BaiCells CN6671 CPE User Manual

V1.0

About This Document

This document is a user guide for CN6671 CPE.

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Disclaimer

This specification is preliminary and is subject to change at any time without notice. BaiCells assumes no responsibility for any errors contained herein. For more information, please consult our technical engineers.

Revision Record

Date	Version	Description
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1. Hardware Specification

1.1 Appearance

The front view of CN6671 is shown in Figure 1-1.

Figure 1-1 Front View of CN6671

Index	Description
Dimension	167(H)*187(W)*44(T)mm
Weight	310g
Color	White

The LED indicators of front view are described in Table 1-1.

Table 1-1 LED Indicators of Front View

LTE Name	Description	Color	LED Behavior	Status Indicator
PWR	Power Indicator	blue	OFF	No Power Supply
			Steady On	Power On
WLAN	WLAN Indicator	blue	OFF	WLAN function disable
			Blanking	Data transmission through WLAN
			Steady On	WLAN function enable
WPS	WiFi Protected Setup	blue	OFF	WPS disable
			Blanking	WiFi terminal being accessing
			Steady On	WPS Enable

Tel1 ~ Tel2	Voice telephone interface indicator	blue	OFF	Not establish a connection with the voice server
			Blanking(1/sec)	Registering with the voice server
			Blanking(2/sec)	Connection has been established
			Steady On	Be connected with voice server
MODE	Mode Indication	blue	OFF	No access in LTE network
			Blanking	LTE scan, connecting
			Steady On	In LTE network
LTE Signal	4 LTEs, Indicate connection state and signal strength	blue	All OFF	No Connected
			One by one signal bar display, four bars	Displays the current wireless network signal strength, the stronger the signal, the more bars on

In addition, two special status indicators (Firmware upgrading and reset process) is described as follows:

Status	**Indicator Status Description**
Firmware upgrade	WPS + WLAN two lights flash simultaneously
Reset process	Except 5 signal strength indicator, the other indicator are all on

The back view of CN6671 is shown in Figure 1-2.

Figure 1-2 Back View of CN6671

The LED indicators of back view are described in Table 1-2.

Table 1-2 LED Indicators of Back View

LTE Name	Description	Color	LED Behavior	Status Indicator
LAN1 ~ LAN4	Eth Indication	Green	OFF	Ethernet connection is not established
			Steady On	Ethernet connection is normal
			Blanking	Ethernet interface data being transmitted

The interfaces and buttons of back view are described in Table 1-3.

Table 1-3 Interfaces and Buttons of Back View

Name	Description
ETH RJ45	4 LAN Ports
POTS-RJ11	2 RJ11 interface, phone / fax / POS, providing VoIP functions under conditions of software support
Power	Power port is the linked power adapter which is parceled.
Power Switch	Power Switch

The side view of CN6671 is shown in Figure 1-3.

Figure 1-3 Side View of CN6671

The interfaces and buttons of side view are described in Table 1-4.

Table 1-4 Interfaces and Buttons of Side View

Name	Description
Restore Button	Long press over 10s to restore the factory settings
WPS	WiFi Protected Setup
WiFi	Turn on or off WiFi Function
USIM Slot	Support 1.8V/3.0V USIM

1.2 Specifications

1.2.1 Basic Description

Specification	Description	Comment
LTE Standard	3GPP Release 9	None
Ethernet LAN Port	4 RJ-45 port 10/100 auto-sensing, auto-MDX	LAN * 4
USIM	Support 1.8V/3.3V 2FF USIM	None
Tel Port	2 FXS RJ11 Ports	None
LED Indicators	POWER / WLAN / WPS / TEL / MODE / Signal Strength / LAN Indicator * 4	None
Power Switch	Switch	None
Reset/Restore Button	Tact Button	Long press over 10s to restore the factory settings
WPS	WiFi Protected Setup	None
Power Supply	Input: Universal range 100V~240V AC, 50Hz Output: 12V DC 1A	None

1.2.2 RF Specifications

No.	Feature	Capability		Comments
		Value	Unit	
1	LTE Mode	TDD LTE		
2	Channel Bandwidth	5/10/15/20	MHz	
3	Max Output Power	17	dBm	25℃
4	Transmit Power Dynamic Range	63	dB	
5	LTE Standard	3GPP R9		
6	Frequency	3650 ~ 3700	MHz	B43
7	Antenna Gain	5	dBi	
8	WiFi Frequency	2400 ~ 2483.5	MHz	
9	WiFi Channel BW	20/40	MHz	
10	WiFi Antenna Type	2*2	MIMO	Built-in antenna
11	WiFi Antenna Gain	2	dBi	

