# 1 You will learn about the product as follows

① The general form of the product, the business characteristics or its positioning in the actual network application

② Manage the device by building a WEB environment, and be more familiar with its settings page

③ Manage and maintain the EOC wireless terminal equipment through the WEB management page, such as Wan configuration, WiFi wireless settings, etc

# 2 Product Introduction

Explanation:

• This manual is applicable to the EOC1121R4WL-R410 serial wireless terminal equipment of Wodasign technology. The relevant configuration in this paper is introduced in the case of this form of 2 STB ports and 2 LAN ports . The interface involved is schematic, please refer to the actual conditions.

•The Cable ports involved in this manual refer to the Cable ports connected to the terminal and the local end.

## 2.1 Product Brief Introduction

EOC1121R4WL-R410 serial terminal device is used to structure two layers of Ethernet transmission channel in CATV Cable network, transmit and receive Ethernet signal through cable coaxial cable, and do not affect the original CATV signal. EOC1121R4WL-R410 coaxial cable broadband access terminal adopted Mstar MSE510CE chip solution, through a coaxial port connected to EOC Master, local provides 4 fast full-duplex Ethernet interface, including LAN1,LAN2,STB1 and STB2 .LAN1 and LAN2 which is a port with routing function, through two ports can log in the wifi terminal web management page to configure the wifi terminal for local management. The EOC Master can send the template, configure VLAN service and VLAN mode to carry out different service through STB1 and STB2 port. The four Ethernet interfaces of the terminal can be used to simultaneously connect computers, digital TV set-top boxes, IP phones and other terminals. EOC1121R4WL-R410 terminal device also can provide Wireless WIFI 11N router function, terminals can use wireless WIFI to access the internet.

EOC1121R4WL-R410 satisfies the operator’s requirement and supports 4 SSID in maximum. Based on the ieee802.11n standard, the wireless network can be extended to provide stable transmission up to 300Mbps, and be compatible with ieee802.11b and ieee802.11g.

The user side of EOC1121R4WL-R410 has two different privileges: the general user account and the administrator account. Users need to log in with user name and password to configure or manage EOC1121R4WL-R410. The WAN connection of EOC1121R4WL-R410 supports 4 sub-interface Settings. Set up independent channels such as management, video service, voice service and online service. Each sub-interface has routing and bridge mode. EOC1121R4WL-R410 as a home network and external network data hub, can according to user's side ports (including wired and wireless), service discover results for data

flow classification, QOS adaptation to different data streams, can limit per subnet bridge maximum upstream and downstream bandwidth, prevent the impact of the entire cable transmission network when other network devices in the user side under abnormal or man-made attacks. Support priority identification, according to the service findings, identify the packets of specific service, such as RTP data streams, including 802.1d and DSCP identifiers. Support 7 priority queues, support different scheduling algorithms, including: SP, DWRR and CAR. EOC1121R4WL-R410 supports encrypted transmission and provides escort for sensitive data.

## 2.2 Product Features

Conform to IEEE Home Plug AV, 802.11n, IEEE802.11g, IEEE 802.11b, IEEE8 02.3, IEEE802.3u
EOC coaxial cable Cable port access, providing TV, WiFi wireless, wired and other interfaces
Support the CSMA/CA, CSMA/CD, TCP/IP, PPPoE, DHCP, ICMP, NAT protocol
Provide 2 STB ports, 2 LAN ports 10 / 100M adaptive, support port auto flip
There are two modes of work: bridging mode and routing mode
Support the Quality of Service（QoS）‐802.11e
Support remote and Web management, provide English and Chinese configurati on interface
Support multiple SSID functions
Support NAT/NAPT IP sharing, Wan support protocol: PPPoE/Static IP/DHCP
Provide stable transmission up to 300Mbps
Support virtual server, DMZ host
Support UPnP function, DDNS function
Provide Web management page reset, support software update online
WiFi support 5 dbi high-gain omni-directional antenna
High security, support mutual isolation between the terminal equipment
Strong anti-interference ability, the physical layer using advanced forward error correction, channel estimation and adaptive capacity of the OFDM modulation, greatly reducing the symbol rate of each subcarrier, reducing the impact of mul tipath propagation

## 2.3 Product Specification

Environmental requirements
Ambient temperature:-0°C～50°C
Relative humidity:5% to 95%(Non-condensing）
Power specifications
Power adapter input:12 V/0.5A
Power Consumption:<5W

## 2.4 List of Articles

Open the box and carefully check all the objects. Including:

A host

A network line (optional)

A dc power adapter

A quick installation guide

A certificate of conformity

## 2.5 Device Interface Definition

Note: the specific interface is subject to purchase.

| interface | amount | description |
|---|---|---|
| TV | 1 | Use cable to connect to set-top box or TV |
| Cable | 1 | Use cable to connect to the cable TV home interface |
| Ethernet interface | 4 | Use network cable to connect to the computer, set-top box or other equipment, 2 STB ports, 2 LAN 10/100M self-adaption ports |
| power interface | 1 | Connect the power adapter |
| WPS | 1 | WPS function switch |
| RST | 1 | Reset switch |

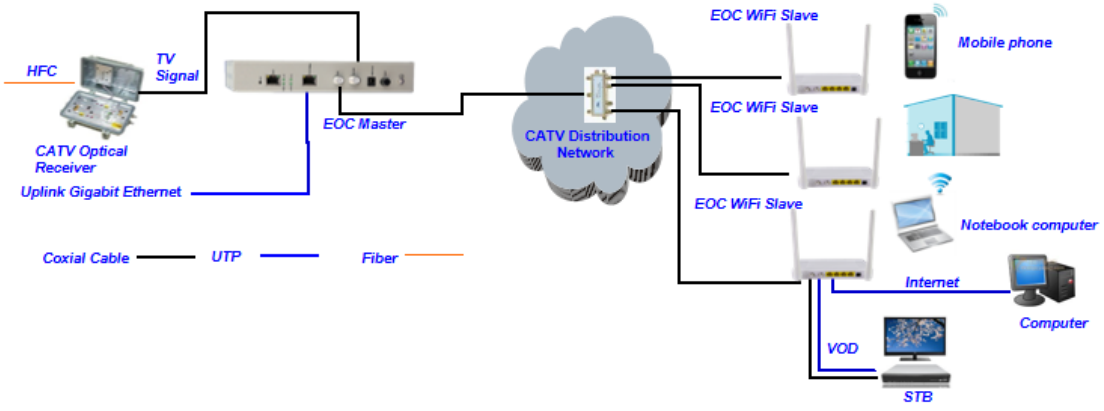
## 2.6 Indicator Definition


| Label | explanation | Description |
|---|---|---|
| POWER | Power Indicator light | Solid green, device has been powered, you can start using |
| LOOP | Loop indicator light | Solid green, indicates that the terminal has a loop |
| LINK | Data interface light | Solid green, Successfully connect to the network. Blinking green: data is being transmitted. |
| LAN1-2 | LAN network interface light | Solid green, LAN port connects to the network. Blinking green: data is being transmitted. |
| STB1-2 | STB network interface light | Solid green, STB port connect to the network. Blinking green: data is being transmitted. |
| WIFI | WIFI status indicator light | Solid green, WiFi signal enable. Indicator light off: turn off the WiFi signal. |

## 2.7 Device Connection

- Connect coaxial cable: connect coaxial cable to radio frequency joint
- Connect Ethernet cable: use RJ-45 Ethernet cable connect any LAN (lan1-lan4) port of the EOC to family equipment, such as computer, IPTV set-top box, etc
- Connect power adapter: plug the AC/DC adapter into AC wall socket and EOC terminal 12V DC power socket
- Press the power button, if all indicator lights are normal after running device w hich means device can offer services.

## 2.8 Networking Application

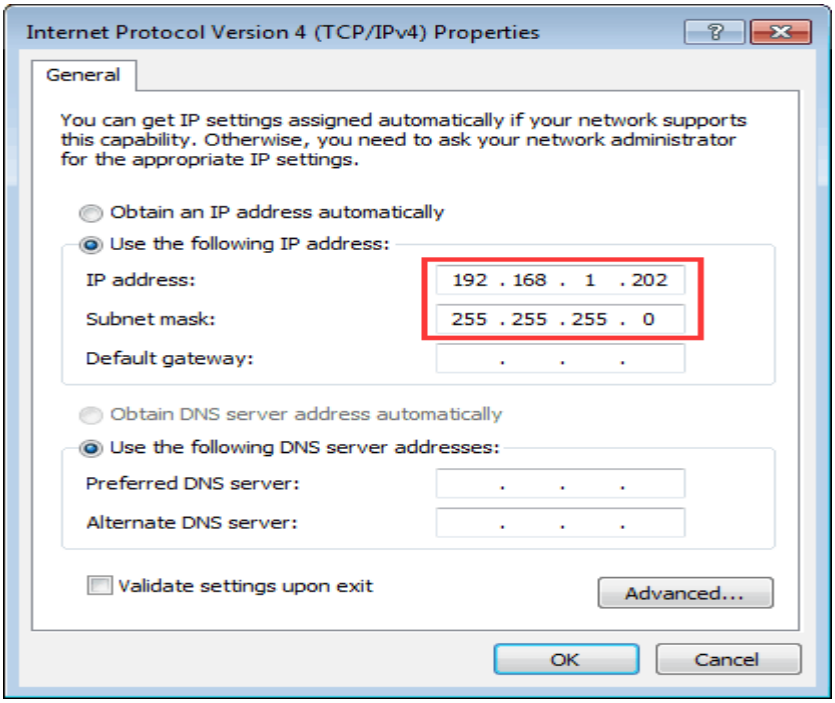


# 3 Login Web Management Locally

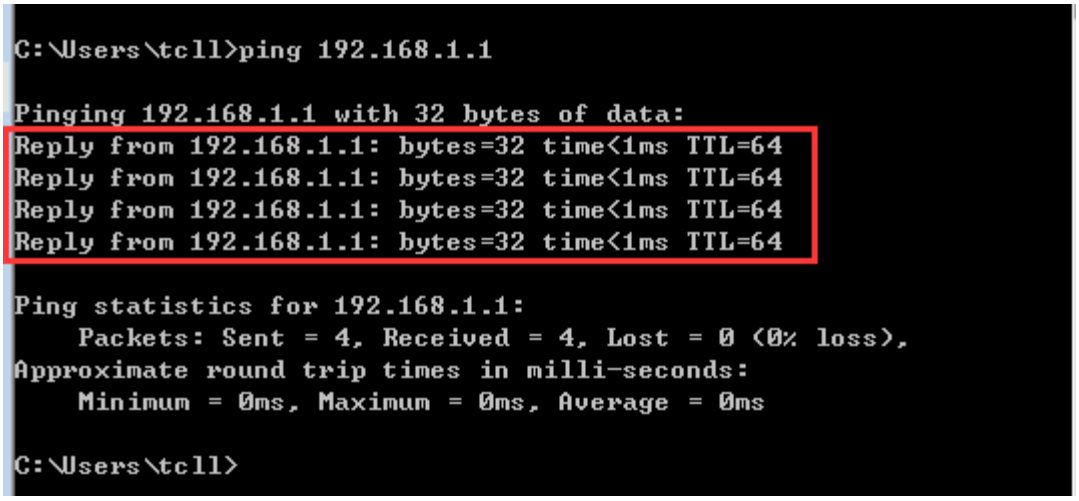
## 3.1 Physical Connection of EOC Slave and PC

a) Local NIC of PC connects to LAN port of EOC slave via wires.

b) Set the IP address of PC's local NIC as **192.168.1.X (X：2-254).**




c) Open cmd windows and make sure that PC can ping the management IP (**192.168.1.1**) of EOC slave.



