

USR-G806 User Manual

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1. Overview

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

1.1. Brief introduction

USR-G806 supports WAN, LAN, WLAN and 4G interface. User can access to 3G/4G network by WLAN interface or Ethernet interface.

1.2. Product feature

- One RJ45 for WAN/LAN port. 1 RJ45 for LAN port only. (10/100M)
- Support 1 WLAN(802.11b/g/n)
- Support Web Server
- Support LED to show work status
- Support Reload button to restore default settings by hardware way
- Support VPN client(PPTP/L2TP)
- Support one SIM card socket
- Support DDNS and port forwarding
- Support QoS and firewall

1.3. Band

	G806 Operating Band
FDD-LTE	2
	4
	12
WCDMA	2
	4
	5

Figure 1 Band of G806

2. Product Functions

This chapter introduces the functions of USR-G806, as the following diagram shown, you can get an overall knowledge of it.



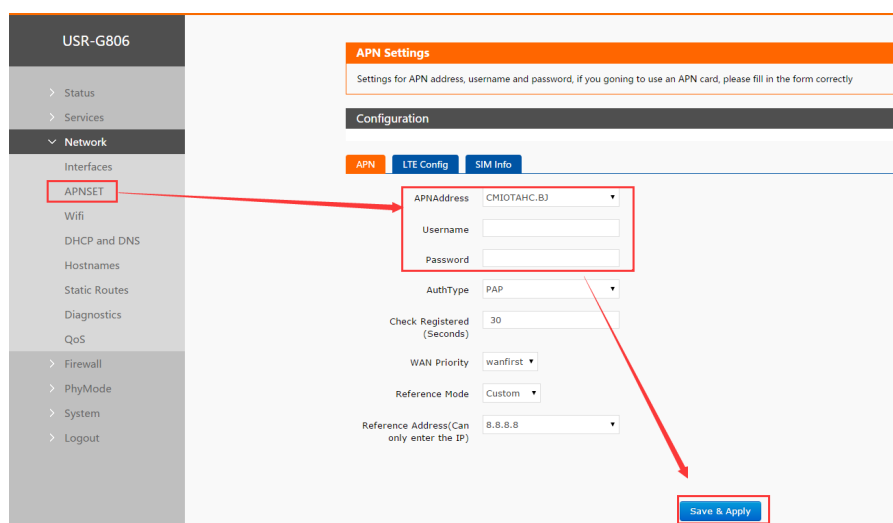
Figure 2 Product function

2.1. Install procedure

- (1) Connect the 4G antenna and Wi-Fi antenna to the router. (Longer one is 3G/4G antenna and Shorter one is Wi-Fi antenna.)
- (2) Plug the SIM card in socket.
- (3) Power on the module by power adaptor and check the LED status.
- (4) Connect PC or mobile to the G806 router via LAN interface or Wi-Fi interface. Wi-Fi password is "www.usr.cn".
- (5) Log in Web Server of router. (Default IP address of router is 192.168.1.1, either the username and password is "root".)
- (6) Configure APN parameters according to SIM card. Some SIM card APN can be recognized automatically.(Network->APNSET)
- (7) Configure other parameters according to user applications.

2.2. APN

APN configuration by Web Server as follow:



The screenshot shows the 'USR-G806' web interface. On the left is a navigation menu with 'Network' expanded, showing 'APNSET' highlighted. A red arrow points from 'APNSET' to the 'APN Settings' page. The page has a title bar 'APN Settings' and a subtitle 'Settings for APN address, username and password, if you going to use an APN card, please fill in the form correctly'. Below is a 'Configuration' section with tabs for 'APN', 'LTE Config', and 'SIM Info'. The 'APN' tab is active. It contains fields for 'APNAddress' (set to 'CM10TAHC.B3'), 'Username', and 'Password'. Below these are 'AuthType' (set to 'PAP'), 'Check Registered (Seconds)' (set to '30'), 'WAN Priority' (set to 'wanfirst'), 'Reference Mode' (set to 'Custom'), and 'Reference Address(Can only enter the IP)' (set to '8.8.8.8'). A 'Save & Apply' button is at the bottom right. A red arrow points from the 'AuthType' dropdown to the 'Save & Apply' button.

Figure 3 APN configuration

2.2.1. Create a VPN client

User can set VPN client configuration by Web Server as follow:

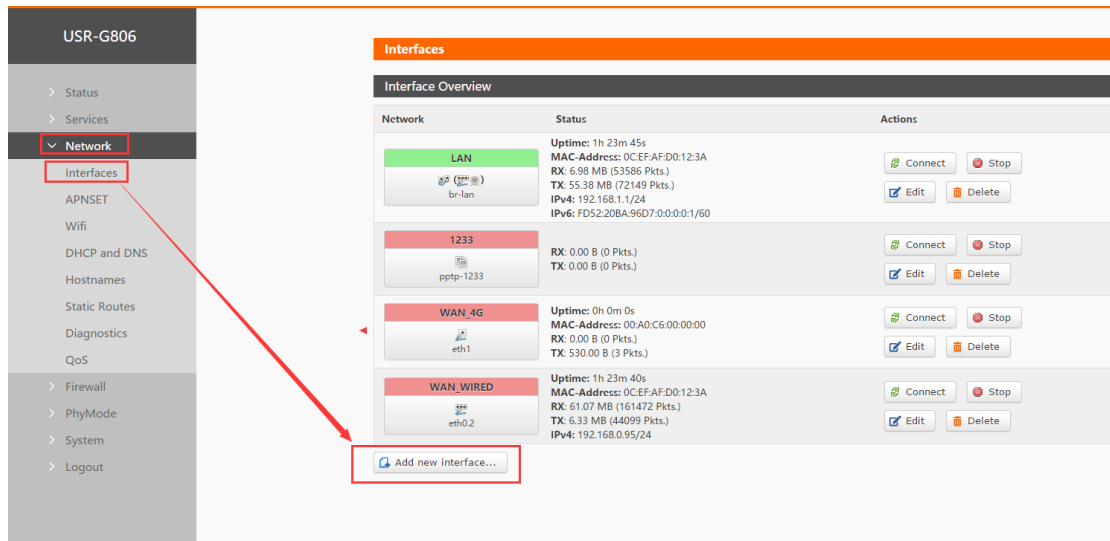


Figure 4 VPN Client

2.3. Networking mode

2.3.1. WAN+LAN+4G

In this networking mode, user can access internet through WAN interface and 4G interface. WAN interface has higher priority than 4G interface to ensure communication and save 4G flows. When WAN interface occurs problems, router can change to 4G interface to connect internet. In this mode, user can also connect to router through WIFI.

To achieve this mode, user don't need to change the router's parameters. Just connect the cable to router and insert SIM card, then power the router.