1.2.3 Environment Specifications

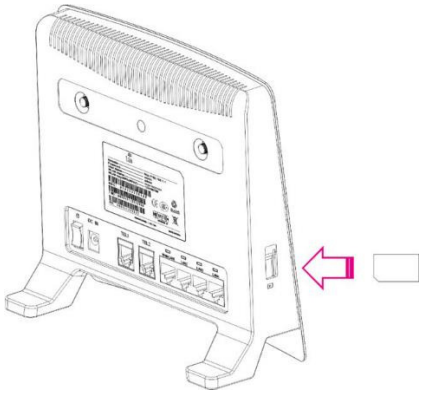
No.	Feature	Capability	
		Value	Unit
1	Operating Temperature	-10 ~ 45	℃
2	Storage Temperature	-20 ~ 60	℃
3	Operating Humidity	0 ~ 95	%

2. Operation Steps

Attention:

Make sure the CPE is turned off before you insert or remove the SIM card. Otherwise, the CPE and SIM card may be damaged.

1. Insert SIM card into USIM slot.



Note:

If you want to remove the SIM card, please tightly press the SIM card, the SIM card will pop up.

2. Insert power adaptor and turn on it. The power indicator getting steady on indicate that the power supply is normal. Otherwise, you need to check whether the power adaptor is normal.

3. Wait for 1 minute, if MODE and SIGNAL STRENGTH indicators flash simultaneously, it indicates that SIM card did not connect or is invalid. You need to buy new SIM card or contact vendor.

4. MODE indicator flashing indicates that the device is searching and registering to LTE network. If the device connect to LTE network normally, MODE indicator is steady on. SIGNAL STRENGHTH indicator indicate the strength of LTE signal. If the device cannot connect to LTE network, MODE indicator flash ceaselessly.

5. WLAN indicator indicates whether WiFi function is enabled.

   If WiFi is enabled, mobile phone and laptop can connect to network by WiFi.

   SSID is “Airtouch-8783”. For the first time, no WiFi password is required.

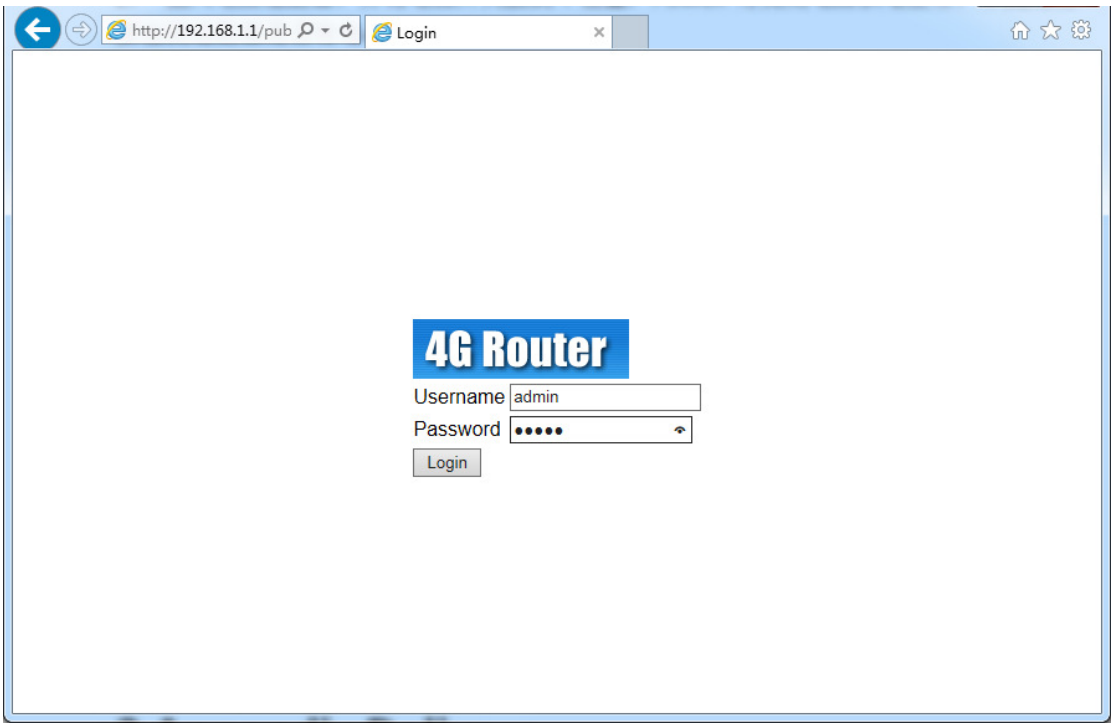
6. PC and laptop can connect to internet through LAN port.

