settings

TTL Set

255

Override MTU

1400

Save Apply

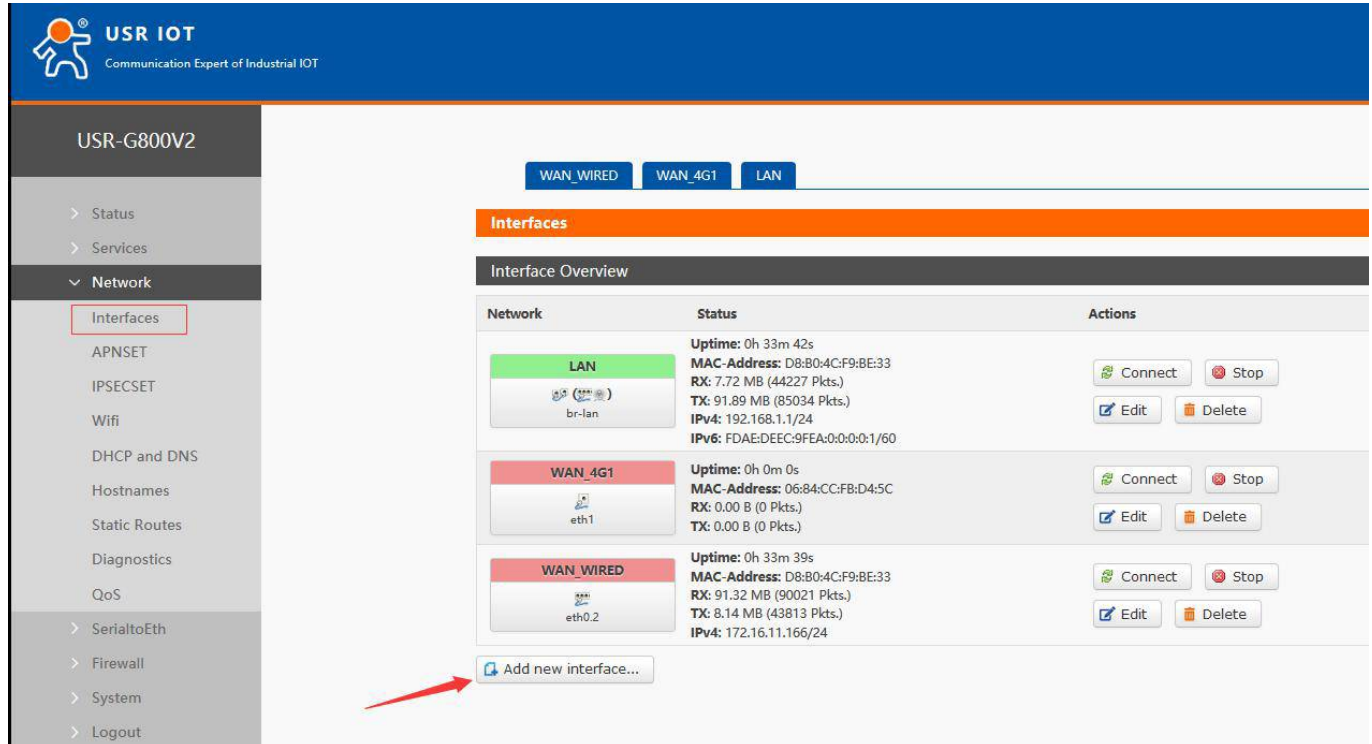
Figure43 setting page

- TTL Settings: set the TTL of the GRE channel, default 255
- Set MTU: set the MTU of GRE channel, default 1400

3.3.8.6 SSTP

SSTP, also known as secure sockets tunnel protocol, is an Internet protocol that creates a VPN tunnel for traffic over HTTPS.

SSTP is only available for remote access and does not support VPN tunnels between sites



USR-G800V2

Communication Expert of Industrial IOT

Network > Interfaces

APNSET
IPSECSET
Wifi
DHCP and DNS
Hostnames
Static Routes
Diagnostics
QoS
SerialtoEth
Firewall
System
Logout

