



**SLK-R4008 Series**

**Industrial Grade**

**4G/3G Router Manual**

Data: 2015-6-6

## Chapter One

## Product Introduction



### 1.1 Introduction:

SLK-R4008 is an industrial-grade high-speed wireless router based on GPRS/CDMA/WCDMA/EVDO/LTE cellular mobile network to provide users with high-speed wireless Internet and wireless data transmission functions.

This product adopts industrial-grade dedicated communication 32-bit RISC processors, industrial-strength wireless mold piece, the LINUX embedded real-time operating system, support a SIM card interface, four LAN, a WAN port, a USB interface and WIFI interface, at the same time provide LAN port equipment or WIFI Internet or data transmission function.

It also adopts wide temperature, wide voltage input and EMC test with electromagnetic compatibility.

Has been widely used in the Internet of things industry chain of M2M industry, such as self-service terminals, smart grid, smart transportation, smart home, financial, mobile POS terminals, supply chain automation, industrial automation, intelligent buildings, fire control, public security, environmental protection, meteorology, digital medical treatment, telemetry, military, space exploration, agriculture, forestry, water, coal, petrochemical and other fields

#### Features:

- ✓ LTE Band Support
  - EU Model: 2100/1800/2600/900/800 MHz (B1/B3/B7/B8/B20)
  - US Model: 1900/AWS/850/700/700/1900 MHz (B2/B4/B5/B13/B17/B25)
- ✓ Built-in high speed 4-port Ethernet switch, 4x LAN port
- ✓ 1X WAN port
- ✓ Power input supported DC5-30VDC

- ✓ The power and the antenna with lightning protection
- ✓ Support VPN client(PPTP, L2TP, OPENVPN, IPSEC and GRE)(only for VPN version)
- ✓ Support hardware and software WDT

**Details:**
**Cellular Interface:**

Cellular Interface		
<b>Band Supported</b>	4G/3G/2G Version	<ul style="list-style-type: none"> <li>•Supported TDD-LTE B38/B39/B40/B41</li> <li>•Supported FDD-LTE B1/B3/B5/B8</li> <li>•Supported FDD-LTE B1/ B3/ B5/ B7/ B8/ B20</li> <li>•Supported FDD-LTE B1/ B2/ B3/ B4/ B5/ B7/ B8/ B28</li> <li>•Supported TD-SCDMA B34/B39</li> <li>•Supported WCDMA/HSDPA/HSPA+ B1/B8</li> <li>•Supported CDMA 1X/EVDO BC0</li> <li>•Supported GSM/GPRS/EDGE 900/1800 MHz</li> </ul>
	EVDO 3G Version	Supported EVDO, CDMA2000 1X
	HSDPA 3G Version	Supported HSUPA/HSDPA/UMTS/EDGE/GPRS/GSM
<b>Theory of Bandwidth</b>	<ul style="list-style-type: none"> <li>• LTE CAT4- DL: 50Mbps, UL: 150Mbps</li> <li>• TD-HSDPA/HSUPA-DL: 2.2 Mbps, UL: 2.8 Mbps</li> <li>• HSPA+-DL: 5.76 Mbps, UL: 42 Mbps</li> <li>• WCDMA – DL/UL: 384Kbps</li> <li>• CDMA2000/EVDO DL: 1.8 Mbps, UL: 3.1 Mbps</li> </ul>	

**WIFI Performance:**

WIFI supported	
<b>Standards</b>	Supported IEEE 802.11 b/g/n
<b>Frequency</b>	2.4GHz (ISM band supported)
<b>WIFI Rate</b>	300Mbps
<b>Security</b>	64/128-bit WEP (Wired Equivalent Privacy)
	WPA & WPA-PSK & WPA2 -PSK (Wi-Fi Protected Access)

Router characteristics	
<b>Firewall</b>	Network Address Translation (NAT)
	State full Packet Inspection (SPI)
<b>Media Access Control</b>	CSMA/CA with ACK
<b>VPN protocol</b>	Supported IPSec, PPTP,L2TP
<b>DHCP</b>	Build-in DHCP (Dynamic Host Configuration Protocol)
<b>Others protocol</b>	Supported PPP,PPOE, DDNS,ICMP,VRRP etc

**Hardware :**

Hardware

<b>CPU</b>	32-bit high performance communication CPU
<b>Flash/RAM</b>	16M/128M
<b>OS</b>	LINUX latest version

**Interface:**

<b>Interface</b>	
<b>LAN</b> □	4 x 10/100M port
<b>WAN</b> □	1x 10/100M WAN port
<b>USB</b> □	1x USB2.0 port
<b>SD card</b>	1x SD port
<b>Debug</b>	1x Debug interface (RS232 -RJ45 connector)
<b>Reset</b>	1x Reset
<b>Antennas</b>	1x 3G/4G Antenna(50Ω SMA interface )
	2x WiFi or GPS antenna (option), or can use for 4G MIMO antenna
<b>LED</b>	Power-SYS-LAN-WiFi-3G/4G LED
<b>SIM slot</b>	Supported 1.8/3.3V SIM card we support SIM card converter meet all size sim card

**Power interface :**

<b>Power</b>	
<b>Default power</b>	DC 12V/1A power adapter (US,EU etc stander option)
<b>Input VDC</b>	5~38V
<b>Power Dissipation</b>	Min: 260mA@12VDC
	MAX: 500mA@12VDC
	Average:320mA@12VDC

**Physical property:**

<b>Physical property:</b>	
<b>Operating Temperature</b>	Storage Temperature: (-30°C to 70°C)
	Operating Temperature: (-20°C to 65°C)
<b>Relative Humidity</b>	95%
<b>Size</b>	L*S*H: 173mm x100mm x 25mm
<b>Weight</b>	Net weight:600g
	Packing weight: 1.5kg

**Others:**

<b>other</b>	
<b>Warranty</b>	5 years
<b>Package contains</b>	Seriallink Router,1.5m long RJ45 Cable,12V/1A Power Adapter,Antennas User manual( Option choose PDF),Warranty card, CERTIFICATION

**Order information:**

Model	LAN	WAN	SIM slot	WIFI ANT	4GANT
SLK-R4008-4_LTE	4	1	1	2	2
SLK-R4008-4_HSDPA	4	1	1	2	2
SLK-R4008-4_EVDO	4	1	1	2	2

## Chapter TWO Hardware installation

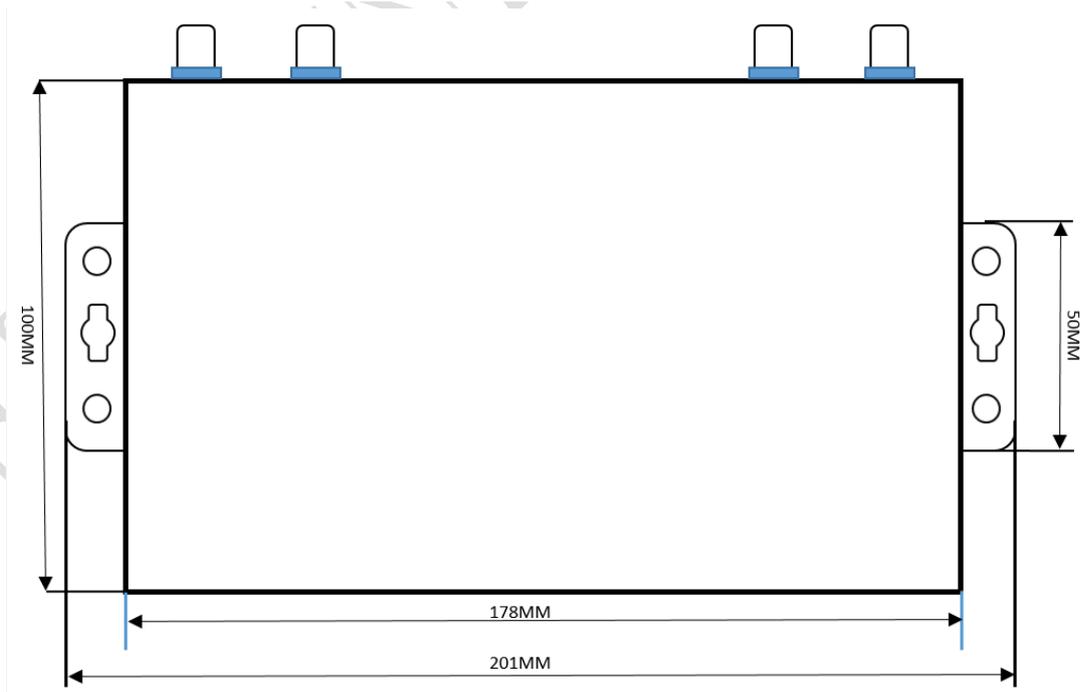
### 2.1 Packing list

The packing list is as follows:

- ✓ 4G industrial router 1 pcs
- ✓ 4G sucker antenna 2pcs
- ✓ WIFI antennas 2pcs
- ✓ 12V/1A power adapter 1pcs
- ✓ 10/100M network cable 1 pcs
- ✓ instruction manual 1pcs
- ✓ Product qualification certificate 1pcs
- ✓ Product warranty card 1 pcs

### 2.2 Dimensions:

The dimensions are shown below. (unit :mm) the screw specification of fixed plate and routing equipment is: M3\*5mm countersunk head screw. Note: no fixed installing 4 g industrial router screw M3, the depth of the screw to lock into the 4 g industrial router is 3 ~ 4 mm.



## 2.3 Antenna installation:

Connect two SMA head sucker antennas to the 3G/4G antenna interface, and two WIFI connections to the WiFi1 and WiFi2 antenna interfaces. Forcibly tighten, ensure the quality of reliable connection lest affect reception.

## 2.4 UIM/SIM card installation:

Insert the corresponding operating SIM card according to the router version you purchased, and the full-network version supports any operator SIM card.

The installation method is as follows:

### 1. How to take out the SIM card cover?

When installing or removing the SIM card, press the yellow button on the left side of the SIM card holder with a sharp object, and the SIM card sleeve will pop up.

Note: if there is a SIM card in the machine, the resistance of the yellow button will be higher, and the SIM card sleeve will pop up.

**2. How to put the SIM card into the SIM card sleeve?** If it is Nano SIM card, please use the multi-in-one SIM card holder we give away.

When installing the SIM card, put the SIM card into the card sleeve, aim at the missing Angle of the SIM card sleeve, and make sure the metal contact surface of the SIM card is facing out.

### 3. How to insert SIM card correctly?

When the SIM card is inserted, the SIM card core is facing down. When the card is inserted, the card sleeve will be flush with the edge of the router shell.

Note: the card core must be pointed down at the SIM card jack when it is inserted. Release your hand when you touch the SIM card slot to prevent the SIM card from falling into the machine.

How do insert the card here



1. Take out the  
sim slot



2. put in the sim  
card



3. simcard core core  
is inserted down

## 2.4 network connection

If you are connected to a computer or a device that requires Internet access, insert the yellow cable into any lan1-lan4 interface.

## 2.5 connect the power adapter

The sinolink 4G router supports 6-28v wide voltage input and USES our standard 12V/1A power adapter by default.If you need

The external power adapter can access 6-28VDC dc dc power supply and ensure the power supply is not less than 8W.

It is recommended to use 12V/1A national standard power adapter.