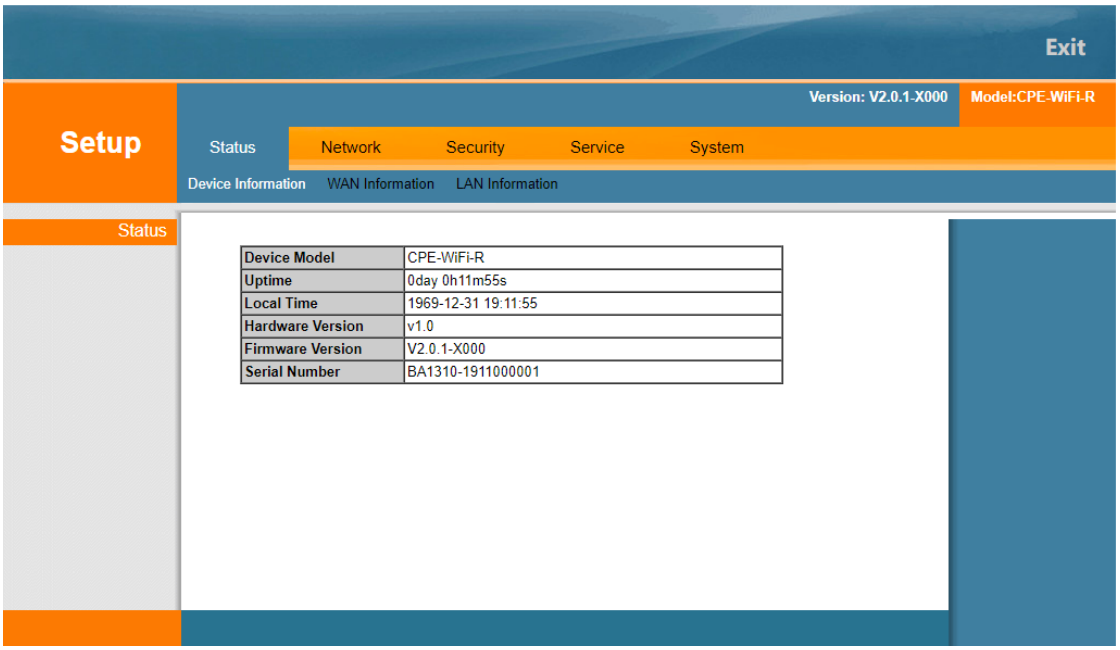

## 3.2 PC Access the WEB of EOC Slave

Make sure you can ping the EOC slave like #3.1. Open the IE Web broswer (IE, Firefox, Google), copy and paste URL: http: //192.168.1.1, the following pop-up Prompt landin-g page:


**Login the Web Management Interface**

Input UserName：**adminisp** PassWord： **adminisp**

Click "**Login**" button. The product basics page appears, as follows：




You can start further configuration.

# 4 Familiar with WEB management page

WEB management interface can rapidly complete required function configurations. This chapter will lead you to understand and become familiar with WEB management interface.

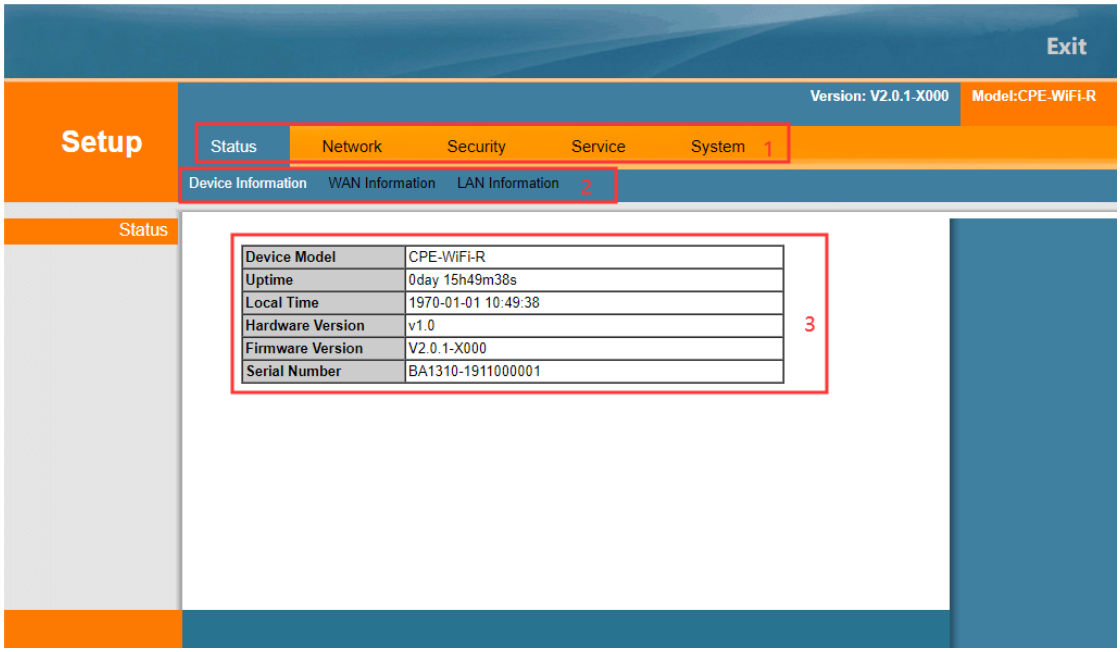
## 4.1 WEB Management Interface Introduction

WEB management interface introduction

1) The main menu area
2) The sub-menu area

Display the content

## 4.2 Main Menu Introduction



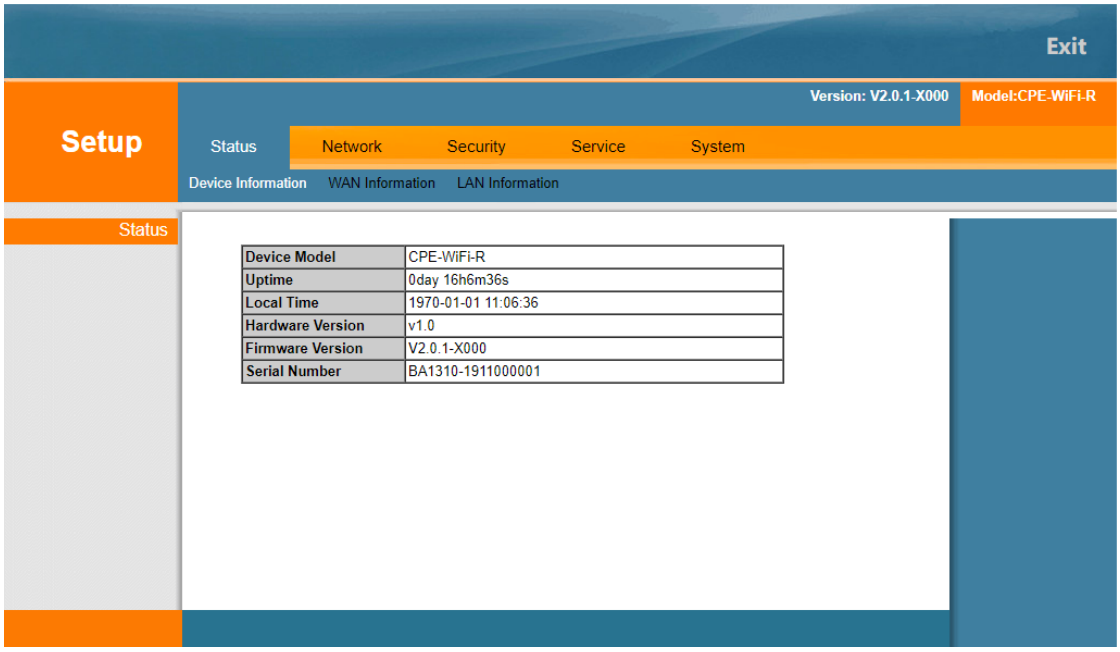

| Main Menu | Sub-Menu |
|---|---|
| Status | Device Information,WAN Information, LAN Information. |
| Network | WAN Setup, LAN Setup, WLAN Setup, User Member Limit, Time Setup |
| Security | Denial of Service, URL Filtering, IP Filtering, MAC Filtering |
| Service | Port Forwarding, DDNS, UPNP Setup, Advanced NAT, Telnet Server, IGMP, Pocily DNS |
| System | Account Management, System Log, Save/Upgrade, Reboot, Diagnosis, Language |

# 5 Status

Status includes Device information, WAN Information. LAN Information

# 5.1 Device Information

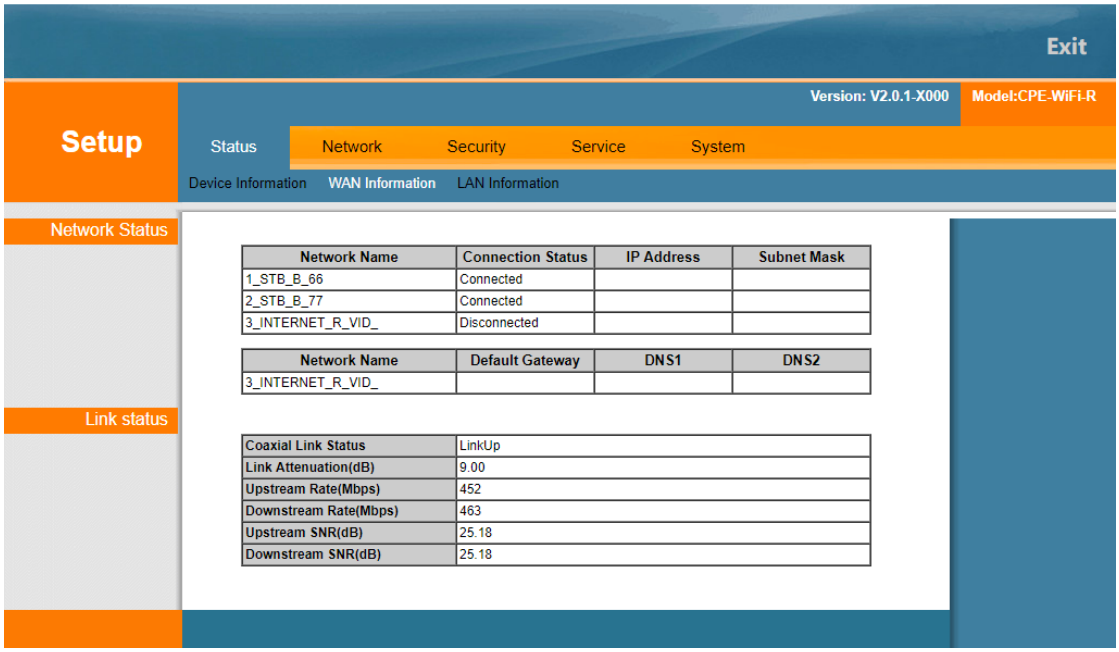
Click <Device Information> to display as follows.




This interface displays the device model, uptime, local time, hardware version, firmware version, and Serial number.

# 5.2 WAN Information

Click <WAN Information> to display as follows.

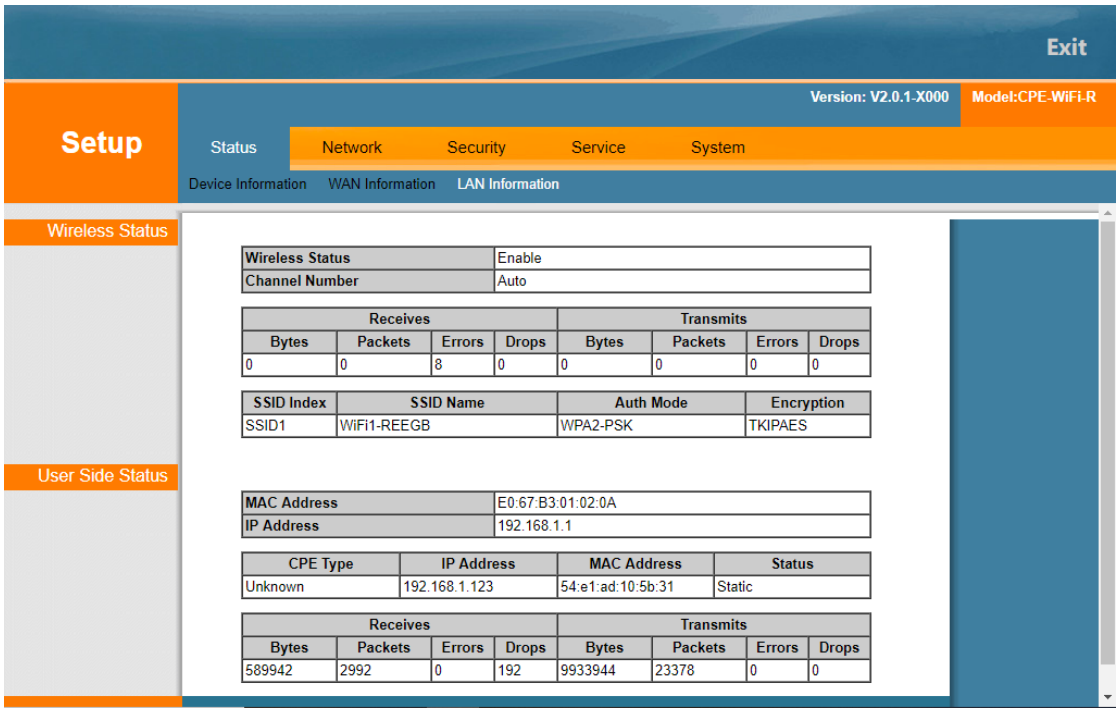



The page will show WAN connection status.

WAN Status shows current System Interface Name, Connect Type, Connect Status, Default Gateway, IP Address that has been obtained, subnet Mask, DNS1 and DNS2.