WAN_WIRED WAN_4G1 LAN

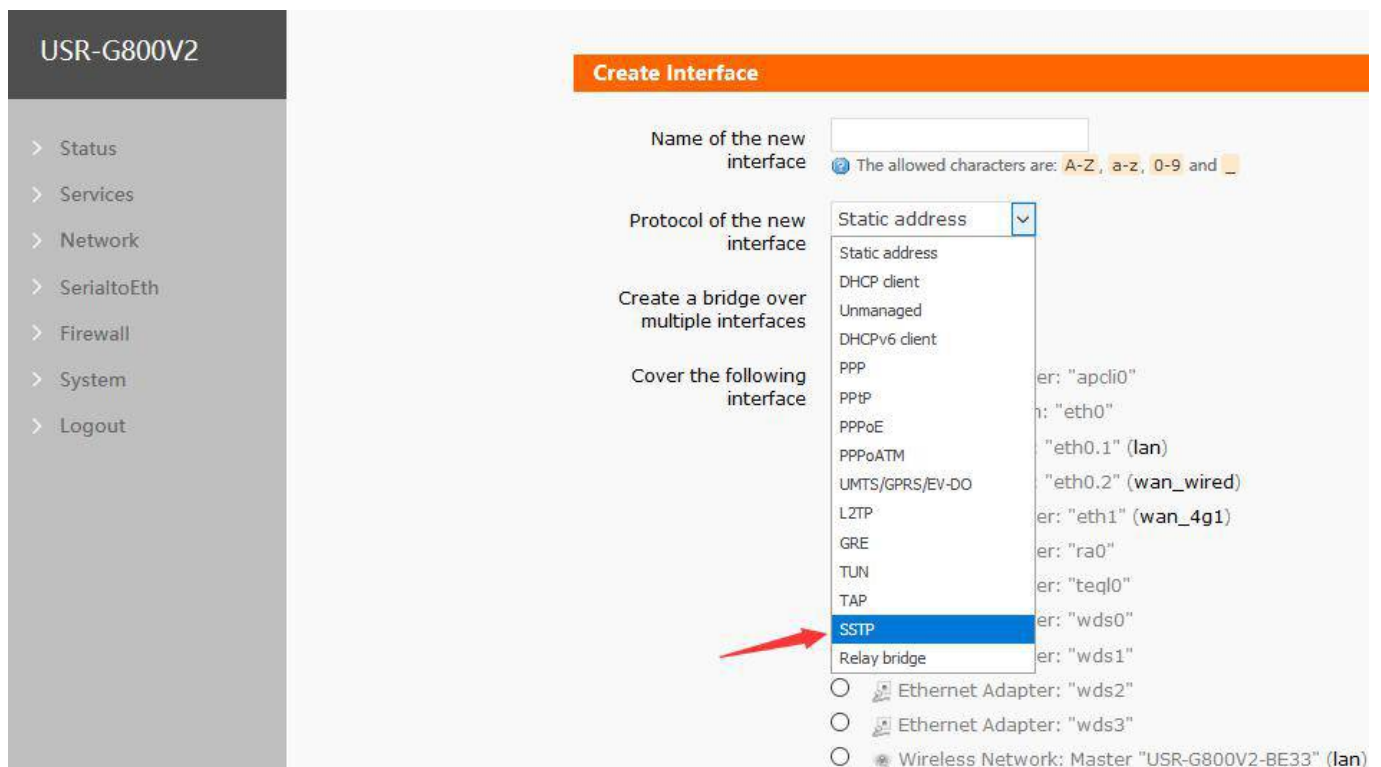
Interfaces

Interface Overview

Network	Status	Actions
LAN br-lan	Uptime: 0h 33m 42s MAC-Address: D8:B0:4C:F9:BE:33 RX: 7.72 MB (44227 Pkts.) TX: 91.89 MB (85034 Pkts.) IPv4: 192.168.1.1/24 IPv6: FDAE:DEEC:9FEA:0:0:0:1/60	Connect Stop Edit Delete
WAN_4G1 eth1	Uptime: 0h 0m 0s MAC-Address: 06:84:CC:FB:D4:5C RX: 0.00 B (0 Pkts.) TX: 0.00 B (0 Pkts.)	Connect Stop Edit Delete
WAN_WIRED eth0.2	Uptime: 0h 33m 39s MAC-Address: D8:B0:4C:F9:BE:33 RX: 91.32 MB (90021 Pkts.) TX: 8.14 MB (43813 Pkts.) IPv4: 172.16.11.166/24	Connect Stop Edit Delete

Add new interface...

Figure44 setting page



USR-G800V2

Status
Services
Network
SerialtoEth
Firewall
System
Logout

Create Interface

Name of the new interface:

Protocol of the new interface: Static address

Create a bridge over multiple interfaces: ☐

Cover the following interface: ☐

The allowed characters are: A-Z, a-z, 0-9 and _

Static address
DHCP client
Unmanaged
DHCPv6 client
PPP
PPtP
PPPoE
PPPoATM
UMTS/GPRS/EV-DO
L2TP
GRE
TUN
TAP
SSTP
Relay bridge

er: "apcli0"
n: "eth0"
"eth0.1" (lan)
"eth0.2" (wan_wired)
er: "eth1" (wan_4g1)
er: "ra0"
er: "teql0"
er: "wds0"
er: "wds1"

