V1.0

POTS in a BOX® CDS-9010

LTE VoIP Dual Band Wi-Fi Router

User Manual V1.3

DATAREMOTE
MOVING DATA OVER WIRELESS

Table of Contents

1 Preface

Thank you for choosing CDS9010 wireless router with VoIP. This product will allow you to make ATA call using your broadband connection and provides Wi-Fi router function.

This manual provides basic information on how to install and connect CDS9010 wireless router with VoIP to the Internet. It also includes features and functions of LTE connection, wireless router with VoIP components, and how to use it correctly.

Before you can connect CDS9010 to the Internet and use it, you must have a high-speed broadband connection installed. A high-speed connection includes environments such as DSL, LTE wireless network, cable modem, and a leased line.

CDS9010 wireless router with VoIP is a stand-alone device, which requires no PC to make Internet calls. This product guarantees clear and reliable voice quality on Internet, which is fully compatible with SIP industry standard and able to interoperate with many other SIP devices and software on the market.

2 LED Indicators and Connectors

Before you use the high-speed router, please get acquainted with the LED indicators and connectors first.

2.1 LED Indicators

Front Panel	LED	Status	Explanation
	**PWR**	On (GREEN)	The router is powered on (External Power) and running normally.
		On Blinking (GREEN)	The router is powered on (Internal Power - BAT) and running normally.
		OFF	The router is powered off.
	BATTERY	On (GREEN)	Battery Charged
		On Blinking (GREEN)	Battery Charging
		Red	Battery Low or not connected
	Phone 1/2	On (GREEN)	Registered
		OFF	Not Registered
	Wi-Fi	OFF	Wireless Not Active
		On (GREEN)	Wireless Active
		On Blinking (GREEN)	Wireless traffic (Data)
	WAN	OFF	WAN Ethernet Not in Use
		On (GREEN)	WAN Ethernet Connected (Registered)
	LAN 1/2	OFF	Disconnected
		On (GREEN)	Connected (Registered)
		On Blinking (GREEN)	Connected (Data)
	DCD	On (GREEN)	LTE
		On (Red)	Weak
		On Blinking (GREEN)	3G
	Cell	OFF	Disconnected
		On (GREEN)	Connection Strength (based on bars)

Rear Panel	Interface	Description
	**DC**	**Connector for a power adapter.**
	WAN	**Connector for accessing the Internet.**
	LAN1/2	**Connectors for local networked devices.**
	Phone 1/2	**Connectors for analog phones**

2.2 Hardware Installation

Before starting to configure the router, you have to connect your devices correctly.

Step 1.Connect Line port to land line jack with a RJ-11 cable.

Step 2.Connect the WAN port to a modem or switch or router or Internet with an Ethernet cable.

Step 3.Connect one port of 2 LAN ports to your computer with a RJ-45 cable. This device allows you to connect 2 PCs directly.

Step 4.Connect one end of the power cord to the power port of this device. Connect the other end to the wall outlet of electricity.

Step 5.Check the Power and WAN, LAN LEDs to assure network connections.

3 Interactive Voice Response

In any circumstance, pressing the following command to enter relevant function. The following table lists command, and description.

Voice Menu Setting Options

Operation code	Contents
1	Step 1.Pick up phone and press "****" to start IVR Step 2.Choose "1", and CDS9010 report the current WAN port connection type Step 3.Prompt "Please enter password", user need to input password with end char # if user want to configuration WAN port connection type.
2	Step 1.Pick up phone and press "****" to start IVR Step 2.Choose "2", and CDS9010 report current WAN Port IP Address Step 3.Input the new WAN port IP address and with the end char #, ✧ using "*" to replace ".", user can input 192*168*20*168 to set the new IP address 192.168.20.168 ✧ press # key to indicate that you have finished Step 4.Report "operation successful" if user operation properly. ✧ Note: If you want to quit by the wayside, press "**".
3	Step 1.Pick up phone and press "****" to start IVR Step 2.Choose "3", and CDS9010 report current WAN port subnet mask Step 3.Input a new WAN port subnet mask and with the end char # ✧ using "*" to replace ".", user can input 255*255*255*0 to set the new WAN port subnet mask 255.255.255.0 ✧ press # key to indicate that you have finished 3) Report "operation successful" if user operation properly.
4	Step 1.Pick up phone and press "****" to start IVR Step 2.Choose "4", and CDS9010 report current gateway Step 3.Input the new gateway and with the end char # ✧ using "*" to replace ".", user can input 192*168*20*1 to set the new gateway 192.168.20.1 ✧ press # (pound) key to indicate that you have finished 3) Report "operation successful" if user operation properly. ✧ Note: If you want to quit by the wayside, press "**".
5	Step 1.Pick up phone and press "****" to start IVR Step 2.Choose "5", and CDS9010 report current DNS Step 3.Input the new DNS and with the end char # ✧ using "*" to replace ".", user can input 192*168*20*1 to set the new gateway 192.168.20.1 ✧ press # (pound) key to indicate that you have finished 3) Report "operation successful" if user operation properly. ✧ If you want to quit by the wayside, press "**".

6	Step 1.Pick up phone and press “****” to start IVR Step 2.Choose “6”, and CDS9010 report “Factory Reset” Step 3.Prompt "Please enter password", the method of inputting password is the same as operation 1. ✧ If you want to quit by the wayside, press “*”. Step 4.Prompt “operation successful” if password is right and then CDS9010 will be factory setting. Step 5.Press “7” reboot to make changes effective.
7	Step 1.Pick up phone and press “****” to start IVR Step 2.Choose “7”, and CDS9010 report “Reboot” Step 3.Prompt "Please enter password", the method of inputting password is same as operation 1. Step 4.CDS9010 will reboot if password is right and operation is properly.
8	Step 1.Pick up phone and press “****” to start IVR Step 2.Choose “8”, and CDS9010 report “WAN Port Login” Step 3.Prompt "Please enter password", the method of inputting password is same as operation 1. ✧ If you want to quit by the wayside, press “*”. Step 4.Report “operation successful” if user operation properly. Step 5.Prompt “1enable 2disable”,choose 1 or 2, and with confirm char # Step 6.Report “operation successful” if user operation properly.
9	Step 1.Pick up phone and press “****” to start IVR Step 2.Choose “9”, and CDS9010 report “ WEB Access Port” Step 3.Prompt “Please enter password”, the method of inputting password is same as operation 1. Step 4.Report “operation successful” if user operation properly. Step 5.Report the current WEB Access Port Step 6.Set the new WEB access port and with end char # Step 7. Report “operation successful” if user operation properly.
0	Step 1.Pick up phone and press “****” to start IVR Step 2.Choose “0”, and CDS9010 report current Firmware version

Notice:

- When using Voice Menu, press * (star) to return the main menu.
- If any changes made in the IP assignment mode, please reboot the CDS9010 to take the setting into effect.
- When enter IP address or subnet mask, use “*”(Star) to replace “.” (Dot).

  For example, to enter the IP address 192.168.20.159 by keypad, press these keys: 192*168*20*159, use the #(pound) key to indicate that you have finished entering the IP address.
- #(pound) key to indicate that you have finish entering the IP address or subnet mask
- When assigning IP address in Static IP mode, setting IP address, subnet mask and default gateway is a must. If in DHCP mode, please make sure that DHCP SERVER is available in your existing broadband connection to which WAN port of CDS9010 is connected.
- The default LAN port IP address of CDS9010 is 192.168.1.1 and do not set the WAN port IP address of CDS9010 in the same network segment of LAN port of CDS9010, otherwise it may lead to the CDS9010 fail to work properly.
- You can enter the password by phone keypad, the matching table between number and letters as follows:

- To input: D, E, F, d, e, f -- press ‘3’
- To input: G, H, I, g, h, i -- press ‘4’
- To input: J, K, L, j, k, l -- press ‘5’
- To input: M, N, O, m, n, o -- press ‘6’
- To input: P, Q, R, S, p, q, r, s -- press ‘7’
- To input: T, U, V, t, u, v -- press ‘8’
- To input: W, X, Y, Z, w, x, y, z -- press ‘9’
- To input all other characters in the administrator password-----press ‘0’,
  E.g. password is ‘admin-admin’, press ‘236460263’

4 Configuring Basic Settings

4.1 Administrator Management

This chapter explains how to setup a password for an administrator user and how to adjust settings for accessing Internet successfully.

CDS9010 supports two-level management: administrator and user. For administrator mode operation, please type Username/Password and click **Login** button to configuration. For username/password credentials please ask your customer service representative.

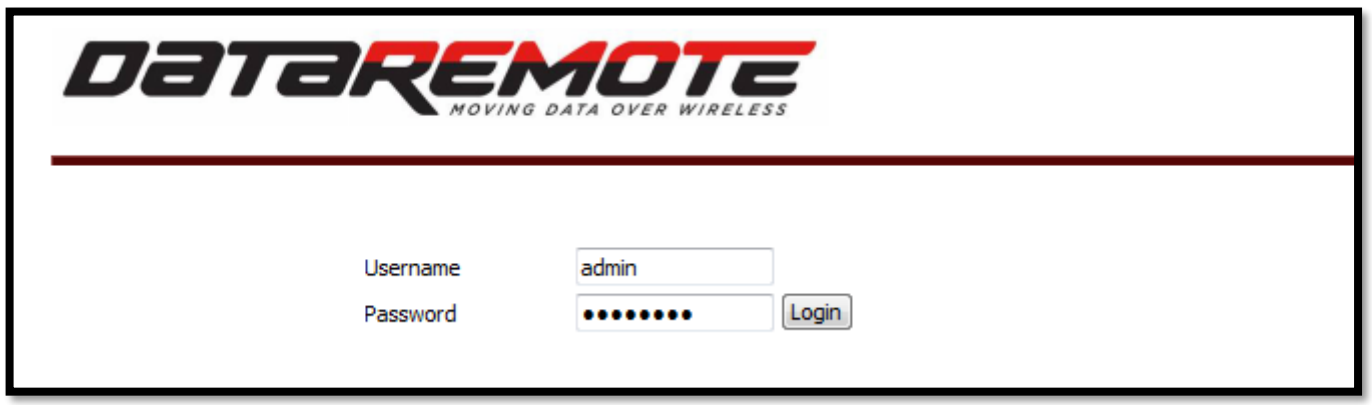
4.2 Accessing Web Page

4.2.1 From LAN port

1. Make sure your PC have connected to the router's LAN port correctly.

> **Notice:** You may either simply set up your computer to get IP dynamically from the router or set up the IP address of the computer to be the same subnet as **the default IP address of router is 192.168.1.1**. For the detailed information, please refer to the later section - **Trouble shooting of the guide.**

2. Open a web browser on your PC and type **http://192.168.1.1.** The following window will be open to ask for username and password.

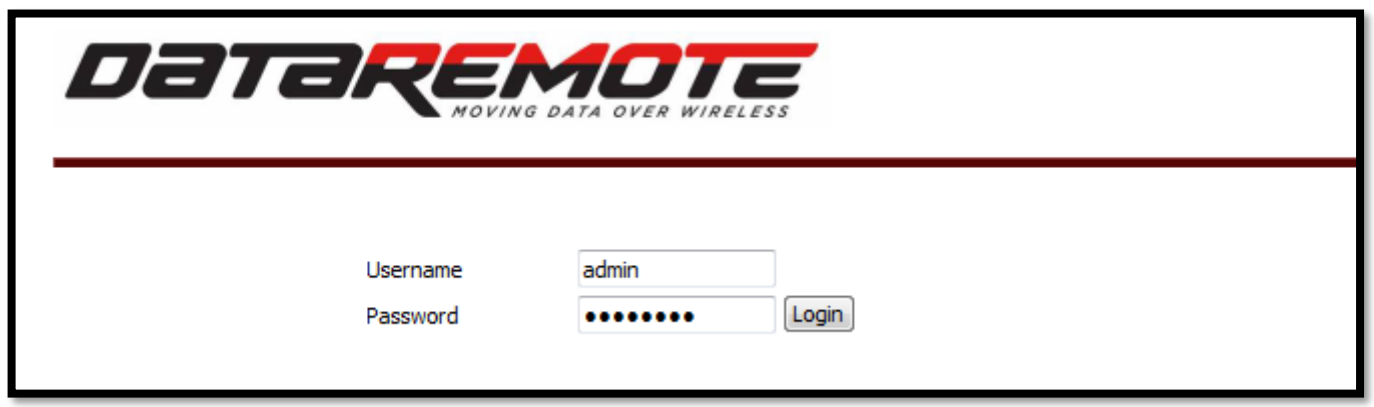


> **Notice**: If you fail to access to the web configuration, please go to "Trouble Shooting" for detecting and solving your problems.

3. The web page can be logged out after 5 minutes without any operation.

4.2.2 From WAN port

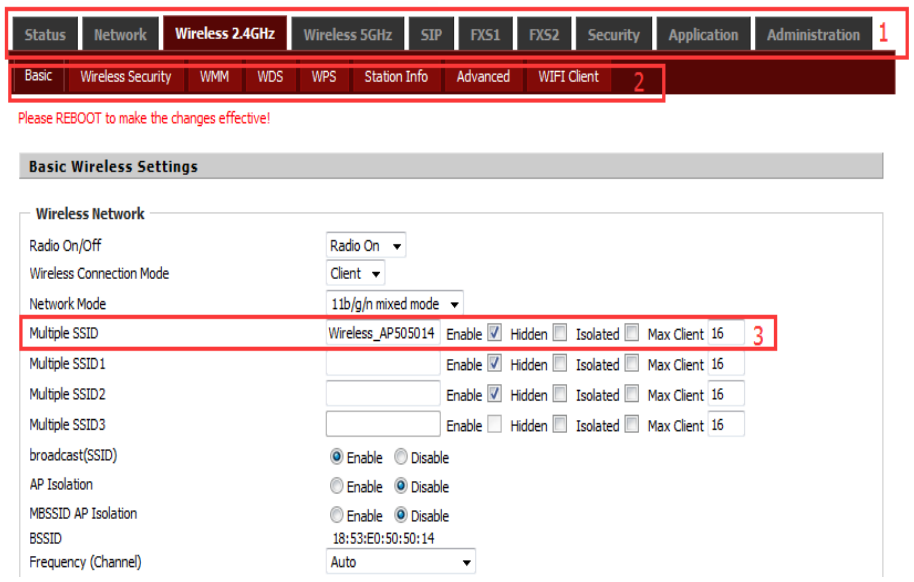
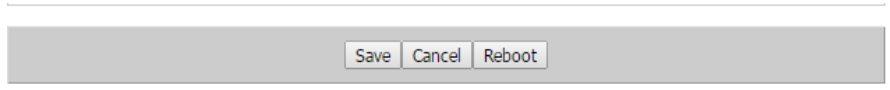
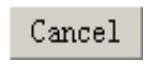
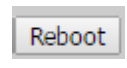
1. Make sure your PC can connect to the router's WAN port correctly.
2. Getting the IP addresses of WAN port using Voice prompt.
3. Open a web browser on your PC and type **http://<IP address of WAN port>.** The following window will be open to ask for username and password.



Notice: If you fail to access to the web configuration, please go to "Trouble Shooting" for detecting and solving your problem.