## 5.3 LAN Information

Click <LAN Information> to display as follows.




Wireless Status shows current Wi-Fi SSID, MAC, Signal, Transmission and so on.

User Side Status Information shows MAC Address, IP Address, Current device information that connects LAN port, number of bytes.

# 6 Network

The network includes WAN Setup, LAN Setup, Wlan Setup, User Number Limit and Time Setup.

## 6.1 WAN Setup

You can set the WAN connection here. WAN connections can work in a routing or bridging mode, and can connect a LAN port or WiFi with a wide area network.

### 6.1.1 WAN Connection Naming Rules

WAN connection (network name) naming rules are as follows.

| Catalogue | Definition | Description |
|---|---|---|
| Network name | Sequence number | To identify WAN connections,the rules are based on the sequence of WAN connections,the number of sequences increases, the number of non-reusable has been used |
| Service mode | INTERNET | Used to connect internet service |
| | OTHER | Used to connect other service type |
| Routing and | B | Bridging mode |

| bridging | R | Routing mode |
|---|---|---|
| VLAN | VID_Z | VID_Z VLAN ID (untag) for the current WAN connection, When the WAN connection is established, no VLAN is added, VID_Z will not appear in the network name. |

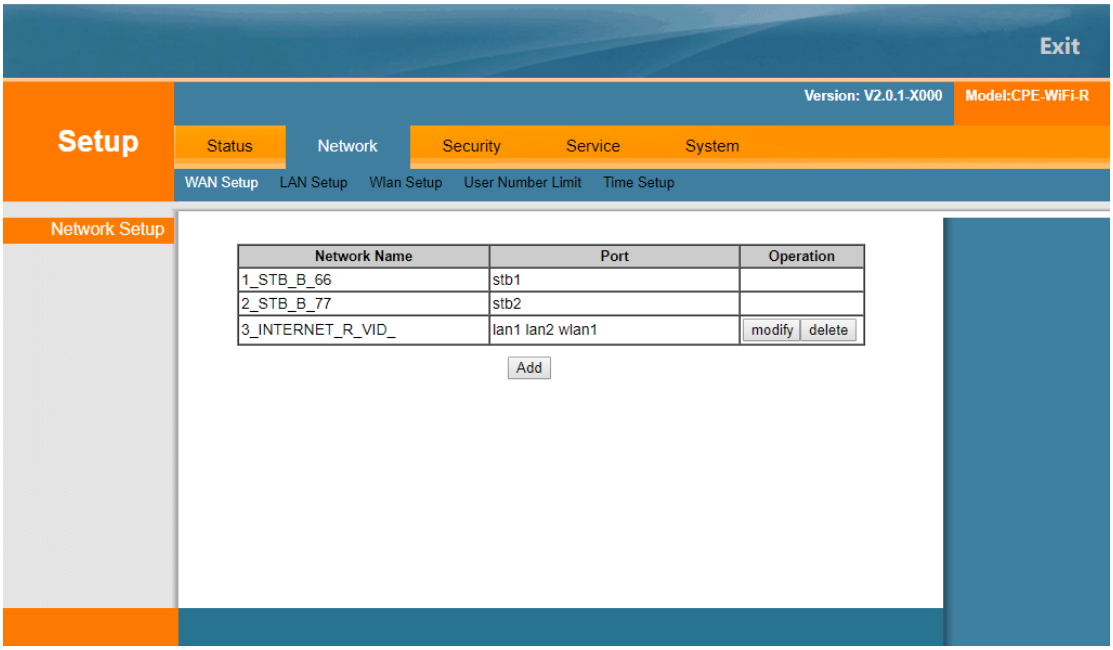
Such as:

1_INTERNET_R_VID_2 (service mode is: INTERNET, working mode is: routing, VLAN, ID: 2)

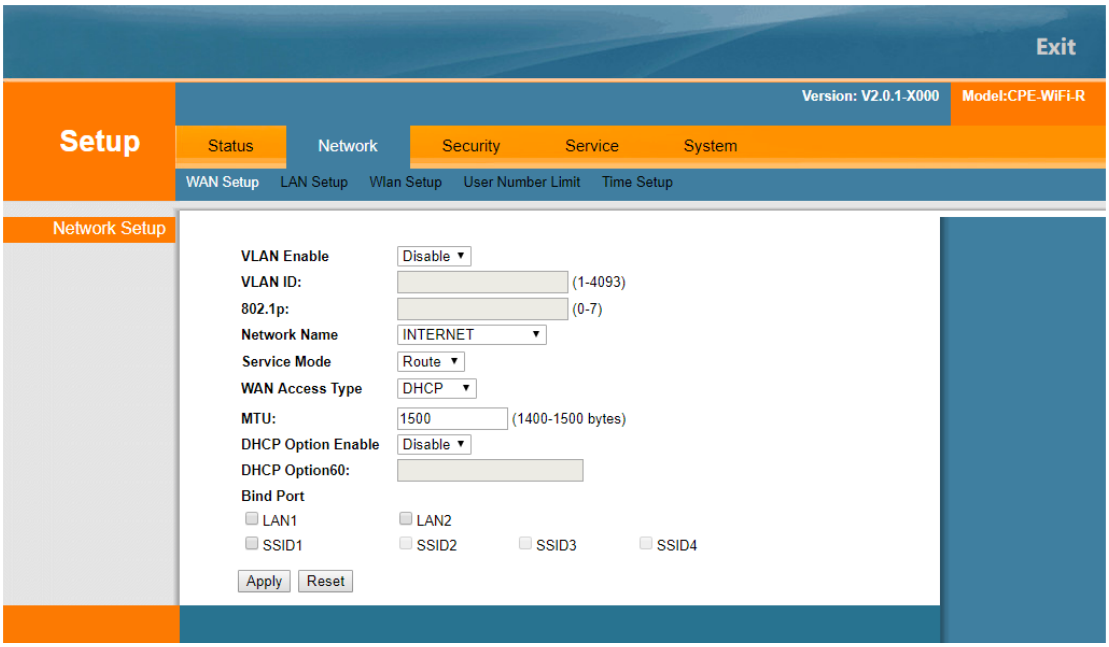
2_INTERNET_B_VID_ (service mode is: INTERNET, working mode is: bridging, VLAN, ID : 0)

## 6.1.2 Setup WAN Connection and Routing Mode

As shown in the figure below, you can select the WAN connection that has been created, click the "Modify" button to generate the corresponding WAN, or click the "Add" button to create the required WAN connection. Let's create new connection as an example:




Click <Add> as shown below.



| Project | Description |
|---|---|
| VLAN Enable | Enable or Disable VLAN |
| VLAN | If you enable VLAN , enter a number into VLAN ID |
| 802.1p | Select a priority（0-7） |
| Network Name | Select the type of service |
| Service Mode | Routing or Bridging Mode |
| Connect Type | You can choose DHCP、 Static、PPPoE modes |
| MTU | Maximum transport unit (MTU bytes) |
| Bind Port | Binding to the WAN service port: Select the port that is bound to the connection |

Routing mode:

When the connection type is routing mode, there are three ways to obtain WAN side IP address, that is DHCP, static mode and PPPoE.

1) the IP address of DHCP is dynamic mode.

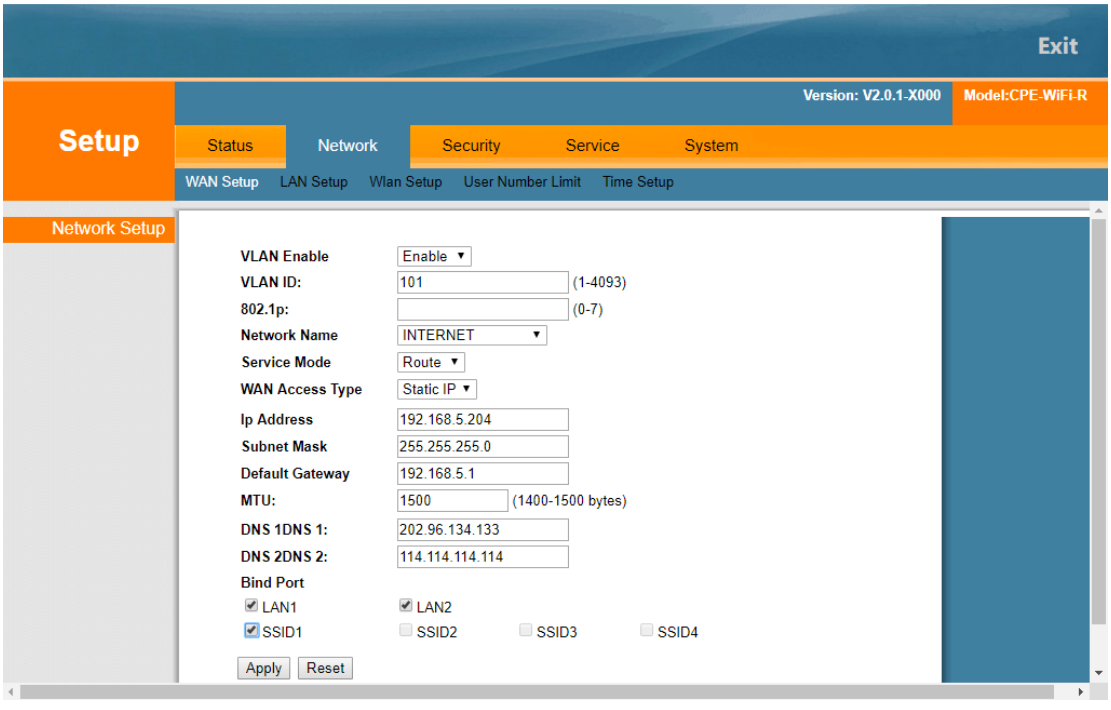
2) in static mode, set the static address. You need to enter the IP address, subnet mask, the IP address of the alternate DNS server, and the default gateway.

3) in PPPoE mode, you need to enter your username and password.

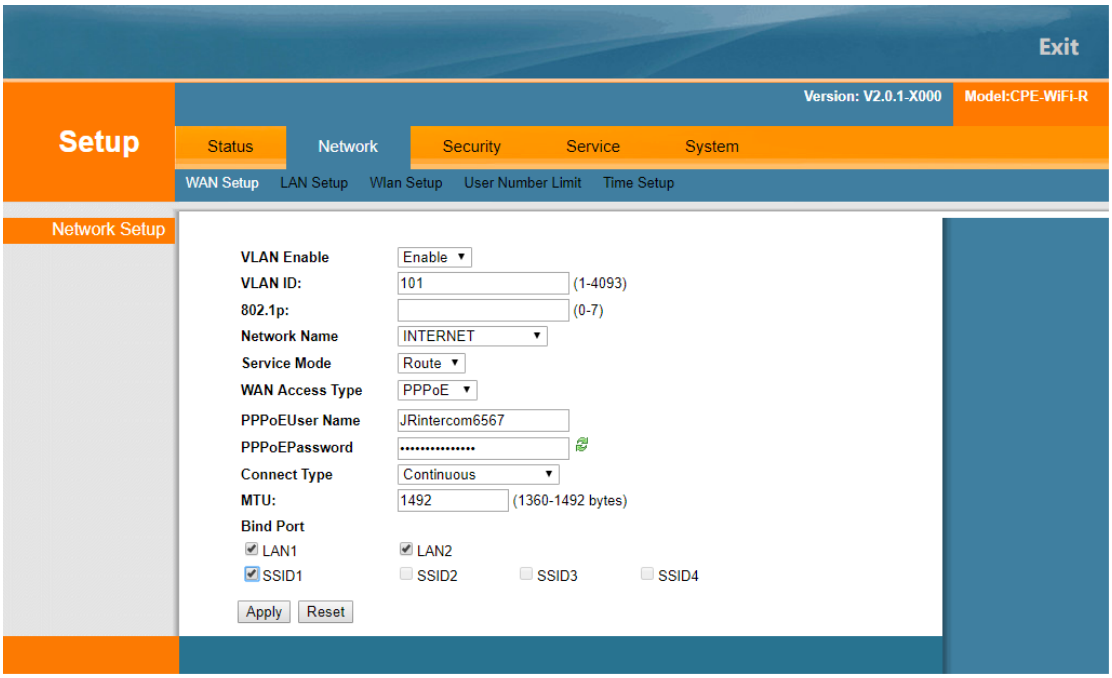
Note: the port is bound to the routing mode in default, also you can choose “Bridge” to set to the bridging mode. If all ports are bound to the bridge state, LAN1 port is the management port, you can use this port to enter the management page, management IP is 192.168.1.1.And if a port is bound to the routing mode which can be used to enter the management page.

You need to choose connection type settings in the WAN connection configuration, STATIC, IP, DHCP, and PPPoE are optional.