Application diagram as follow:

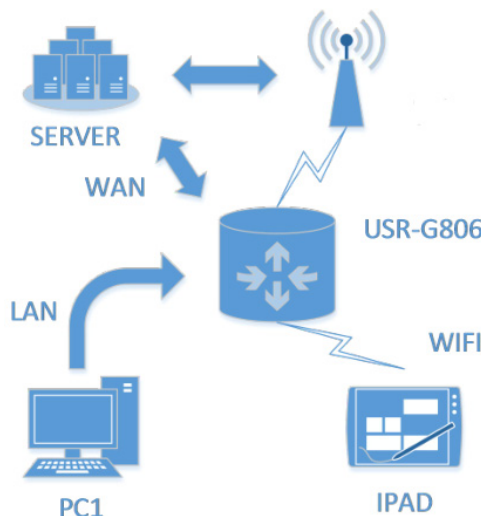


Figure 5 WAN+LAN+4G networking

2.3.2. LAN+LAN+4G

In this networking mode, two devices can connect to router through LAN and access the Internet by 4G network. User can achieve this by Web Server as follow:

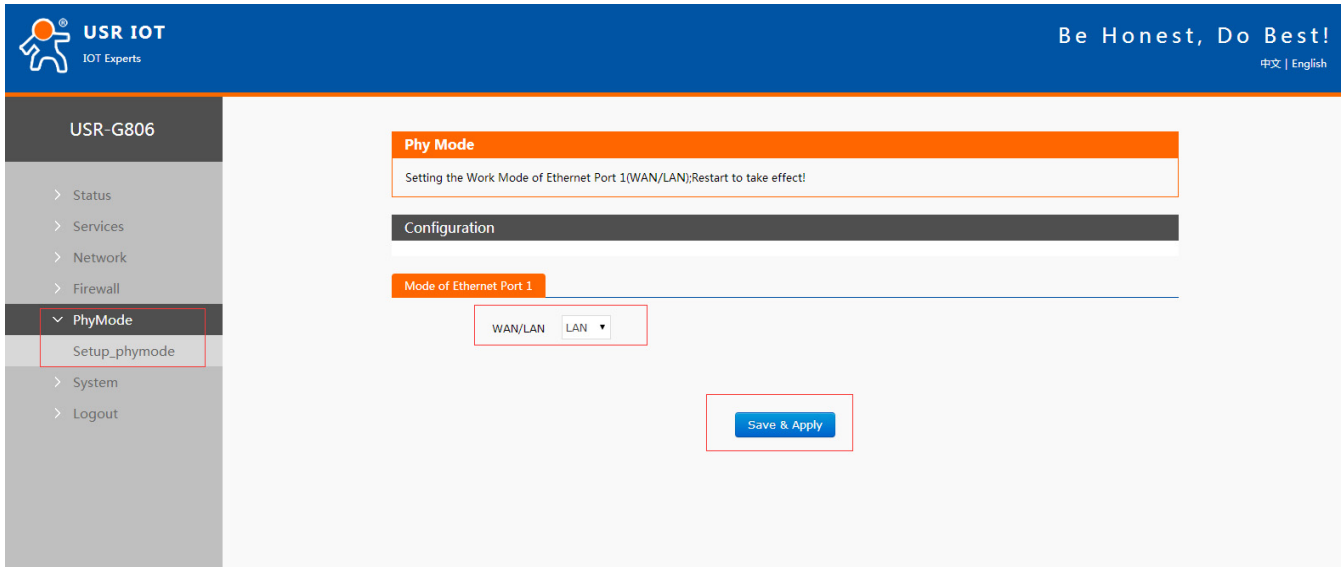


Figure 6 Switch WAN/LAN interface

Application diagram as follow:

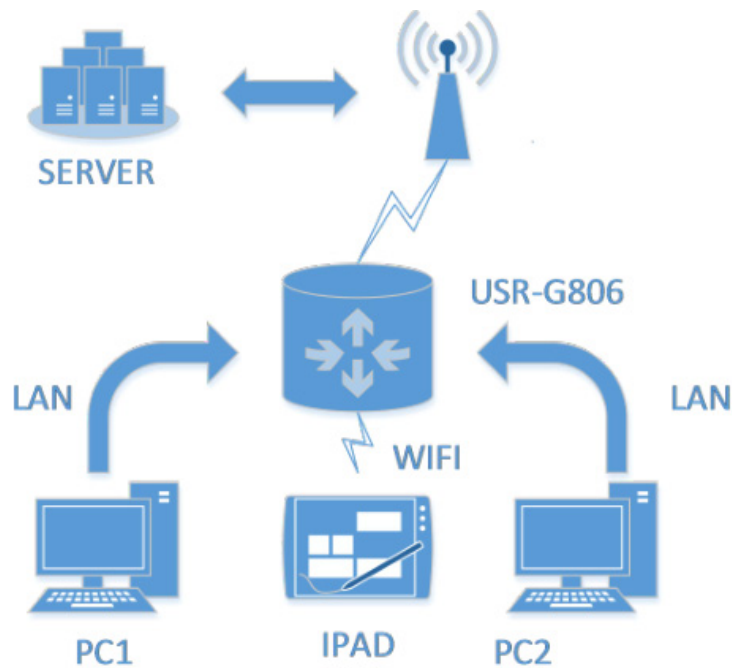


Figure 7 LAN+LAN+4G networking

2.4. Common functions

2.4.1. 4G interface

G806 supports one 4G interface to access internet. Functional diagram as follow:

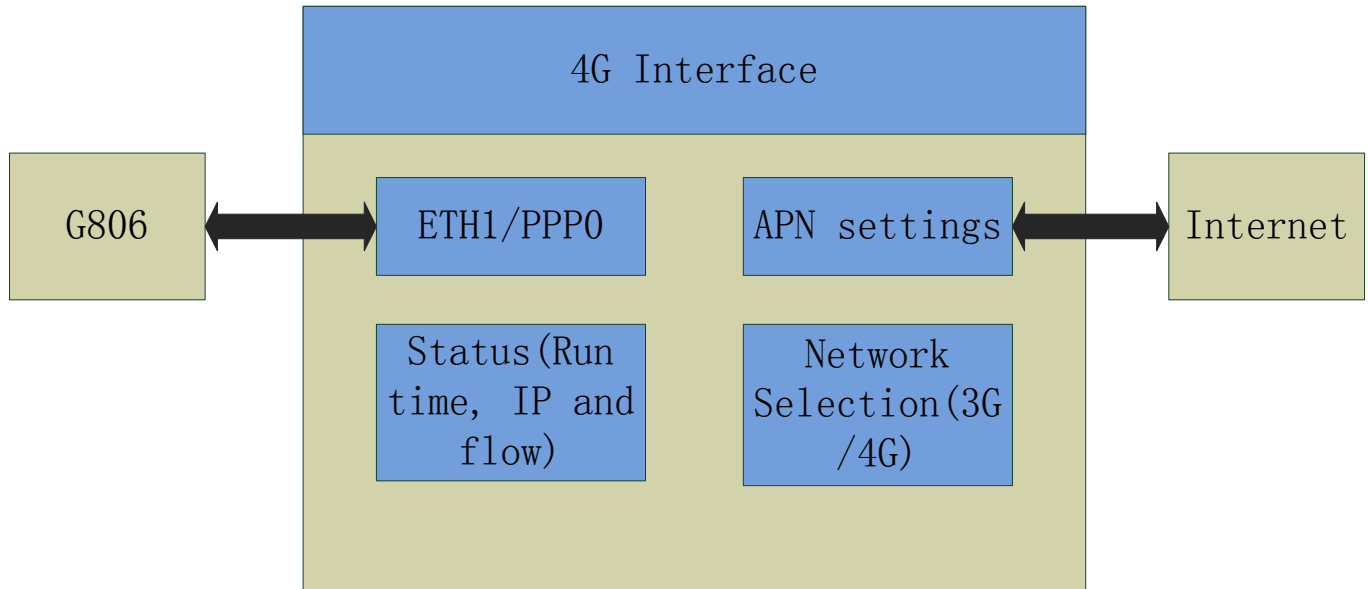


Figure 8 4G interface

User can configure 4G interface by Web Server as follow:

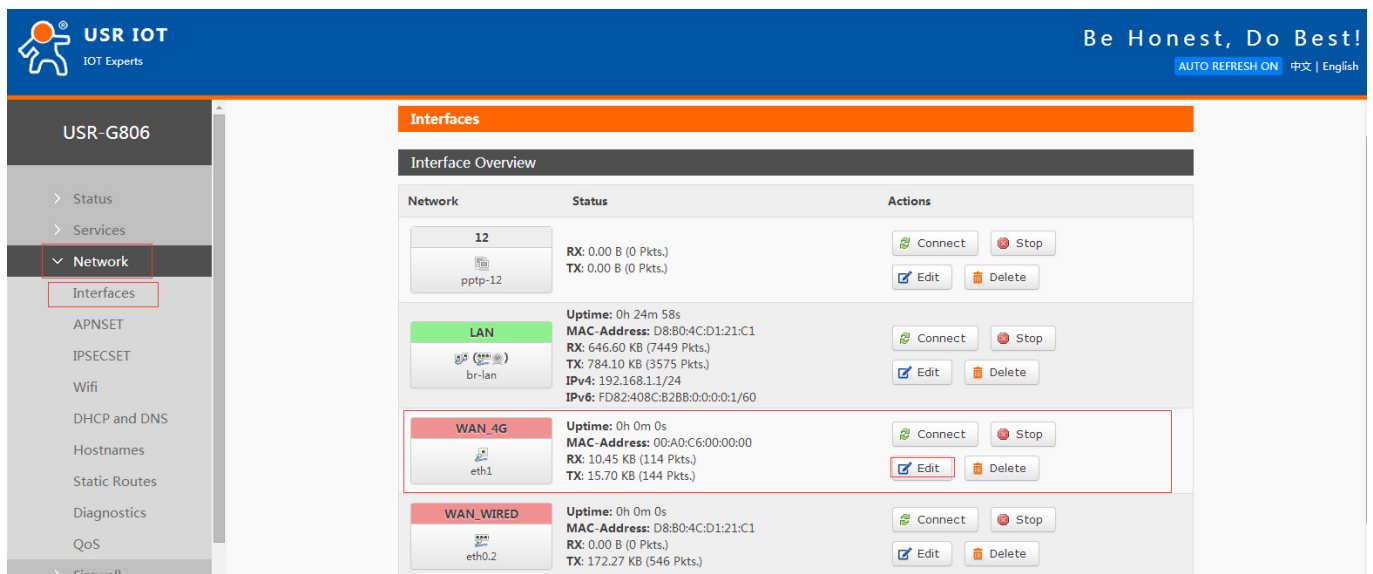


Figure 9 4G interface

2.4.2. LAN interface

G806 supports two LAN interface (one is WAN/LAN interface).

Default settings: One LAN interface (WAN/LAN used as WAN interface; IP address: 192.168.1.1; Subnet mask: 255.255.255.0; Open DHCP function).

User can configure LAN interface by Web Server as follow:

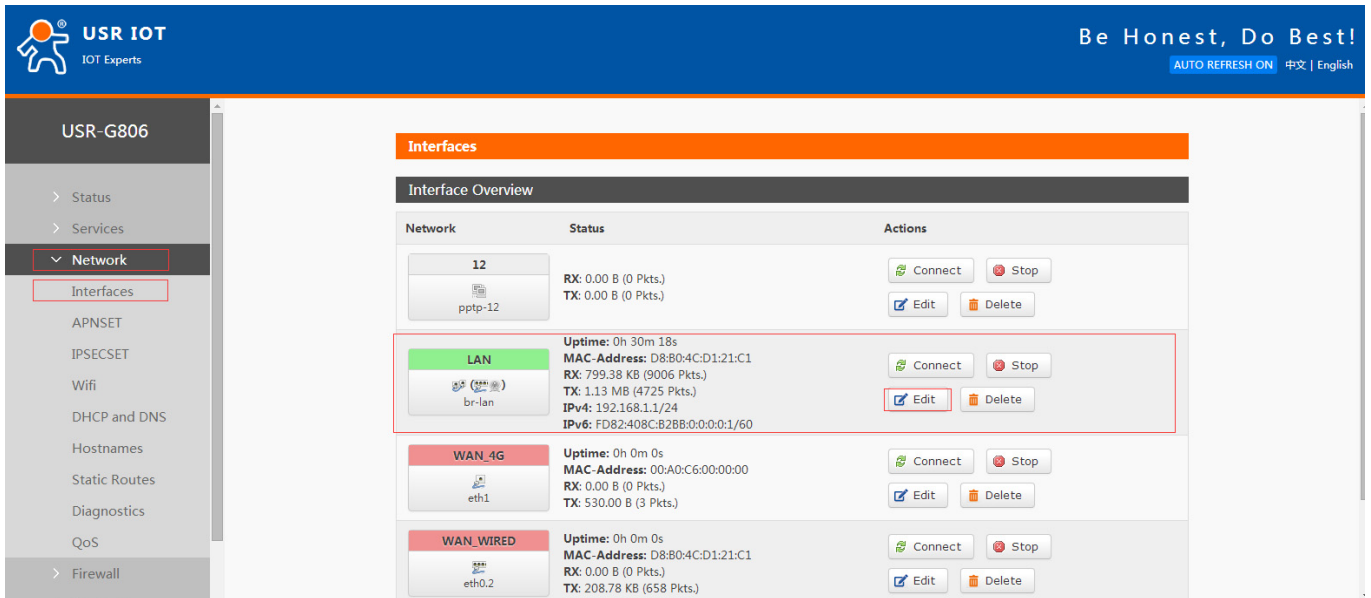


Figure 10 LAN interface

2.4.2.1. DHCP Function

DHCP default range of distribution is from 192.168.1.100 to 192.168.1.250 and default address lease time is 12 hours. Address range and lease time can be changed.