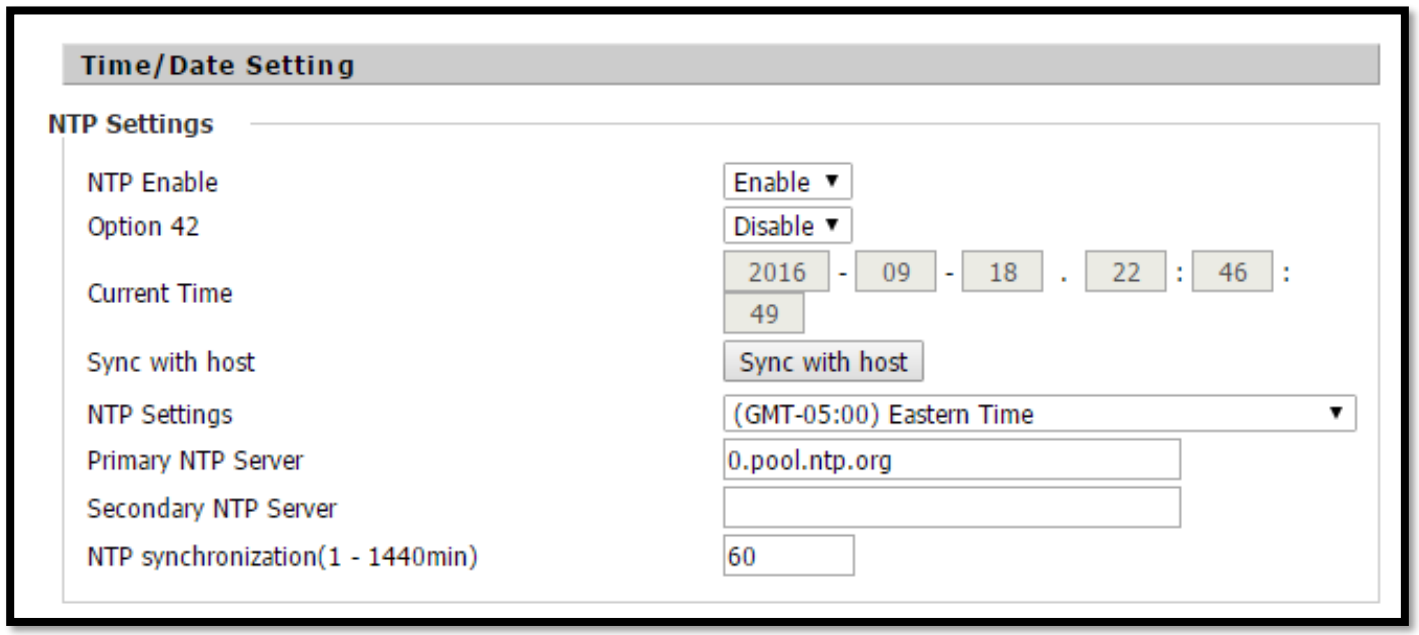
4. The web page can be logged out after 5 minutes without any operation.

4.3 Webpage

<table>
<tr><td rowspan="4"> 
</td><td>No.</td><td>Name</td><td>Description</td></tr>
<tr><td>1</td><td>Navigation bar</td><td>Click navigation bar, many sub-navigation bar will appear in the place 2</td></tr>
<tr><td>2</td><td>Title</td><td>Click sub-navigation bar to choose one configuration page</td></tr>
<tr><td>3</td><td>Parameter</td><td>To configuration the parameters</td></tr>
<tr><td rowspan="3"> 
</td><td></td><td> 
</td><td>◆ Every time making some changes, user should press this button to confirm the changes.
◆ After pressing the button, the red will appear to notice rebooting.</td></tr>
<tr><td></td><td> 
</td><td>To cancel the changes.</td></tr>
<tr><td></td><td> 
</td><td>Press it to reboot the router</td></tr>
</table>

4.4 Setting up the Time Zone

Open **Administration/Management** webpage as shown below, please select the **Time Zone** for the router installed and specify the **NTP server** and set the update interval in **NTP synchronization**.



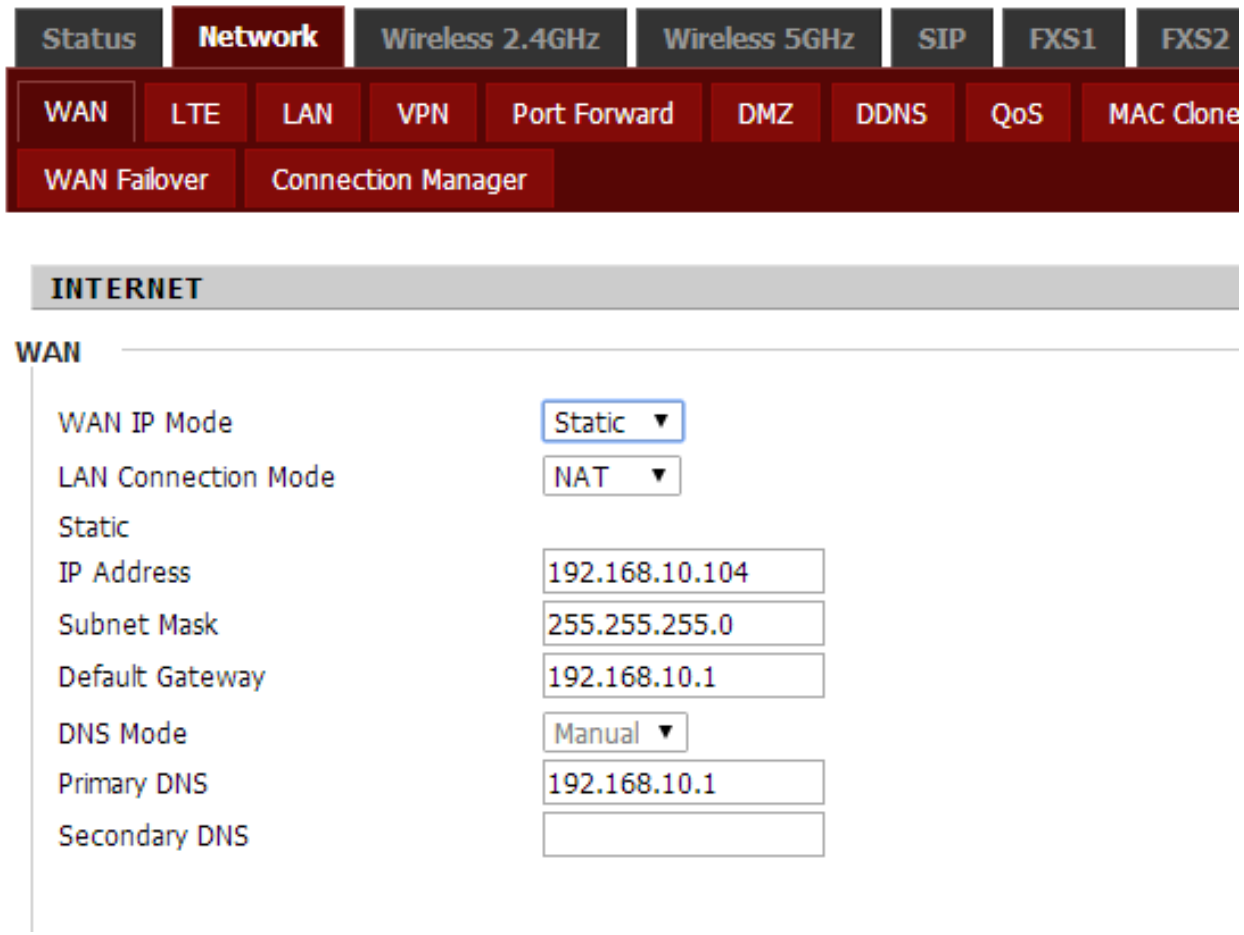
4.5 Setting up the Internet/WAN Connection

Open the **Network/WAN** webpage as shown below; please select the appropriate **IP Mode** according to the information from your ISP. There are three types offered in this page, which are Static, DHCP and PPPoE.

4.5.1 Static IP

You will receive a fixed public IP address or a public subnet, namely multiple public IP addresses from your DSL or Cable ISP service providers. In most cases, a Cable service provider will offer a fixed public IP, while a DSL service provider will offer a public subnet. If you

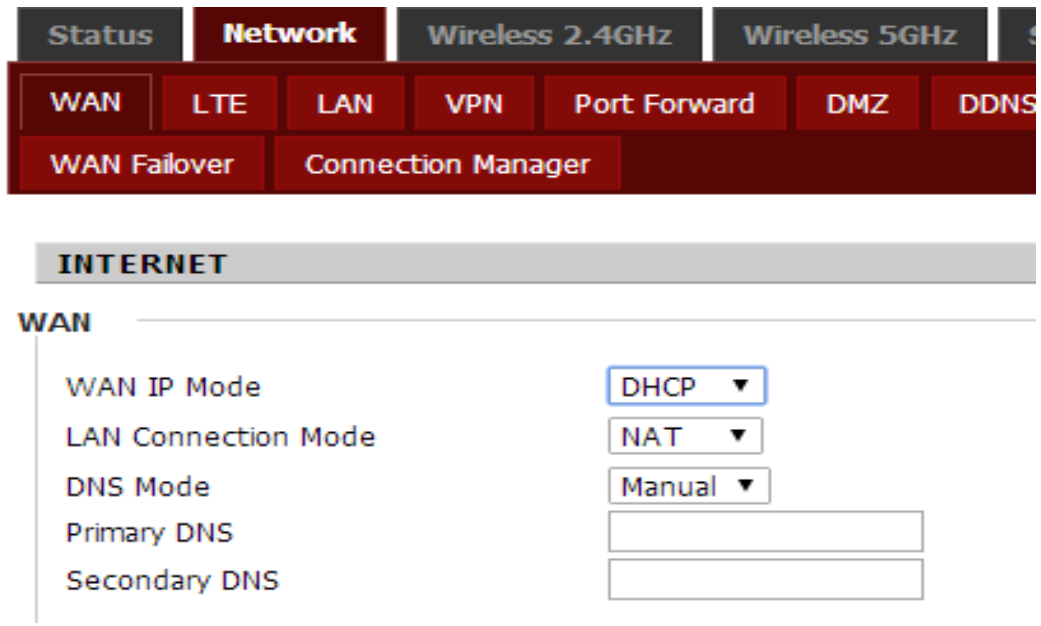
have a public subnet, you could assign an IP address to the WAN interface.



WAN IP Mode	The mode for obtain IP address
LAN Connection Mode	Select to NAT or Bridge
IP Address	Type the IP address
Subnet Mask	Type the subnet mask
Default Gateway	Type the gateway IP address
DNS Mode	Set the DNS Mode from Auto and Manual, If user choose manual, you should fill the primary DNS address and Secondary DNS address into Primary DNS Address and Secondary DNS Address.
Primary DNS Server	Type in the primary IP address for the route
Secondary DNS Server	Type in secondary IP address for necessity in the future

4.5.2 DHCP

It is not necessary for you to type any IP address manually. Simply choose this type and the system will obtain the IP address automatically from DHCP server.

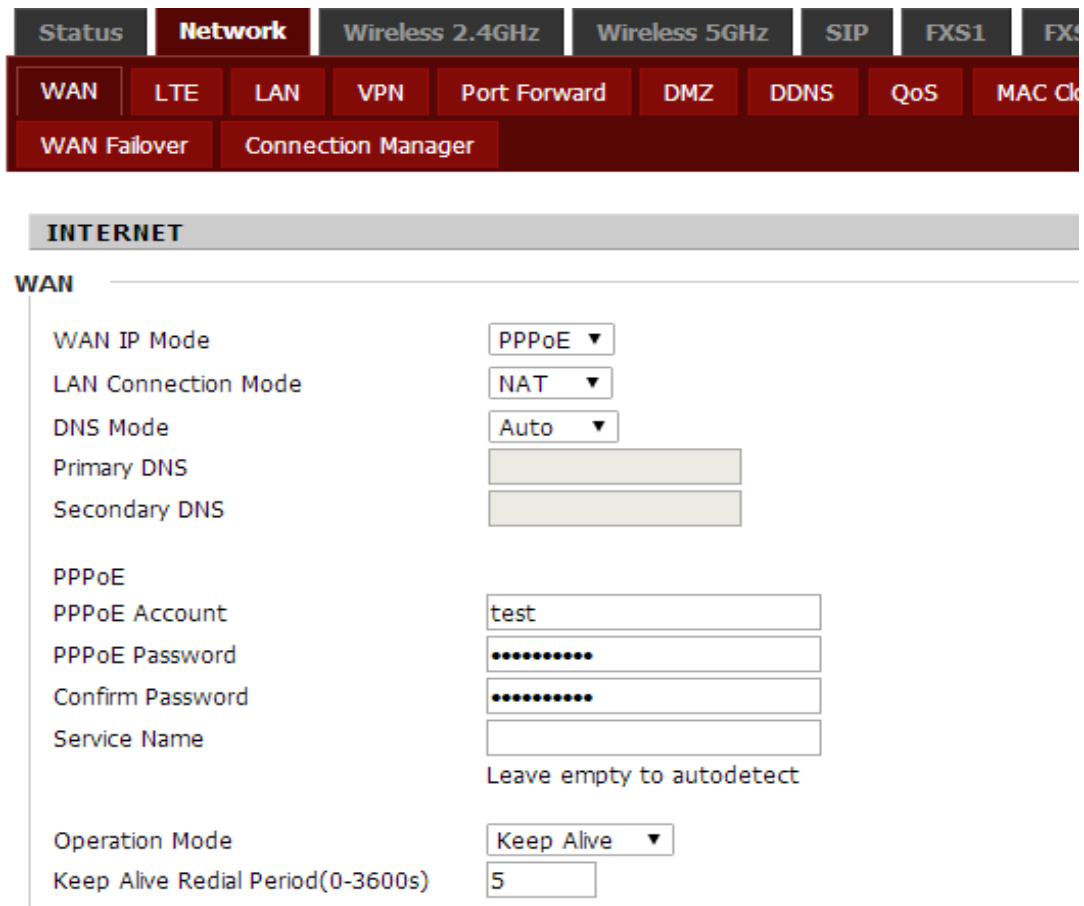


WAN IP Mode	The mode for obtain IP address
LAN Connection Mode	Select to NAT or Bridge
DNS Mode	Set the DNS Mode from Auto and Manual, If user choose manual, you should fill the primary DNS address and Secondary DNS address into Primary DNS Address and Secondary DNS Address.
Primary DNS Server	Type in the primary IP address for the route
Secondary DNS Server	Type in secondary IP address for necessity in the future

4.5.3 PPPoE

PPPoE stands for **Point-to-Point Protocol over Ethernet**. It relies on two widely accepted standards: PPP and Ethernet. It connects users through an Ethernet to the Internet with a common broadband medium, such as a single DSL line, wireless device or cable modem. All the users over the Ethernet can share a common connection.

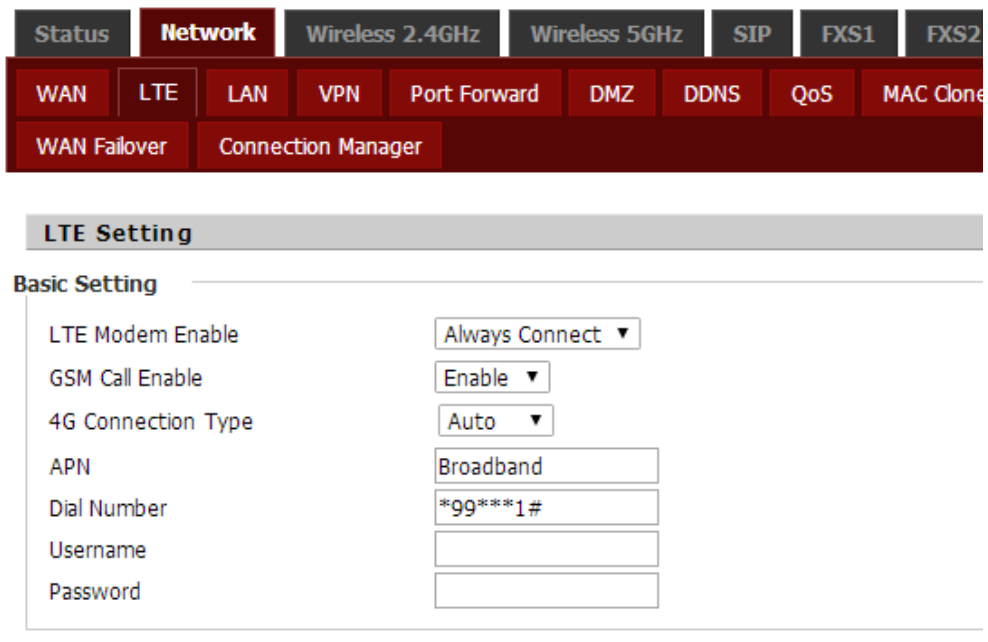
PPPoE is used for most of DSL modem users. All local users can share one PPPoE connection for accessing the Internet. Your service provider will provide you information about user name, password, and authentication mode.