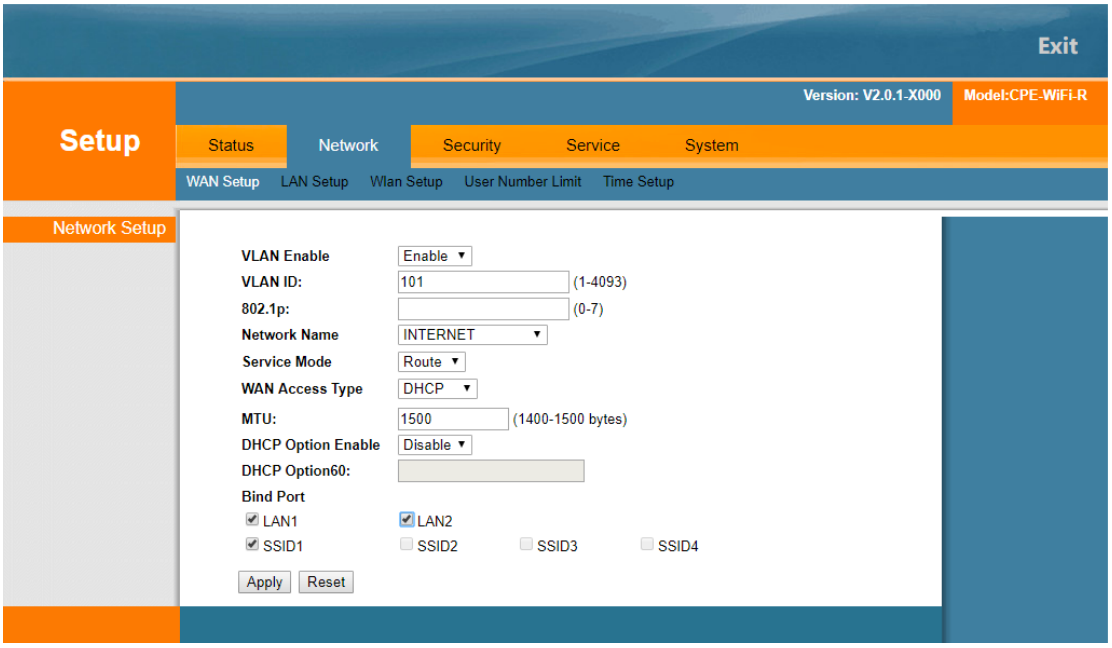
Here is the page to select **STATIC IP**, which needs to configure the IP address, mask, gateway, and DNS.



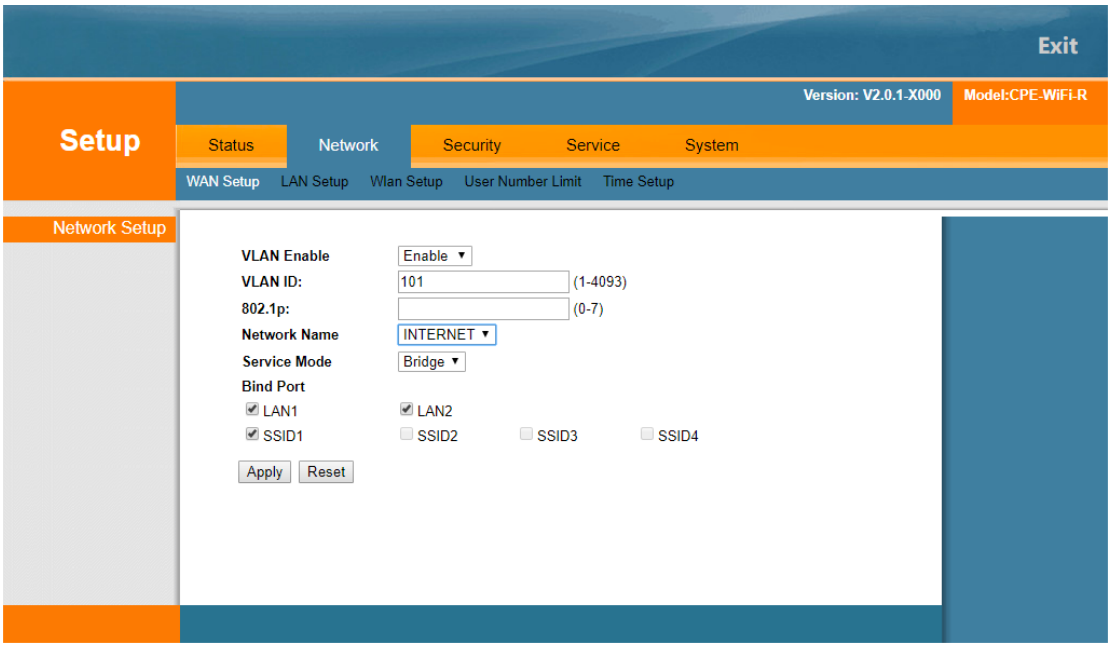

Here is the page to select **PPPoE**, which you need to configure your username and password.




If you select DHCP, the route automatically gets the IP address.




Bridge mode: the second layer data frame of the bridge over the WAN port and the binding port is transparent broadcast. In this application scenario, PC or other terminals connected to the gateway through PPPOE way to obtain WAN Internet IP address.



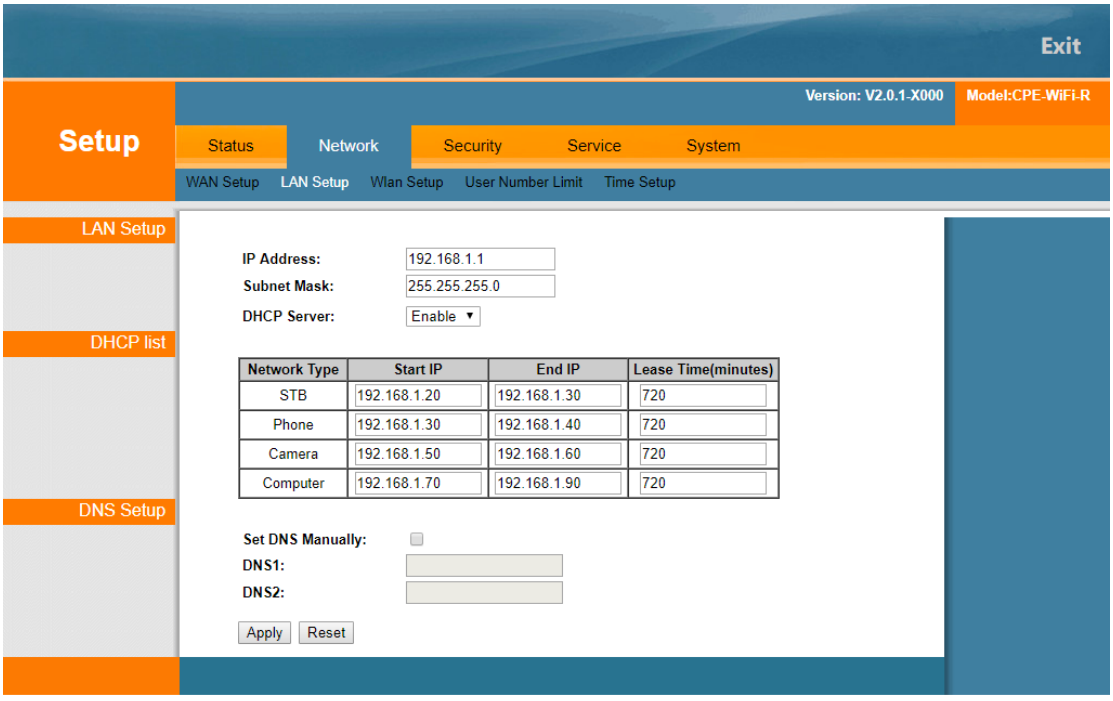

Click <Save> button to save the configuration.

## 6.2 LAN Setup

LAN settings are primarily intended for LAN IP services, such as Dynamic Host Configuration Protocol (DHCP) configurations. The device is pre-configured with routing mode, using the LAN IP address and DHCP server. The default LAN configuration for routing is:

•LAN IP Address: 192.168.1.1
• Subnet mask: 255.255.255.0

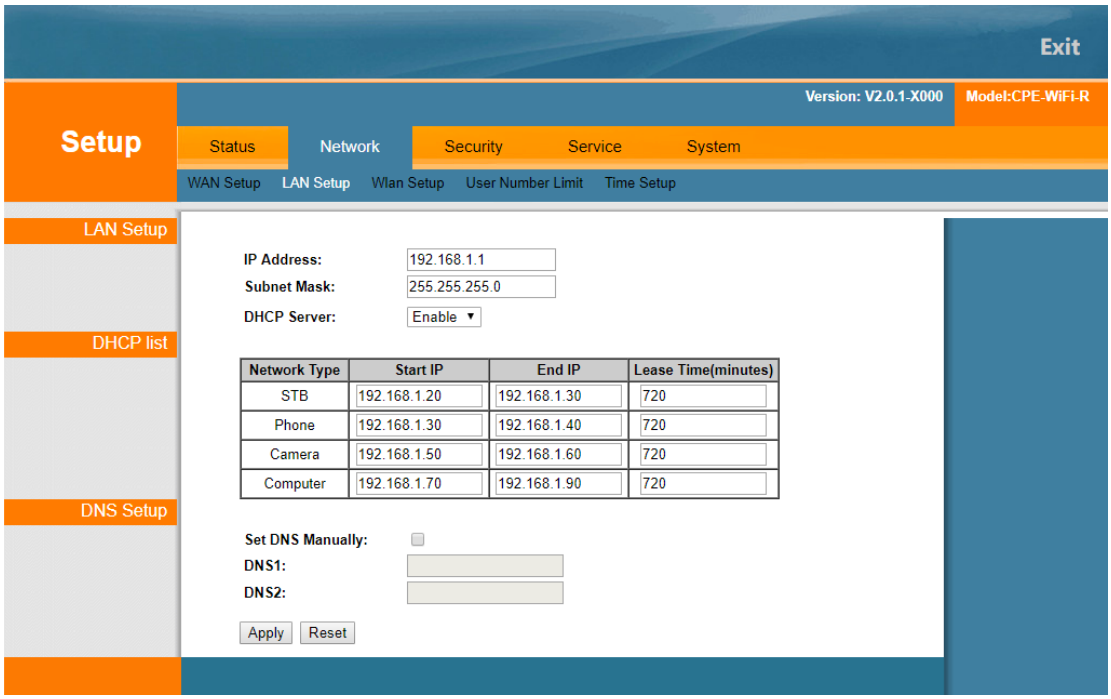
LAN side IP address is mainly used for local area network management, you can enter following interface to modify the LAN side IP address . Click “save” then apply to the network.



Note: after changing the LAN IP address, the current browser interface will be disconnected. You need to reopen your browser and use the changed IP address to log in.

By default, the device is equivalent to a DHCP server, assigning IP, DNS, and network connections to computers connected to the device. The default IP address of the device is 192.168.1.1, which is the gateway address. The device allocates the IP address pool as shown below.

* tips: DHCP is the abbreviation of Dynamic Host Configuration Protocol, you can specify the IP address, subnet mask, default gateway. LAN client can automatically obtain IP address.

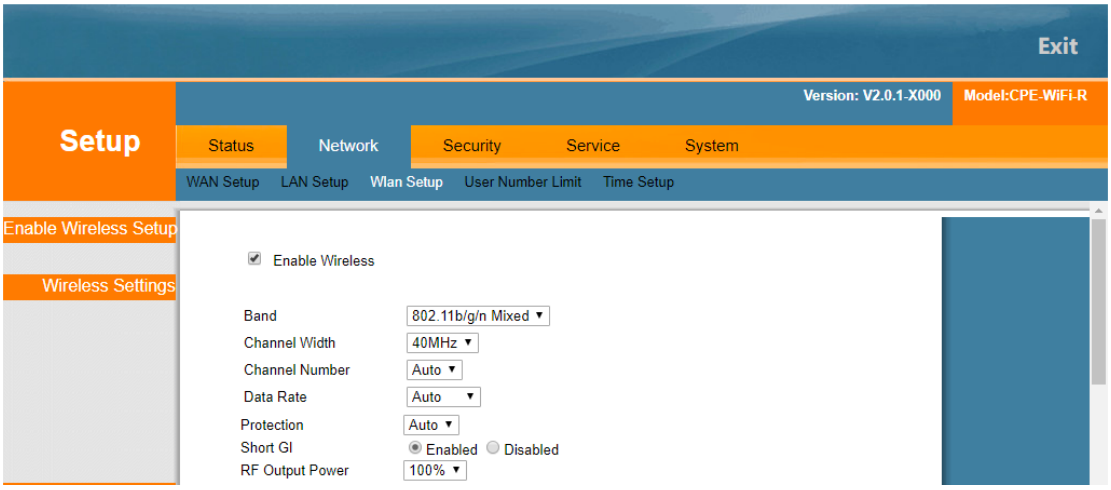



1. DHCP Enable: You can select the "Enable / Disable" DHCP function.
The IP address of the DHCP server is assigned to the requesting client, and the host should be within that segment.
2.the rental time: you can set the clients that DHCP allows to assign IP addresses during the time period. Enabling DHCP server to better allocate IP addresses by setting a proper time to ensure non repetition.
For example, setting the rental time to 1 hour, the DHCP server will recycle the IP address every 1 hour.
3.DNS: DNS service is used to resolve the address. If IPS requires a specific server, fill in the address of a specific ISP in DNS.