☐ Ethernet Adapter: "wds2"
☐ Ethernet Adapter: "wds3"
☐ Wireless Network: Master "USR-G800V2-BE33" (lan)

Figure45 setting page

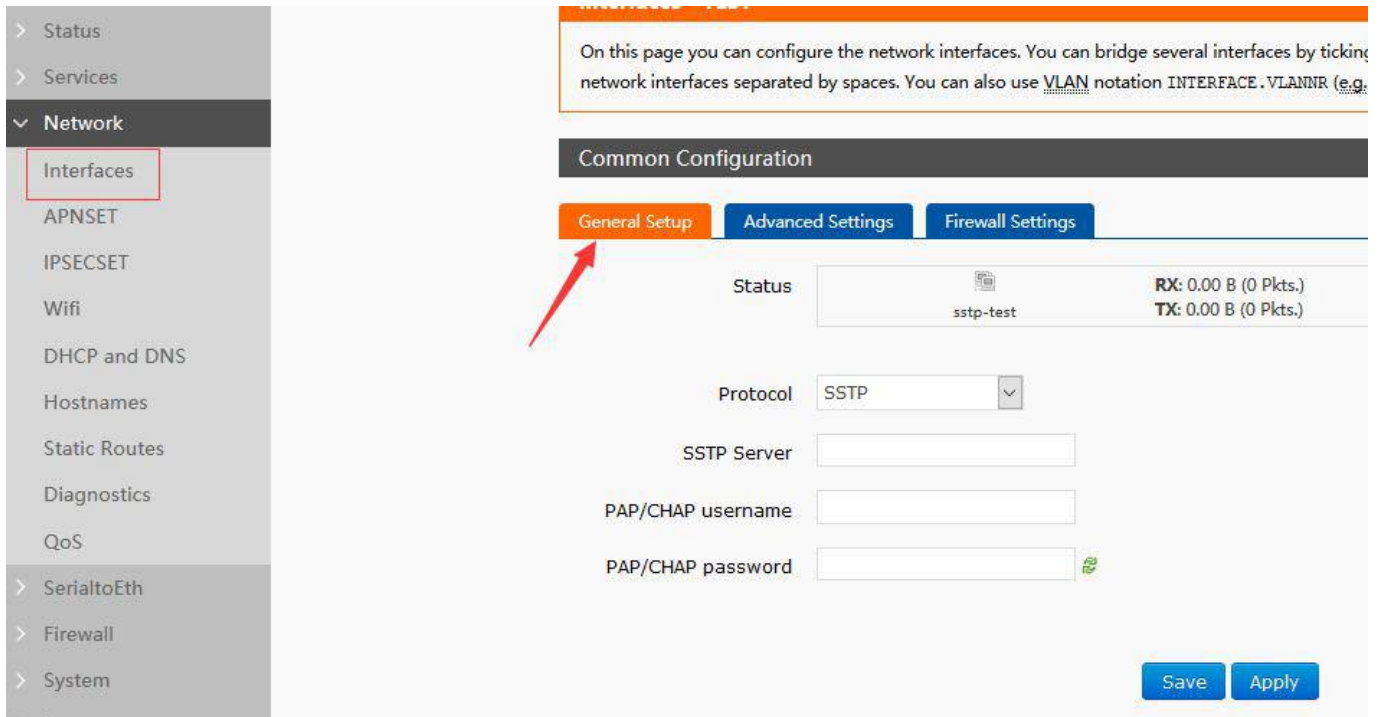


Figure46 setting page

- SSTP Server: IP or Domain Name of SSTP Server
- PAP/CHAP User Name: SSTP User Name
- PAP/CHAP password: SSTP password

Note:

Advanced settings can refer to advanced settings of PPTP.