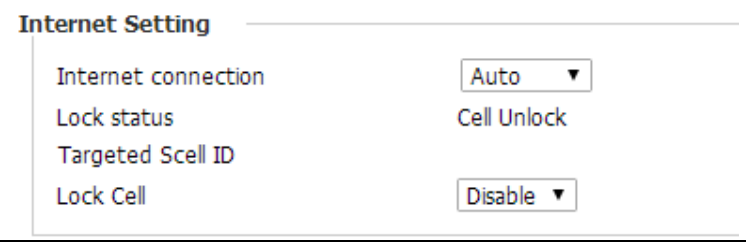
WAN IP Mode	The mode for obtain IP address
LAN Connection Mode	Select to NAT or Bridge
DNS Mode	Set the DNS Mode from Auto and Manual, If user choose manual, you should fill the primary DNS address and Secondary DNS address into Primary DNS Address and Secondary DNS Address.
Primary DNS Server	Type in the primary IP address for the route
Secondary DNS Server	Type in secondary IP address for necessity in the future
PPPoE Account	Assign a specific valid user name provided by the ISP
PPPoE Password	Assign a valid password provided by the ISP
Confirm Password	Input the password again
Service Name	The destination of PPPoE server, Leave empty to auto detect.
Operation Mode	Select to Keep Alive, On Demand or Manual
Keep Alive Redial Period(0-3600s)	The interval time for redialing up

4.6 Setting up the Internet/LTE Connection

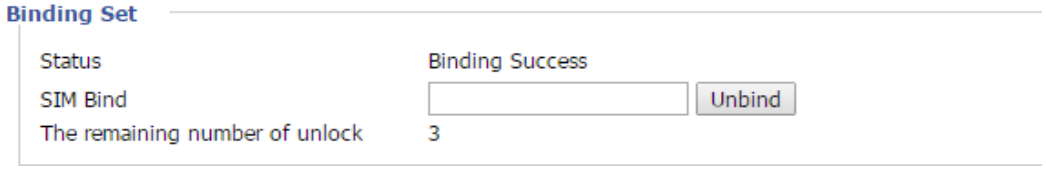
4.6.1 LTE



LTE Modem Enable	Select to Disable, Auto Connect and Always Connect.
GSM Call Enable	Enable GSM voice call
4G Connection Type	4G connection type ,auto or manual
APN	Access Point Name
Dial Number	LTE connection dial number
Username	Auth username
Password	Auth password

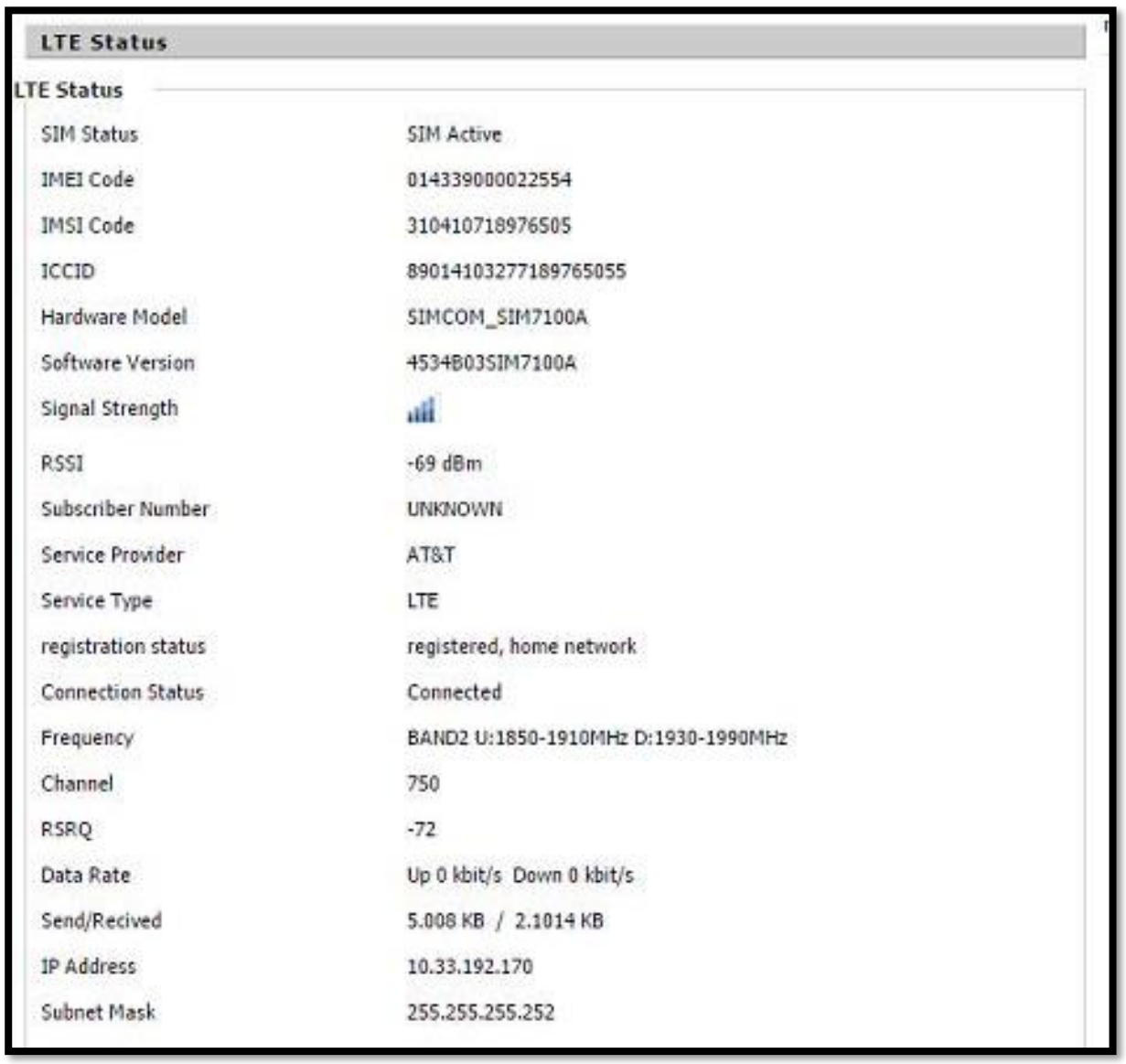


Internet Connection	Here you can choose use 3G, 4G or auto mode
Lock Cell	Lock cell function



Status	PIN code bind status
SIM bind	Input the SIM bind code
The remaining number of unlock	Warning of the operation error time, should less than 3

When LTE connected successfully, return the Status page, you can check the link status and the IP address obtained from the ISP. Note, this is a sample screenshot and certain fields will populate differently based on device model and included radio version.

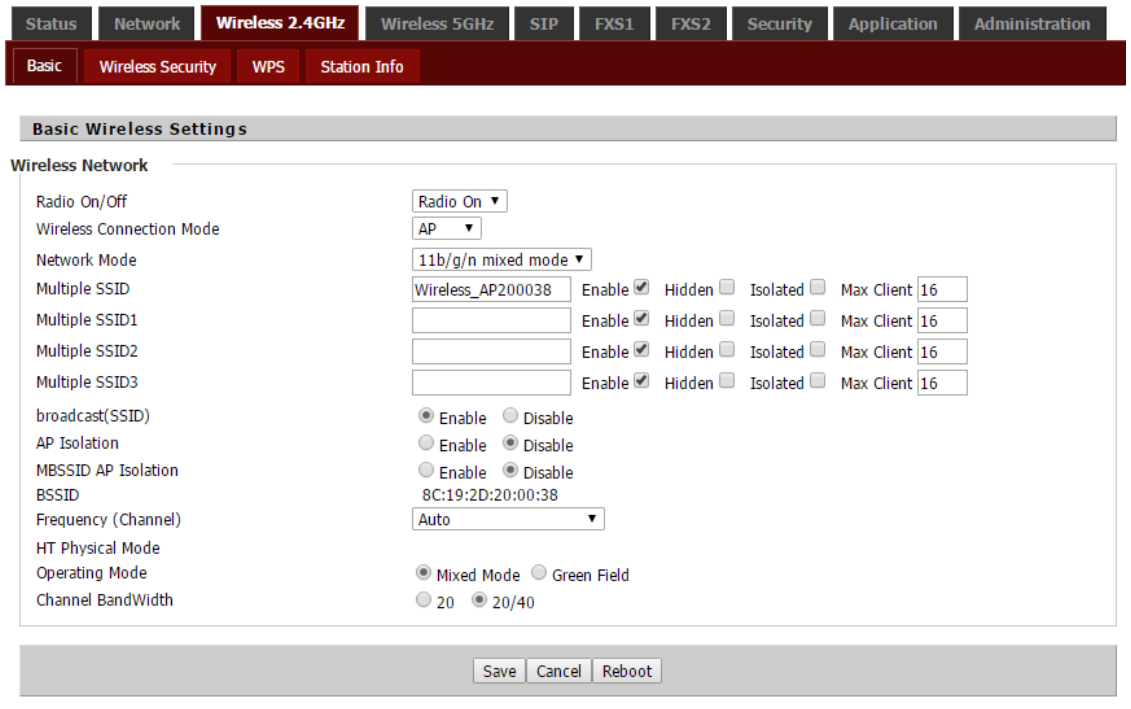


4.7 Setting up the Wireless Connection

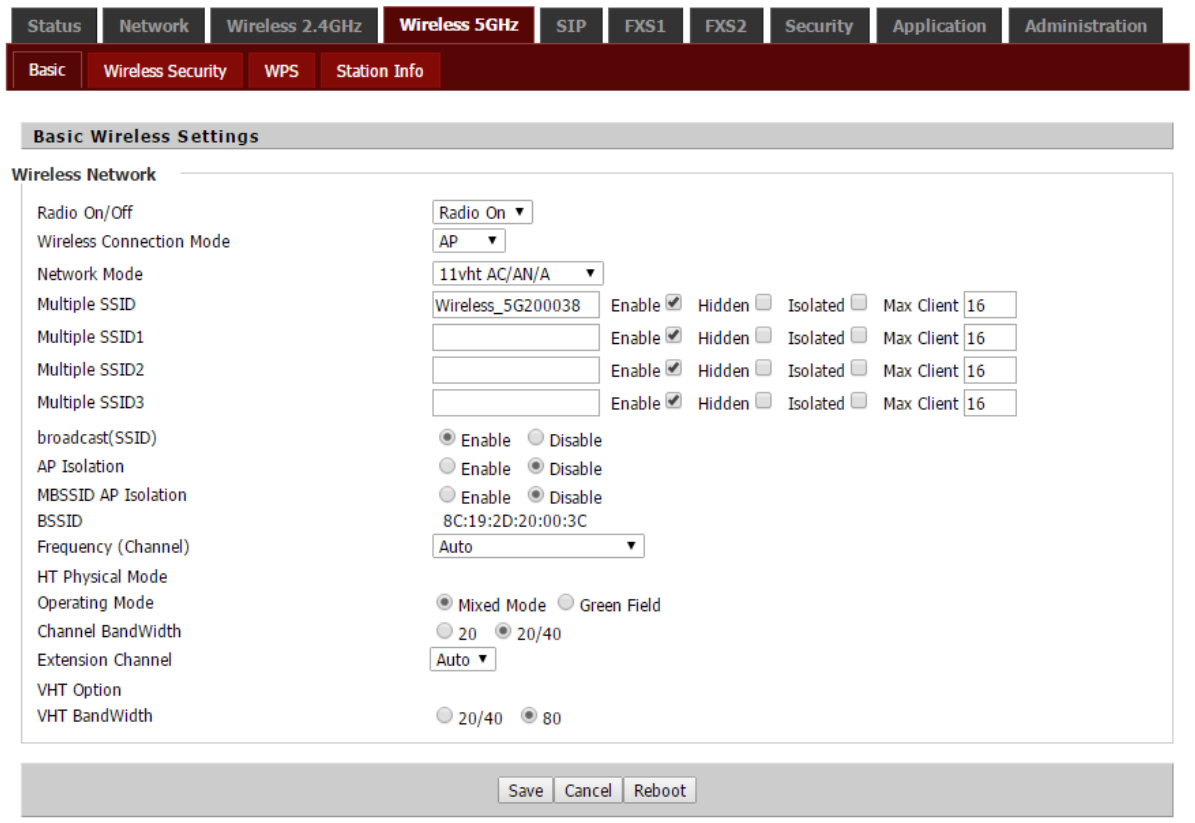
To set up the wireless connection, please skip the following steps.

4.7.1 Enable Wireless and Setting SSID

Open **2.4G (5G) /Basic** webpage as shown below



Radio On/Off	Select to enable or disable wireless.
Wireless Connection Mode	Select to AP or Client. WiFi Client would be option for Active WAN.
Network Mode	Choose one network mode from the drop down list.
Multiple SSSD	Set more wireless network.
Broadcast(SSID)	Broadcast or hide the SSID
AP Isolation	prevents one wireless client communicating with another wireless client.
MBSSID AP Isolation	Other clients outside the AP can not access the clients under this AP
BSSID	A group of wireless workstations and a wireless local area network access

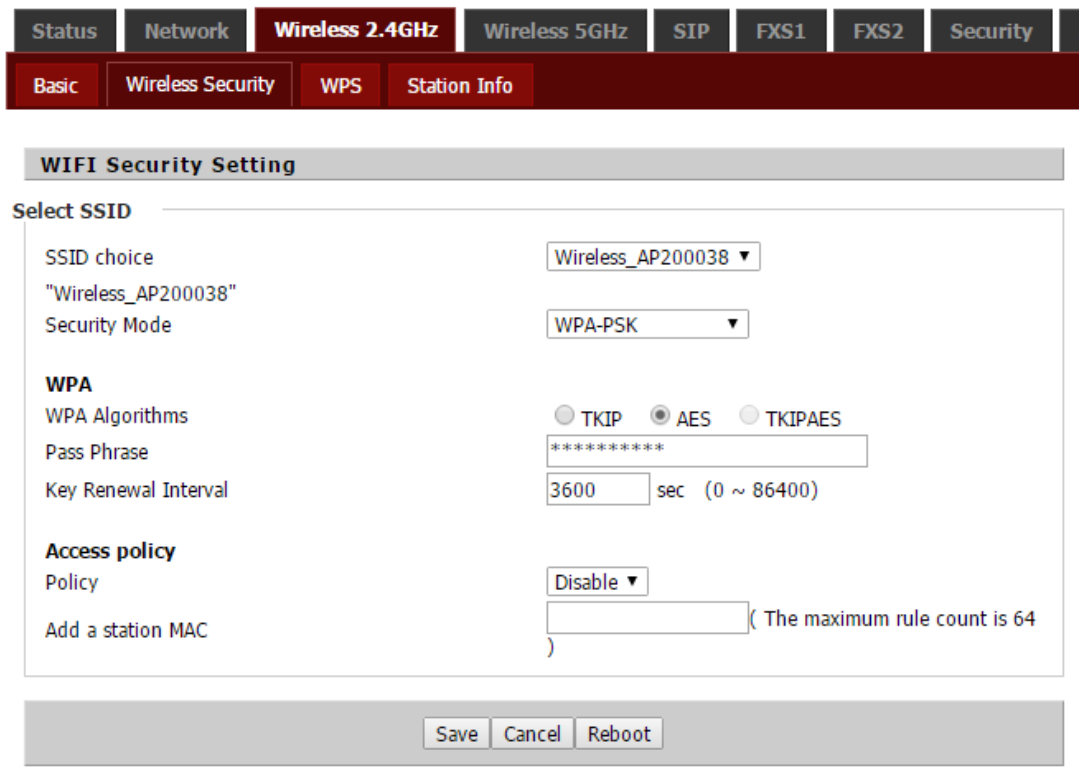


	point (AP) form a basic access device (BSS), each computer in the BSS must be configured with the same BSSID.
Frequency	Choose channel frequency.
HT Physical Mode	In HT (High Throughput) Physical mode setting allow for control of the 802.11n wireless environment.
Operating Mode	Mixed Mode: In this mode packets are transmitted with a preamble compatible with the legacy 802.11a/g, the rest of the packet has a new format. Green Field: In this mode high throughput packets are transmitted without a legacy compatible part.
Channel Bandwidth	20 Channel Width = 20 MHz 20/40 Channel Width = 20/40 MHz
Extension Channel(5GHz Only)	Auto to choose extension channel frequency.
VHT Option(5GHz Only)	With IEEE 802.11ac standard, very-high-throughput can be configured to operate on the 5 GHz frequency band.
VHT Bandwidth(5GHz Only)	20/40 Channel Width = 20/40 MHz 80 Channel Width = 80 MHz