# 6.3 Wlan Setup

Wireless settings include the basic configuration and the SSID configuration.

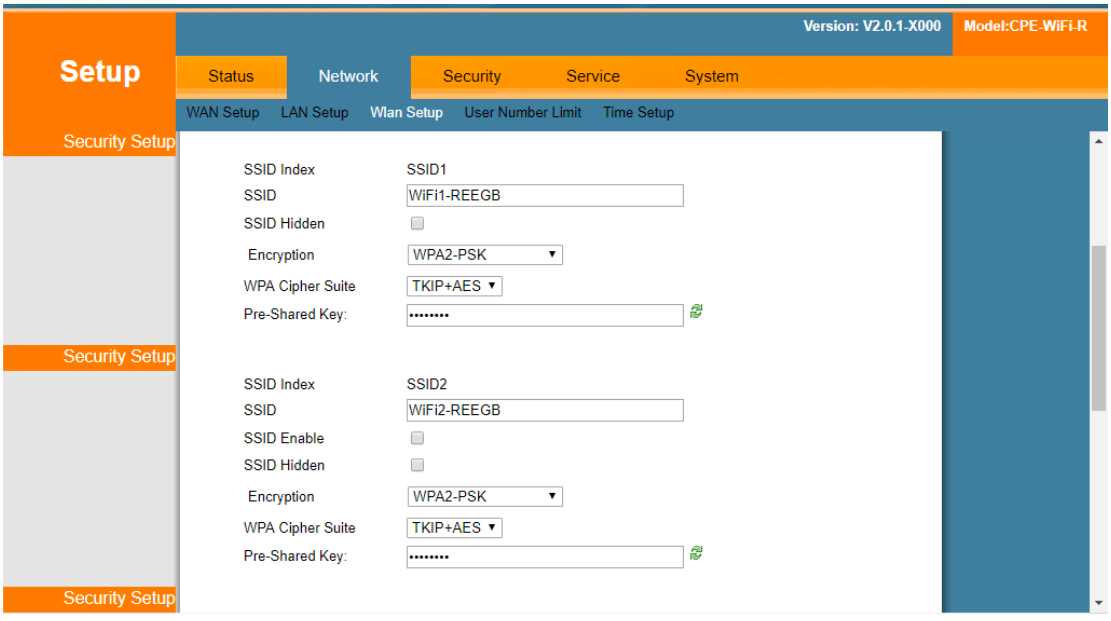
Basic configuration is as follows.




| Label | Description |
|---|---|
| Enable Wireless | Enable or disable Wireless |
| Band | Select a bandwidth in the list |
| Channel Width | Select a channel bandwidth in the list |
| Channel Number | Select a suitable channel in the list, the default is automatic |
| Data Rate | Select a suitable rate in the list, the default is automatic |
| Protection | Enable or disable Protection |
| Short GI | Enable or disable Short GI |
| RF Output Power | Transmit power range of 15% ~ 100%, and the default is 10%. 100% is the maximum power |

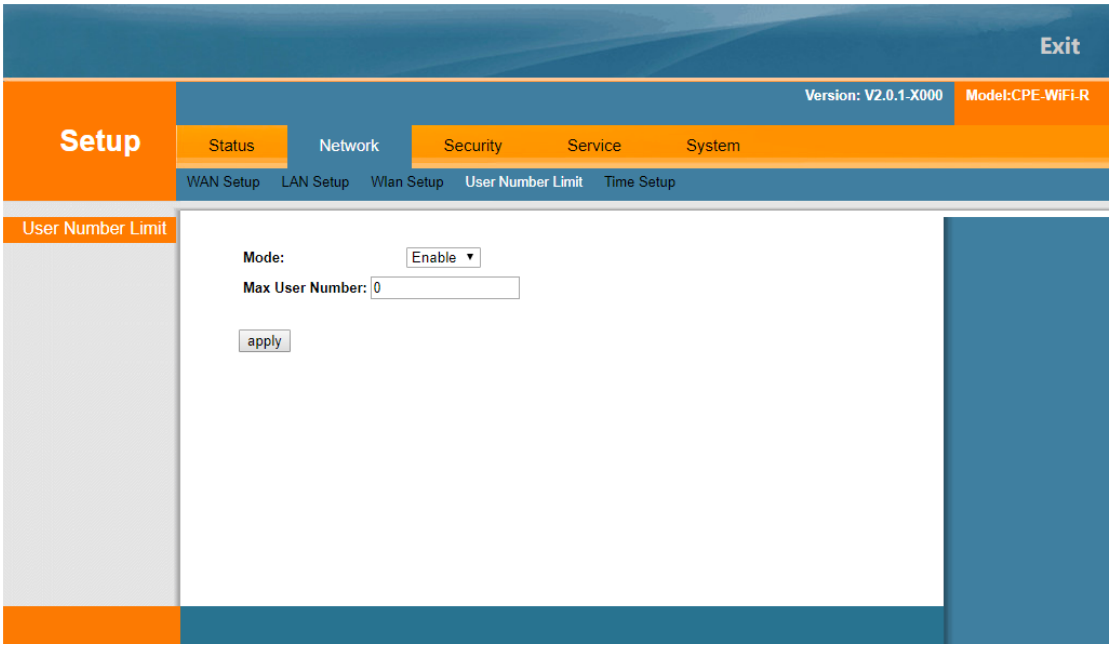
SSID configuration is as follows.

You can configure 4 SSID, open the corresponding SSID, and modify it.



| Label | Description |
| --- | --- |
| SSID | SSID is used to identify the identification of wireless services |
| SSID Hidden | After selecting SSID Hidden, the corresponding WiFi cannot be searched through the WiFi query |
| encryption | You can choose encryption,such as NONE,WEP,methods WPA-PSK, WPA2-PSK,and MixedWPA2/WPA -PSK,and if you choose, you need to configure authentication methods and one keys. |

## 6.4 User Number Limit



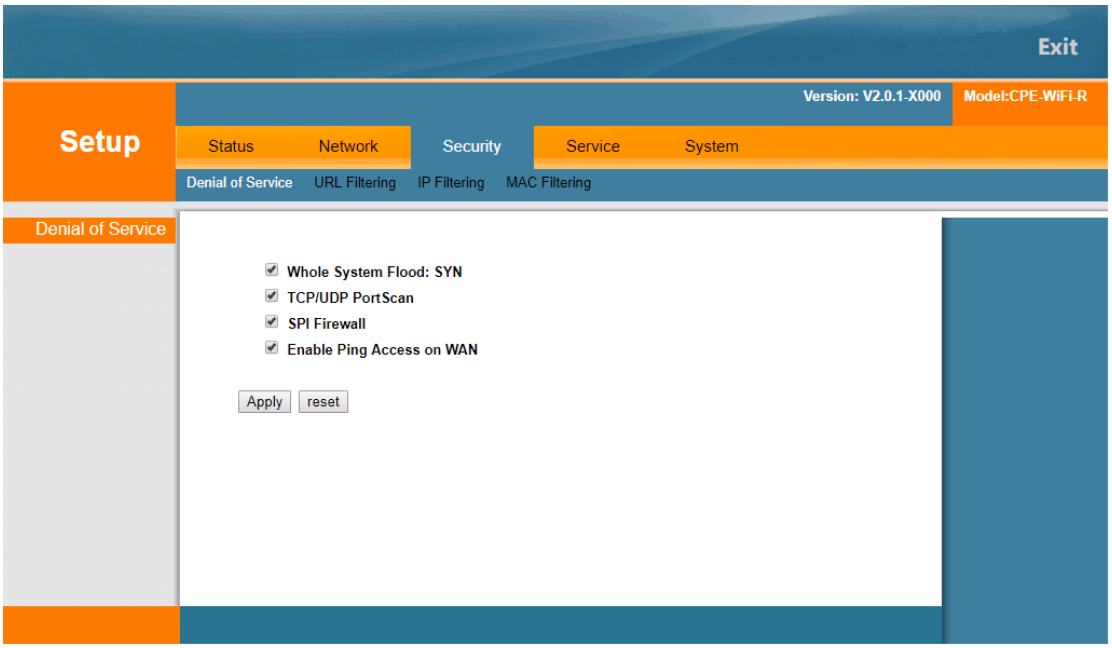

Enable or Disable the user number limit and configure the maximum number of users allowed.

# 7 Security

Security includes DoS prevention, URL filtering, IP filtering, and MAC filtering.

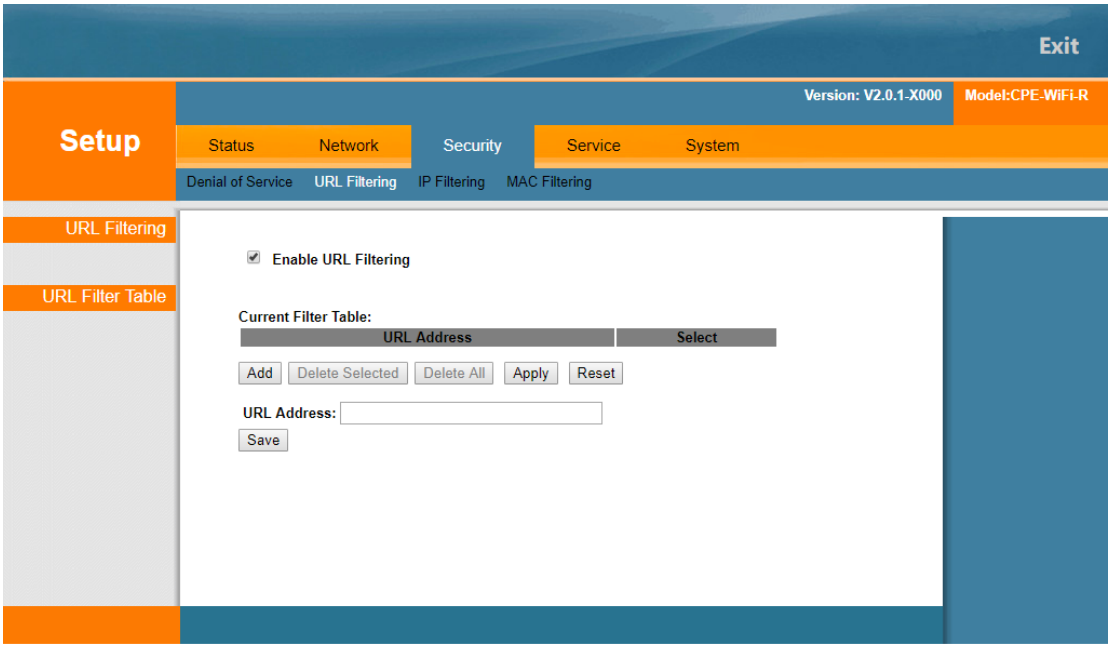
## 7.1 Preventing DoS attacks

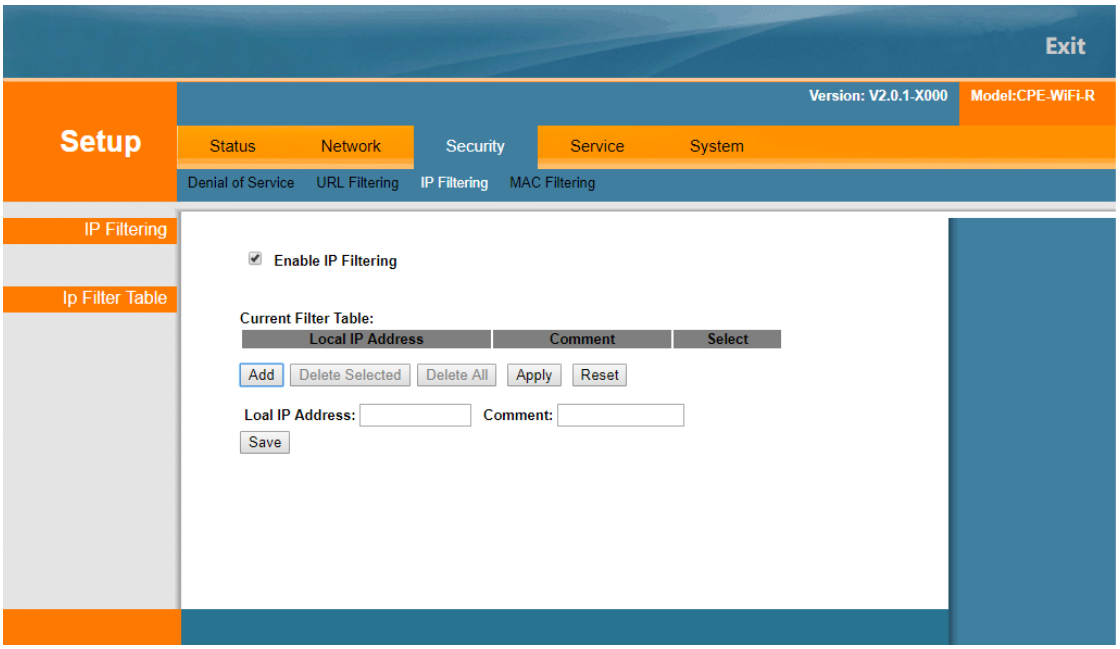
Under the basic settings menu, enable or disable  various DoS protection.