3. Configuration Guide

3.1 Log In

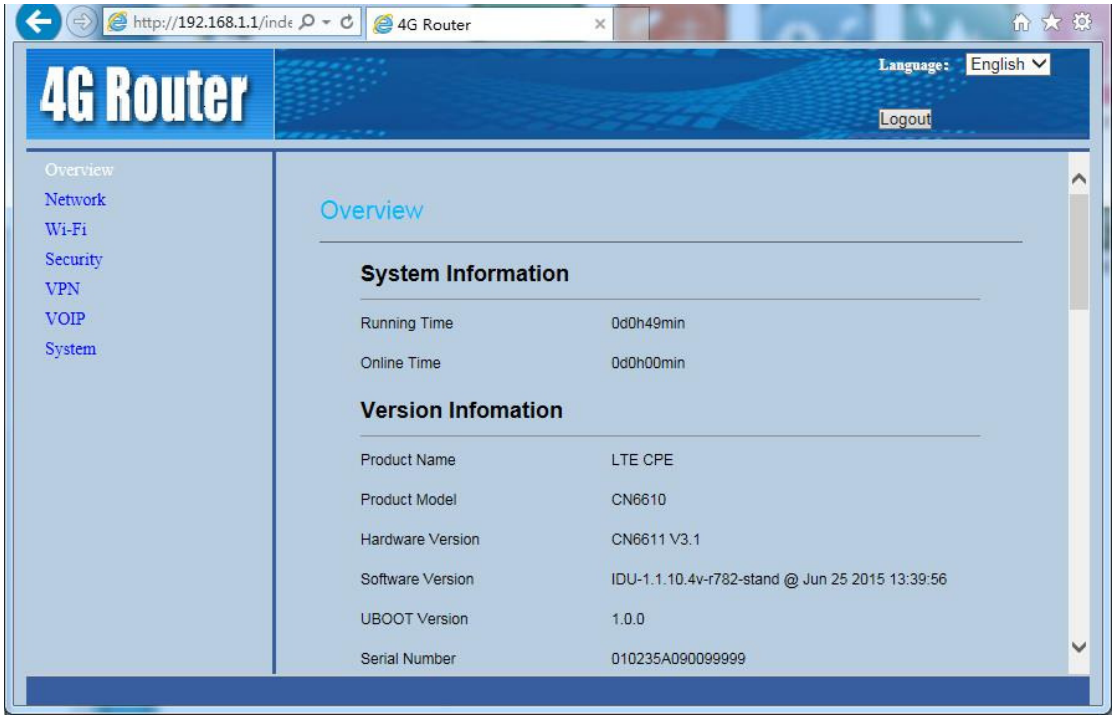
1. In the browser's address column, type in http://192.168.1.1, click "Enter" to open web client login page, as shown in Figure 3-1

Figure 3-1 CPE Web Client Login Page



2. Input user name "*admin*", password "*admin*", and click "**Login**". The homepage of web client is given in Figure 3-2. The home page displays basic information of CPE.

Figure 3-2 Home Page of Web Client



3.2 Network Settings

1. In the left navigation bar, choose “**Network>LTE Settings**”, as shown in Figure 3-3 and Figure 3-4.

   In “**Network**”, you can complete LTE and LAN settings.