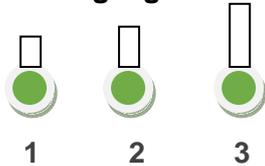
## 2.6 indicator light description

Senor group g 4 g router is provided with the following signal indicator lights, according to "PWRS", "SYS", "3 g / 4 g", "WIFI", "WAN", "LAN1 - LAN4"

Signal strength display

Defines as follows:

LED	Status	Definition
PWR	OFF	No power is plugged in, or the machine is damaged
	Normally on	The power input is correct and the machine is energized
SYS	OFF	The system did not start
	Normally flash	The system is starting up
	Normally on	The system is up and running
3G/4G	Normally on	Not registered to 3G/4G networks
	Quick flash	Registered to 3G/4G networks
	Slow flash	Not registered to 3G/4G networks
WIFI	Normally on	SYS have ok,wifi have working
	Normally flash	The WiFi client connects successfully and has data interaction
WAN	OFF	WAN port cable not inserted (generally used for broadband line access)
	Normally flash	WAN port cable insertion with data interaction
	Normally on	WAN port cable insertion, no data interaction
LAN1-LAN4	OFF	No cable is inserted at the corresponding LAN port
	Normally flash	The corresponding LAN port has cable insertion and data interaction
	Normally on	The corresponding LAN port has cable insertion and no data interaction

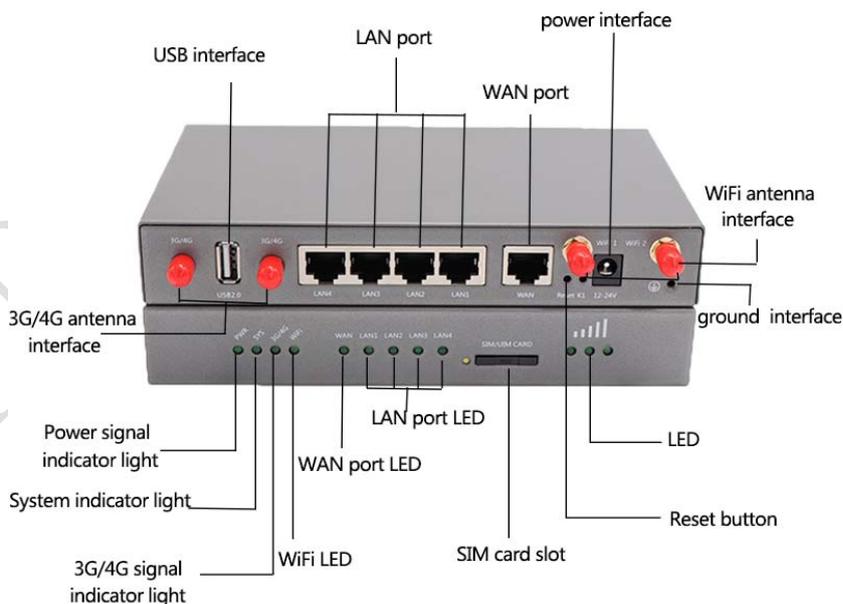
**3G/4G Receiving signal intensity display**


LED	Status	Definition (signal strength up to 31)
1	Off	Signal strength is below 10
	Normally on	The signal strength of 3G/4G is 10-18.
2	OFF	Signal strength is below 18
	Normally on	Signal strength of 3G/4G is 18-22
3	OFF	Signal strength is below 22
	Normally on	The signal strength of 3G/4G is 22-31

Note: a general signal indicator 2 and above signal is normal, if the signal light is only one light or not all light signal is weak or no signal, another signal indicator light display refresh will need about 1 minute.

**2.7 Reset button "Reset", which is used to restore factory Settings.**

Method of use: use a pointed object to resist the release button above 10 s, restart the router and restore factory Settings.

**2.8 interface and signal indicator diagram:**


# Chapter 3 Common Configuration of routers

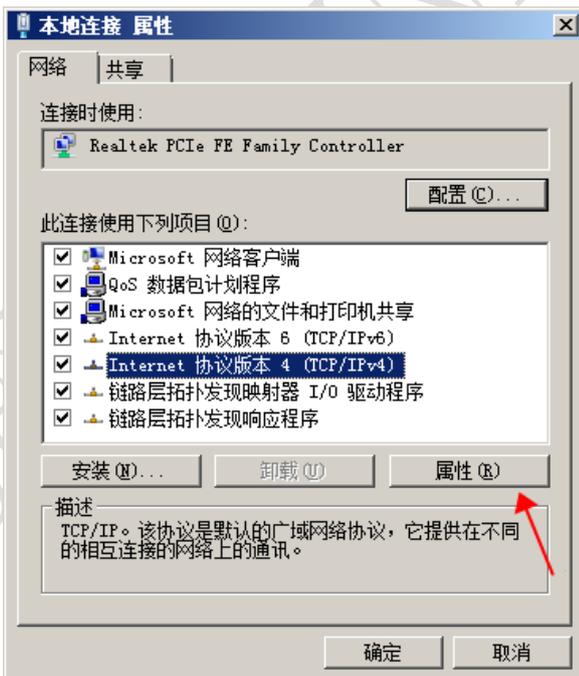
Ordinary SIM CARDS of general operators (except iot or special SIM CARDS) can be connected to the Internet without any setting of connection line or WiFi after the previous hardware is connected. The WiFi password is on the back tag of the router.

This chapter will introduce the steps of setting up the common functions of routers, and we will introduce them in question-and-answer mode, so that you can find the setting method quickly.

## 3.1 how to connect the computer to the Internet through the network line or login the configuration page of the router?

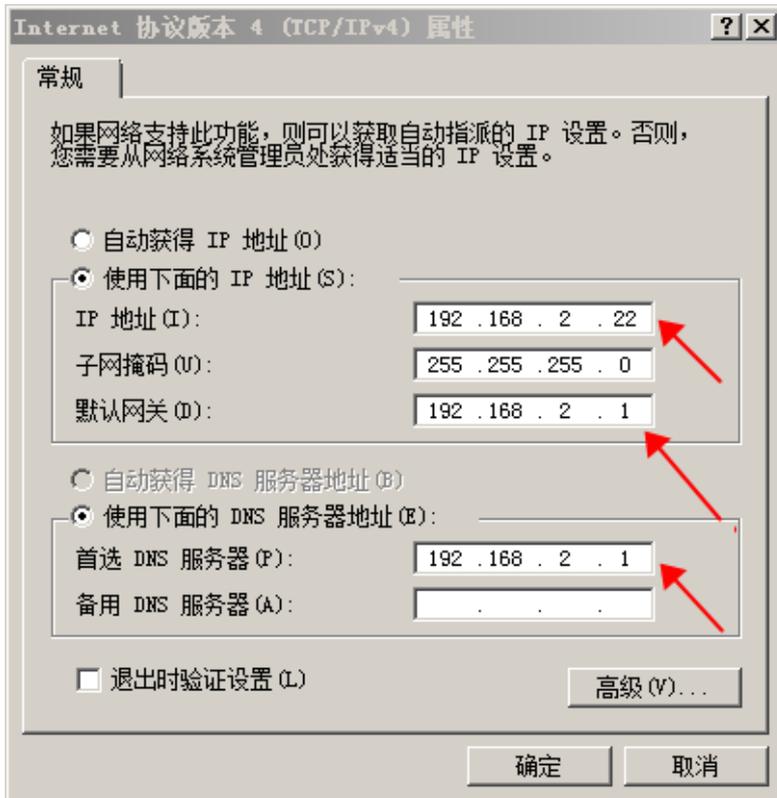
IP router to the default IP: 192.168.2.1, computer need to IP router in the same network segment. The specific setting steps are as follows:

Connect the yellow network cable to the router's LAN and the computer's Ethernet interface, then find the network and sharing center in the computer-control panel, click the local network connection and click properties:

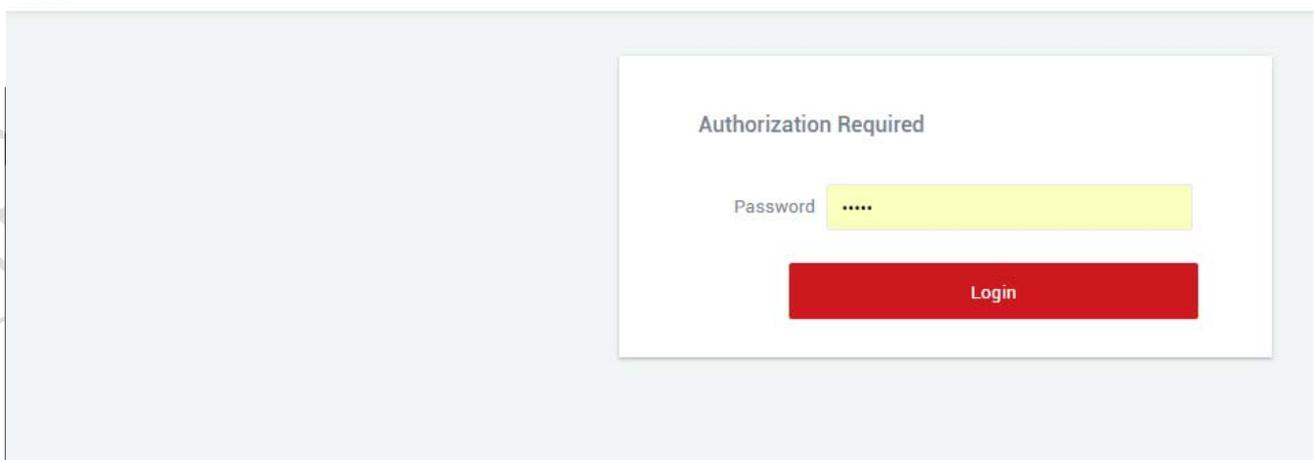


Manually modify the IP address as shown in the figure below, or click to automatically get the IP address automatically allocated by router DHCP.

Note: if it is through our 4 g router to the Internet, the default gateway and DNS need to change the IP address of the router to the Internet.



3.2 Log on to the configuration page of the router using Google browser or A browser with A kernel over IE10.Default password: admin, no name required.



### 3.3. How to connect to the Internet or configure the router through WiFi?

As shown in the figure, open the control panel - network and internet-network connection, select the wireless network connection, and click connect to.

Find the router's SSID and enter the default password to connect to it. The default WiFi password is on the back of the router. The connection is successful

You can then configure this by entering the router's IP address in the browser. For SIM CARDS that do not require configuration, you can access the Internet as long as the WIFI connection is successful.