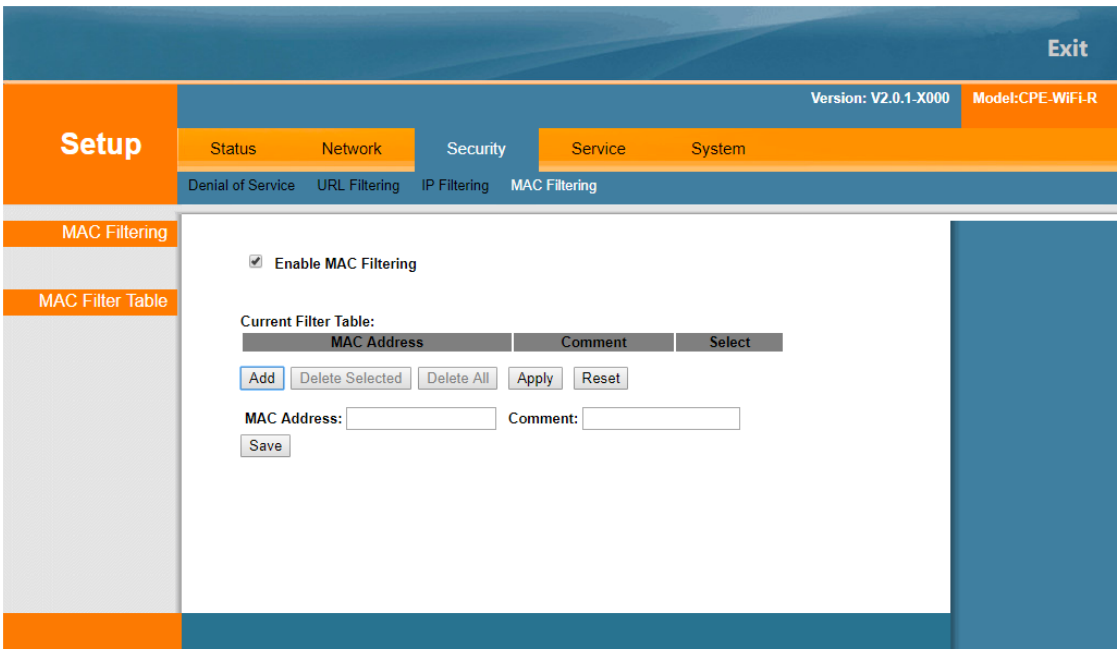



## 7.2 URL/IP/MAC Filtering

In these options, you can filter URL, IP, and MAC.





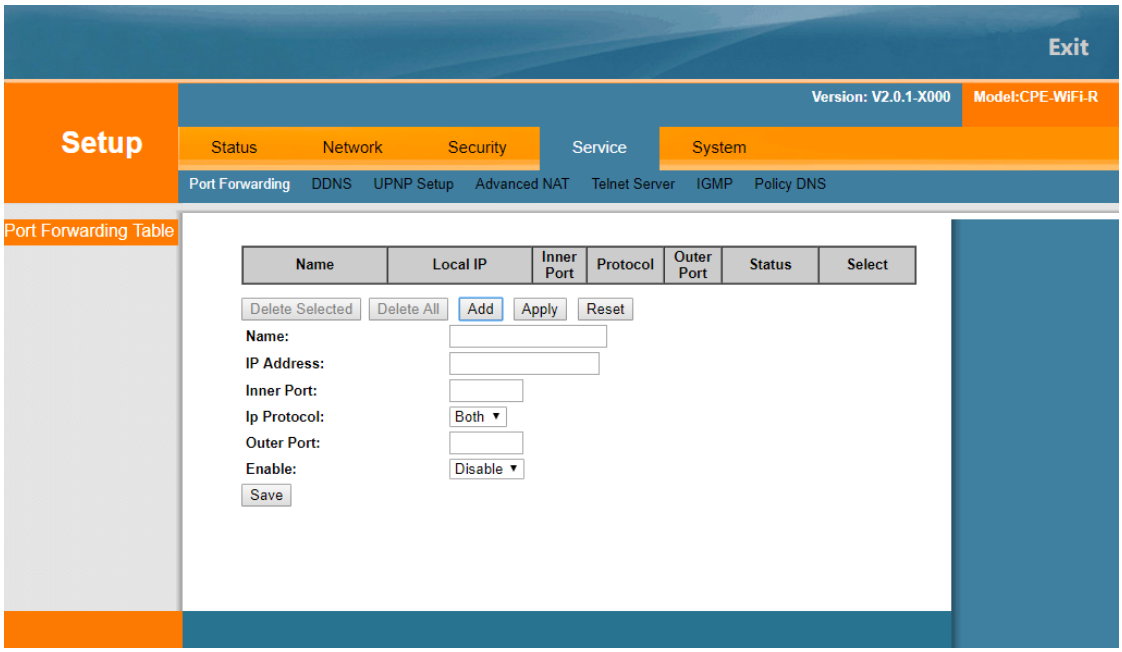

The filter is closed by default, and if you need to enable it, tick in front of the corresponding pattern and click <Apply>.

# 8 Service

Services include Port Forwarding, DDNS, UPNP setup, Advanced NAT, Telnet Server, IGMP, and policy DNS.

## 8.1 Port Forwarding

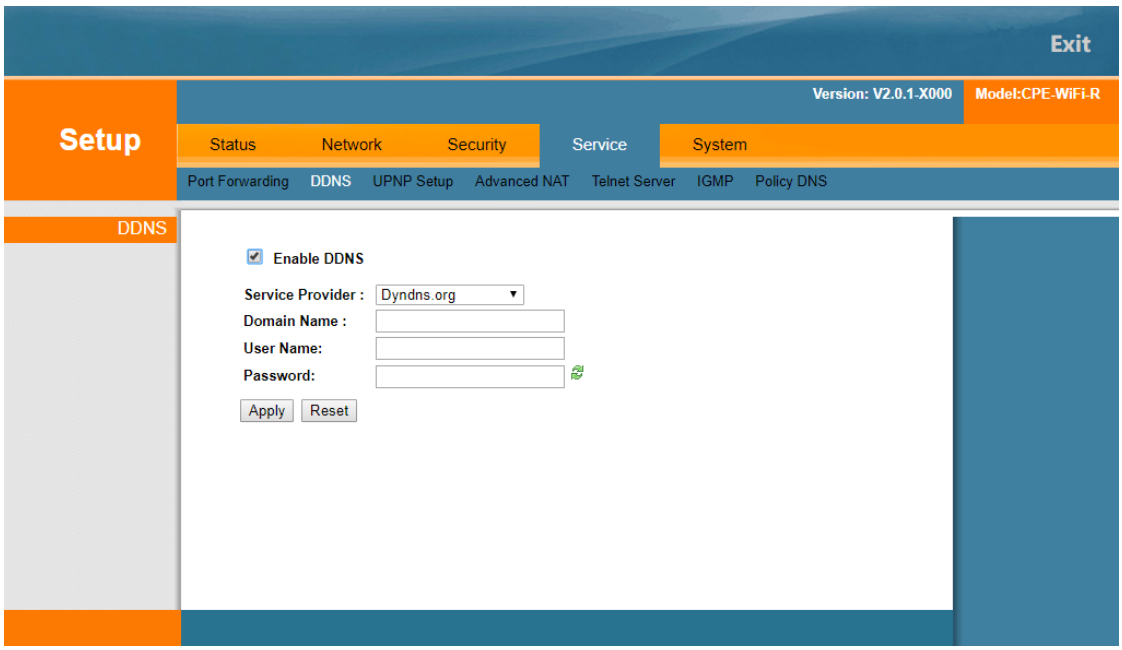
In the basic configuration interface, you can click on the add port to forward the link, and then configure the corresponding option.




| Label | Description |
|---|---|
| Name | The name of the link |
| IP Address | The IP to map |
| Inner Port | The port to map |
| IP Protocol | Select the corresponding transport protocol TCP, UDP |
| Outer port | The port to be mapped to |
| Enable | Enable or Disable the link |

## 8.2 DDNS

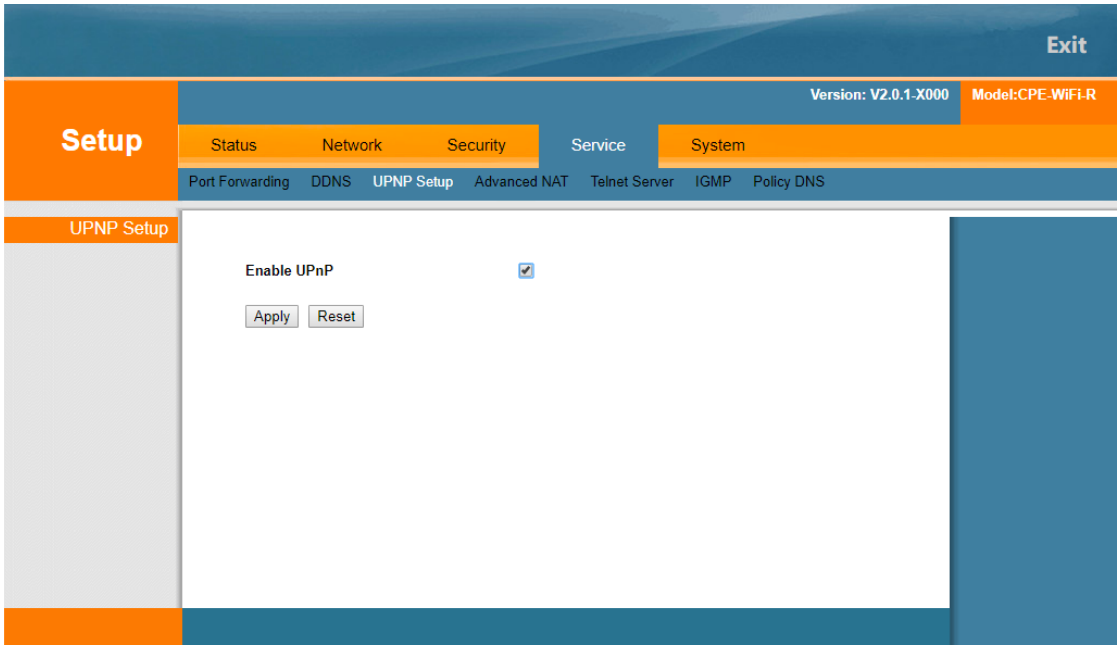
In the DDNS interface, you can tick in the front and click <Apply> to enable it.



| Label | Description |
| --- | --- |
| Service Provider | Choose service provider |
| Domain Name | Fill in the domain name you want to use |
| Username | Username |
| Password | Password |

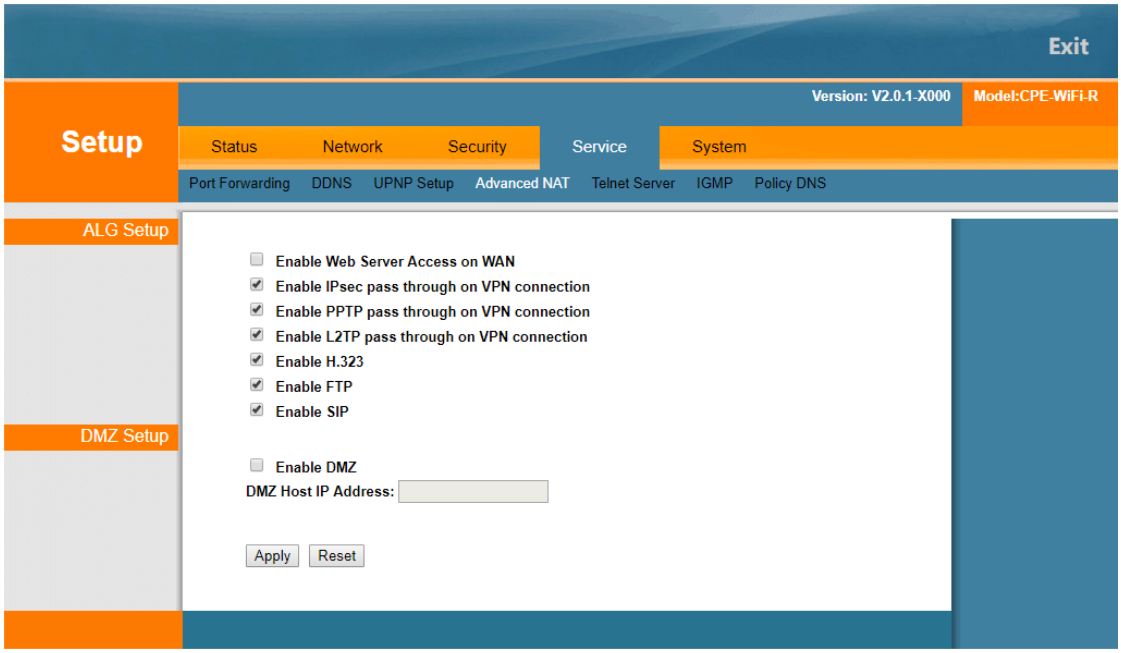
## 8.3 UPNP Setup

In the UPNP Setup interface, you can tick in the front and click <Apply> to enable it.