4.7.2 Encryption

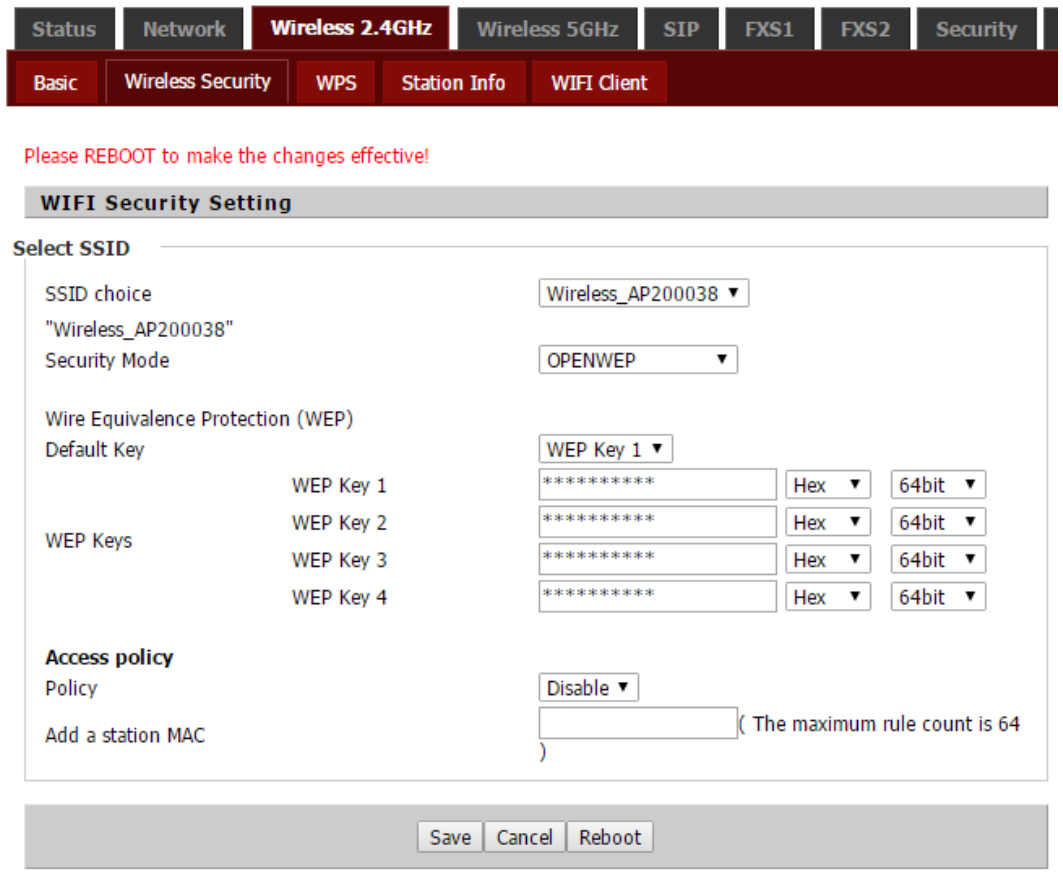
Open **2.4G (5G)/Security** webpage to set the encryption of routers.

WAP-PSK/WAP2-PSK/WAPPSKWAP2PSK



SSID Choice	Choose one SSID from Off-premises 1, off-premises 2 and Premises.
Security Mode	Unless one of these encryption modes is selected, wireless transmissions to and from your wireless network can be easily intercepted and interpreted by unauthorized users.
WPA Algorithms	TKIP (Temporal Key Integrity Protocol) provides per-packet key generation and is based on WEP. AES (Advanced Encryption Standard) is a very secure block based encryption. With the "TKIP and AES" option, the router negotiates the cipher type with the client, and uses AES when available.
Pass Phrase	Security password
Key Renewal Interval	The amount of time before the group key used for broadcast and multicast data is changed.
Default Key	Select one of the four WEP keys, the key settings on the client network

OPENWEP

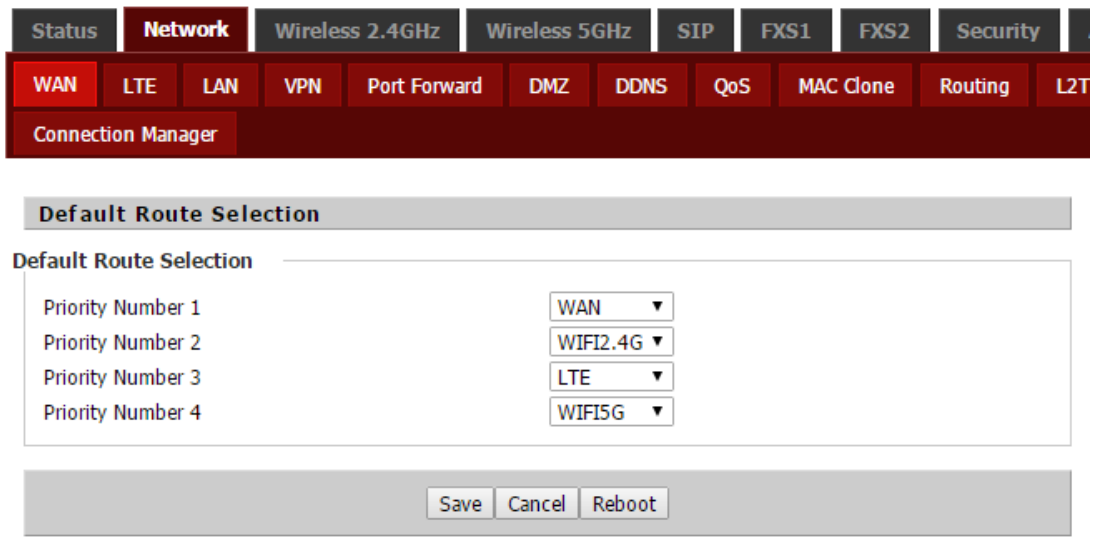


	card also need to correspond to this.
WEP Keys	Set the WEP key. Select 64-bit key to enter Hex is 10 characters, or ASCII code is 5characters; select 128-bit keys need to enter Hex is 26 characters, or ASCII is 13characters.
Policy	Select to Disable/Allow/Reject
Add a station MAC	Use this section to add MAC addresses to the list below.

4.8 Setting up WAN Failover

4.8.1 WAN Failover List

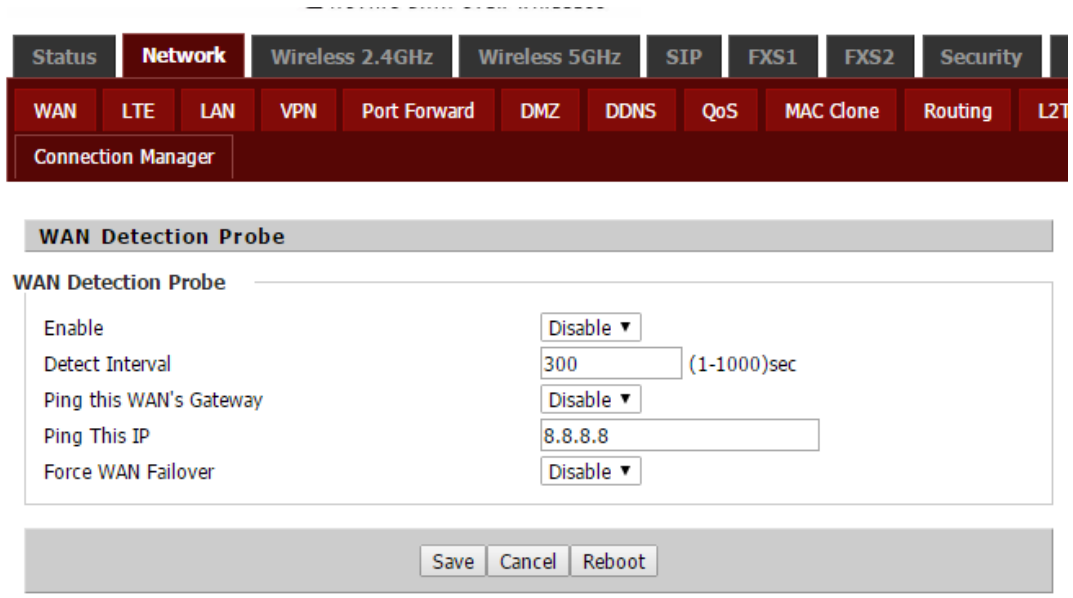
WAN Failover works in multiple outbound links to assure that you maintain Internet connectivity if a loss of connectivity occurs on one of your WAN connections. If one of your ISP links goes down, WAN Failover will automatically route all traffic over the other WAN(s) until service is restored.



CDS9010 allows failover of the default route to WAN interfaces. This part of settings allows ranking each WAN interface in order of preferred usage for the default route. The default route will always be set to the highest-priority connected WAN interface. The assignment changes as WAN interfaces connect or disconnect from the current network.

Default Route Selection support WAN/ WiFi 2.4G/ LTE and WiFi 5.0G. WAN Failover list switch over from Number1 (highest priority) to Number 4 (lowest priority).

4.8.2 Connection Manager



Enable	Enable this function, WAN Failover is based on ping result. Disable this function, WAN Failover is based on each interface physical status.
Detect Interval	Interval time for detecting WAN connection.
Ping this WAN's Gateway	Ping the IP address of WAN's gateway.
Ping this IP	The IP address for ping detection
Force WAN Failover	Enable to setup the re-try times for ping
Max Try Times for Ping	Setup the re-try times for ping

4.9 Register

4.9.1 Get the Accounts

CDS9010 has 2 RJ-11 phone port jacks, you can use it to make a SIP call, and before registering, you should get the SIP account from your administrator or provider.

4.9.2 Connections

Connect CDS9010 to the Internet properly

4.9.3 Configuration SIP from Webpage

Step 1.Open **SIP Account/Line 1** webpage, as the picture in the right side.

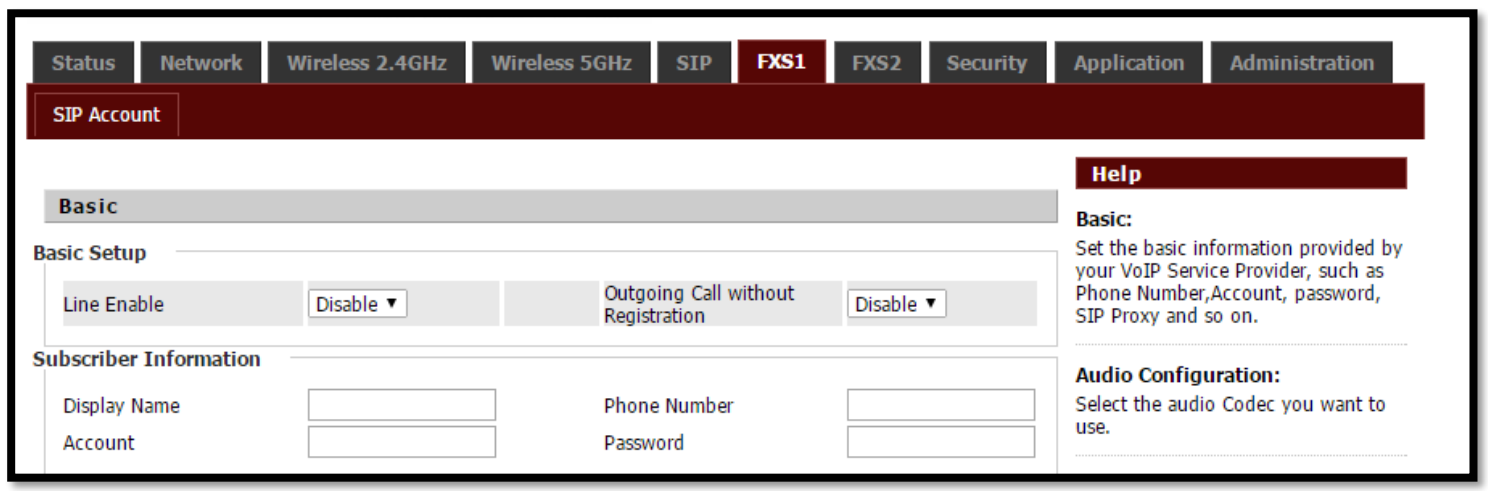
Step 2. Fill account which get from you administrator into Display Name parameter, Phone Number parameter, and Account parameter.

Step 3.Fill password which get from you administrator into Password parameter.

Step 4. Press 

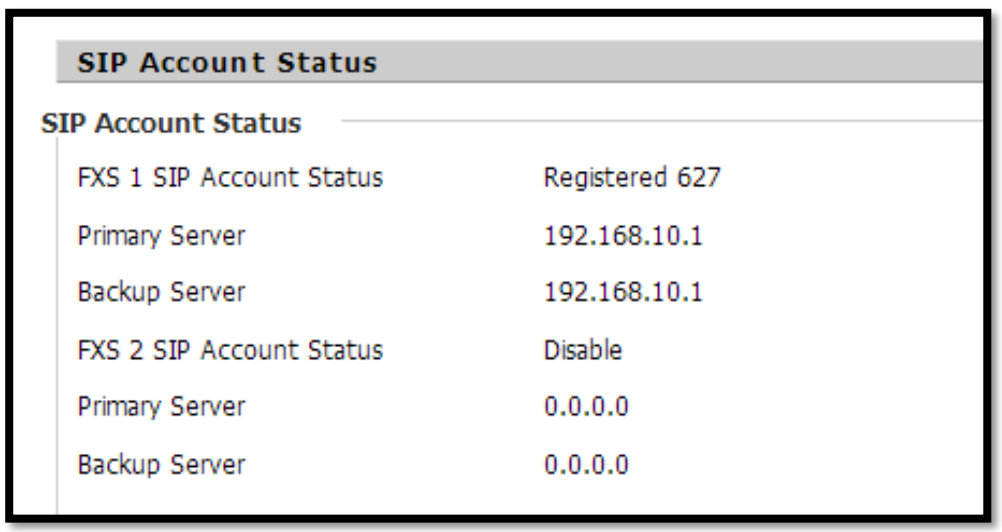
button in the bottom of the webpage to save changes.

Note: if there is Please REBOOT to make the changes effective! please press Reboot button to make changes effective.



4.9.4 View the Register Status

To view the status, please open Status webpage and view the value of register status. The value is registered like the following picture which means CDS9010 have registered normally and you can make calls.