3.3.9 Static Route

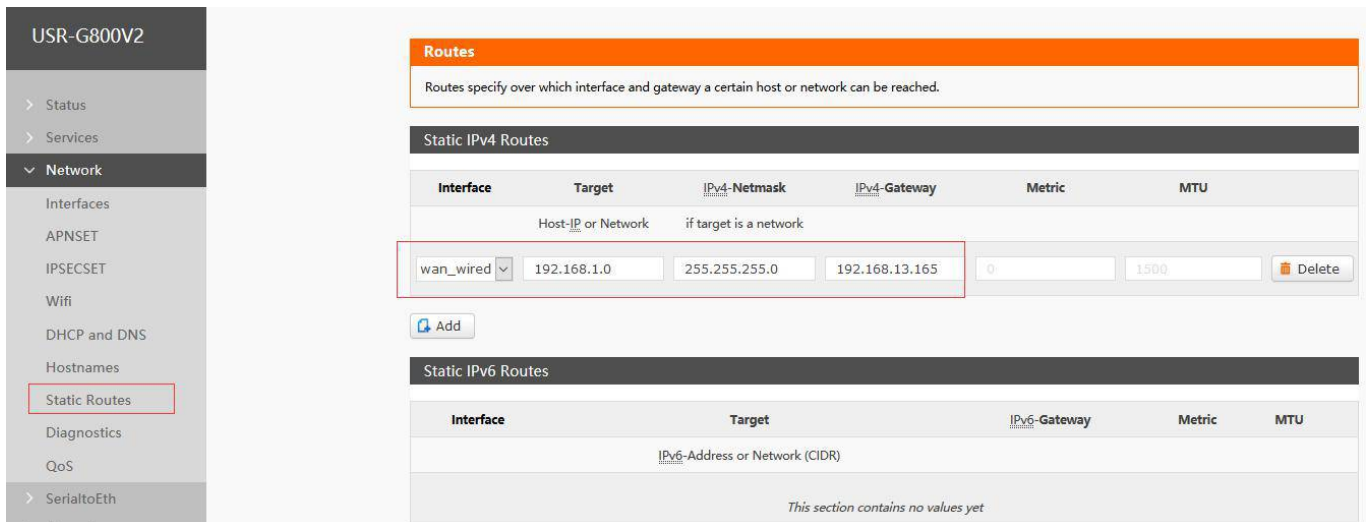
Static routing can achieve setup communication between two different intranet segments, such as the following configuration:

The Wan port of G800V2 is 192.168.13.167, and the LAN port is 192.168.20.1.

The Wan port of G806 is 192.168.13.165, and the LAN port is 192.168.1.1.

If users want to realize that the PC under G800V2 LAN port accesses the PC under G806 LAN port, users can add a static routing to G800V2.

Set up static routing on G800V2 first. (Refer to G800V2 setting principle for setting up G806)



USR-G800V2

- > Status
- > Services
- > **Network**
 - Interfaces
 - APNSET
 - IPSECSET
 - Wifi
 - DHCP and DNS
 - Hostnames
 - Static Routes**
 - Diagnostics
 - QoS
 - > SerialtoEth

Routes

Routes specify over which interface and gateway a certain host or network can be reached.

Static IPv4 Routes

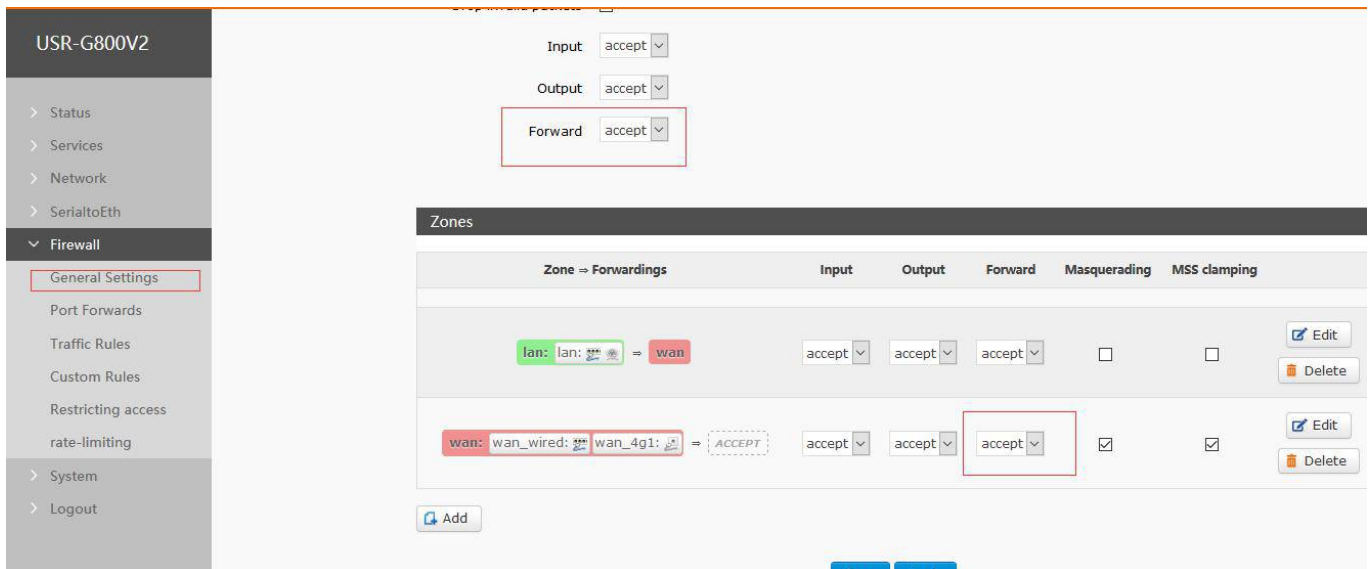
Interface	Target	IPv4-Netmask	IPv4-Gateway	Metric	MTU	
Host-IP or Network if target is a network						
wan_wired	192.168.1.0	255.255.255.0	192.168.13.165	0	1500	Delete