Figure 3-3 LET Settings

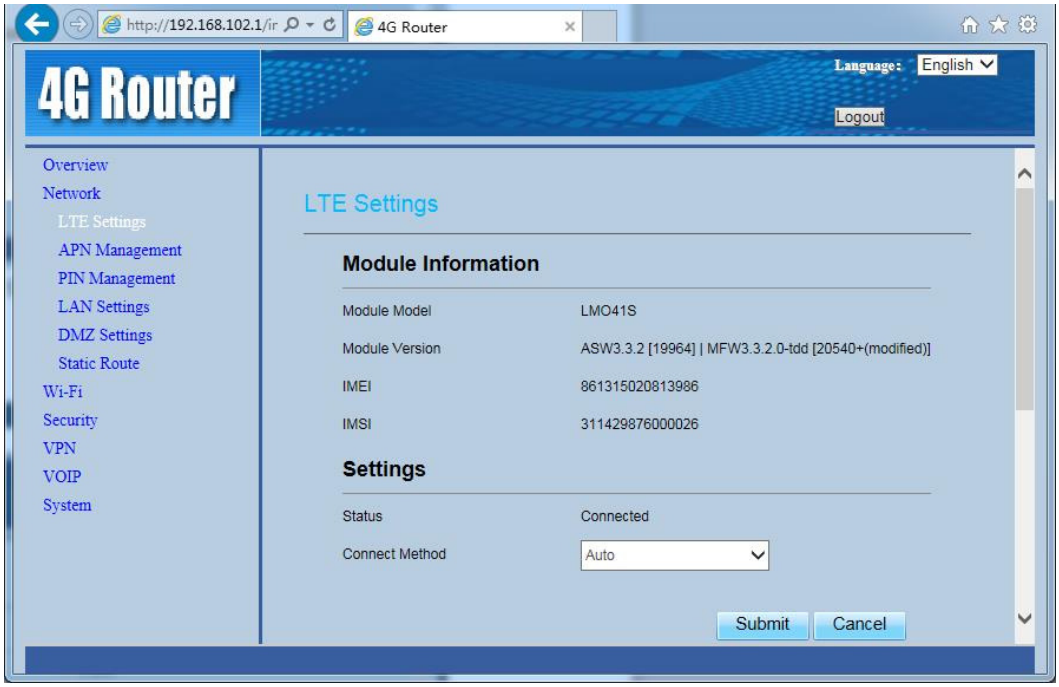
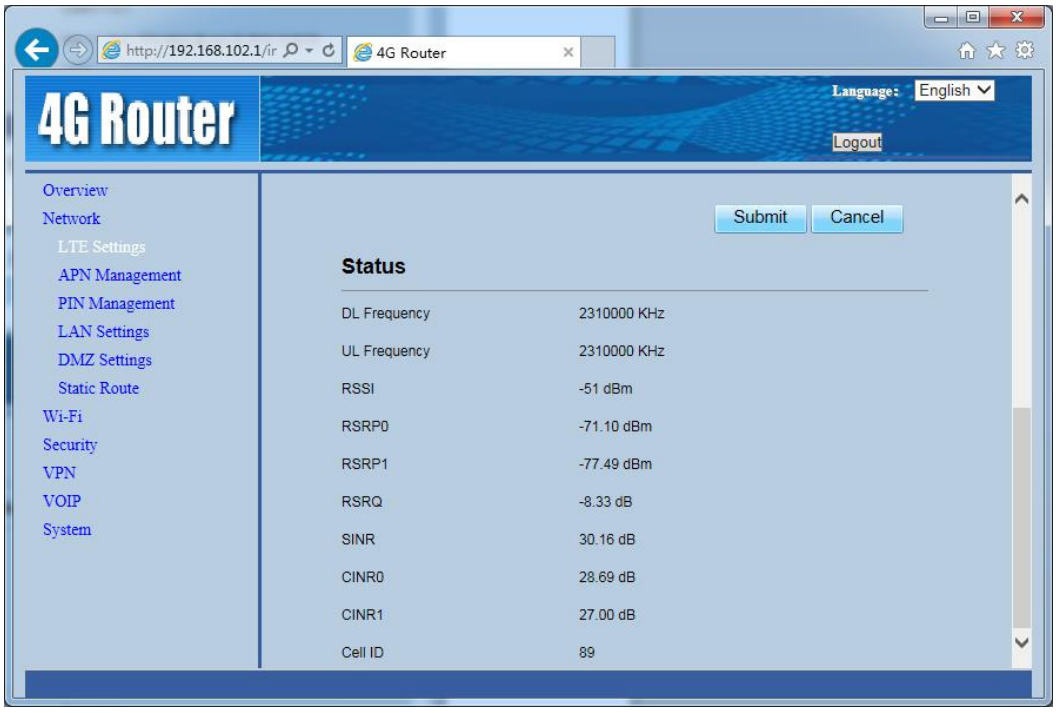


Figure 3-4 LET Status



In general, "**LTE Settings**" leaves the default setting.

- In "**Module Information**" area, if **IMSI** field is empty, you need to check whether SIM card has inserted or damaged.
- "**Settings**" area displays the connection type and connection status, the value of "**Status**" is unconnected, connecting, and connected. "**Connect Method**" choose "**Auto**" mode.

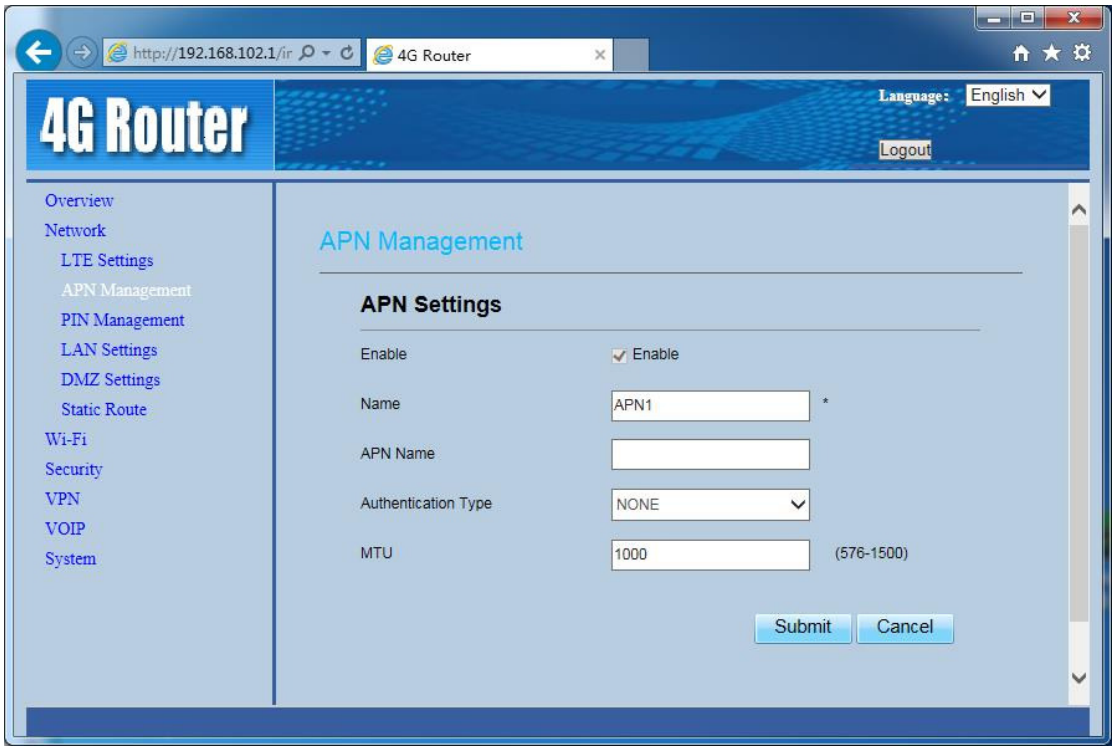
"**Status**" displays the current connection status:

- **UL Frequency /DL Frequency**: Frequency point of cell which connect or search. If the field is empty, it indicate that searching LTE network is failed.
- **RSRP0/RSRP1**: Indicate the RSRP of current channel. If the value is greater than -110dBm, it indicates that the LTE signal is within the service scope of base station, if the value is greater than -95dBm, it indicates LTE signal well.
- **SINR**: Indicate the SINR of current channel, if the value is greater than 25dB, it indicates channel quality well.
- **Cell ID**: Indicate cell ID of connection.

2. In the left navigation bar, choose "**Network>APN Management**", as shown in Figure 3-5.

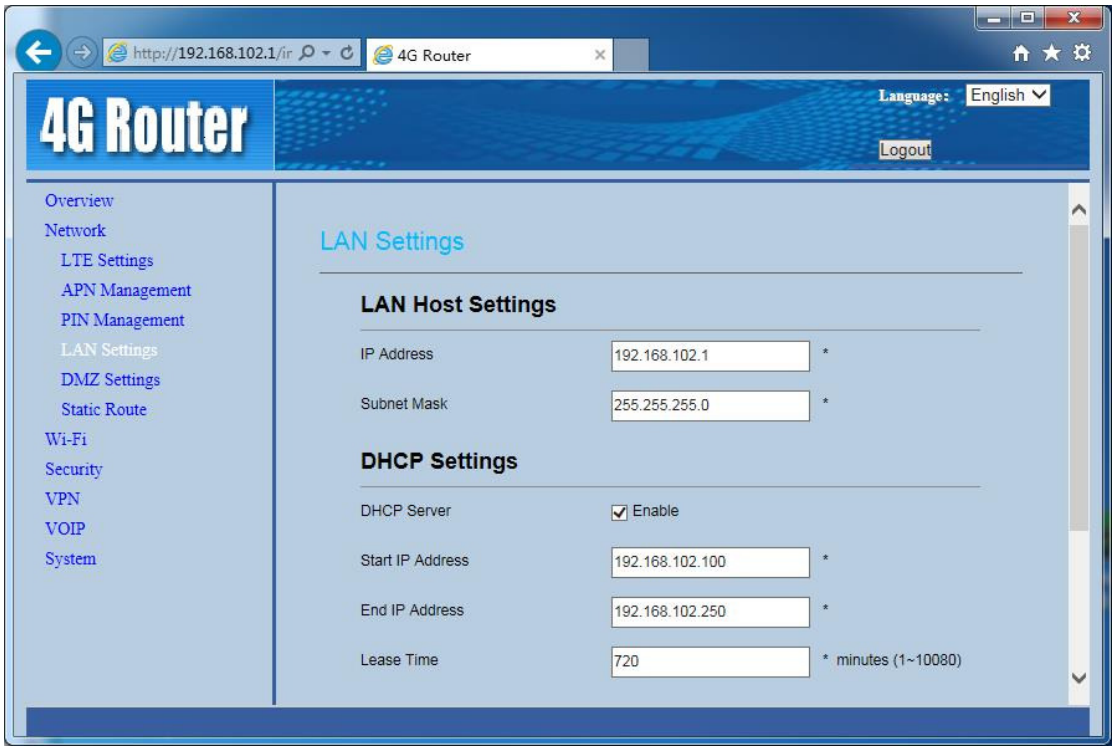
   In general, the "**APN Management**" leaves the default value.