4.10 Make Call

4.10.1 Calling phone or extension numbers

To make a phone or extension number call:

a) Both ATA and the other VoIP device (i.e., another ATA or other SIP products) have public IP addresses, or

b) Both ATA and the other VoIP device (i.e., another ATA or other SIP products) are on the same LAN using private or public IP addresses, or

c) Both ATA and the other VoIP device (i.e., another ATA or other SIP products) can be connected through a router using public or private IP addresses.

To make a call, first pick up the analog phone or turn on the speakerphone on the analog phone, input the IP address directly, end with #.

4.10.2 Direct IP calls

Direct IP calling allows two phones, that is, an ATA with an analog phone and another VoIP Device, to talk to each other without a SIP proxy. VoIP calls can be made between two phones if:

a) Both ATA and the other VoIP device (i.e., another ATA or other SIP products) have public IP addresses, or

b) Both ATA and the other VoIP device (i.e., another ATA or other SIP products) are on the same LAN using private or public IP addresses, or

c) Both ATA and the other VoIP device (i.e., another ATA or other SIP products) can be connected through a router using public or private IP addresses.

To make a direct IP call, first pick up the analog phone or turn on the speakerphone on the analog phone, Input the IP address directly, with the end "#".

4.10.3 Call Hold

While in conversation, pressing the "***77**" to put the remote end on hold, then you will hear the dial tone and the remote party will hear hold tone at the same time.

Pressing the "***77**" again to release the previously hold state and resume the bi-directional media.

4.10.4 Blind Transfer

Assuming that call party A and party B are in conversation. A wants to Blind Transfer B to C:

Step 1.Party A dials **"*78"** to get a dial tone, then dials party C's number, and then press immediately key # (or wait for 4 seconds) to dial out.

Step 2.A can hang up.

4.10.5 Attended Transfer

Assuming that call party A and B are in conversation. A wants to Attend Transfer B to C:

Step 1.Party A dial "***77**" to hold the party B, when hear the dial tone, A dial C's number, then party A and party C are in conversation.

Step 2.Party A dial **"*78"** to transfer to C, then B and C now in conversation.

Step 3.If the transfer doesn't success, then A and B in conversation again.

4.10.6 Conference

Assuming that call party A and B are in conversation. A wants to add C to the conference:

Step 1.Party A dial "***77**" to hold the party B, when hear the dial tone, A dial C's number, then party A and party C are in conversation.

Step 2.Party A dial **"*88"** to add C, then A, B and C now in conference.

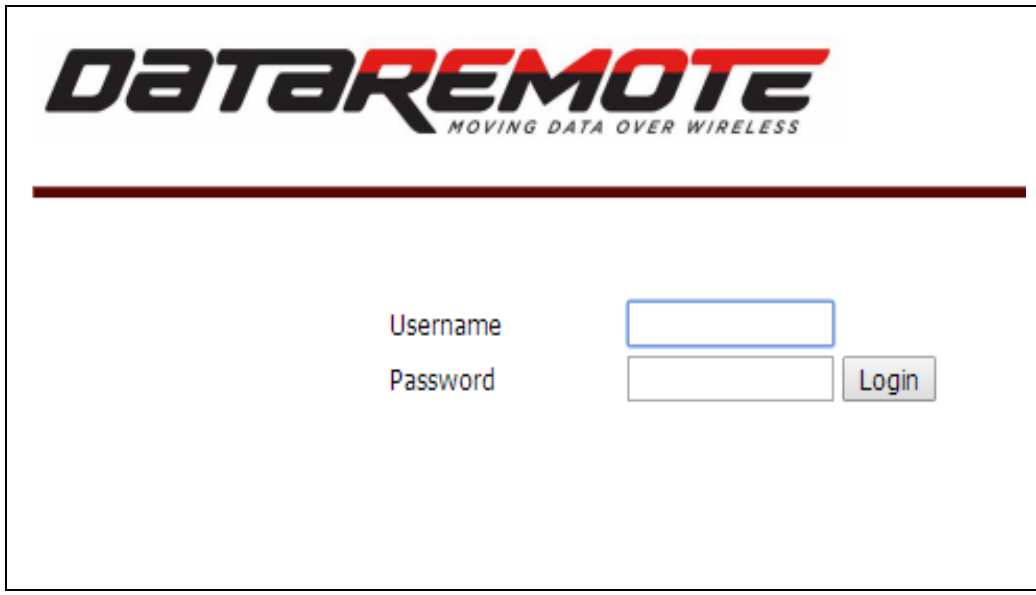
5 Web Configuration

This chapter will guide users to execute full configuration through admin mode operation.

5.1 Login

Step 1.Connect the LAN port of the router to your PC

Step 2.Open a web browser on your PC and type in **http://192.168.1.1**. The window will ask for typing username and password.

	When login successfully, the webpage shows the basic information about the router, such as the current WAN IP, DNS server IP, WAN port connection mode, WAN link status, wireless SSID, wireless channel and F/W version

Step 3.Please type Username/Password for administration operation. Now, the Main Screen will appear like below.

Contact your customer service representative for username/password credentials.

5.2 Status

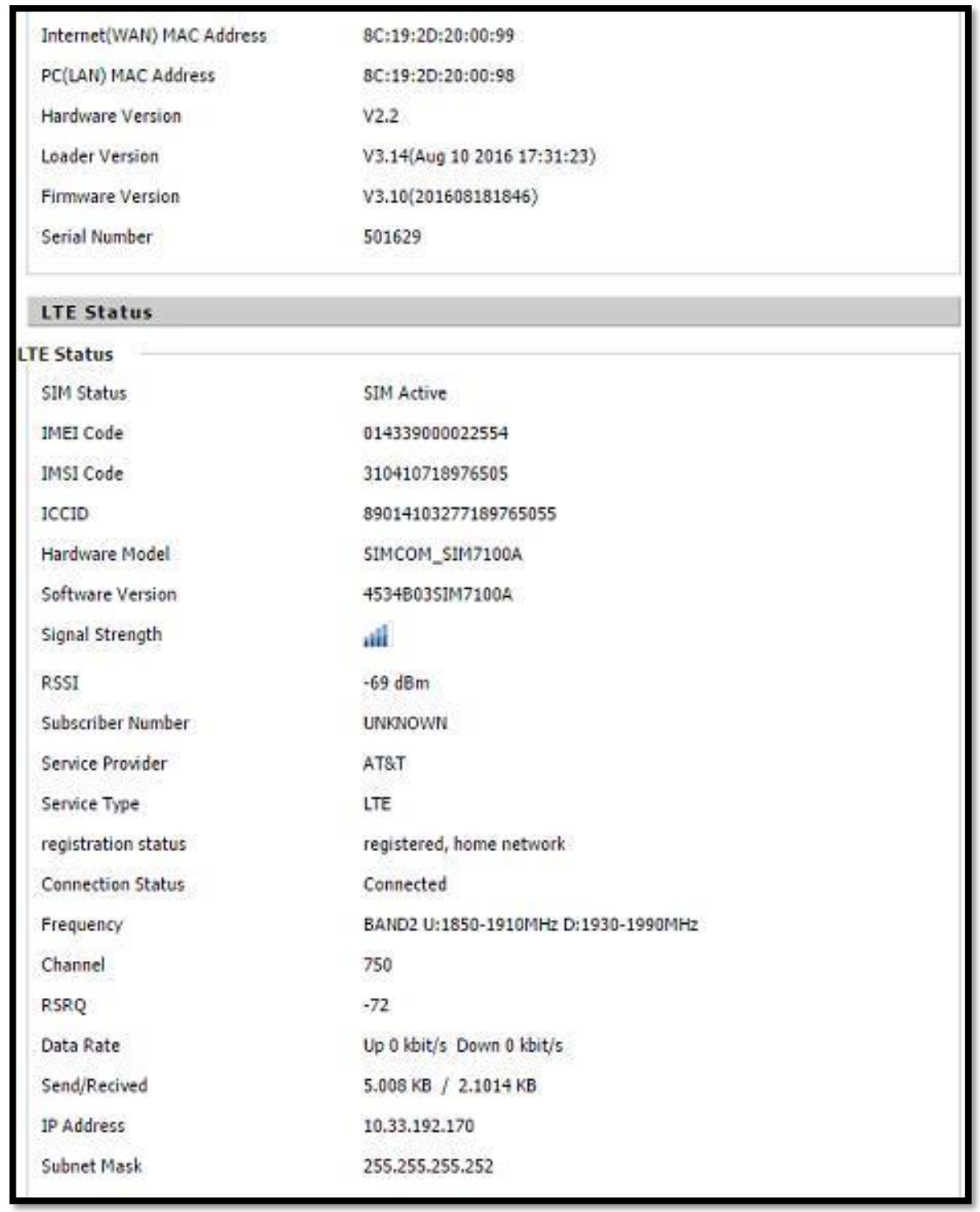
This webpage shows the status information about **product information, Network** and **system**.

It shows the basic information of the product, such as product name, serial number, MAC address, hardware version and software version.

It also shows the information of Link Status, WAN Port Status, and LAN Port Status.

And it shows the current time and the running time of the product.

The picture in the right side is the LTE Status webpage. Note, this is a sample screenshot and certain fields will populate differently based on device model and included radio version.



5.3 Network

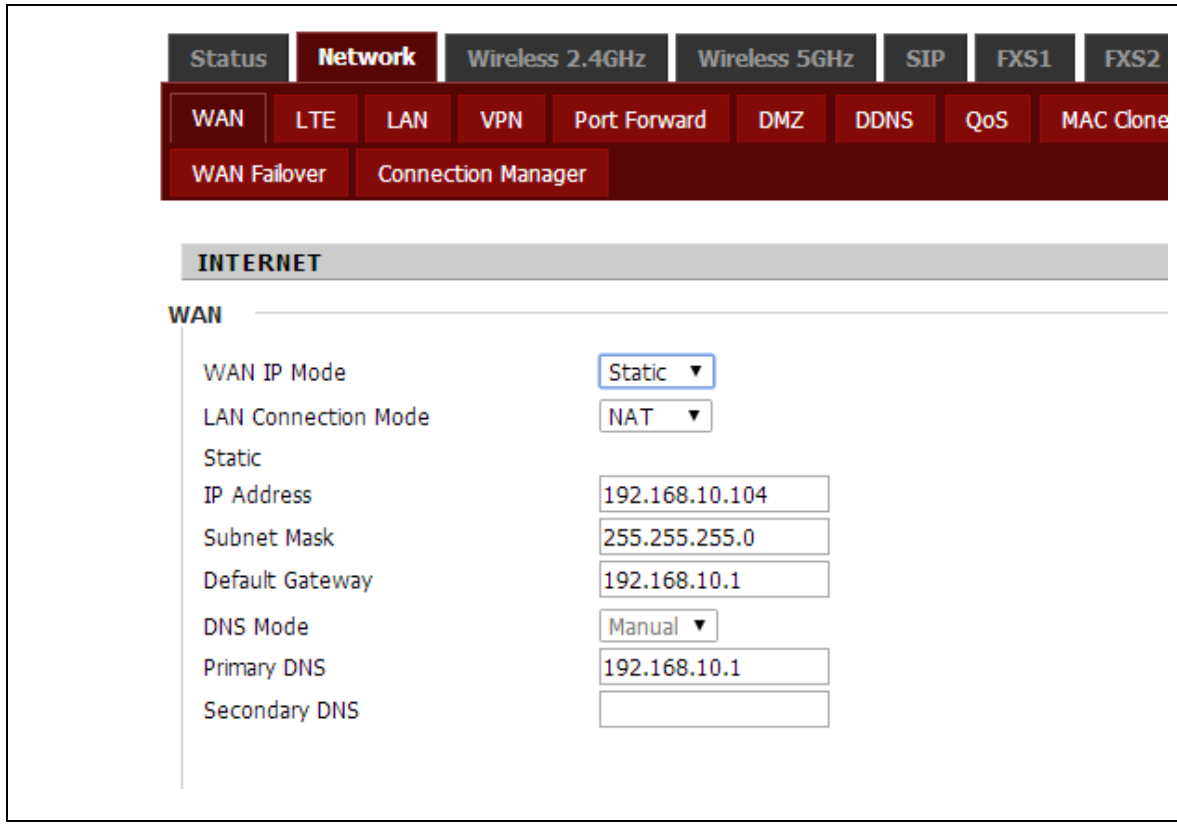
You can configuration the WAN port, LAN port, DDNS, Multi WAN,DMZ, MAC Clone,Port Forward and so on in these two bars.

5.3.1 WAN

This page allows you to set WAN configuration with different modes. Use the Connection Type drop down list to choose one WAN mode and then the corresponding page will be displayed.

Static IP:

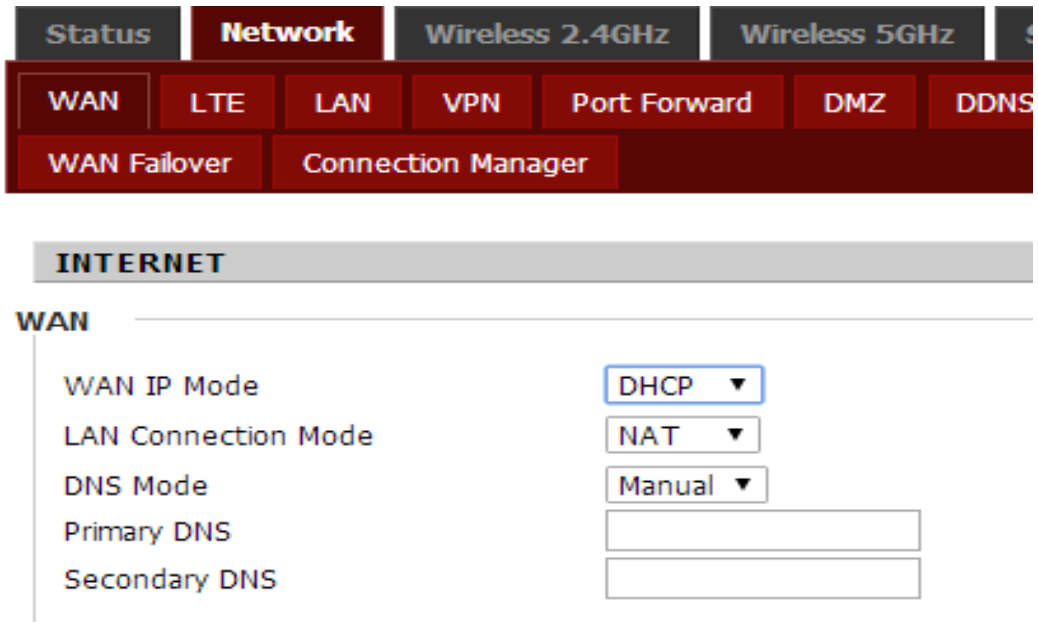
You will receive a fixed public IP address or a public subnet, namely multiple public IP addresses from your DSL or Cable ISP service providers. In most cases, a Cable service provider will offer a fixed public IP, while a DSL service provider will offer a public subnet. If you have a public subnet, you could assign an IP address to the WAN interface.



WAN IP Mode	The mode for obtain IP address
LAN Connection Mode	Select to NAT or Bridge
IP Address	Type the IP address
Subnet Mask	Type the subnet mask
Default Gateway	Type the gateway IP address
DNS Mode	Set the DNS Mode from Auto and Manual
Primary DNS Server	Type in the primary IP address for the route
Secondary DNS Server	Type in secondary IP address for necessity in the future

DHCP:

It is not necessary for you to type any IP address manually. Simply choose this type and the system will obtain the IP address automatically from DHCP server.