After you enter Web Server LAN interface, you can find 'DHCP Server' on Web Server as follow:

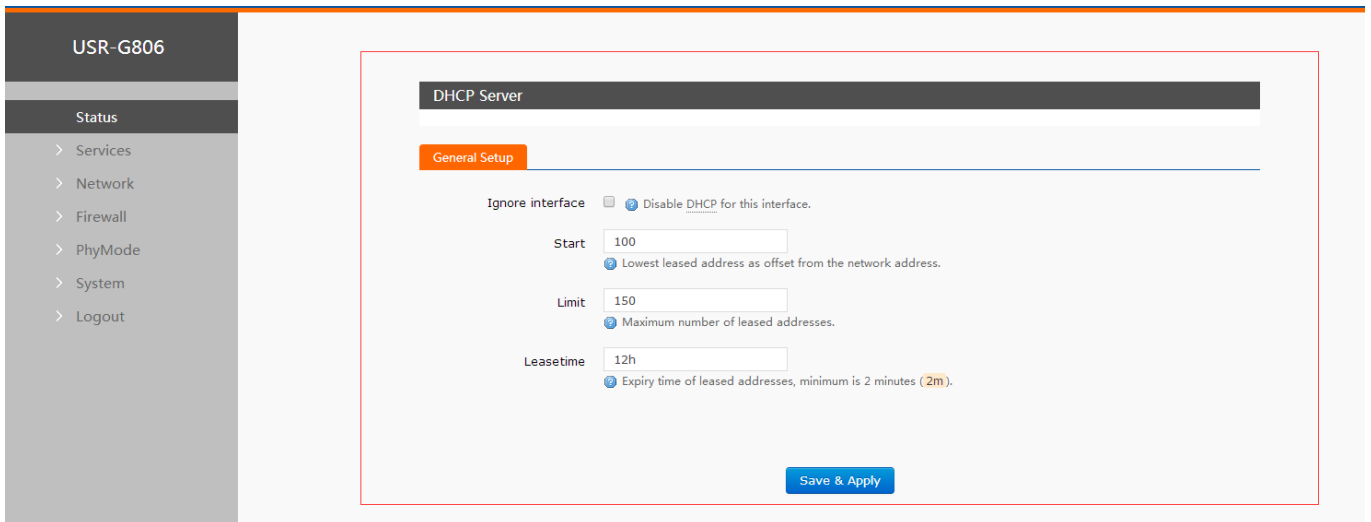


Figure 11 DHCP function

2.4.3. WAN interface

G806 supports one WAN interface and WAN interface can switch between WAN/LAN interface. WAN interface supports DHCP and Static IP, and default setting is DHCP.

User can configure WAN interface by Web Server as follow:

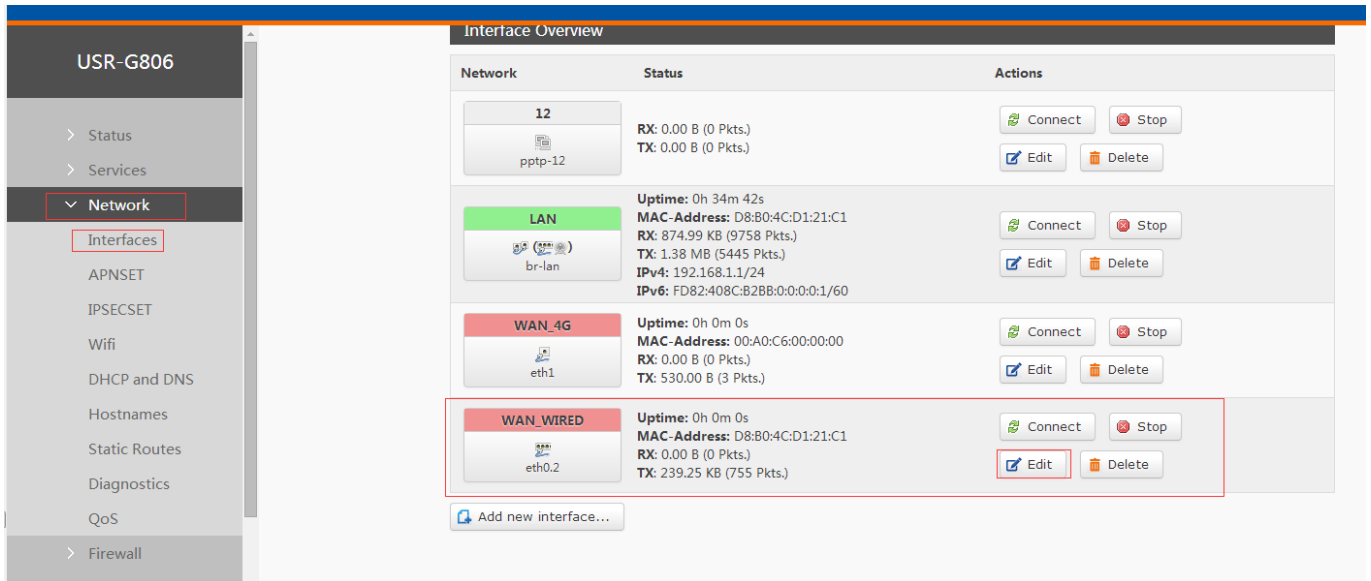


Figure 12 WAN interface

2.4.4. WLAN interface

G806 supports at most 24 STA device connection.

Default parameters as follows:

SSID	USR-G806-XXXX(XXXX is MAC)
Password	www.usr.cn
Channel	Auto
Bandwidth	40MHz
Encryption Mode	WPA2-PSK

Figure 13 WALN default parameters

WLAN interface on Web Server as follow:

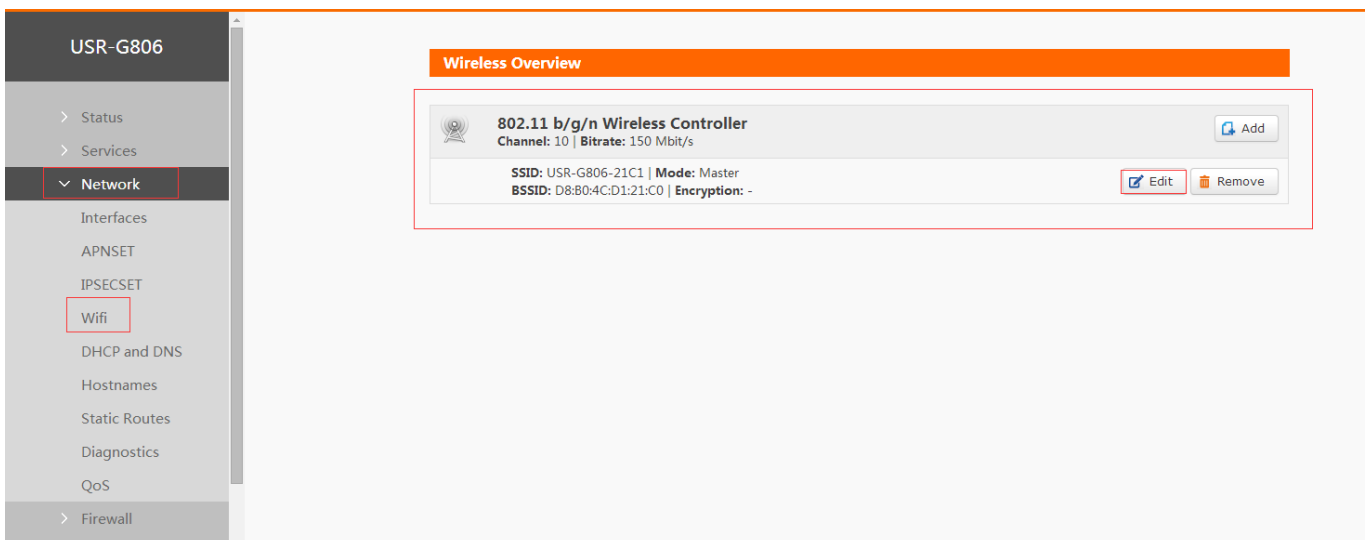
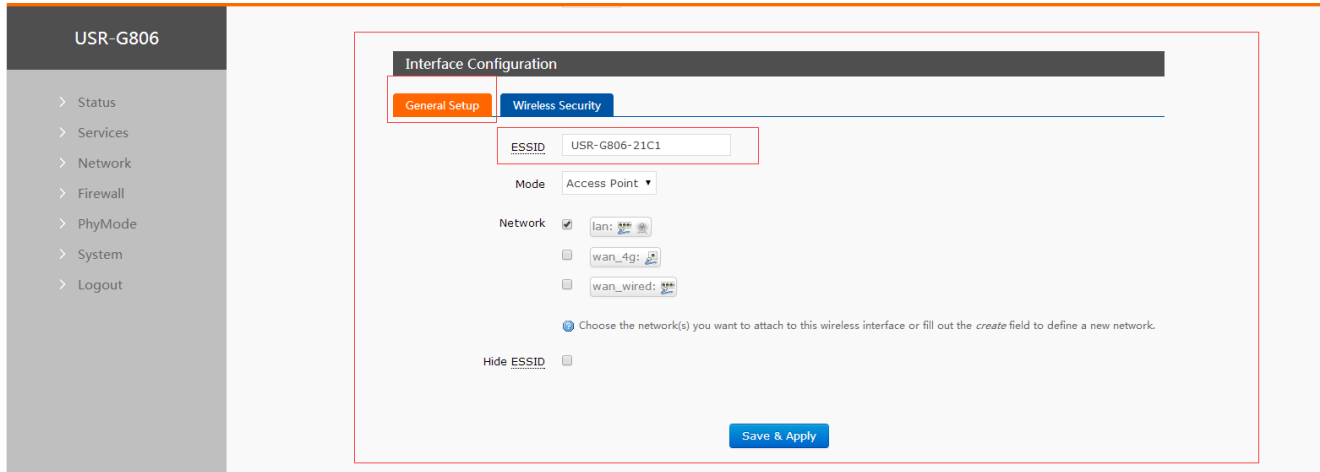