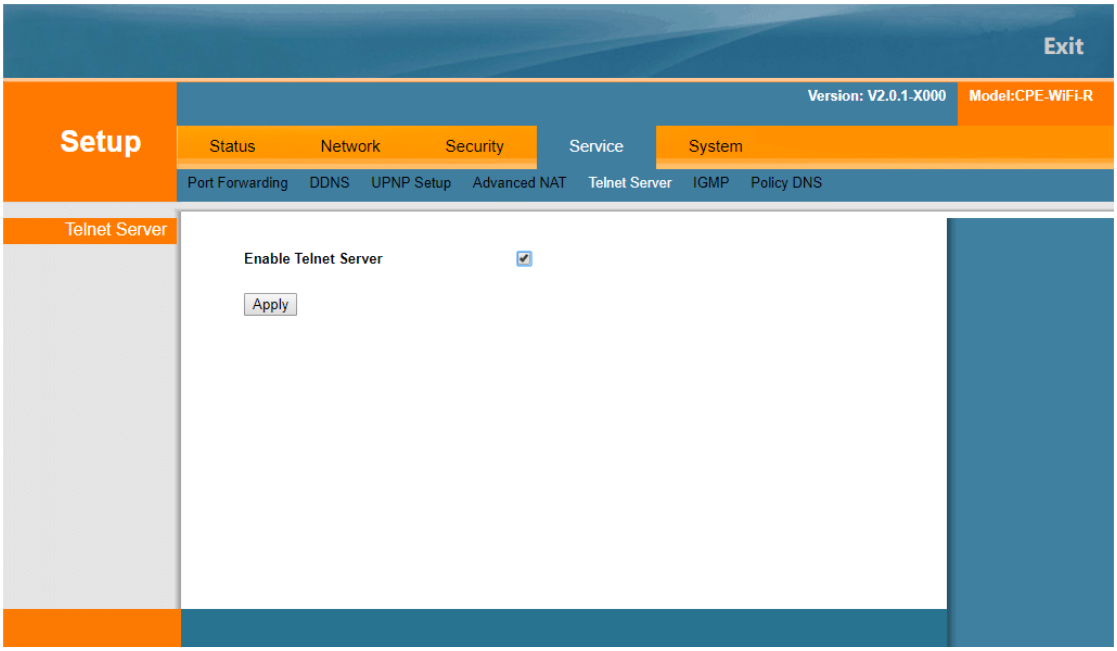

## 8.4 Advanced NAT

In the advanced NAT page, you can enable some special links, to enable the corresponding link just tick in the front, and then click <Apply>.



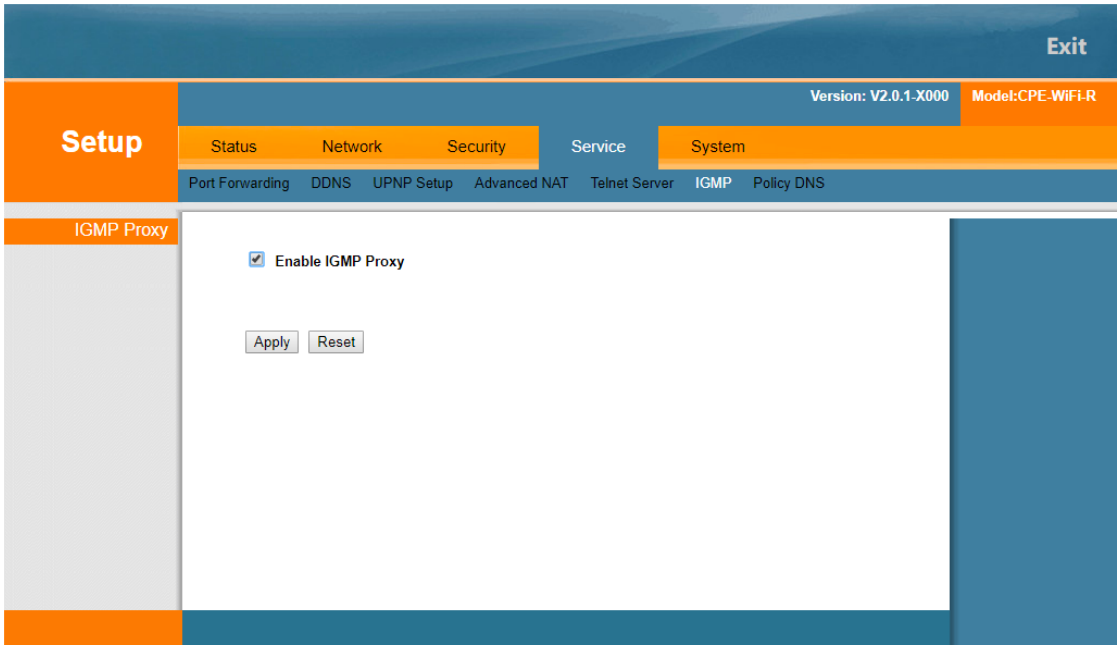
## 8.5 Telnet Sever

On the Telnet server page, you can tick on the back and click <Apply> to enable the Telnet server.



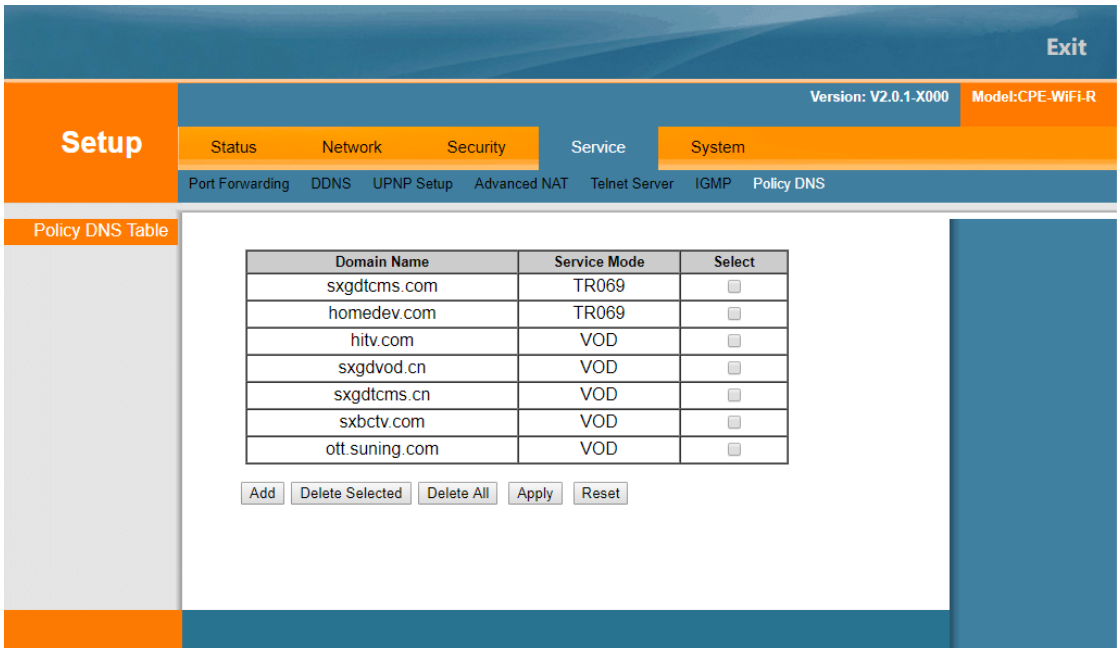

## 8.6 IGMP

On the IGMP page, you can enable the IGMP Proxy, open only need to tick in the front and click <Apply>.




## 8.7 Pocily DNS

On the Policy DNS page, you can click <Add>, <Delete> to Modify Policy DNS.

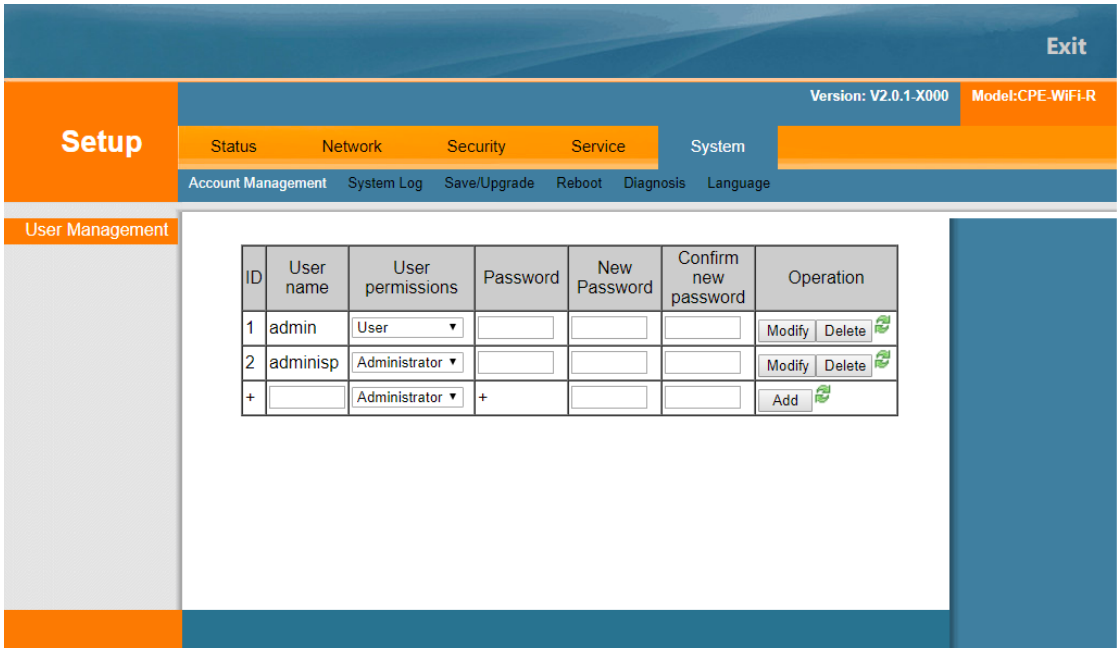



# 9 System

System includes Account Management, System Log, Save/Upgrade, Reboot, Diagnosis, and Language.