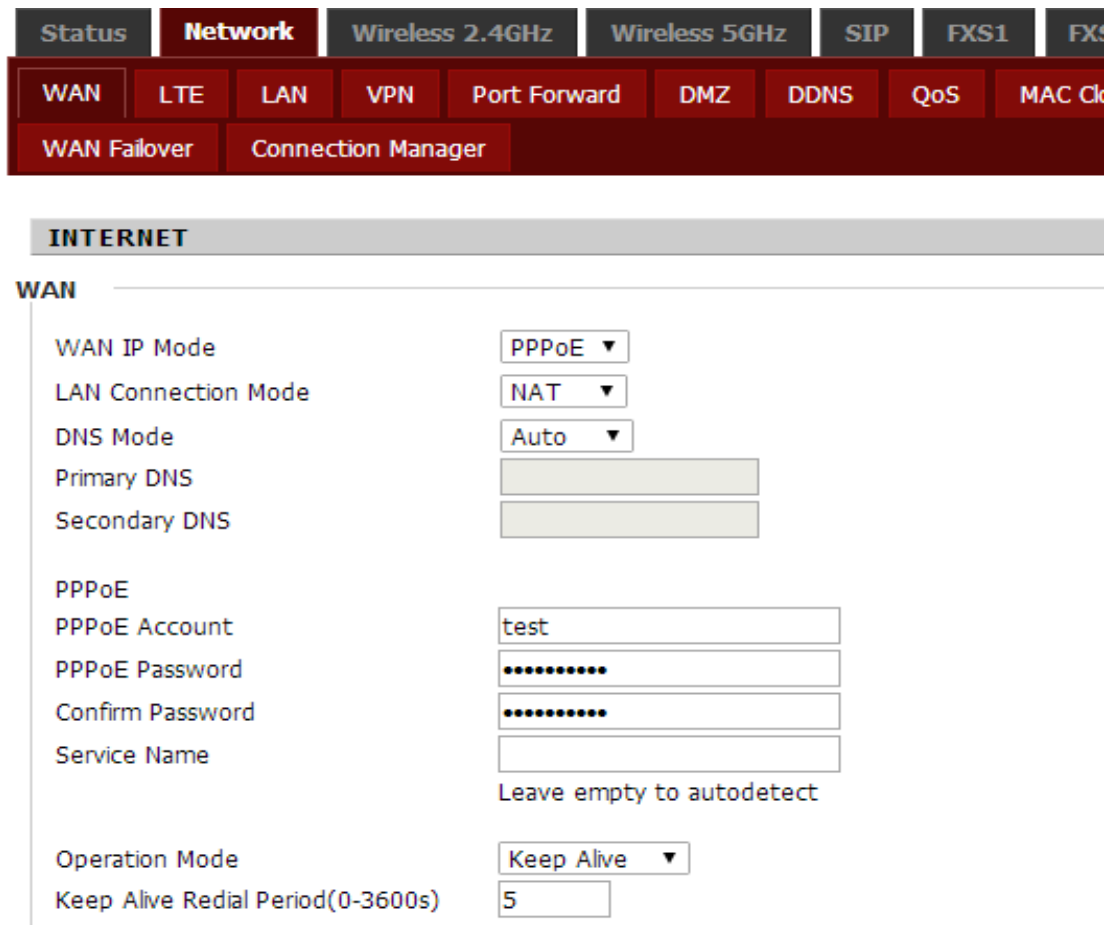


WAN IP Mode	The mode for obtain IP address
LAN Connection Mode	Select to NAT or Bridge
DNS Mode	Set the DNS Mode from Auto and Manual, If user choose manual, you should fill the primary DNS address and Secondary DNS address into Primary DNS Address and Secondary DNS Address.
Primary DNS Server	Type in the primary IP address for the route
Secondary DNS Server	Type in secondary IP address for necessity in the future

PPPoE:

PPPoE stands for **Point-to-Point Protocol over Ethernet**. It relies on two widely accepted standards: PPP and Ethernet. It connects users through an Ethernet to the Internet with a common broadband medium, such as a single DSL line, wireless device or cable modem. All the users over the Ethernet can share a common connection.

PPPoE is used for most of DSL modem users. All local users can share one PPPoE connection for accessing the Internet. Your service provider will provide you information about user name, password, and authentication mode.

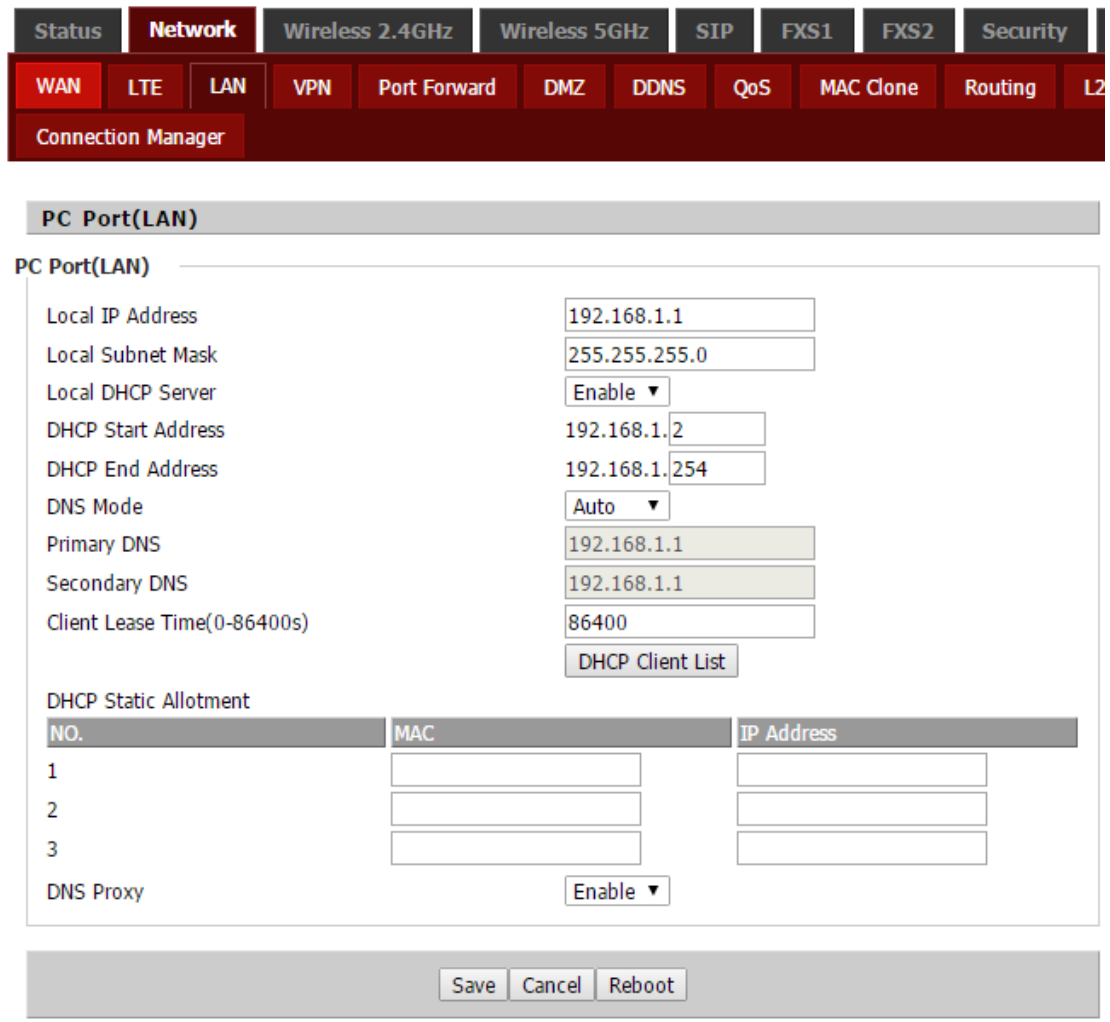


WAN IP Mode	The mode for obtain IP address
LAN Connection Mode	Select to NAT or Bridge
DNS Mode	Set the DNS Mode from Auto and Manual, If user choose manual, you should fill the primary DNS address and Secondary DNS address into Primary DNS Address and Secondary DNS Address.
Primary DNS Server	Type in the primary IP address for the route
Secondary DNS Server	Type in secondary IP address for necessity in the future
PPPoE Account	Assign a specific valid user name provided by the ISP
PPPoE Password	Assign a valid password provided by the ISP
Confirm Password	Input the password again
Service Name	The destination of PPPoE server, Leave empty to auto detect.
Operation Mode	Select to Keep Alive, On Demand or Manual
Keep Alive Redial Period(0-3600s)	The interval time for redialing up

5.3.2 LAN

LAN Port:

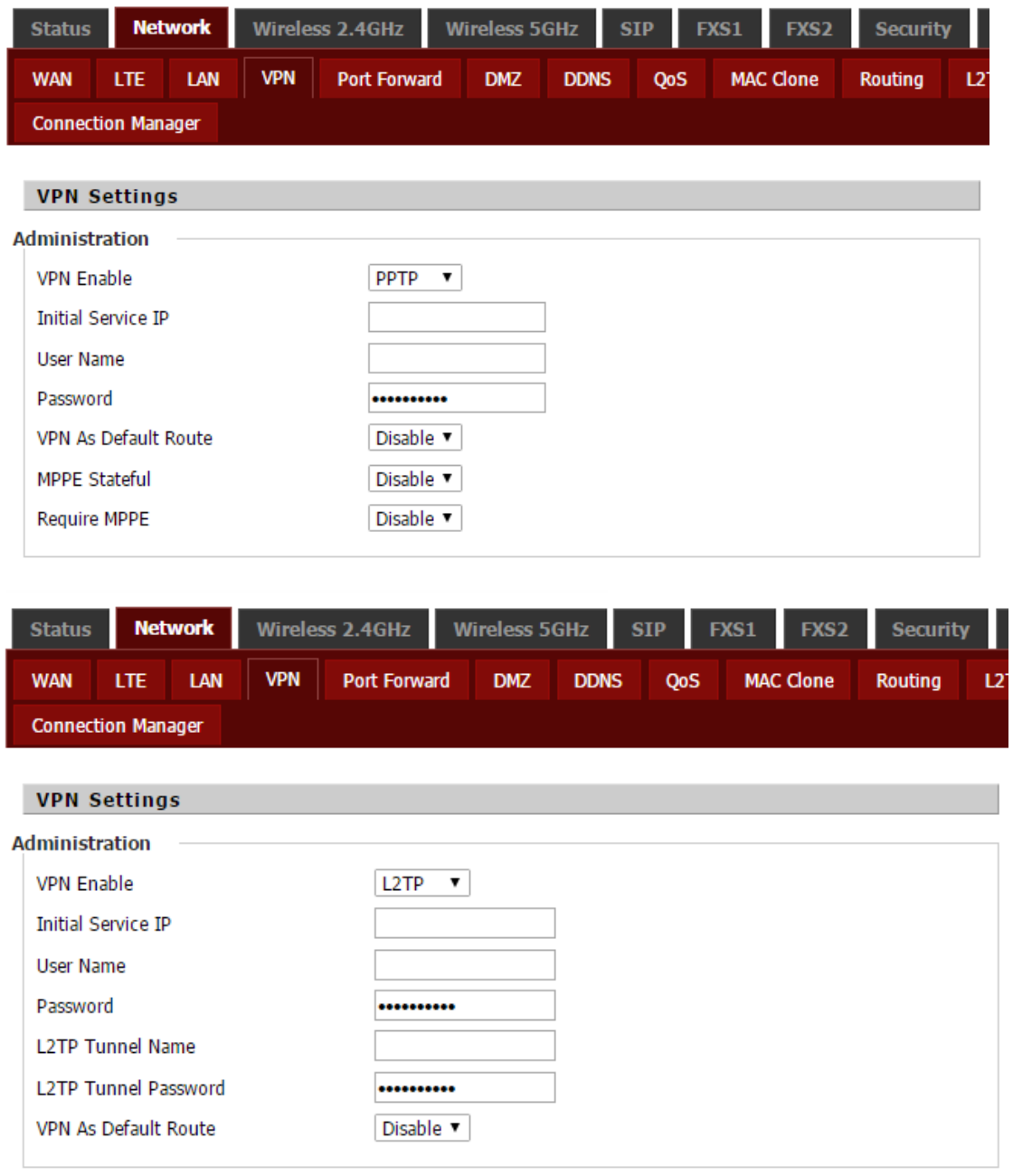
The most generic function of router is NAT. What NAT does is to translate the packets from public IP address to local IP address to forward the right packets to the right host and vice versa.



Local IP Address	Type in local IP address for connecting to a local private network
Local Subnet Mask	Type in an address code that determines the size of the network.
Local DHCP Server	If or not enable DHCP server.
DHCP Starting Address	Enter a value of the IP address pool for the DHCP server to start with when issuing IP addresses.
DHCP Ending Address	Enter a value of the IP address pool for the DHCP server to end with when issuing IP addresses.
DNS Mode	Set the DNS Mode from Auto and Manual.
Primary/Secondary DNS	Input the primary or secondary DNS IP address.
Client Lease Time	It allows you to set the leased time for the specified PC.
DHCP Client List	Check which LAN devices are currently leasing IP addresses.
DHCP Static Allotment	Specify to reserve DHCP addresses.
DNS Proxy	allows clients to use a device as a DNS proxy server