Figure 14 WLAN interface

After clicking “Edit” and entering WLAN interface configuration web, user can change follow parameters.

User can configure SSID on Web Server as follow:



USR-G806

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

Interface Configuration

General Setup | Wireless Security

ESSID: USR-G806-21C1

Mode: Access Point

Network: ☒ lan: ☐ wan_4g: ☐ wan_wired:

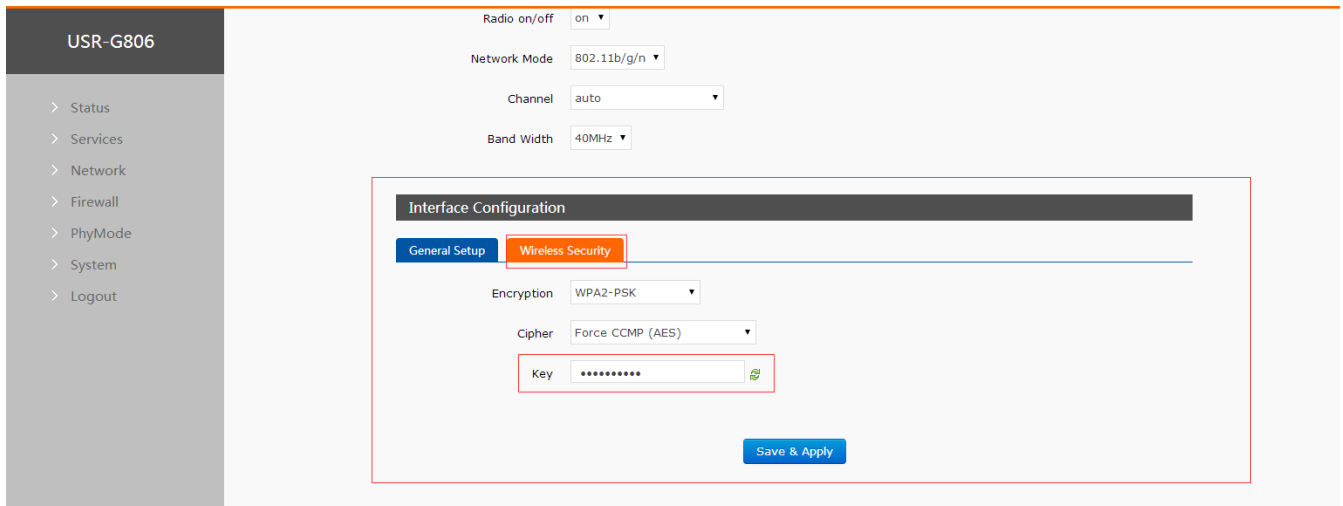
Choose the network(s) you want to attach to this wireless interface or fill out the create field to define a new network.

Hide ESSID: ☐

Save & Apply

Figure 15 Configure SSID

User can configure password on Web Server as follow:



USR-G806

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

Radio on/off: on

Network Mode: 802.11b/g/n

Channel: auto

Band Width: 40MHz

Interface Configuration

General Setup | **Wireless Security**

Encryption: WPA2-PSK

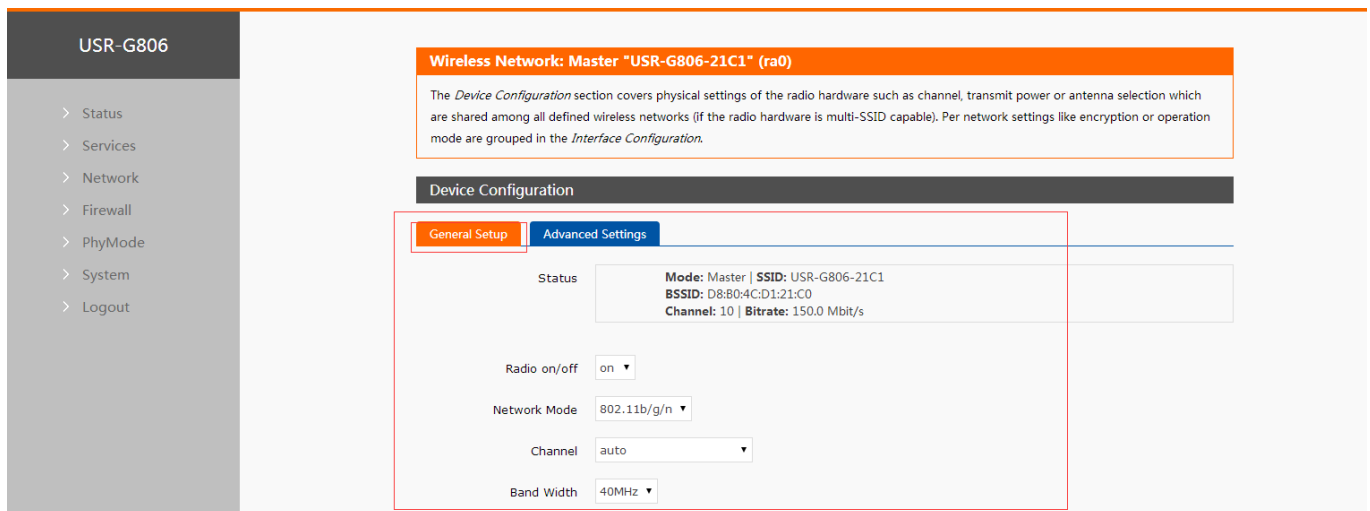
Cipher: Force CCMP (AES)

Key: *****

Save & Apply

Figure 16 Configure password

Other settings on Web Server as follow:



USR-G806

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

Wireless Network: Master "USR-G806-21C1" (ra0)

The *Device Configuration* section covers physical settings of the radio hardware such as channel, transmit power or antenna selection which are shared among all defined wireless networks (if the radio hardware is multi-SSID capable). Per network settings like encryption or operation mode are grouped in the *Interface Configuration*.