Figure 3-5 APN Management



3. In the left navigation bar, choose "**Network>LAN Settings**", as shown in Figure 3-6.

Figure 3-6 LAN Settings

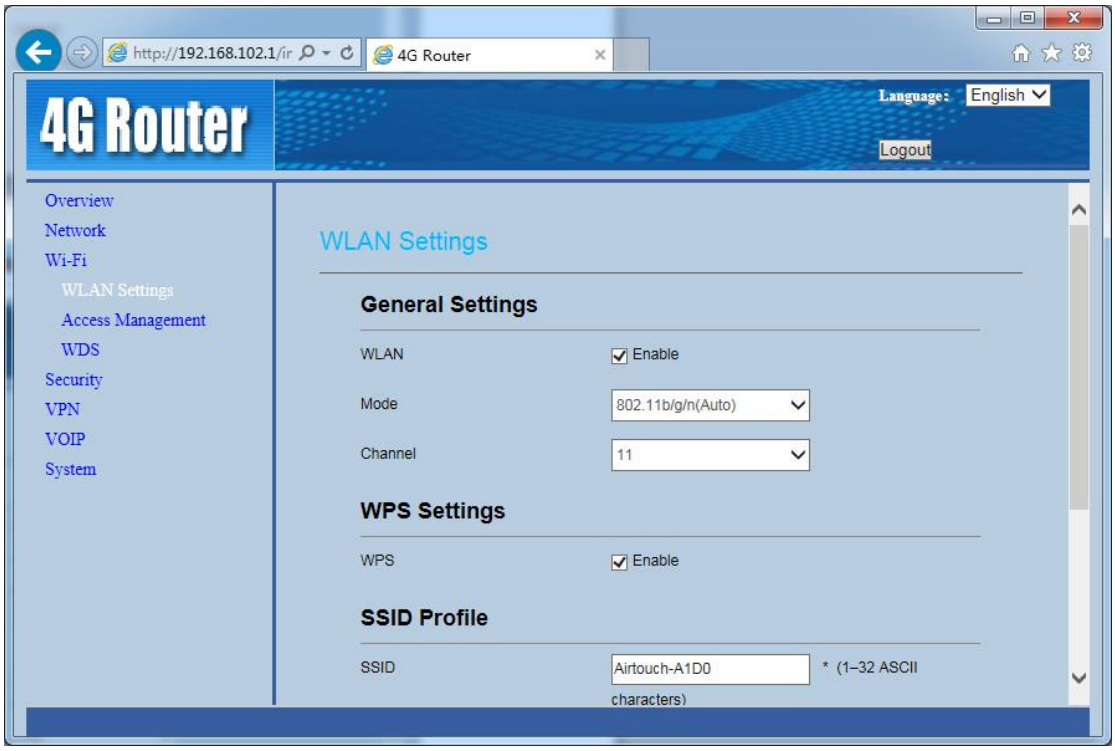


- In **LAN Host Settings** area, note that IP address of LAN port and Subnet Mask avoid conflict with the local gateway.
- In **DHCP Settings** area, distribute dynamic IP address for local WiFi and LAN host. The IP address segment is the same segment with **LAN Host Settings**.

3.3 WiFi Settings

In the left navigation bar, choose "**WiFi**". WiFi settings includes WLAN general settings, WPS settings, SSID profile, WLAN encryption type, password setting, access management and WDS settings, as shown in Figure 3-7.