### 3.4 How does the mobile phone connect the router's WiFi to the Internet or login the router's IP for configuration?

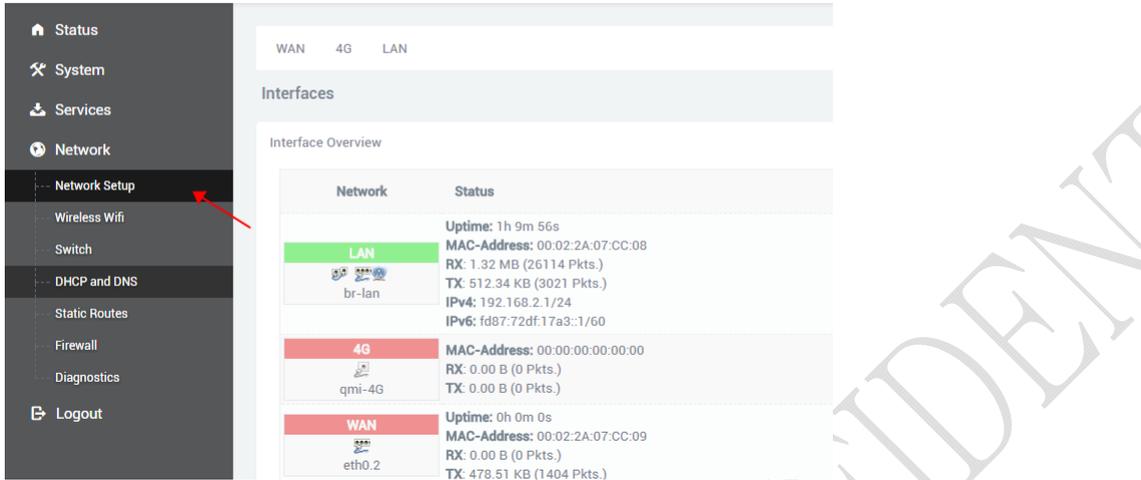
Open the wireless local area network (LAN) search to the router's SSID, begin with SLK - Routers, by default the WIFI password on the back of the router. After entering the password, you can access the Internet or enter the router IP address in the browser for configuration.



Click the position of the logo once and the configuration interface will pop up from the left side:

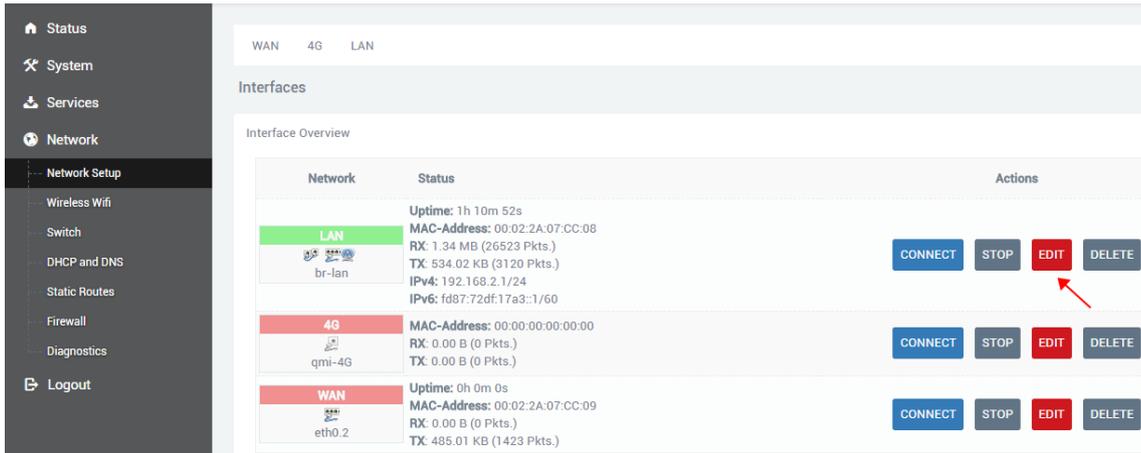


## 3.5 How to modify router IP (or LAN port address)? Login the router - network - network Settings - modified - IPV4 addresses, the IP address of the amended as you want.

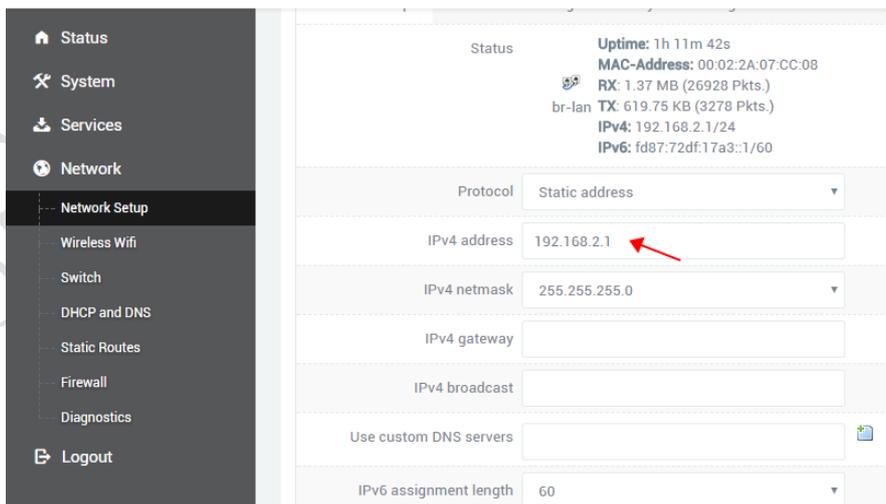
The screenshot shows the router's web interface. On the left is a navigation menu with 'Network Setup' highlighted. The main area displays the 'Interfaces' section with an 'Interface Overview' table:

Network	Status
LAN br-lan	Uptime: 1h 9m 56s MAC-Address: 00:02:2A:07:CC:08 RX: 1.32 MB (26114 Pkts.) TX: 512.34 KB (3021 Pkts.) IPv4: 192.168.2.1/24 IPv6: fd87:72df:17a3::1/60
4G qmi-4G	MAC-Address: 00:00:00:00:00:00 RX: 0.00 B (0 Pkts.) TX: 0.00 B (0 Pkts.)
WAN eth0.2	Uptime: 0h 0m 0s MAC-Address: 00:02:2A:07:CC:09 RX: 0.00 B (0 Pkts.) TX: 478.51 KB (1404 Pkts.)

This screenshot shows the same 'Interface Overview' table as above, but with an 'Actions' column added to the right of each interface row. The 'EDIT' button for the LAN interface is highlighted with a red arrow.

Network	Status	Actions
LAN br-lan	Uptime: 1h 10m 52s MAC-Address: 00:02:2A:07:CC:08 RX: 1.34 MB (26523 Pkts.) TX: 534.02 KB (3120 Pkts.) IPv4: 192.168.2.1/24 IPv6: fd87:72df:17a3::1/60	CONNECT STOP EDIT DELETE
4G qmi-4G	MAC-Address: 00:00:00:00:00:00 RX: 0.00 B (0 Pkts.) TX: 0.00 B (0 Pkts.)	CONNECT STOP EDIT DELETE
WAN eth0.2	Uptime: 0h 0m 0s MAC-Address: 00:02:2A:07:CC:09 RX: 0.00 B (0 Pkts.) TX: 485.01 KB (1423 Pkts.)	CONNECT STOP EDIT DELETE

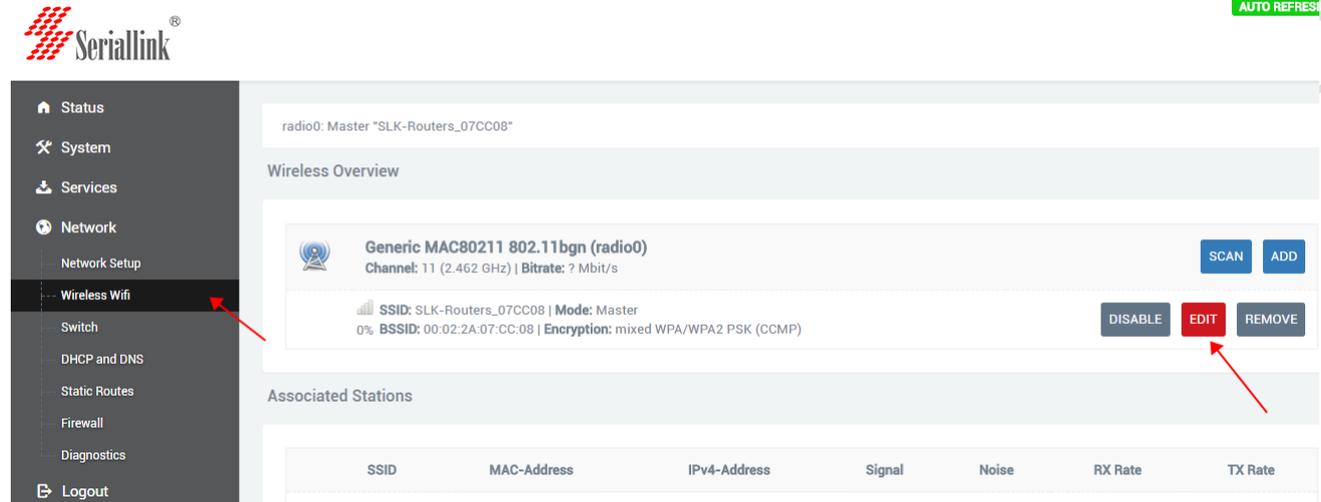



This screenshot shows the configuration page for the LAN interface. The 'IPv4 address' field is highlighted with a red arrow and contains the value '192.168.2.1'.

Status	Uptime: 1h 11m 42s MAC-Address: 00:02:2A:07:CC:08 br-lan RX: 1.37 MB (26928 Pkts.) TX: 619.75 KB (3278 Pkts.) IPv4: 192.168.2.1/24 IPv6: fd87:72df:17a3::1/60
Protocol	Static address
IPv4 address	192.168.2.1
IPv4 netmask	255.255.255.0
IPv4 gateway	
IPv4 broadcast	
Use custom DNS servers	
IPv6 assignment length	60

### 3.6 How to change the WiFi password and ESSID?

Login the router wireless WiFi - modified - wireless security, changes to save. Other parameters do not have to be modified to keep the default. Note: the WiFi password must be more than 8 bits, preferably Numbers and letters. ESSID selects the WiFi ID you want to set as needed.