Device Configuration

General Setup | Advanced Settings

Status: Mode: Master | SSID: USR-G806-21C1
BSSID: D8:B0:4C:D1:21:C0
Channel: 10 | Bitrate: 150.0 Mbit/s

Radio on/off: on

Network Mode: 802.11b/g/n

Channel: auto

Band Width: 40MHz

Figure 17 Other settings

User can close WLAN interface by changing 'Radio on/off' into off.

2.4.5. Network Diagnosis

User can use network diagnosis function by Web Server as follow:

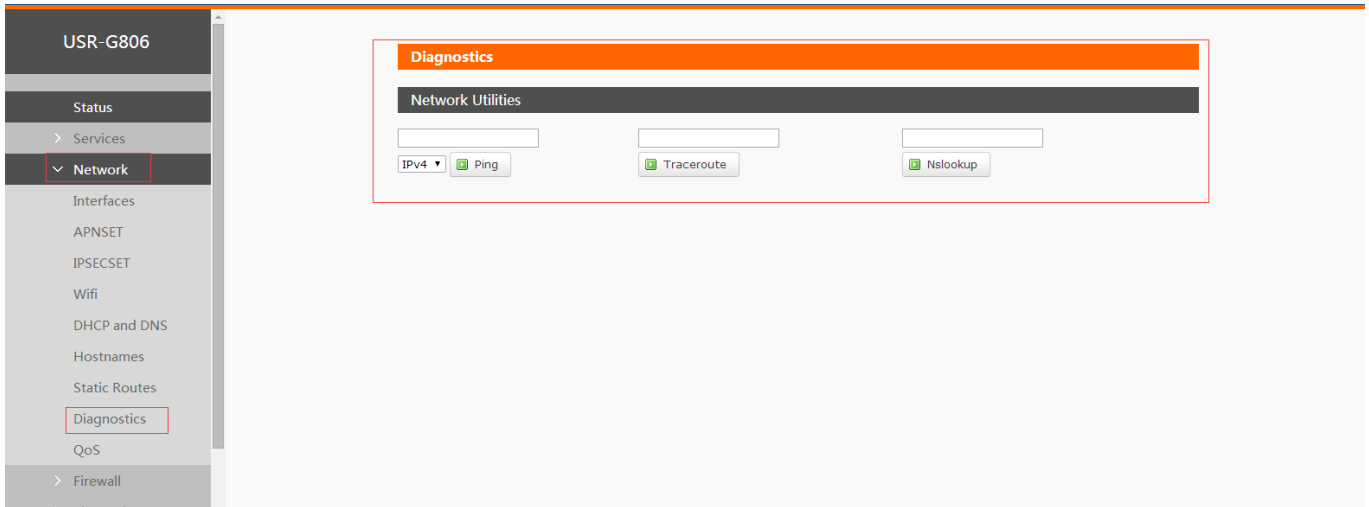


Figure 18 Network diagnosis

- Ping: User can do PING test to a specific address in G806.
- Traceroute: Can acquire routing path to visit a specific address.
- Nslookup: Can analyse DNS into IP address

2.4.6. Module Name and Time Zone

G806 default module name is USR-G806 and default Time Zone is Beijing time zone.

User can configure module name and Time Zone by Web Server as follow:

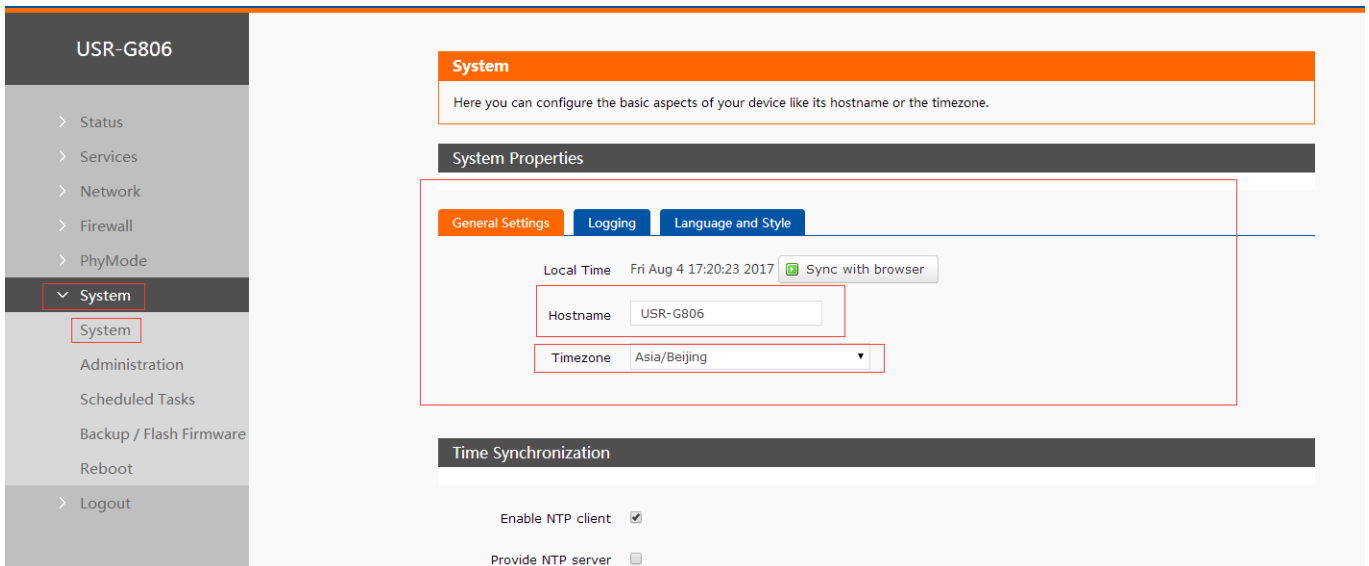


Figure 19 Module name and Time Zone

2.5. Basic Functions

2.5.1. Web Server Password

Default password is root, this password is used to enter Web Server.