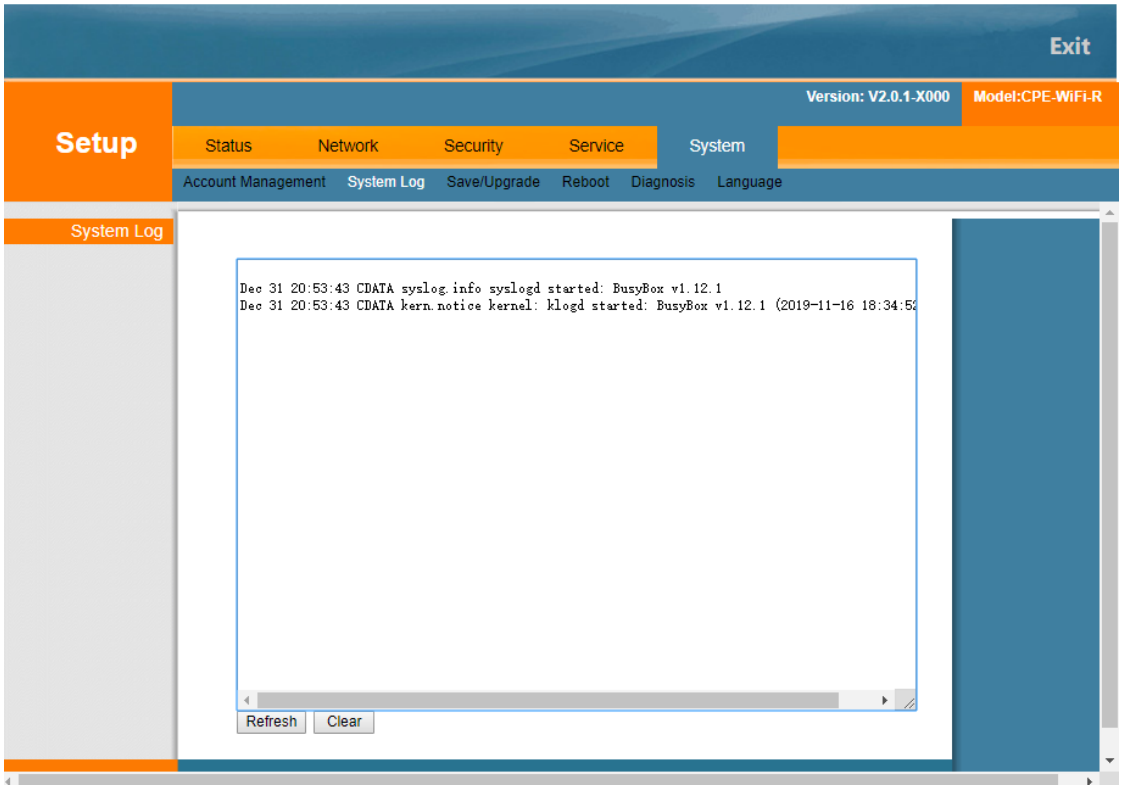
## 9.1 Account Management

Account management defaults to 2 users: the administrator and the user, click on the corresponding <modify> button, make the relevant changes on the user name, password and permissions. To add a related user, click <Add> button and set the user's level, user name, and password. It is as shown below.



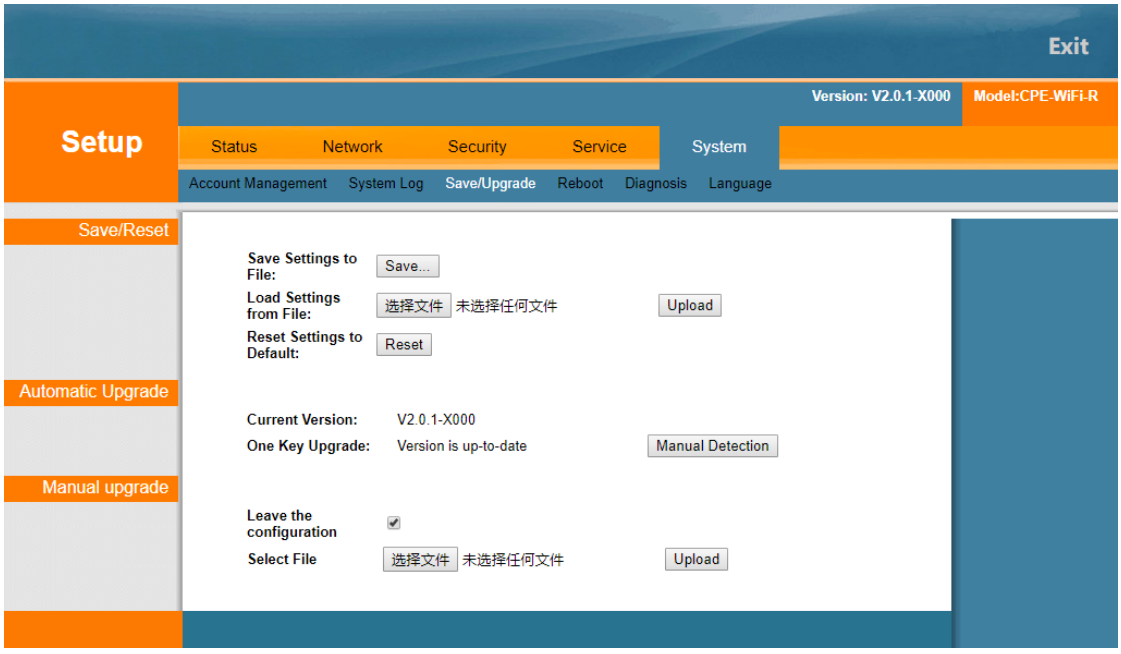

## 9.2 System Log

In the system log page, you can check or clear the system log, as shown below:



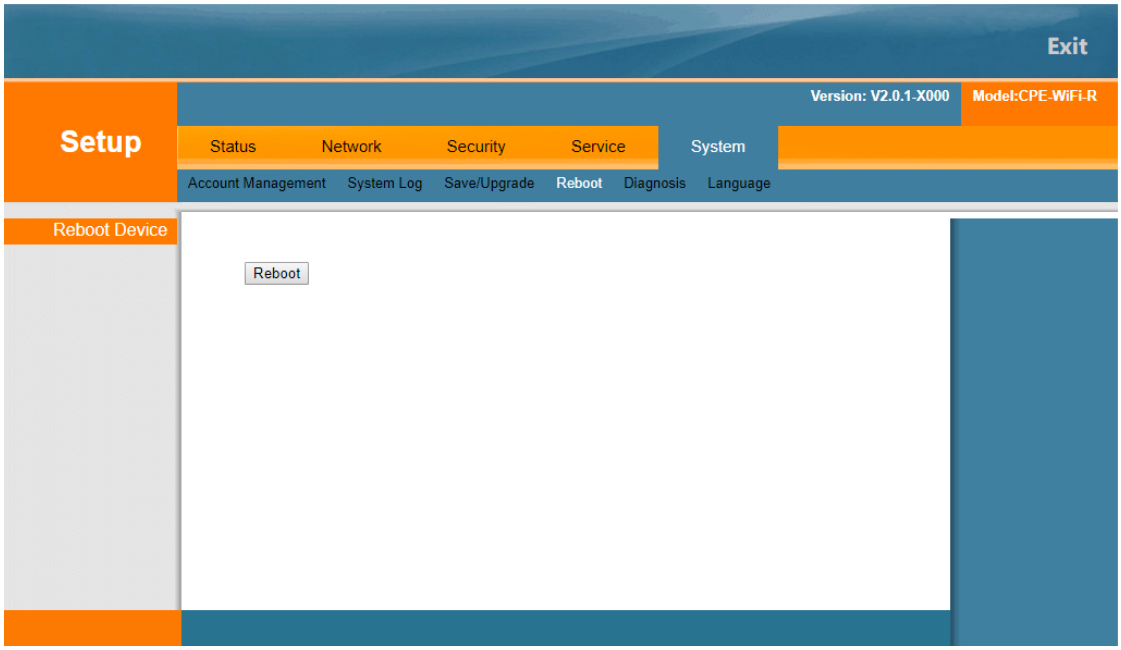

## 9.3 Save/Upgrade

Save/Upgrade page consists of three parts, the first part is the backup and recovery of the configuration, in which you can backup and restore the device configuration and restore the device factory settings. The second part can automatically detect whether new software can be upgraded. The third part can update the software manually.



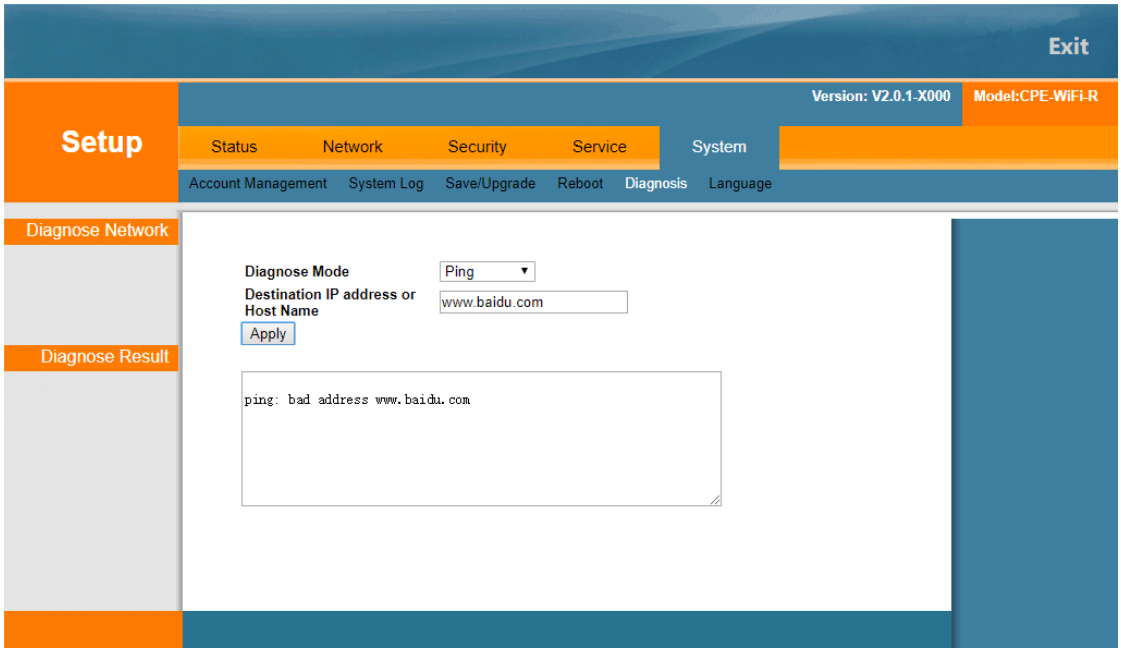

## 9.4 Reboot

Click <reboot> button to restart the current terminal device, as shown below.



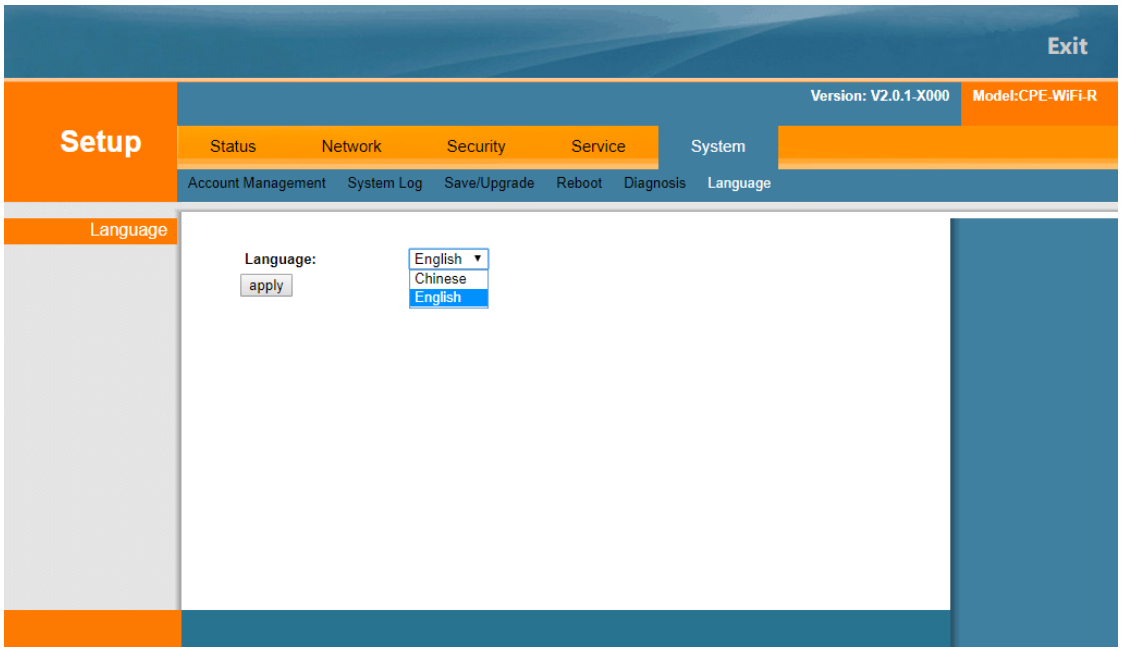

## 9.5 Diagnosis

On the diagnostic page, you can use Ping or Traceroute as a method and fill in the destination IP address or host name to diagnose.




## 9.6 Language

Click the language option on the language page to manually switch the device language, Chinese or English ,it is as shown below.


Exit
Version: V2.0.1-X000
Model:CPE-WiFi-R
Setup
Status
Network
Security
Service
System
Account Management
System Log
Save/Upgrade
Reboot
Diagnosis
Language
Language
Language:
English
Chinese
English
apply