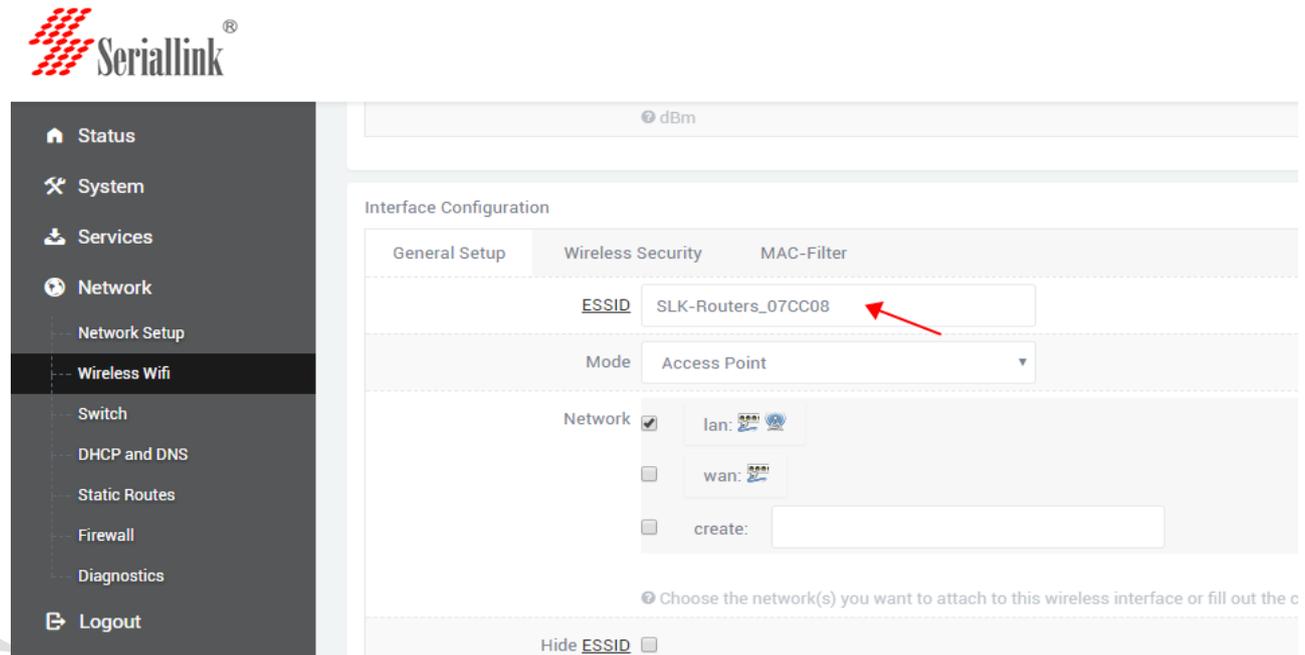
radio0: Master \*SLK-Routers\_07CC08\*

Wireless Overview

 Generic MAC80211 802.11bgn (radio0) Channel: 11 (2.462 GHz)   Bitrate: ? Mbit/s	SCAN	ADD	
SSID: SLK-Routers_07CC08   Mode: Master 0% BSSID: 00:02:2A:07:CC:08   Encryption: mixed WPA/WPA2 PSK (CCMP)	DISABLE	EDIT	REMOVE

Associated Stations

SSID	MAC-Address	IPv4-Address	Signal	Noise	RX Rate	TX Rate
------	-------------	--------------	--------	-------	---------	---------



dBm

Interface Configuration

General Setup | Wireless Security | MAC-Filter

ESSID: SLK-Routers\_07CC08

Mode: Access Point

Network

- lan: 
- wan: 
- create:

Choose the network(s) you want to attach to this wireless interface or fill out the c

Hide ESSID

**3.7 if you are a dedicated SIM card, how to modify the APN of 4G/3G Internet access?**

Login router - network - network setup -4G - modify - set APN, username and password, dial-up as needed.

Note:

1. The protocol 4G dial-up protocol is extended to 3G "UMTS/GPRS/EVDO", so no modification is required here.
2. Modemulator nodes, different 4G module-group modemulator nodes may be different, just keep the default.
3. General SIM card does not need any Settings, so we can access the Internet by keeping our default factory Settings.
4. Special SIM card, fill in as required. We take the setting of telecom iot card as an example:

4G: protocol and modem nodes. The service type is 4G only. The default remains the same as long as you fill in the APN, username, password and dial according to the form, and then click save the application. After the normal Internet access, as shown in the figure below, there will be both sending and receiving metropolis packets, and the operator will assign us an IP address of the 10-point network segment. It means 4G is normal.

**Domestic common 4G iot card APN setting method :(iot card must be set)**

Operator	APN	user	password	Dial Number
China Telecom IOT card	ctm2m	*.m 2m or m2m )	vnet.mobi vnet.mobi	*99# *99#
China Unicom IOT Card	unim2m.njm2mapn			*99#

General 4G card APN, generally can access the Internet without any Settings:

Sometime need setting as this form.

4G card APN:				
Operator	APN	User	Password	Dial Number
China Mobile	cmnet	card	card	*99#
China Unicom	3gnet	card	card	*99#
China Telecom	ctlte	<a href="mailto:ctnet@mycdma.cn">ctnet@mycdma.cn</a> or card	card	*99#

Note:

APN is different in every country, and universal SIM CARDS do not require any Settings to access the Internet, setting as your operator supplier.

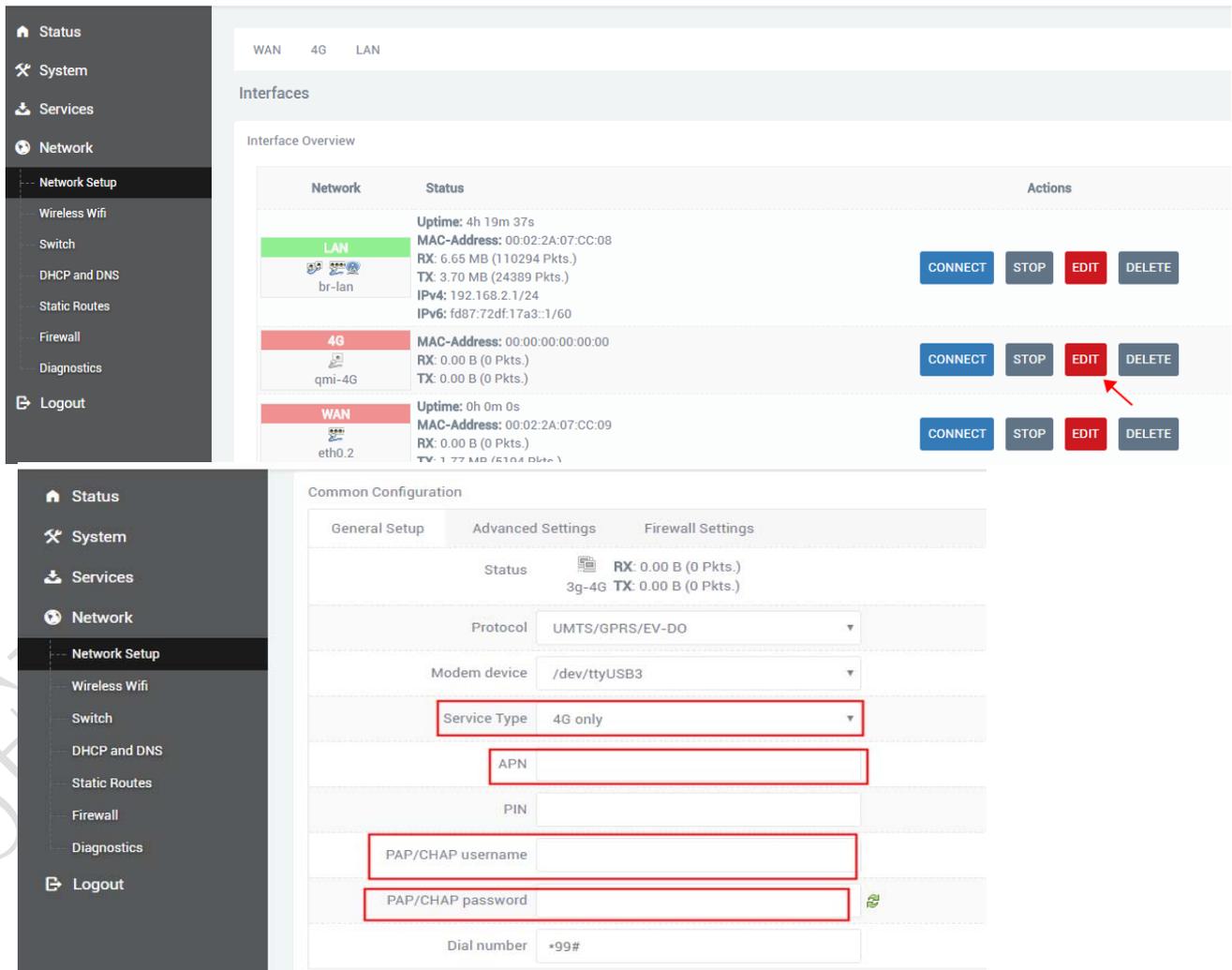
Telecom and China unicom 3 g card for 3 g general card set method: deal with modem node to keep the default, unicom, mobile 3 g service type selection "only" 3 g, 3 g telecommunications service type choose CDMA/EVDO, APN, user name, password, dial according to the following form: if you buy is unicom 3 g or telecom 3 g version of the keep the factory Settings, if it is 3 g network card or other special card according to the SIM card can surf the Internet after suppliers required to fill in.

General 3G network APN reference is as follows :(if you are a 3G card, you must follow the following table)

Operator	APN	user	Password	Dial Number
China Mobile	cmnet	card	card	*99#
China Unicom	3gnet			*99#
China Telecom	ctnet	ctnet@mycdma.cn	vnet.mobi	#777



AUTO REF



The screenshot displays the Seriallink web interface. On the left is a navigation menu with options: Status, System, Services, Network, Network Setup, Wireless Wifi, Switch, DHCP and DNS, Static Routes, Firewall, Diagnostics, and Logout. The main content area is divided into two sections:

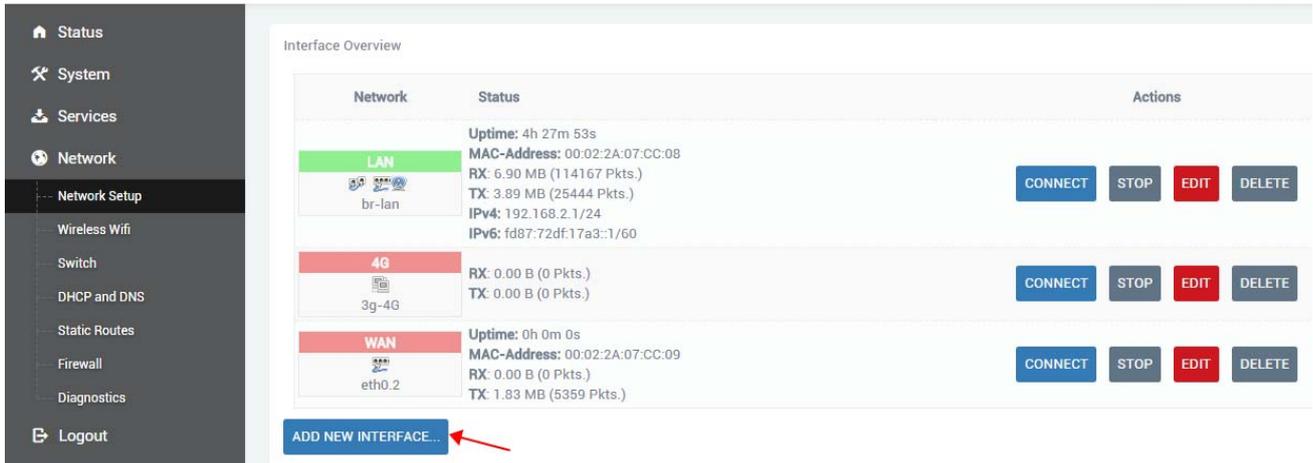
- Interface Overview:** Shows a table of network interfaces. The '4G' interface (qmi-4G) is highlighted in red. Below the table are buttons for CONNECT, STOP, EDIT, and DELETE for each interface. A red arrow points to the 'EDIT' button for the 4G interface.
- Common Configuration:** Shows settings for the selected 4G interface. The 'Service Type' is set to '4G only'. The 'APN' field is empty and highlighted with a red box. The 'PAP/CHAP username' and 'PAP/CHAP password' fields are also highlighted with red boxes. The 'Dial number' is set to '\*99#'. Other settings include Protocol (UMTS/GPRS/EV-DO), Modem device (/dev/ttyUSB3), and Status (RX: 0.00 B (0 Pkts.), TX: 0.00 B (0 Pkts.)).