Add

Static IPv6 Routes

Interface	Target	IPv6-Gateway	Metric	MTU
IPv6-Address or Network (CIDR)				
This section contains no values yet				

Figure47 setting page



USR-G800V2

- > Status
- > Services
- > Network
- > SerialtoEth
- > **Firewall**
 - General Settings**
 - Port Forwards
 - Traffic Rules
 - Custom Rules
 - Restricting access
 - rate-limiting
 - > System
 - > Logout

Input: accept

Output: accept

Forward: accept

Zones

Zone → Forwardings	Input	Output	Forward	Masquerading	MSS clamping	
lan: lan: == wan	accept	accept	accept	<input type="checkbox"/>	<input type="checkbox"/>	Edit Delete
wan: wan_wired: == wan_4g1: == ACCEPT	accept	accept	accept	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Edit Delete

Add

Figure48 setting page

Note:

1. Static routing is not added by default. When using this function, please configure it according to specific requirements.
2. After adding, please enable the forwarding of Firewall -> basic settings.

3.3.10 Firewall

3.3.10.1 NAT Function

3.3.10.1.1 MASQ

MASQ, also known as MASQUREADE, converts the source IP leaving the packet into the IP address of an interface of the router. If the IP dynamic camouflage is checked in the figure, the system will change the source IP address of the packet leaving the router to the IP address of the WAN port.

Note:

Enable by default.

USR-G800V2

> Status

> Services

> Network

> SerialtoEth

Firewall

General Settings

Port Forwards

Traffic Rules

Custom Rules

Restricting access

rate-limiting

> System

> Logout

Input: accept

Output: accept

Forward: reject

Zones

Zone → Forwardings	Input	Output	Forward	Masquerading	MSS clamping	
lan: lan: → wan	accept	accept	accept	<input type="checkbox"/>	<input type="checkbox"/>	<div>Edit</div> <div>Delete</div>
wan: wan_wired: → wan_4g1: ACCEPT	accept	accept	reject	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<div>Edit</div> <div>Delete</div>

Add

Save

Apply

Figure49 MASQ setting page

3.3.10.1.2 SNAT

Source NAT is a special form of packet camouflage. By changing the source address of the packet leaving the router, the source IP address of the packet leaving the router is fixed to 192.168.9.1.

> Status

> Services

> Network

> SerialtoEth

Firewall

General Settings

Port Forwards

Traffic Rules

Custom Rules

Restricting access

rate-limiting

> System

> Logout

Name

Source zone

Destination zone

New forward rule

lan

wan

Add and edit...

Source NAT

Source NAT is a specific form of masquerading which allows fine grained control over the source IP used for outgoing traffic, for example to map multiple WAN addresses to internal subnets.

Name	Match	Action	Enable	Sort
This section contains no values yet				

New source NAT:

Name	Source zone	Destination zone	To source IP	To source port	
test	lan	wan	192.168.9.1	Do not rewrite	<div>Add and edit...</div>

Save

Apply

Figure50 setting page

3.3.10.1.3 DNAT

3.3.10.1.1.1 Port Forward

Port forwarding allows remote computers on the Internet to connect to a specific computer or service within the private LAN.

Port Forwards

Name	Match	Forward to	Enable	Sort
This section contains no values yet				

New port forward:

Name	Protocol	External zone	External port	Internal zone	Internal IP address	Internal port
New port forw	TCP+UDP	wan		lan		

[Add](#)

[Save](#) [Apply](#)

Figure51 port forward

3.3.10.1.1.2 NAT/DMZ

Port forwarding allows remote computers on the Internet to connect to a specific computer or service within the private LAN.

Port Forwards

Name	Match	Forward to	Enable	Sort
test	IPv4-TCP From any host in wan Via any router IP at port 8080	IP 192.168.1.214, port 80 in lan	<input checked="" type="checkbox"/>	+ - Delete

New port forward:

Name	Protocol	External zone	External port	Internal zone	Internal IP address	Internal port
New port forw	TCP+UDP	wan		lan		

[Add](#)

[Save](#) [Apply](#)

Figure52 setting page

Note:

Port mapping and DMZ functions cannot be used simultaneously.