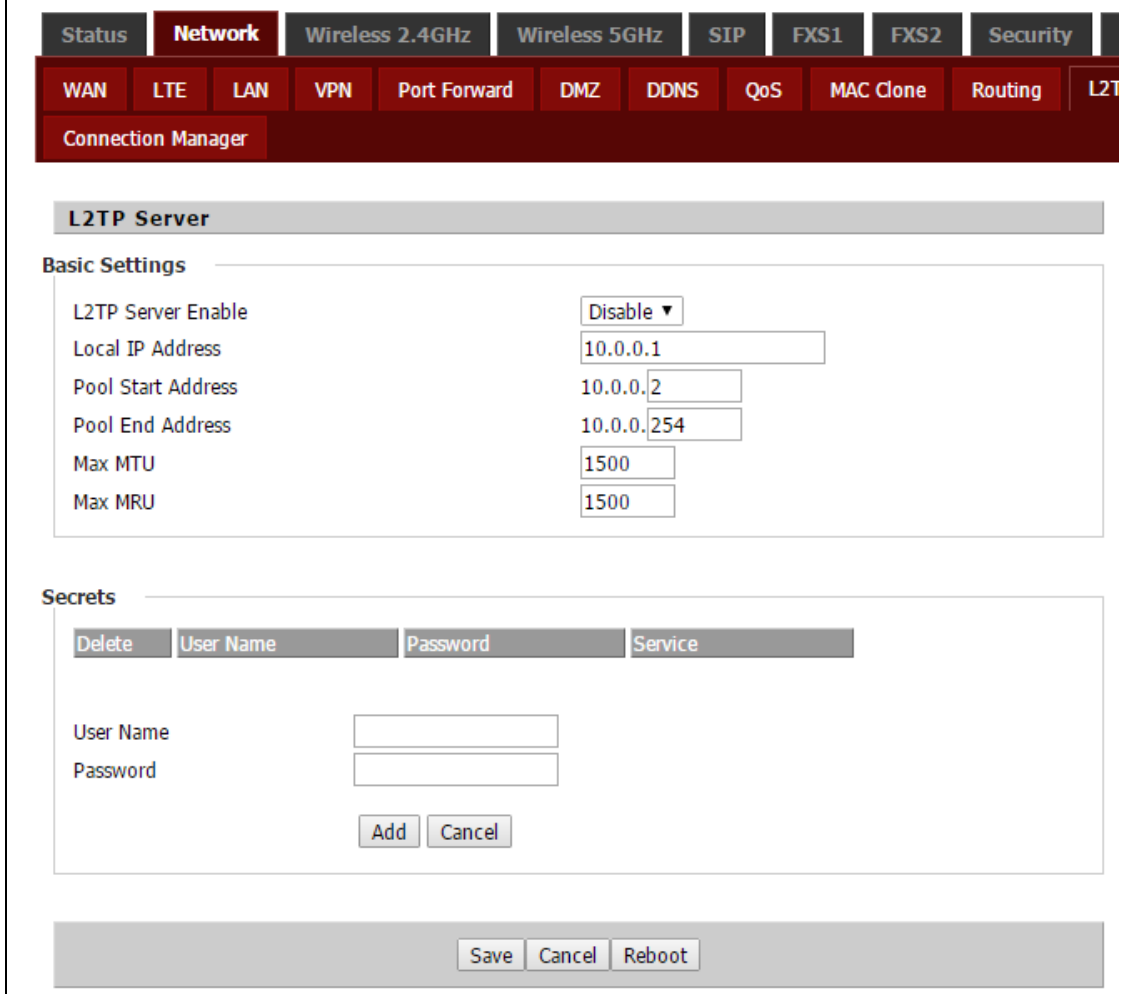
5.3.3 VPN/L2TP

VPDN



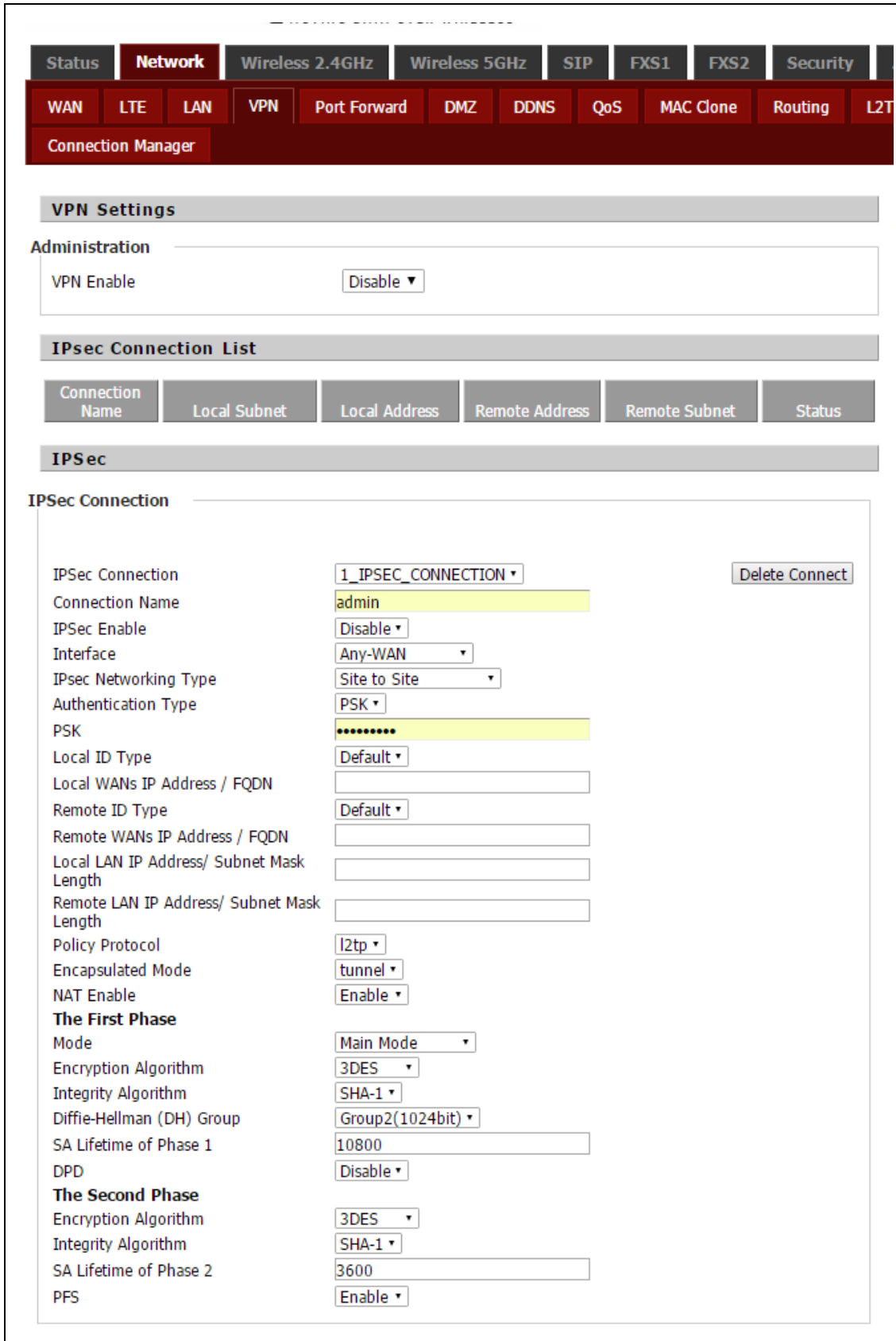
VPN Enable	Enable PPTP or L2TP VPN Client
Initial Service IP	VPN server IP address
User Name	The account for authentication
Password	The password for authentication
VPN As Default Route	The remote virtual IP as default gateway .
MPPE Stateful(PPTP Only)	Stateless encryption provides a lower level of performance, but will be more reliable in a lossy network environment.
Require MPPE(PPTP Only)	enable MPPE (Microsoft Point-to-Point Encryption). It's a protocol for encrypting data across PPP and VPN links.
L2TP Tunnel Name	Enter L2TP Tunnel Name.
L2TP Tunnel Password	Enter L2TP tunnel password in this item.

L2TP Server



L2TP Server Enable	Select to enable L2TP server.
Local IP Address	Set the IP address of L2TP server.
Pool Start Address	Set the IP pool start IP address which will assign to the L2TP clients.
Pool End Address	Set the IP pool end IP address which will assign to the L2TP clients.
Max MTU	Maximum Transmission Unit. It is the identifier of the maximum size of packet, which is possible to transfer in a given environment.
Max MRU	Maximum Receiving Unit. It is the identifier of the maximum size of packet, which is possible to receive in a given environment.
User Name	Set the username which will assign to L2TP client.
Password	Set the password which will assign to L2TP client.

IPsec Connection



IPSec Connection List	The connection status of IPSec VPN
IPSec Connection	Select the specify VPN
Connection Name	The name of this IPSec VPN
IPSec Enable	Select to enable or disable IPSec VPN
Interface	Select the interface for encryption
IPSec Networking Type	The connection type of networking
Authentication Type	The authentication method of IPSec VPN
PSK	The secret of IPSec VPN
Local ID Type	Select the local ID type for IKE negotiation
Local WANs IP Address/FQDN	Local IP address or domain name for IKE negotiation
Remote ID Type	Select the remote ID type for IKE negotiation
Remote WANs IP Address/FQDN	the address of remote side IPSec VPN server
Local LAN IP Address/ Subnet Mask Length	IPSec local protected subnet's address.
Remote LAN IP Address/ Subnet Mask Length	IPSec remote protected subnet's address.
Policy Protocol	The policy protocol for encryption

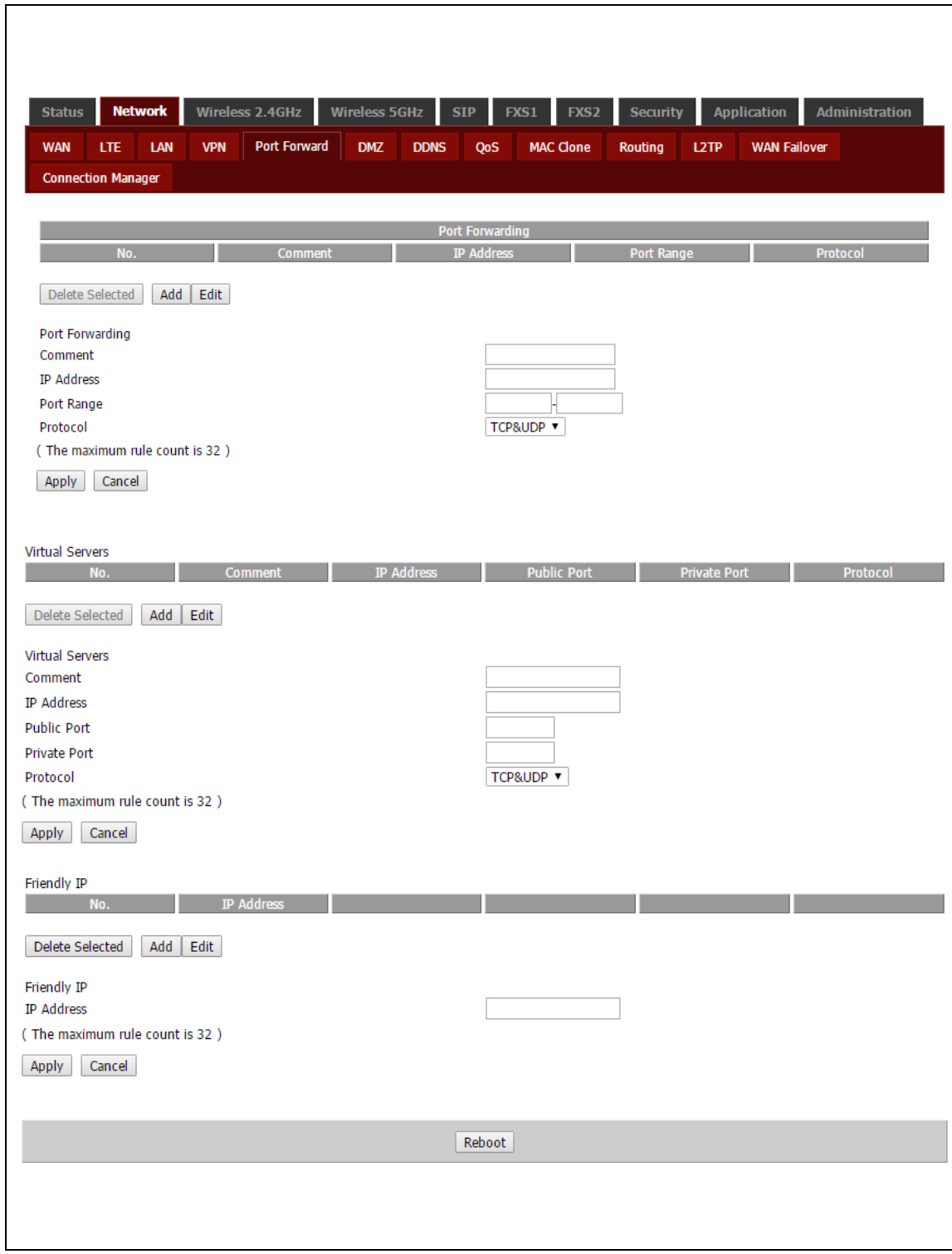
	Encapsulated Mode	Select the security protocols
	NAT Enable	Enable NAT Traversal for IPSec. This item must be enabled when router under NAT environment.
	Mode	Select from “Main” and “aggressive” for the IKE negotiation mode in phase 1.
	Encryption Algorithm	Select Encryption Algorithm to be used in IKE negotiation.
	Integrity Algorithm	Select Integrity Algorithm to be used in IKE negotiation.
	Diffie-Hellman (DH) Group	Select Diffie-Hellman Group to be used in key negotiation phase 1.
	SA Lifetime of Phase 1	Set the lifetime in IKE negotiation.
	DPD Time Interval(s)	Set the interval after which DPD is triggered if no IPSec protected packets is received from the peer.
	DPD Timeout(s)	Set the timeout of DPD packets.
	Encryption Algorithm	Select Encryption Algorithm to be used in IPSec SA negotiation.
	Integrity Algorithm	Select Integrity Algorithm to be used in IPSec SA negotiation.
	SA Lifetime of Phase 2	Set the lifetime in IPSec SA negotiation
	PFS	Enable or disable PFS. (Perfect Forward Secrecy)PFS will ensure the same key will not be generated again

5.3.4 DMZ/Port Forward

DMZ

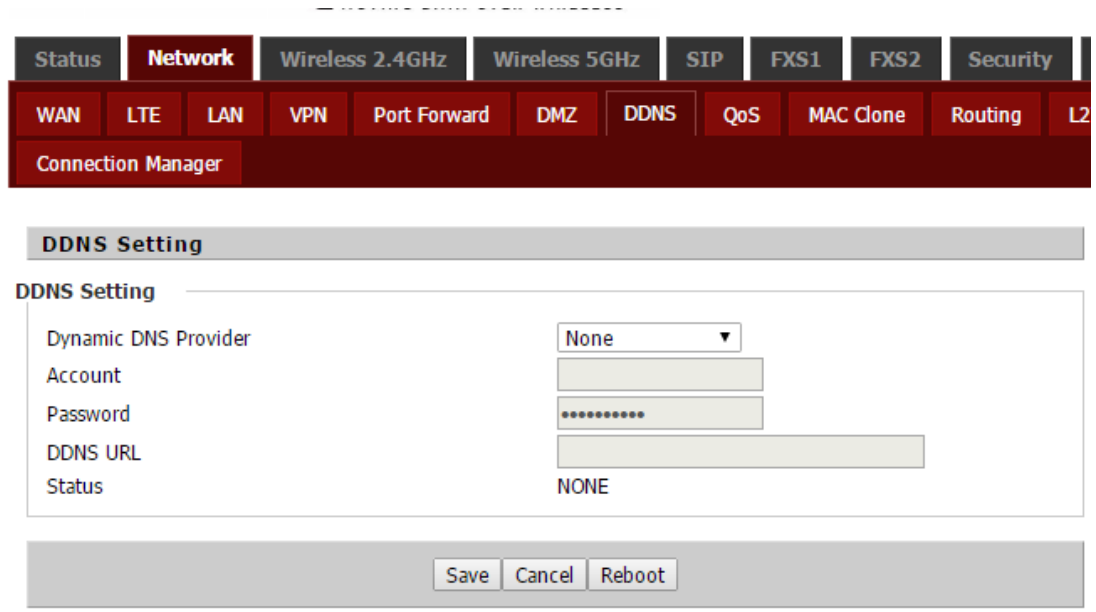
DMZ Enable	If or not enable DMZ.
DMZ Host IP Address	Enter the private IP address of the DMZ host
Get Current PC IP	Get the current PC's IP address automatically, this IP address would be used as DMZ host.