### 3.8 How to set up the VPN-L2TP,PPTP client on the router?

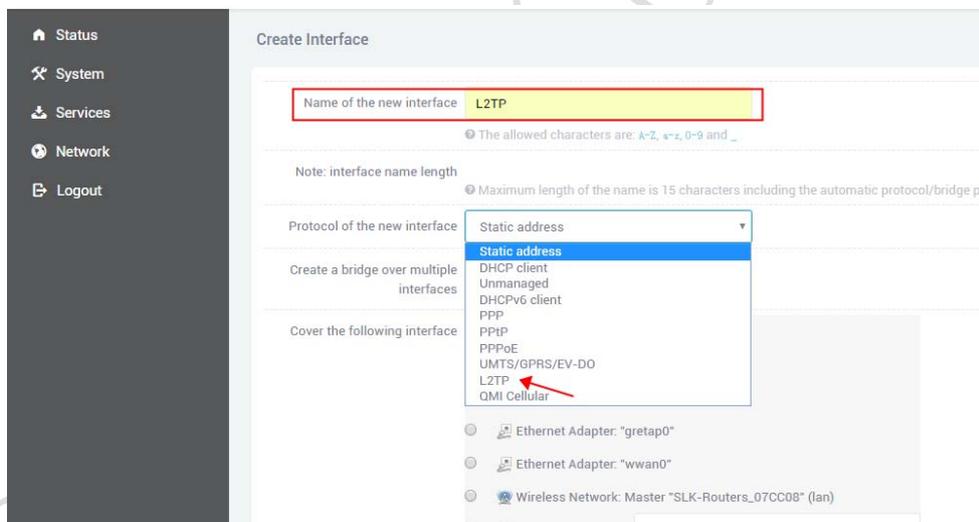
The following example is to add the L2TP client:

Need set up VPN before in other routers or ali cloud platform set up stable VPN server, also need to have public IP address.

3.8. 1 Log on to the router page and add a new interface to the network - network Settings. Interface names are custom defined as L2TP or others. Select L2TP protocol drop-down box, and dialog box will appear

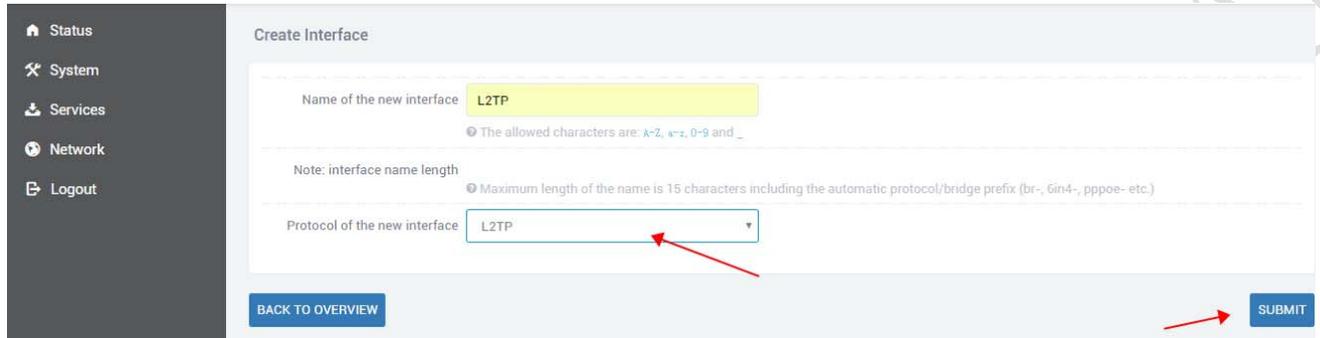


3.8.2 The interface name is L2TP (as easy to manage as the VPN name), and the interface protocol is L2TP.



Interface protocol selection: L2TP.

3.8.3. VPN server and username password can be set at the location shown in the figure, and the WAN&4G TAB can be selected at the firewall location. VPN outlet is WAN or 4G network. This completes the VPN setup.



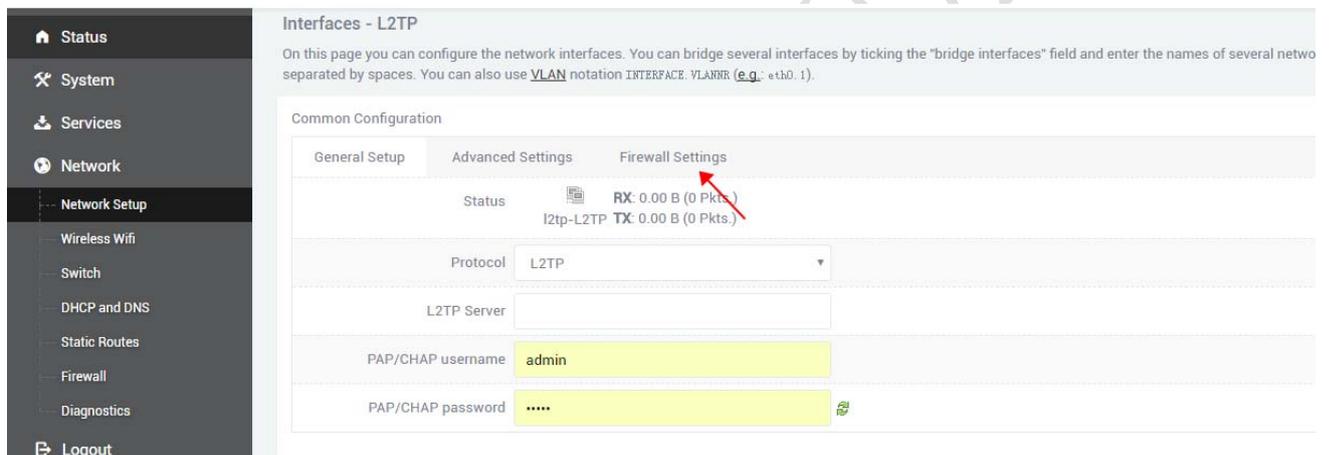
**Create Interface**

Name of the new interface: L2TP

Note: interface name length: Maximum length of the name is 15 characters including the automatic protocol/bridge prefix (br-, Gin4-, pppoe- etc.)

Protocol of the new interface: L2TP

BACK TO OVERVIEW SUBMIT



**Interfaces - L2TP**

On this page you can configure the network interfaces. You can bridge several interfaces by ticking the "bridge interfaces" field and enter the names of several network separated by spaces. You can also use VLAN notation INTERFACE.VLANID (e.g.: eth0.1).

Common Configuration

General Setup Advanced Settings Firewall Settings

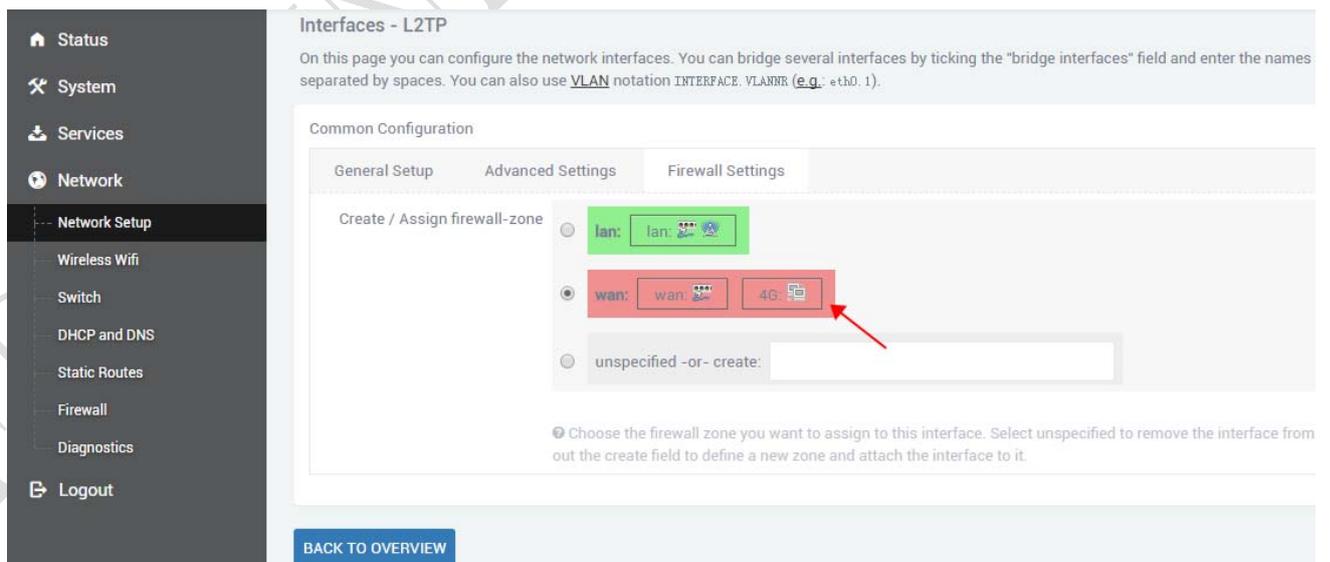
Status RX: 0.00 B (0 Pkts.) TX: 0.00 B (0 Pkts.)

Protocol: L2TP

L2TP Server

PAP/CHAP username: admin

PAP/CHAP password: .....



**Interfaces - L2TP**

On this page you can configure the network interfaces. You can bridge several interfaces by ticking the "bridge interfaces" field and enter the names of several network separated by spaces. You can also use VLAN notation INTERFACE.VLANID (e.g.: eth0.1).

Common Configuration

General Setup Advanced Settings Firewall Settings

Create / Assign firewall-zone

lan: lan

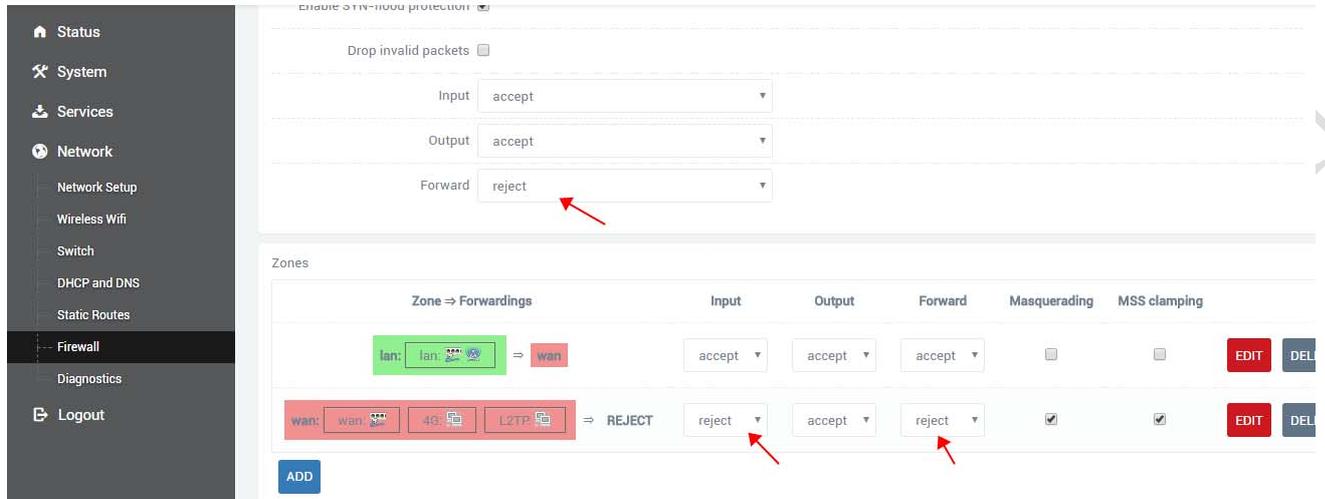
wan: wan 4G

unspecified -or- create:

Choose the firewall zone you want to assign to this interface. Select unspecified to remove the interface from the create field to define a new zone and attach the interface to it.