3.3.10.2 Restricting Access

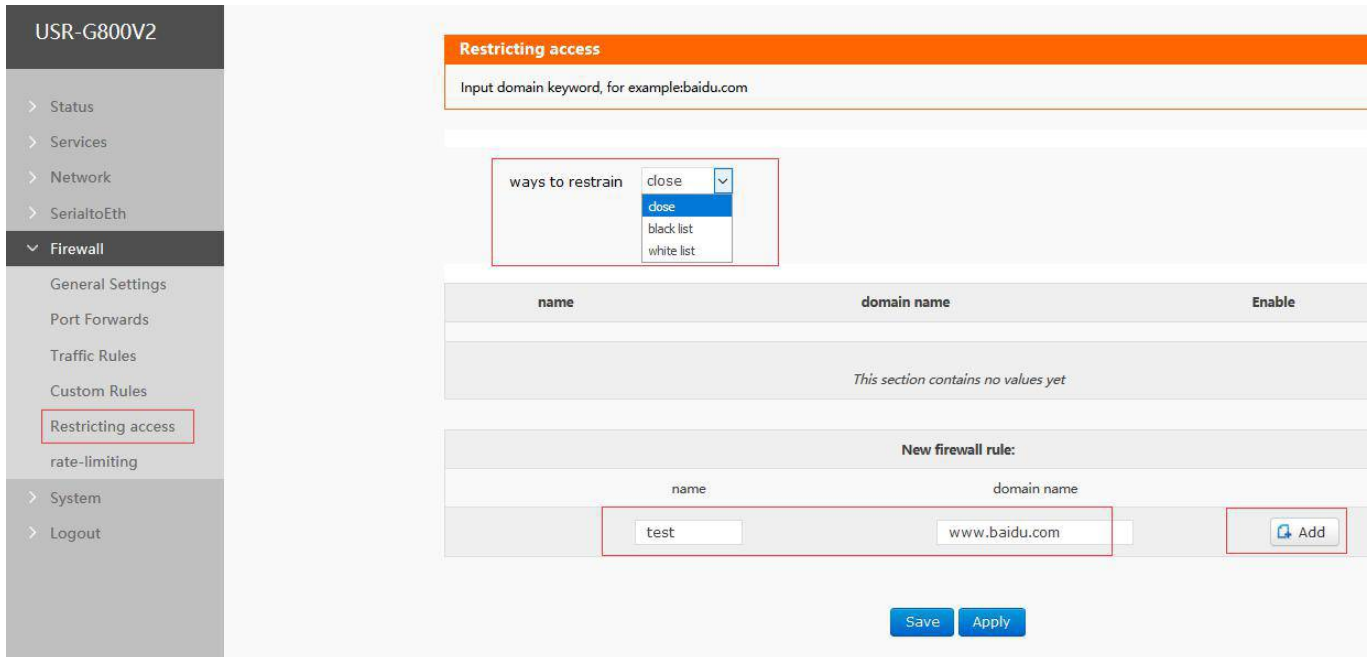


Figure53 black/white list

3.3.10.3 Rate-Limiting

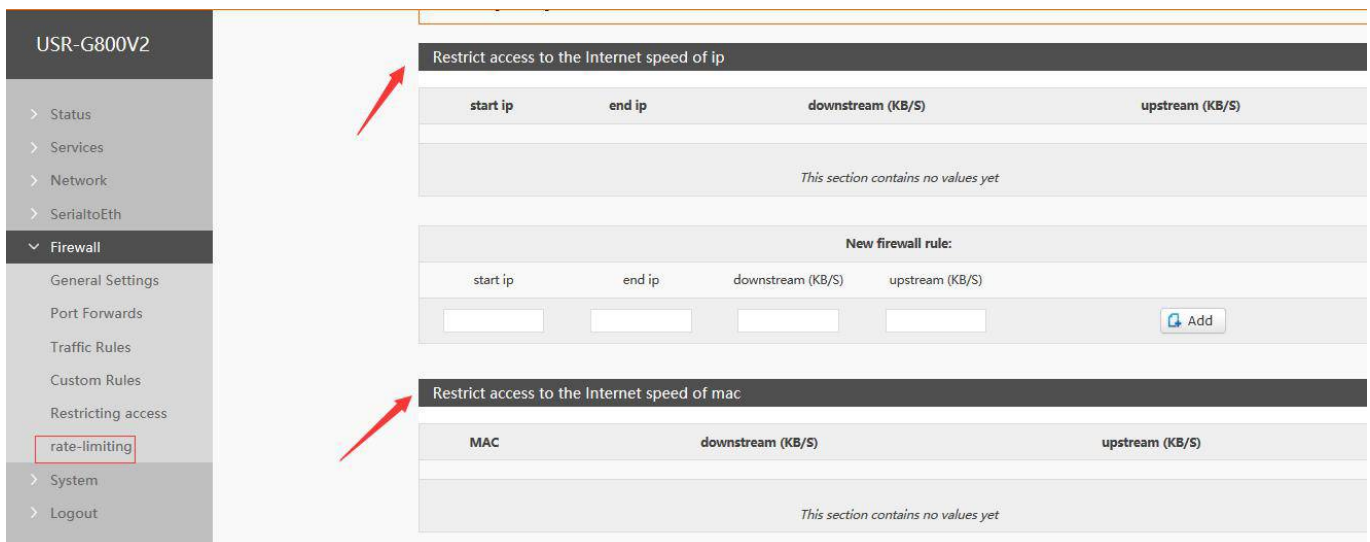


Figure54 rate-limiting

4 Setup Method

4.1 Webpage Setting

Parameters	Default
SSID	USR-G800V2-XXXX
IP of LAN port	192.168.1.1
Account	root
Password	root
Wifi-password	www.usr.cn