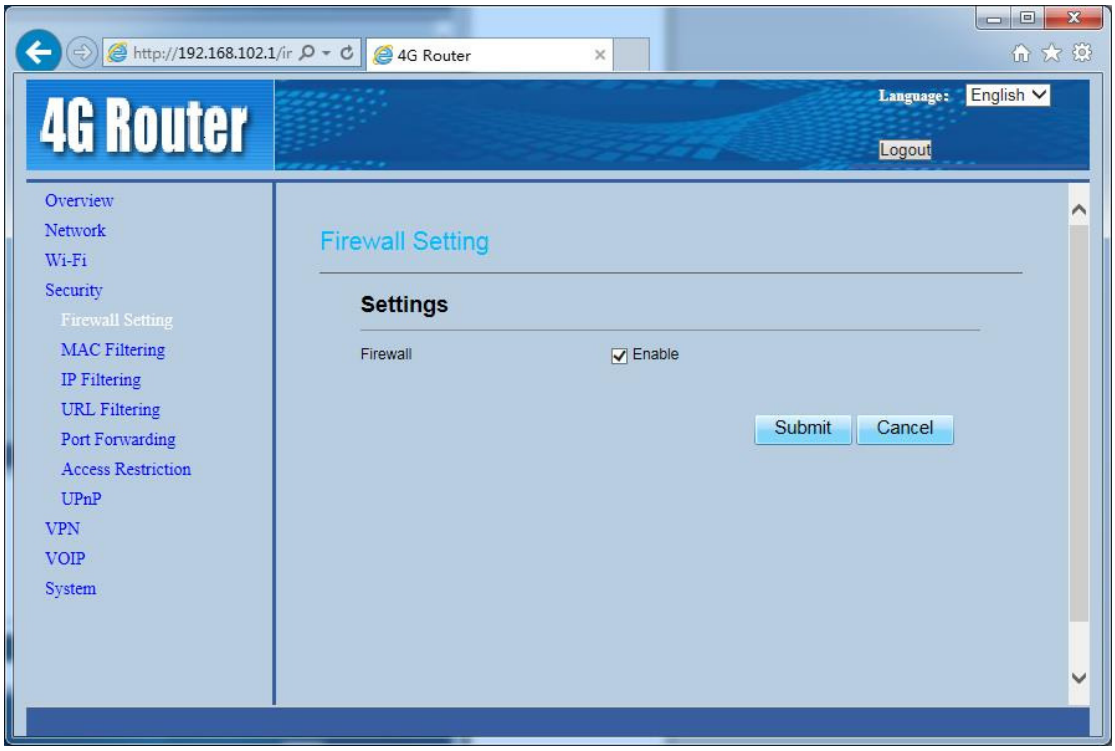
Figure 3-7 WLAN Settings



3.4 Security Settings

In the left navigation bar, choose “**Security**”. Security settings includes general router security functions, such as MAC/IP/URL filter, port forwarding, access restrictions, and so on, as shown in Figure 3-8.

Figure 3-8 Security Settings



3.5 VPN Settings

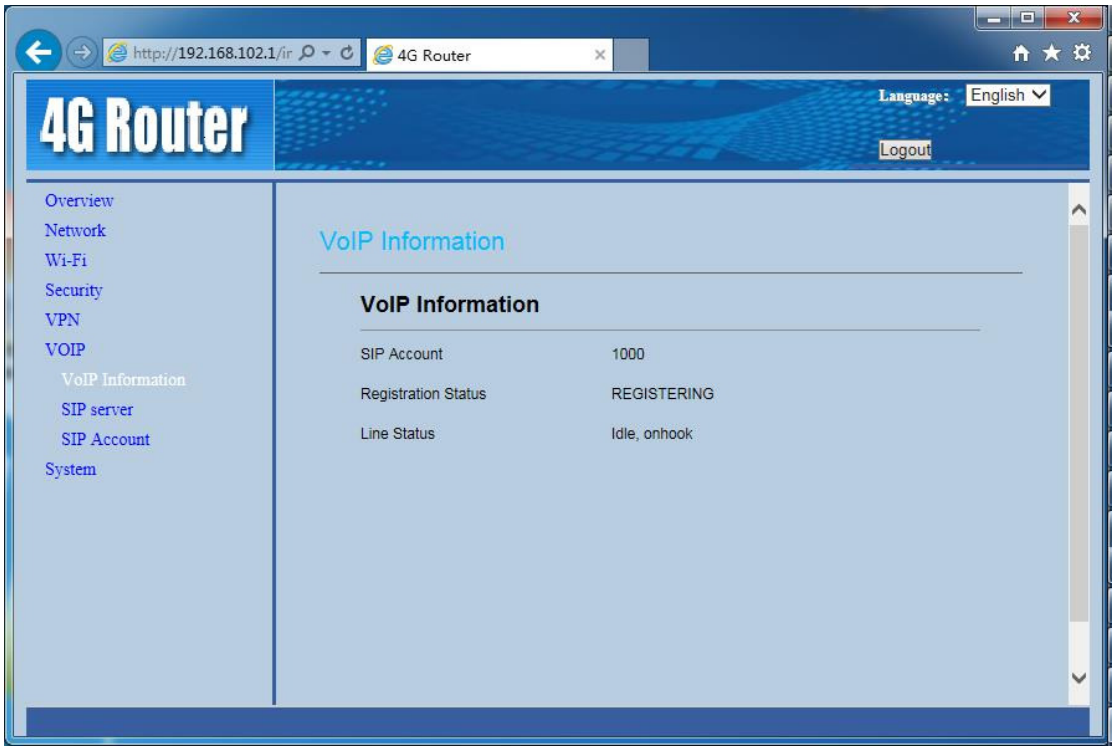
In the left navigation bar, choose "**VPN**". VPN settings supports PPTP, as shown in Figure 3-9.

Figure 3-9 VPN Settings

3.6 VoIP Settings

In the left navigation bar, choose “**VoIP**”. VoIP settings includes SIP server settings and user account settings, as shown in Figure 3-10.