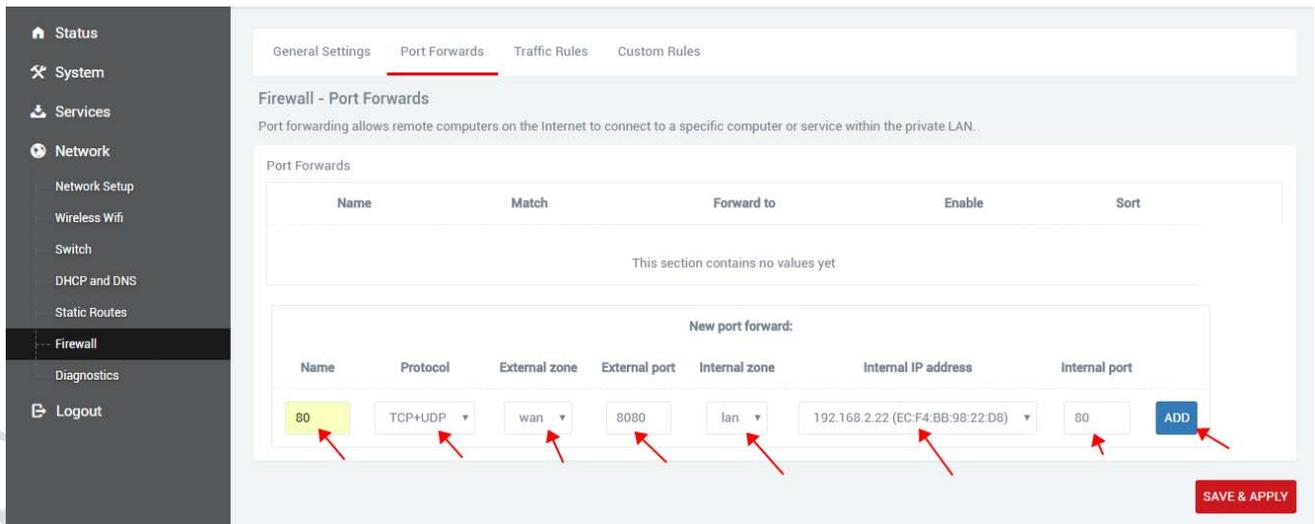
BACK TO OVERVIEW

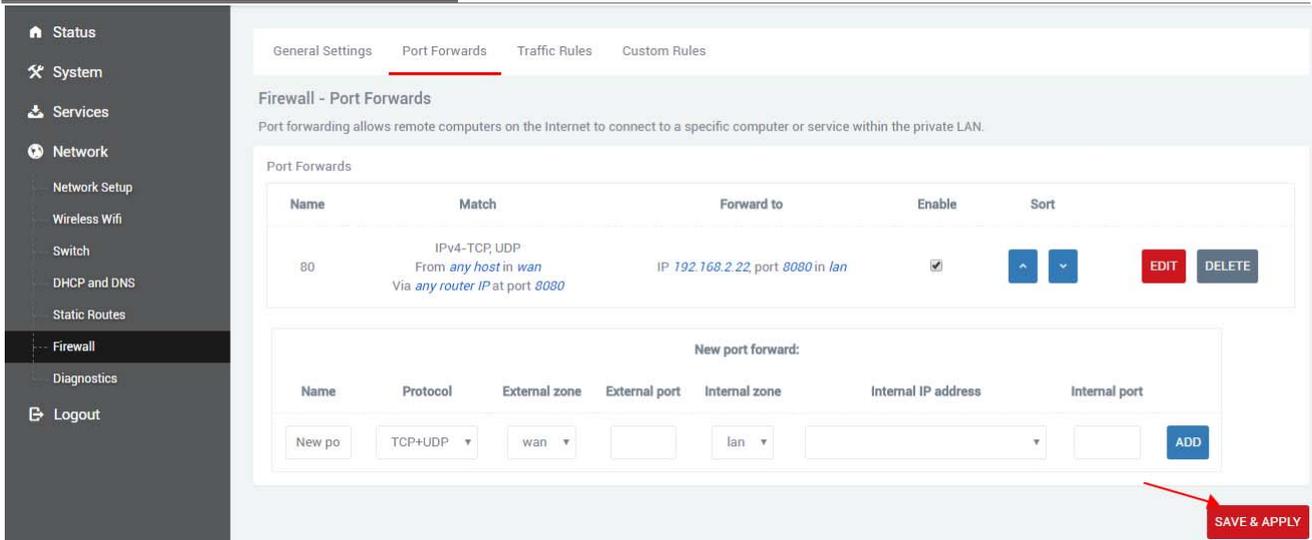
3.8.4. Click the network -- firewall, and change all of them to accept as shown in the picture, and then save the application



After adding the VPN, you can forward the corresponding port. Take port 80 forwarding as an example:

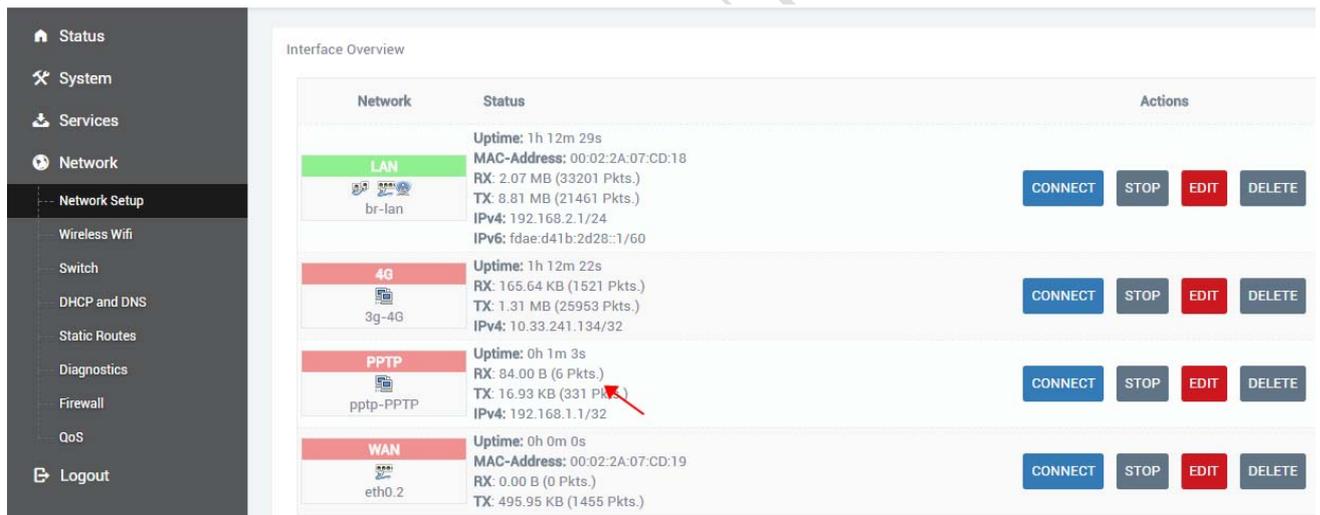
- Share name - according to your demand custom Settings
- Agreement - can to TCP + UDP
- Outer area - to WAN
- External port - according to the need to set up
- Internal areas - select LAN IP address - according to the need to choose you need to forward the IP Address of the internal port - according to the need to set up and then click - add - button completes the set





The screenshot shows the 'Firewall - Port Forwards' configuration page. The left sidebar contains navigation options: Status, System, Services, Network, Network Setup, Wireless Wifi, Switch, DHCP and DNS, Static Routes, Firewall (selected), Diagnostics, and Logout. The main content area has tabs for General Settings, Port Forwards (active), Traffic Rules, and Custom Rules. Below the tabs, there is a description: 'Port forwarding allows remote computers on the Internet to connect to a specific computer or service within the private LAN.' A table lists existing port forwards, with one entry for port 80. Below the table is a 'New port forward:' form with fields for Name, Protocol (TCP+UDP), External zone (wan), External port, Internal zone (lan), Internal IP address, and Internal port. An 'ADD' button is at the bottom right of the form. A red arrow points from the 'ADD' button to a 'SAVE & APPLY' button located at the bottom right of the entire configuration area.

**3.8.5 Test the VPN, as shown in the figure, sending and receiving data represents a successful VPN connection.**

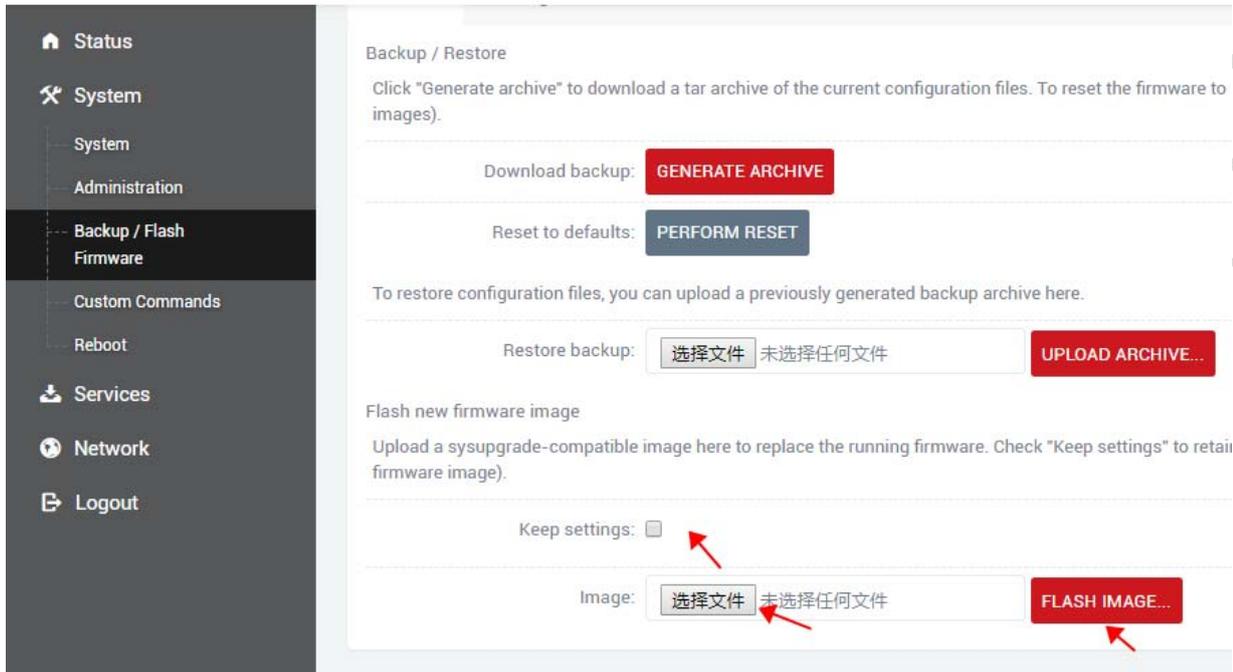


The screenshot shows the 'Interface Overview' page. The left sidebar is the same as in the previous screenshot. The main content area displays a table of network interfaces with their status and actions.