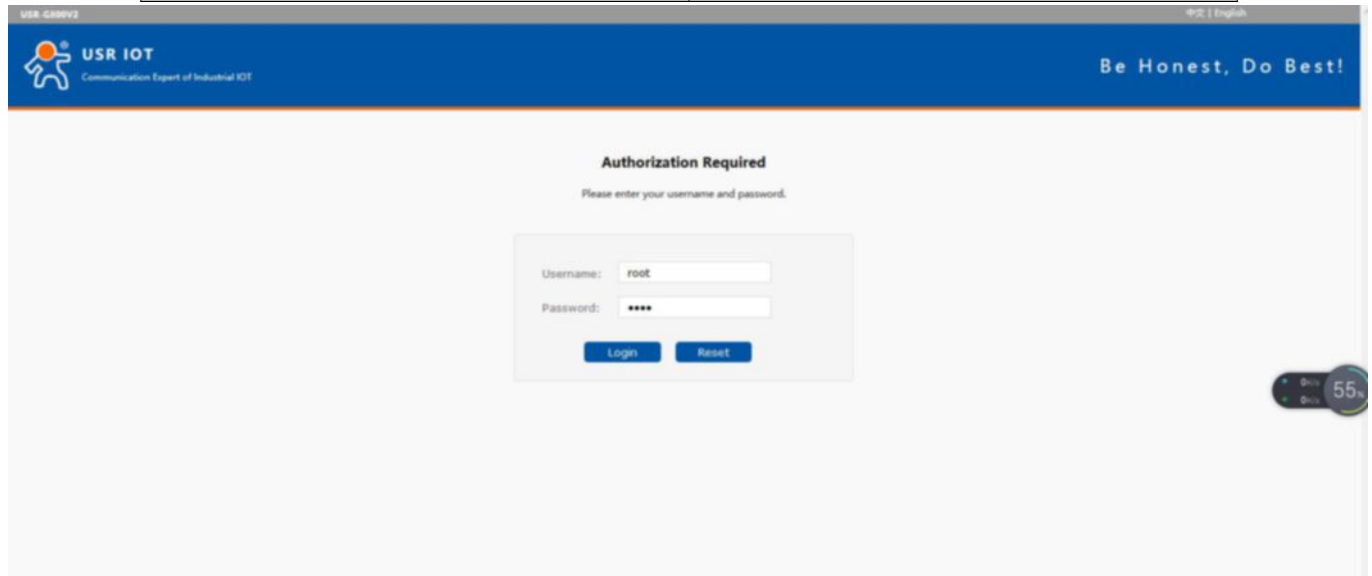



Figure55 webpage

4.2 Web Function

➤ Status



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USR-G800V2

Status

Overview

Services

Network

SerialtoEth

Firewall

System

Logout

Status

System

Hostname	USR-G800V2
Firmware Version	V1.0.14(EN)
Local Time	Mon Jan 28 00:34:38 2019
Uptime	3h 20m 41s
Load Average	1.96, 1.58, 1.49

Memory

Total Available	97124 kB / 126008 kB (77%)
Free	73120 kB / 126008 kB (58%)
Cached	17000 kB / 126008 kB (13%)
Buffered	7004 kB / 126008 kB (5%)