User can change password by Web Server as follow:

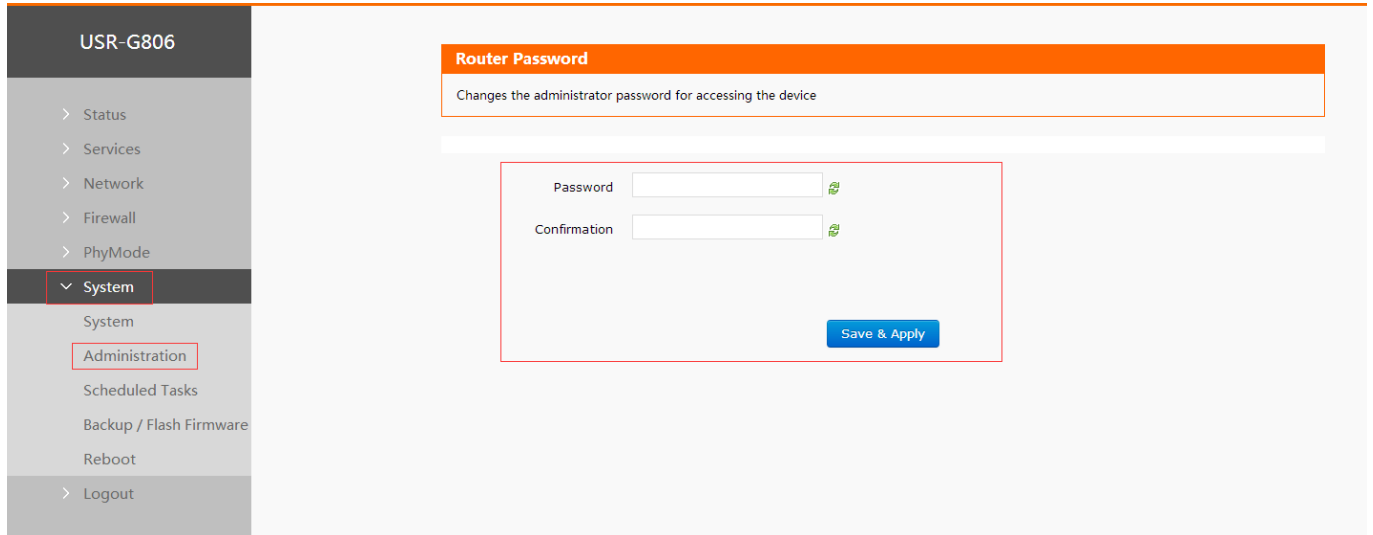


Figure 20 Change Web Server password

2.5.2. Restore

Hardware restore: Press Reload button over 5 seconds and release, G806 will restore default settings and reset.

User can restore default settings by Web Server as follow:

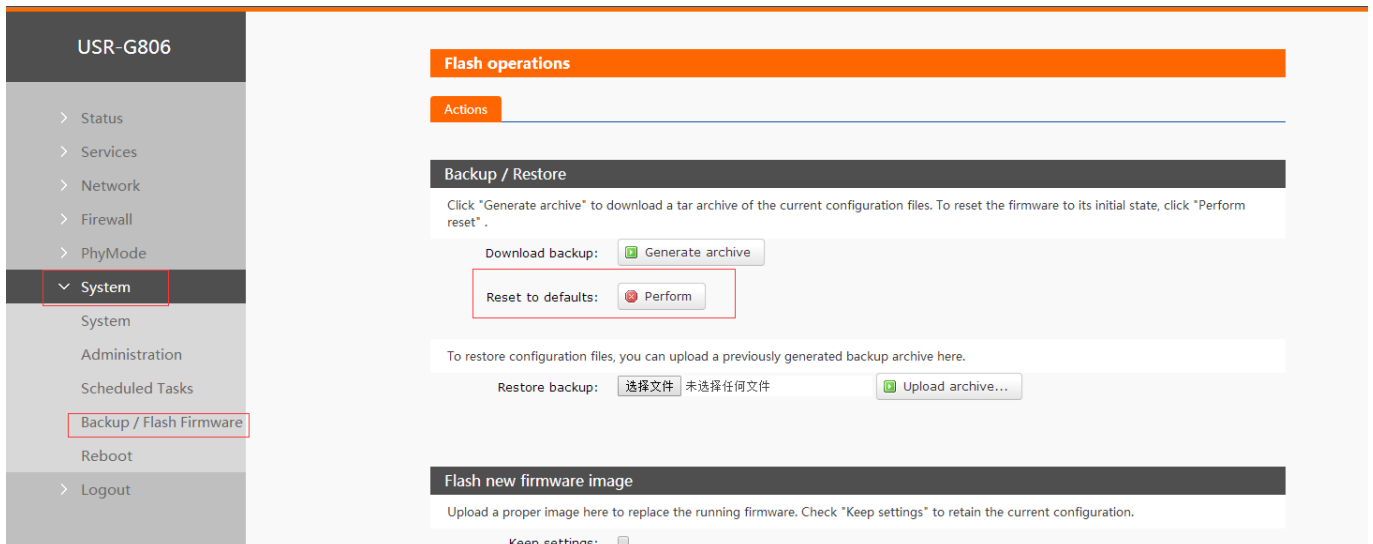


Figure 21 Restore default settings

2.5.3. Upgrade Firmware Version

Upgrade by Web Server as follow:

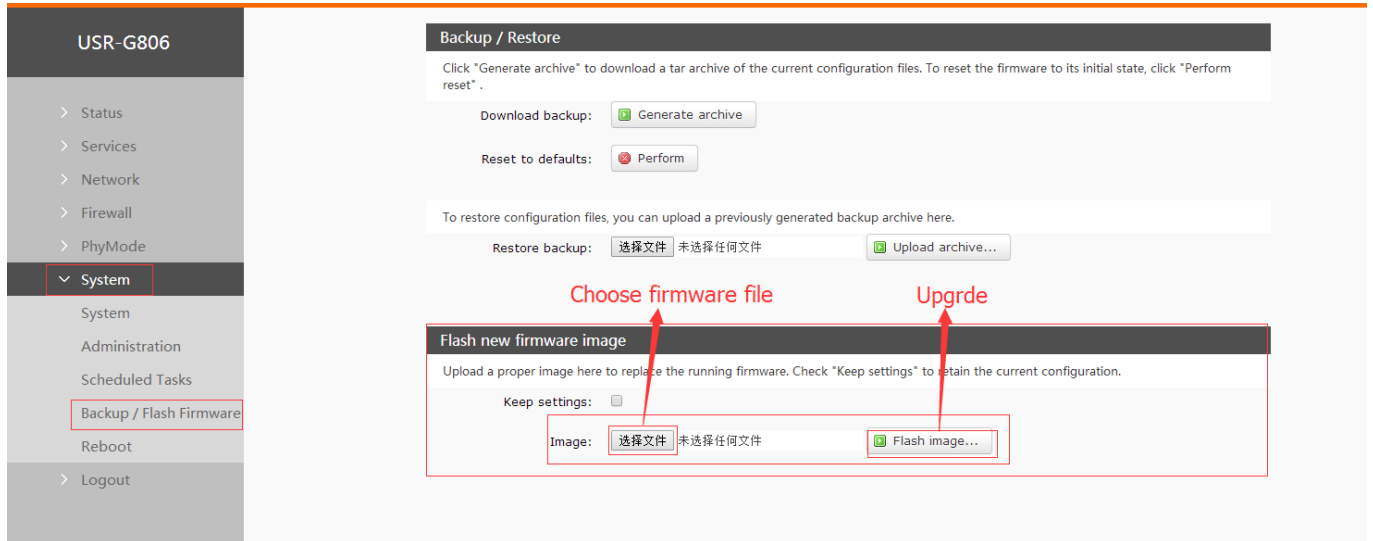


Figure 22 Upgrade firmware version

Note:

- The whole upgrade process will last about 1 minute, user can enter Web Server after about 1 minute.
- User can choose saving settings.
- User should keep powering up and LAN/WIFI connection during the whole upgrade process.