Network	Status	Actions
LAN br-lan	Uptime: 1h 12m 29s MAC-Address: 00:02:2A:07:CD:18 RX: 2.07 MB (33201 Pkts.) TX: 8.81 MB (21461 Pkts.) IPv4: 192.168.2.1/24 IPv6: fdad:d41b:2d28::1/60	CONNECT STOP EDIT DELETE
4G 3g-4G	Uptime: 1h 12m 22s RX: 165.64 KB (1521 Pkts.) TX: 1.31 MB (25953 Pkts.) IPv4: 10.33.241.134/32	CONNECT STOP EDIT DELETE
PPTP pptp-PPTP	Uptime: 0h 1m 3s RX: 84.00 B (6 Pkts.) TX: 16.93 KB (331 Pkts.) IPv4: 192.168.1.1/32	CONNECT STOP EDIT DELETE
WAN eth0.2	Uptime: 0h 0m 0s MAC-Address: 00:02:2A:07:CD:19 RX: 0.00 B (0 Pkts.) TX: 495.95 KB (1455 Pkts.)	CONNECT STOP EDIT DELETE

### 3.9 How to upgrade router firmware? Login router - system - backup and upgrade

Do not check the reserved configuration when upgrading, then click the folder where the router firmware is located, and click write firmware. After the upgrade is complete, the router will restart automatically.

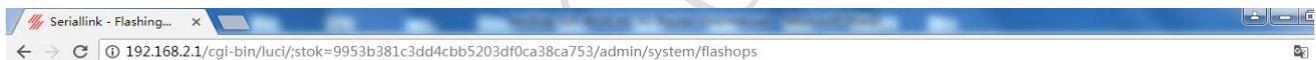


The screenshot shows the 'Backup / Restore' section with the following options:

- Download backup: **GENERATE ARCHIVE**
- Reset to defaults: **PERFORM RESET**
- Restore backup:  未选择任何文件 **UPLOAD ARCHIVE...**

The 'Flash new firmware image' section includes:

- Keep settings:  (indicated by a red arrow)
- Image:  未选择任何文件 (indicated by a red arrow)
- FLASH IMAGE...** (indicated by a red arrow)

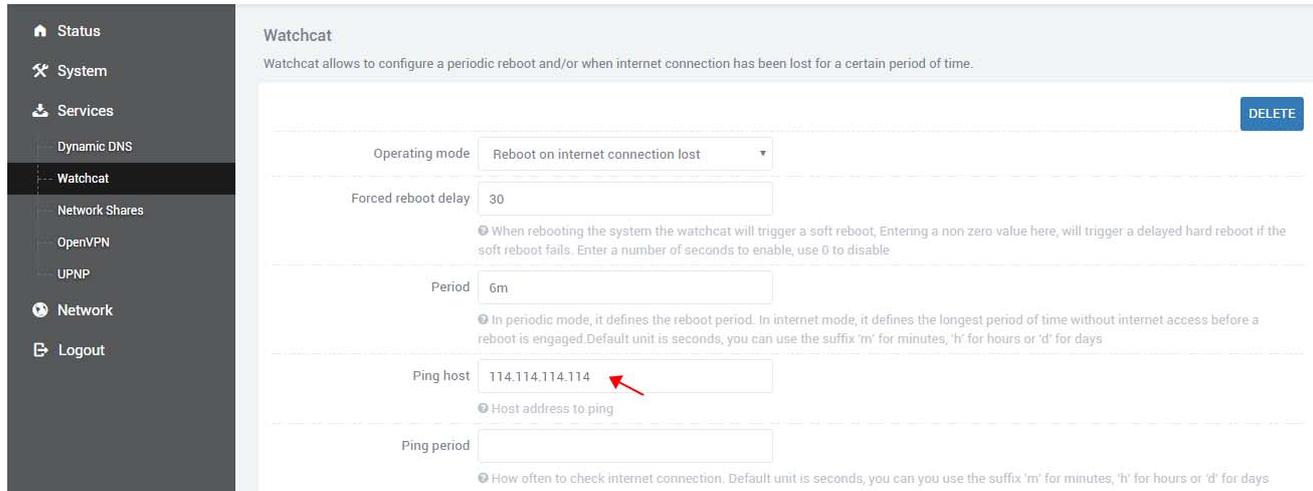


#### System - Flashing...

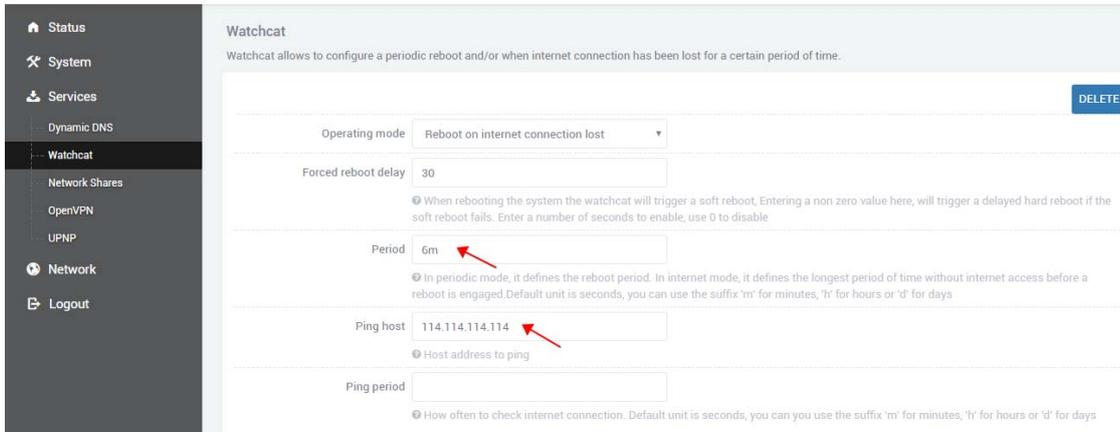
The system is flashing now.  
DO NOT POWER OFF THE DEVICE!  
Wait a few minutes until you try to reconnect. It might be necessary to renew the address of your computer to reach the device again, depending on your settings.

 Waiting for changes to be applied...

### 3.10 How do you configure WatchCat? Let the router automatically restart the recovery network when it is disconnected from the Internet



Ping host -- here we set an IP address that pings can access. By default, we set it to 114.114.114.114 or Google's DNS 8.8.8. If you successfully connect to the VPN, you can configure a pping gateway. Cycle - here we change to 6 M (D on behalf of the day, H represents the hours, M for minutes, S representative seconds), meaning in the case of offline, 6 points within the network services will be restarted. (note: if the router is broken net dial-up will redial within 30 s) set up is completed, click save application.

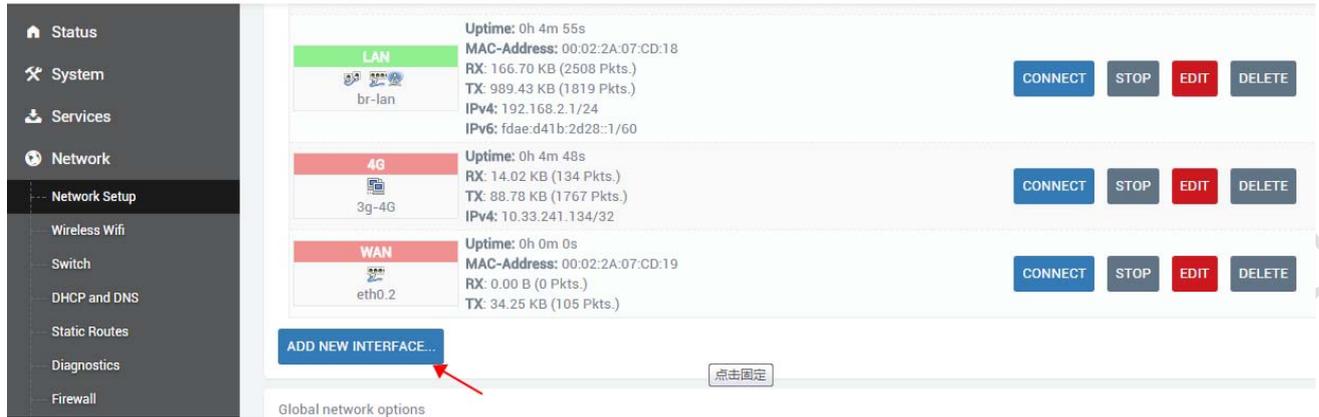


### 3.10 How to make broadband dialing through WAN port without using 4G?

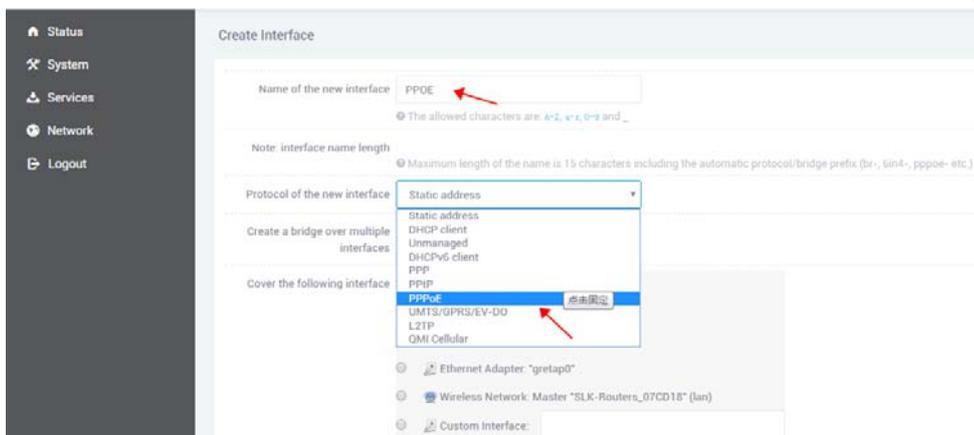
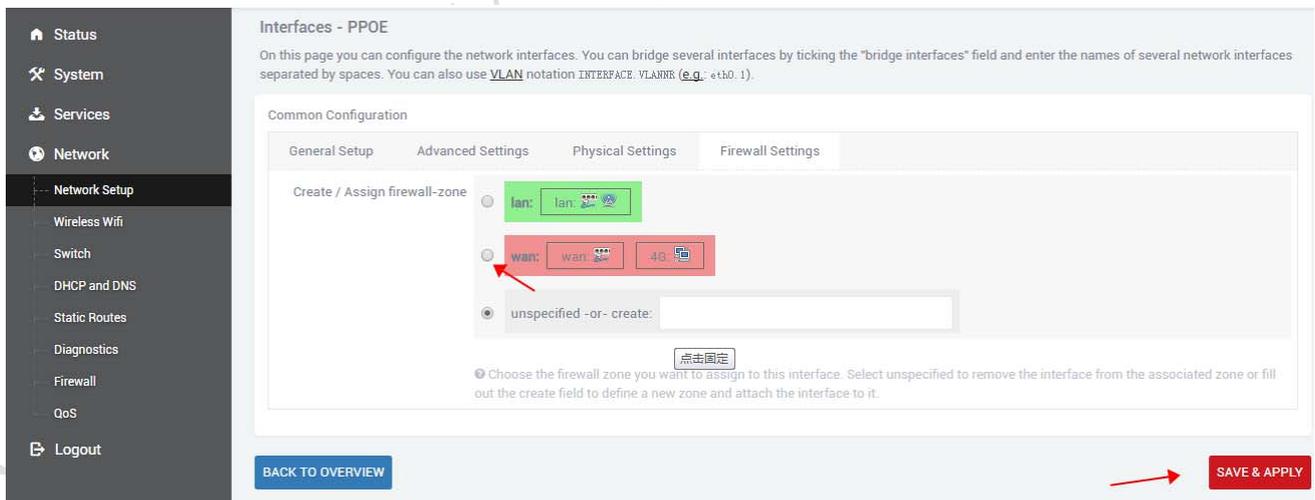
If you use the optical fiber access, light in the cat will have automatic dialing, you only need to use wiring light cat LAN port and 4 g router's WAN port can automatically obtain IP from light cat (LAN). At this time your device or computer connected to the 4 g router LAN can surf the Internet.