Network

IPv4 WAN Status

Type: dhcp

eth0.2 Address: 172.16.11.166

Netmask: 255.255.255.0


Gateway: 172.16.11.1

DNS 1: 202.102.128.68

DNS 2: 202.102.152.68

Figure56 status

➤ Interfaces



USR-G800V2

Status

Services

Network

Interfaces

APNSET

IPSECSET

Wifi

DHCP and DNS

Hostnames

Static Routes

Diagnostics

QoS




SerialtoEth

Firewall

WAN_WIRED
WAN_4G1
LAN

Interfaces

Interface Overview

Network	Status	Actions
<div style="background-color: #28a745; color: white; padding: 2px 5px; border-radius: 3px;">LAN</div> <div style="display: flex; align-items: center; justify-content: center; margin-top: 5px;">  <div style="margin-left: 5px;">br-lan</div> </div>	<p>Uptime: 3h 21m 28s</p> <p>MAC-Address: D8:B0:4C:F9:BE:33</p> <p>RX: 14.78 MB (97011 Pkts.)</p> <p>TX: 211.87 MB (197218 Pkts.)</p> <p>IPv4: 192.168.1.1/24</p> <p>IPv6: FDAE:DEEC:9FEA:0:0:0:0:1/60</p>	<div style="display: flex; justify-content: space-between; margin-bottom: 5px;"> Connect Stop </div> <div style="display: flex; justify-content: space-between;"> Edit Delete </div>
<div style="background-color: #dc3545; color: white; padding: 2px 5px; border-radius: 3px;">WAN_4G1</div> <div style="display: flex; align-items: center; justify-content: center; margin-top: 5px;">  <div style="margin-left: 5px;">eth1</div> </div>	<p>Uptime: 0h 0m 0s</p> <p>MAC-Address: 06:84:CC:FB:D4:5C</p> <p>RX: 0.00 B (0 Pkts.)</p> <p>TX: 0.00 B (0 Pkts.)</p>	<div style="display: flex; justify-content: space-between; margin-bottom: 5px;"> Connect Stop </div> <div style="display: flex; justify-content: space-between;"> Edit Delete </div>
<div style="background-color: #dc3545; color: white; padding: 2px 5px; border-radius: 3px;">WAN_WIRED</div> <div style="display: flex; align-items: center; justify-content: center; margin-top: 5px;">  <div style="margin-left: 5px;">eth0.2</div> </div>	<p>Uptime: 3h 21m 26s</p> <p>MAC-Address: D8:B0:4C:F9:BE:33</p> <p>RX: 211.39 MB (225748 Pkts.)</p> <p>TX: 15.36 MB (93837 Pkts.)</p> <p>IPv4: 172.16.11.166/24</p>	<div style="display: flex; justify-content: space-between; margin-bottom: 5px;"> Connect Stop </div> <div style="display: flex; justify-content: space-between;"> Edit Delete </div>

Add new interface...

Figure57 interfaces

➤ Serial to Ethernet

USR-G800V2

- > Status
- > Services
- > Network
- ▼ SerialtoEth
 - setup_ser2net
 - > Firewall
 - > System
 - > Logout

Serial to ethernet

Settings for Serial to Ethernet Converter, it has one serial port and able to transceive data to r

Configuration

Network
Serial Port
heart
register

Work Mode: TCPServer
 Remote Address: 192.168.1.201
 Remote Port: 8899
1-65535
 Local Port: 8899
1-65535
 ModbusTCP: NotUse

Save
Apply

Figure58 serial to ethernet

➤ system

USR-G800V2

- > Status
- > Services
- > Network
- > SerialtoEth
- > Firewall
- ▼ System
 - System
 - Administration
 - Scheduled Tasks
 - Backup/Upgrade
 - Reboot
- > Logout

System Properties

General Settings
Remote log
Local log
Language and Style

Local Time: Mon Jan 28 00:38:35 2019 Sync with browser
 Hostname: USR-G800V2
 Timezone: America/New York

Time Synchronization

Enable NTP client: ☒
 Provide NTP server: ☐

NTP server candidates:

- 0.openwrt.pool.ntp.org
- 1.openwrt.pool.ntp.org
- 2.openwrt.pool.ntp.org
- 3.openwrt.pool.ntp.org

Figure59 system

5 AT Commands

Num	Command	Function
Version		
1	AT+VER	Query firmware version
2	AT+MAC	Query MAC
3	AT+ICCID	Query ICCID
4	AT+IMEI	Query IMEI
4G		
5	AT+SYSINFO	Query device network information
6	AT+APN	Query/set APN
7	AT+CSQ	Query signal strength
8	AT+TRAFFIC	Query traffic information
System		
9	AT+UPTIME	Query running time
10	AT+WWAN	Query IP of device
11	AT+LANN	Query/set LAN IP(effect when G800V2 work as router)
12	AT+WEBU	Query/set account and password of webpage
13	AT+PLANG	Query/set the default language of webpage
14	AT+RELD	Restore to factory setting
15	AT+Z	Reboot. Note: return +ok
16	AT+DHCPEN	Enable/disable DHCP server
Transparent		
17	AT+SOCKALK	Query connect status
18	AT+SOCK	Query/set format of network protocol parameters
19	AT+UART	Query/set serial port parameters
20	AT+REGEN	Query/set transparent register package
21	AT+HTBT	Query/set transparent heartbeat package
System Shell Command		
22	AT+LINUXCMP	Execute system shell command

6 Contact us

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7 Disclaimer

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8 Updated History

2019-01-28 V1.0.1 established