2.5.4. Reset

Reset time is about 40~60 seconds.

Reset by Web Server as follow:

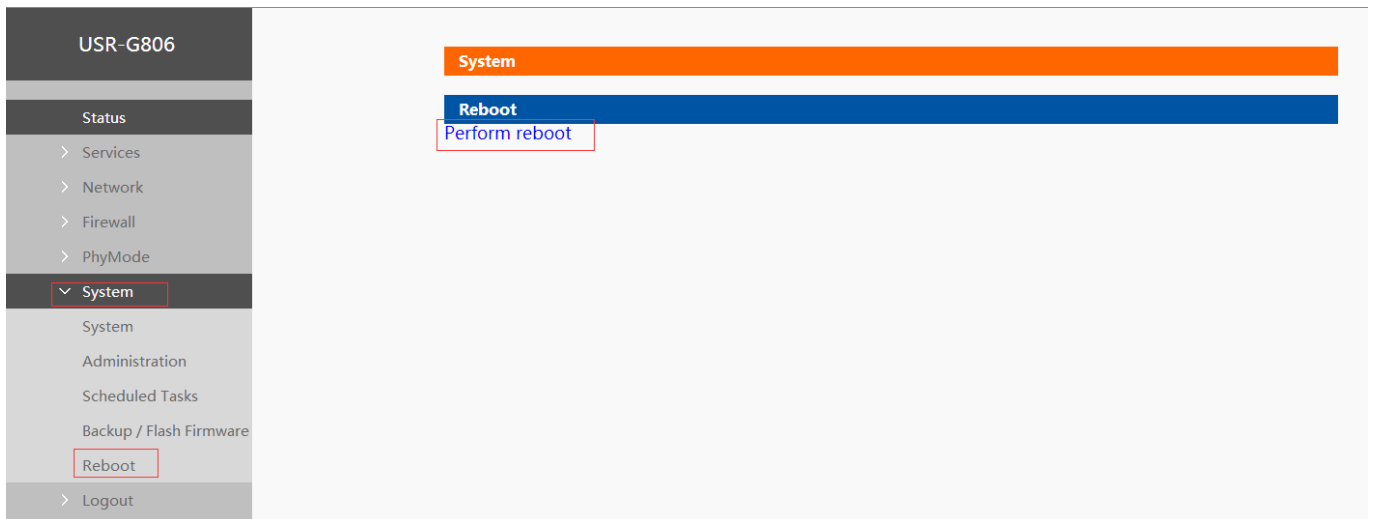


Figure 23 Reset module

3. Web Server

When user need to configure the G806, user can connect PC to USR-G806 through LAN interface or WLAN, then open Web Server.

Default parameters of G806 as follows:

SSID	USR-G806-XXXX
IP Address	192.168.1.1
User name	root
Password	root
WLAN Password	www.usr.cn

Figure 24 Default parameters

Take default parameters as example: User can connect PC to SSID USR-G806-XXXX. Then open browser and enter 192.168.1.1, log in with User name and Password(both are root), user can enter Web Server.

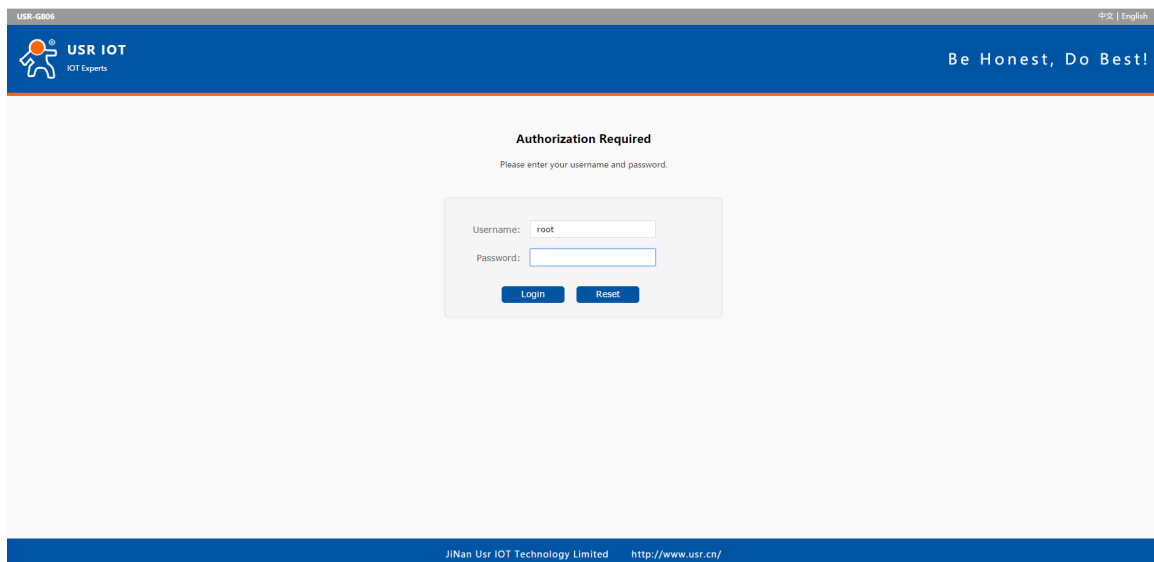


Figure 25 Web Server login web

User can change the language between Chinese/English in the top right corner.

4. Contact us

Company: Jinan USR IOT Technology Limited

Address: Floor 11, Building 1, No. 1166 Xinluo Street, Gaoxin District, Jinan, Shandong, 250101, China

Web: www.usriot.com

Support: h.usriot.com

Email: sales@usr.cn

Tel: 86-531-88826739

5. Disclaimer

This document provides the information of USR-G806 products, it hasn't been granted any intellectual property license by forbidding speak or other ways either explicitly or implicitly. Except the duty declared in sales terms and conditions, we don't take any other responsibilities. We don't warrant the products sales and use explicitly or implicitly, including particular purpose merchant-ability and marketability, the tort liability of any other patent right, copyright, intellectual property right. We may modify specification and description at any time without prior notice.

6. Updated History

2018-01-18 V1.0.4.1 established based on Chinese version V1.0.4.

Appendix: G806 certification

ISED WARNING

This device complies with Innovation, Science, and Economic Development Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions:

- (1) this device may not cause interference, and
- (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

- (1) l'appareil ne doit pas produire de brouillage, et
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Radio apparatus containing digital circuitry which can function separately from the operation of a transmitter or an associated transmitter, shall comply with ICES-003. In such cases, the labeling requirements of the applicable RSS apply, rather than the labelling requirements in ICES-003.

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

ISED RF exposure statement :

This equipment complies with ISED radiation exposure limits set forth for an uncontrolled environment .This equipment should be installed and operated with minimum distance 20cm between the radiator& your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Cet équipement est conforme aux ISED RF limites d'exposition aux radiations dans un environnement non contrôlé. Cet émetteur ne doit pas être situé ou opérant en conjonction avec une autre antenne ou émetteur.

FCC WARNING

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator& your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.