If you are using ordinary MODEM need dial-up Internet access through the router Settings as follows:

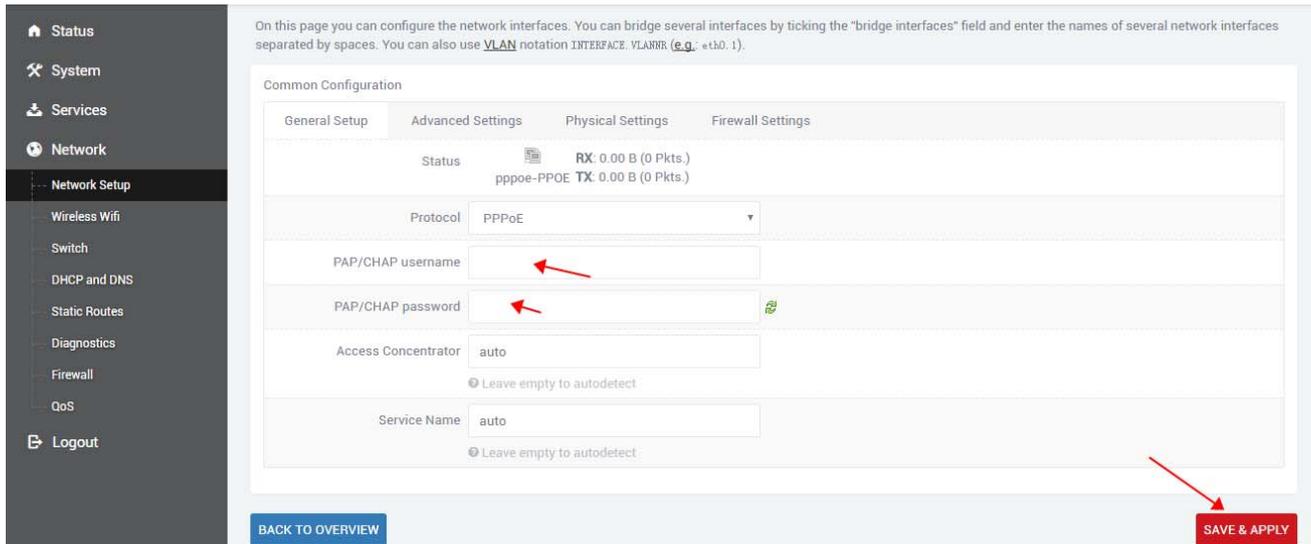
Add the PPOE dial port. Login router - network - network setup - add new interface



According to the shown to fill, the interface name: PPOE, interface protocol selection PPOE, select the WAN port, and then click submit.

Finally, enter the user name and password given by the operator to complete the broadband Internet Settings, and then connect your computer or device to the LAN port to access the Internet.



On this page you can configure the network interfaces. You can bridge several interfaces by ticking the "bridge interfaces" field and enter the names of several network interfaces separated by spaces. You can also use **VLAN** notation **INTERFACE.VLANRRR** (e.g.: eth0.1).

Common Configuration

General Setup | Advanced Settings | Physical Settings | Firewall Settings

Status RX: 0.00 B (0 Pkts.)  
pppoe-PPoE TX: 0.00 B (0 Pkts.)

Protocol: PPPoE

PAP/CHAP username:

PAP/CHAP password:

Access Concentrator: auto  
 Leave empty to autodetect

Service Name: auto  
 Leave empty to autodetect

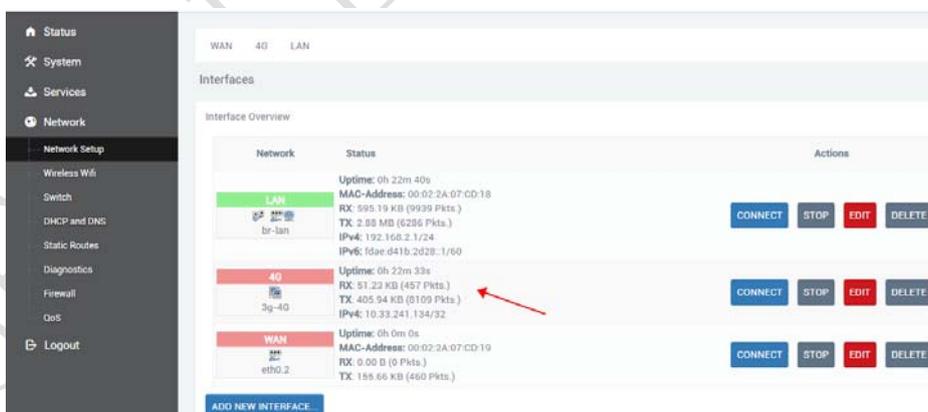
[BACK TO OVERVIEW](#) [SAVE & APPLY](#)

Note: If you want to access the device under the router LAN port, you need to change the LAN port device gateway and DNS to the IP address of our 4G router.

### 3.11 How to do know the 4G router is online?

- By looking at the 3G/4G indicator, if it's a flash, it means that 4G is already registered.
- Check the WiFi password on the back of the router, connect to the WiFi, and click the common website through the browser to see if the Internet can be accessed.
- Login router, see section 3.1 & 3.2 login method, network, the network Settings - to see if 3g / 4g have to send and receive data, if you have to send and receive data representatives have normal access to the Internet.
- Login router, network - network diagnostics - ping to see if there is a return value, if there is a return value can be normal access to the Internet.
- Log on to the router, the system - custom - click run to see 4G or 3G network status.

If there is no try to click the run results.



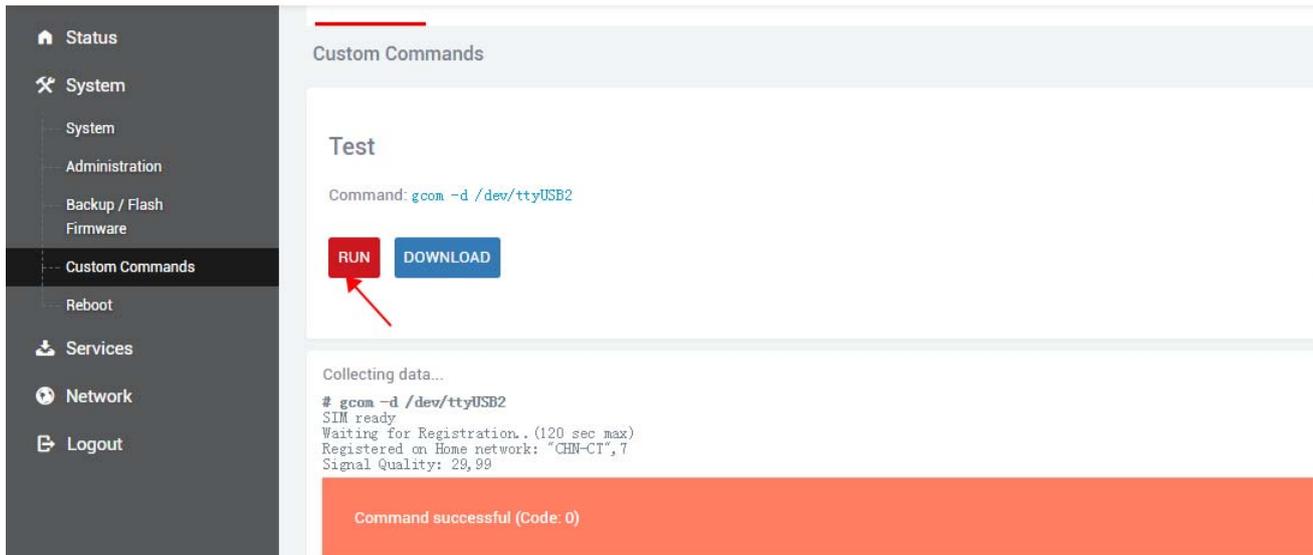
WAN 4G LAN

Interfaces

Interface Overview

Network	Status	Actions
LAN br-lan	Uptime: 0h 22m 40s MAC-Address: 00:02:2A:07:CD:18 RX: 595.19 KB (9929 Pkts.) TX: 2.88 MB (6256 Pkts.) IPv4: 192.168.2.1/24 IPv6: fdac:d41b:2028::1/60	<a href="#">CONNECT</a> <a href="#">STOP</a> <a href="#">EDIT</a> <a href="#">DELETE</a>
4G 3g-4g	Uptime: 0h 22m 33s RX: 51.23 KB (457 Pkts.) TX: 405.94 KB (8109 Pkts.) IPv4: 10.33.241.134/32	<a href="#">CONNECT</a> <a href="#">STOP</a> <a href="#">EDIT</a> <a href="#">DELETE</a>
WAN eth0.2	Uptime: 0h 0m 0s MAC-Address: 00:02:2A:07:CD:19 RX: 0.00 B (0 Pkts.) TX: 155.66 KB (460 Pkts.)	<a href="#">CONNECT</a> <a href="#">STOP</a> <a href="#">EDIT</a> <a href="#">DELETE</a>

[ADD NEW INTERFACE...](#)



Custom Commands

### Test

Command: `gcom -d /dev/ttyUSB2`

**RUN** **DOWNLOAD**

Collecting data...

```
# gcom -d /dev/ttyUSB2
SIM ready
Waiting for Registration. (120 sec max)
Registered on Home network: "CHN-CT", 7
Signal Quality: 29,99
```

Command successful (Code: 0)

The meaning is explained as follows:

- ◆ SIM ready to represent the router has read the SIM card, if it is SIM ERRO rep didn't read the SIM card, or a SIM card is not good.
- ◆ Chn-ct represents the registered operator of China telecom. Different operator CARDS have different names.
- ◆ "Signal Quality:29,99" Represents the signal value of 29, generally more than 20 signal is normal.
- ◆ Returns the following information to indicate that 4G is able to access the Internet normally, if there is any error message on behalf of the registered network exception.

**3.12Contact:**Web: [www.seriallink.net](http://www.seriallink.net)e-Mail: [info@seriallink.net](mailto:info@seriallink.net)

Mobile Phone: +86-18682315199

Address: A602, Bldg A ,ShenMa Industrial district , Nanwan Street, Longgang District  
Shenzhen Guangdong China (Mainland)