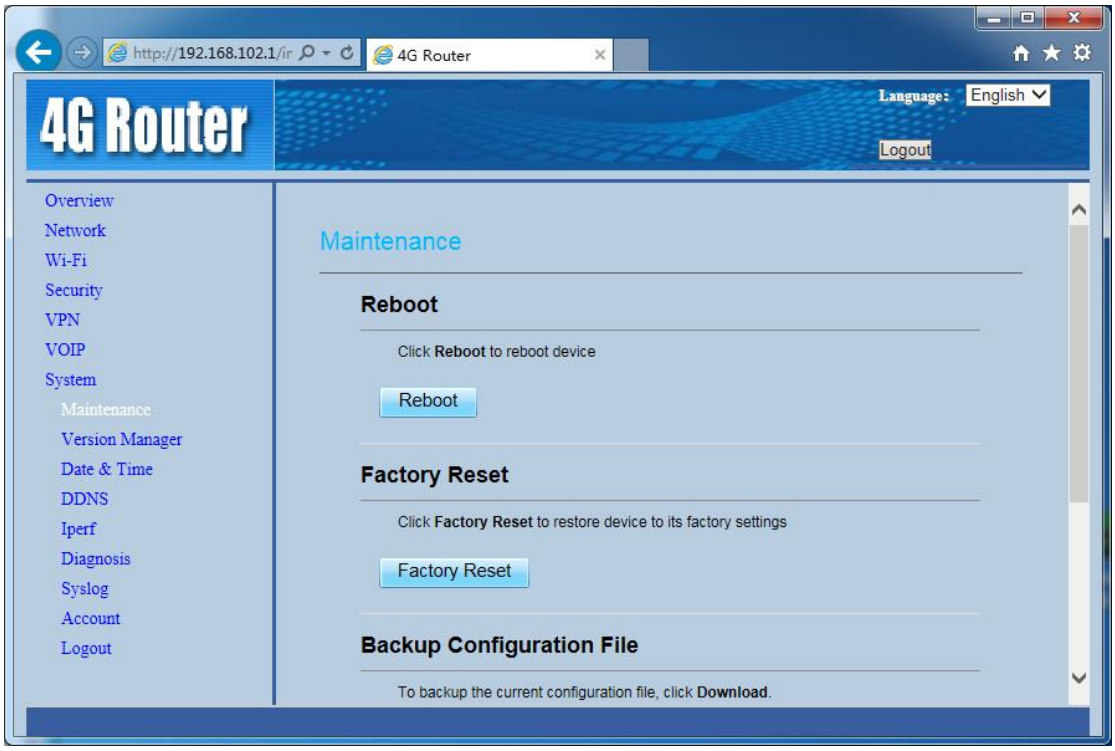
Figure 3-10 VoIP Settings



3.7 System Settings

In the left navigation bar, choose "**System**". System settings includes maintenance, version management, diagnostic service, and so on, as shown in Figure 3-11.

Figure 3-11 System Settings



4. Trouble Shooting

4.1 Device cannot Access to CPE through WiFi

1. Check whether WiFi function is enabled.

   Observe WLAN indicator is steady on or flashing. If WLAN indicator is OFF, you need to enter into "**WiFi Settings**" to enable WiFi function. Refer to 3.3WiFi Settings.

2. SSID and password is incorrect.

   In web client, enter into "**WiFi Settings**", reset SSID and password.

3. If web client cannot login, you need to reset CPE.

   Long press reset button over 10s to restore the factory settings.

4.2 CPE cannot connect to internet

- **Without SIM card or SIM card damaged**

  1. Check whether SIM card have inserted into USIM slot.
  2. Log in web client, check whether there is the hint "PIN LOCKED". If "PIN LOCKED", you need to unlock SIM card as follows.
     a) Enter into **PIN Management**, try to type in: 1234.
     b) If 1234 is incorrect, try three times, enter into PIN code input page, type in: 12345678.
     c) Reset PIN code and set **PIN Verification** is **Disable**.
     d) If PIN code is incorrect, you need to contact SIM card vendor.
  3. Log in web client, choose "**LTE Settings**", check the value of **IMSI**. If it is empty and SIM card is normal, you need to reboot CPE, wait for 1minute, log in web client again, check the value of **IMSI**. If it is also empty, change SIM card.

- Without LTE signal or LTE network access privilege

  1. Check the status of CPE indicator.

     If MODE indicator is flashing continuous, it indicates that CPE is searching network, wait for 5 minutes.

  2. If CPE still cannot connect to internet. Log in web client, enter into "**LTE Settings**", if IMSI is invalid (did not consist with user agreement), you need to change SIM card or contact SIM card vendor.

3. Lon in web client, choose “**Network>LTE Settings**”. If the value of **Connect Method** is **Manual**, reset it to **Auto**, and reboot CPE.
4. If CPE still cannot connect to internet. Lon in web client, choose “**Network>LTE Settings**”. Check whether the value of **status** is **Unconnected** in **Settings** area, it indicates that LTE network is abnormal, you need to contact vendor. If the value of **status** is **Connecting** for a long time, it indicates that CPE is not within scope of LTE network, you need to move CPE to next to a window.
5. If CPE still cannot connect to internet, it indicates that CPE is not in service network, you need to contact vendor.

5. Regulatory Compliance

FCC Compliance

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.

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

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.

Warning

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

IC Compliance

This device complies with Industry 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'Industrie 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.

The antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be collocated or operating in conjunction with any other antenna or transmitter, End-Users must be provided with transmitter operation conditions for satisfying RF exposure compliance.

Appendix A **Shipping List**

Item	Quantity
Assembled product	1
12V/1A adapter	1
User Manual	1