Port Forward



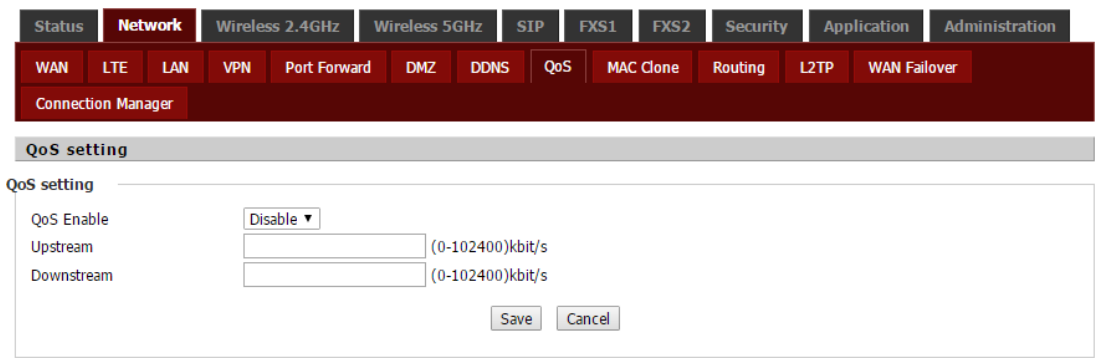
Port Forwarding	
Comment	Assign a meaningful name for port forwarding.
IP Address	The IP address in LAN side
Port Range	The port range for LAN host, from 1 to 65535
Protocol	Select from “TCP”, “UDP” or “TCP&UDP”
Virtual Servers	
Comment	Assign a meaningful name to the virtual server.
IP Address	The IP address of the system on your internal network that will provide the virtual service.
Public Port	The port that will be accessed from the Internet.
Private Port	The port that will be used on your internal network.
Protocol	Select from “TCP”, “UDP” or “TCP&UDP”
Friendly IP	The IP address allow to access from WAN side.
IP Address	The IP address of friendly IP

5.3.5 DDNS

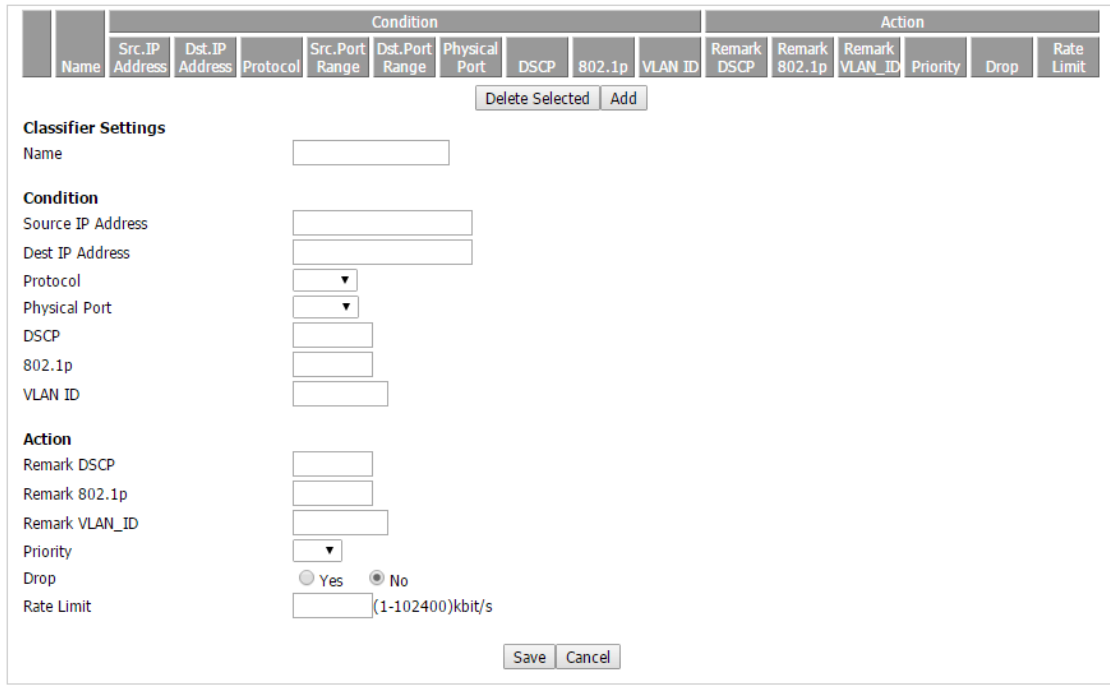


Dynamic DNS Provider	Select the DDNS service which you have established an account with.
Account	Enter account that DDNS server provided.
Password	Enter password that DDNS server provided.
DDNS URL	Enter the DDNS Domain name or IP address.
Status	Show current status of DDNS

5.3.6 QoS



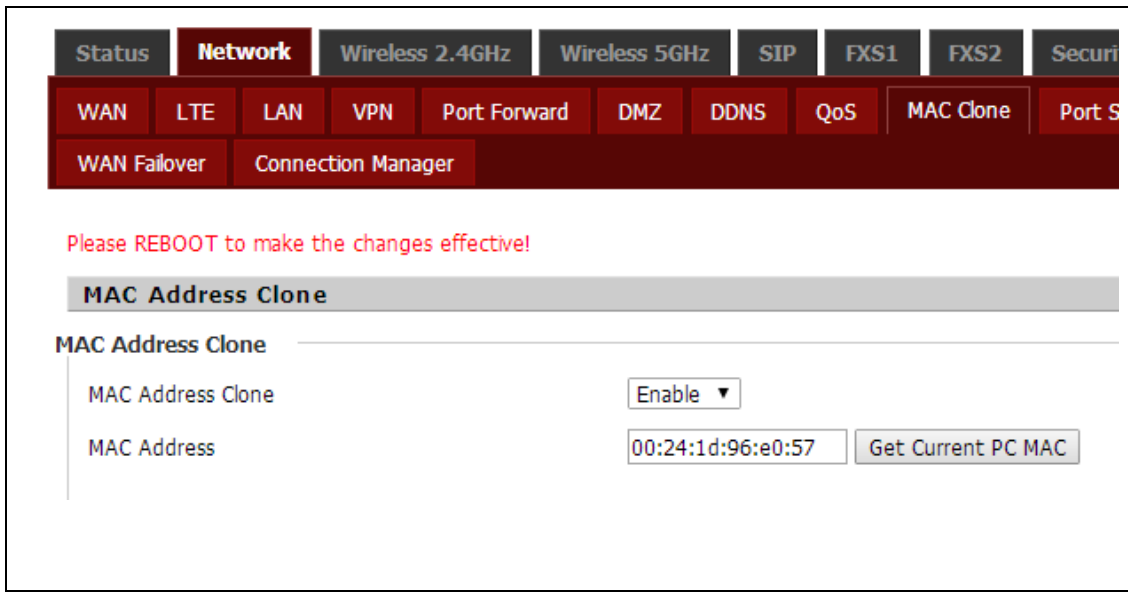
QoS Enable	Select to enable QoS function
Upstream	Prescribe uplink speed of router.
Downstream	Prescribe downlink speed of router.
Name	Set server name of the service that you want to set it with QoS Control.
Source IP Address	Enter source IP address of the user (for example, PC) who you want to set it with QoS Control.
Destination IP Address	Enter destination IP address of the user (for example, PC) who you want to set it with QoS Control.
Protocol	Select from TCP /UDP /ICMP



Src.Port Range	Source port range of the service that you want to set it with QoS Control.
Dst.Port Range	Destination port number of the service that you want to set it with QoS Control.
Physical Port	Select from WAN/LAN
DSCP	set the Differentiated Services Code Point (DSCP) values in Quality of Service (QoS)
802.1p	802.1p is an IEEE standard that describes mechanisms to prioritize traffic and perform dynamic multicast filtering.
VLAN ID	When configuring a VLAN tag-based QoS policy map, the router applies the policy to one Ethernet port and only to the VLANs on that particular port.
Remark DSCP	Remark DSCP Tag
Remark 802.1p	Remark 802.1p Tag
Remark VLAN_ID	Remark VLAN_ID Tag
Priority	Select from voice (VO), video (VI), best effort (BE), and background (BK)
Drop	Select to Drop or not drop the packet
Rate Limit	Limit the speed of this rule

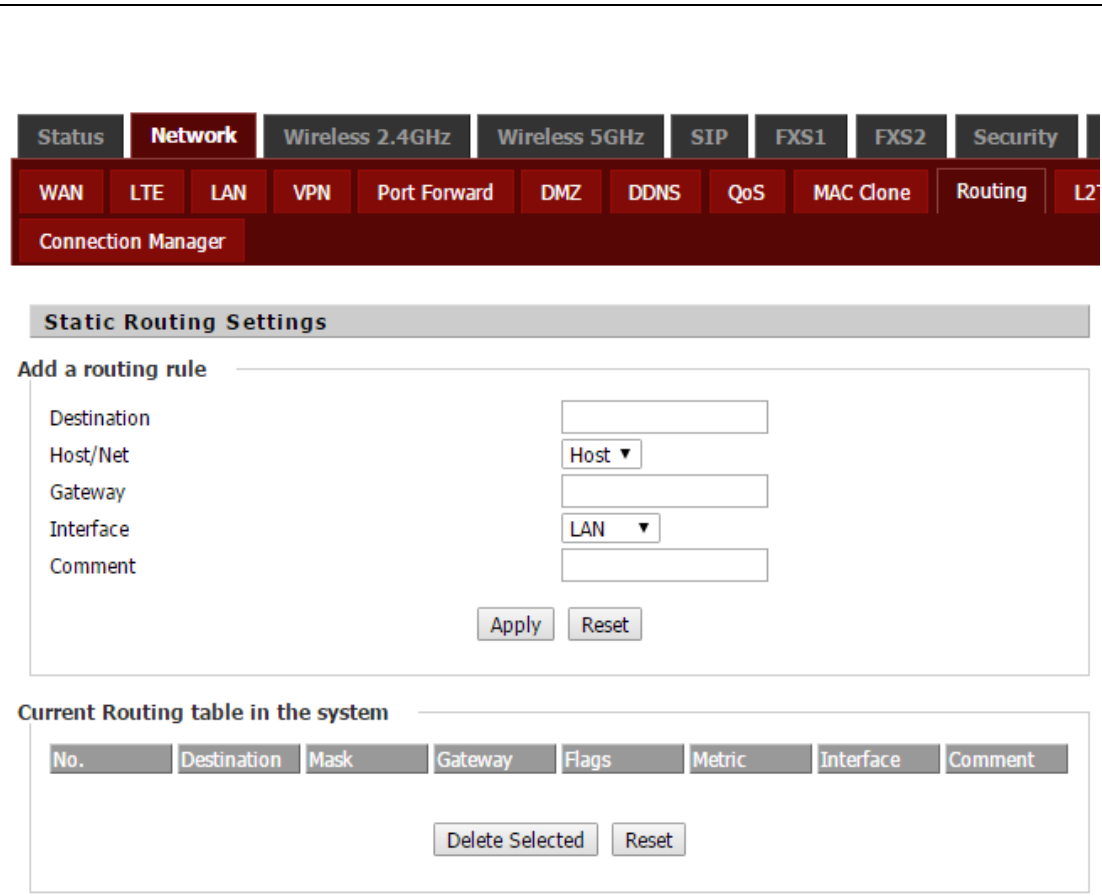
5.3.7 MAC Clone

Some ISPs will require you to register your MAC address. If you do not wish to re-register your MAC address, you can have the router clone the MAC address that is registered with your ISP. To use the Clone Address button, the computer viewing the Web-base utility screen will have the MAC address automatically entered in the Clone WAN MAC field.



MAC Address Clone	Select to enable or disable
MAC Address	The MAC address for clone
Get Current PC MAC	clone the currently PC MAC address to router's Internet port automatically

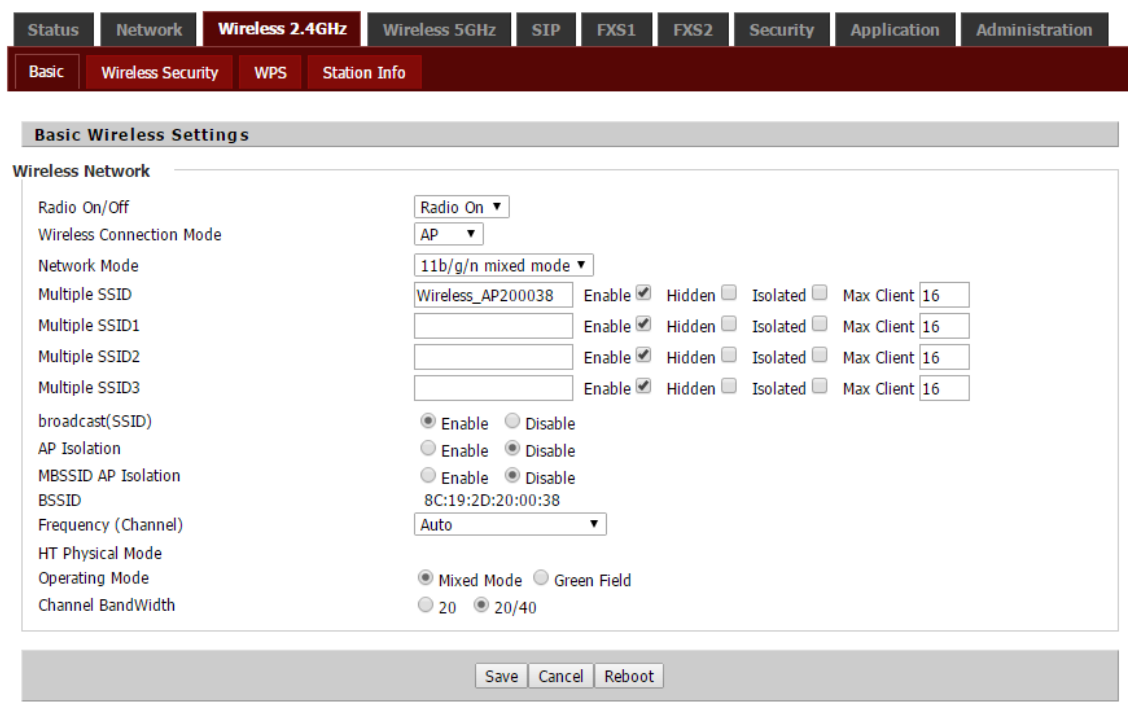
5.3.8 Routing



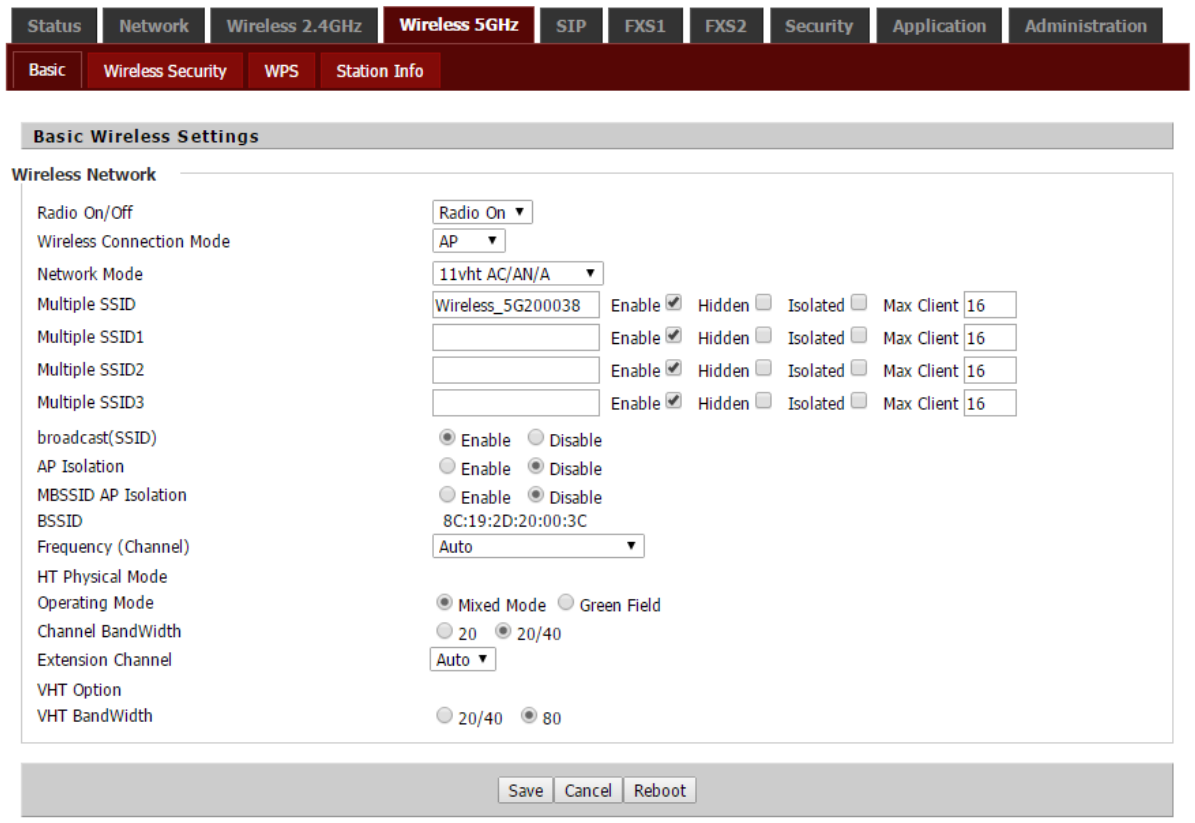
Destination	The IP address of packets that will take this route.
Host/Net	Select the Host or Networking
Gateway	Specifies the next hop to be taken if this route is used.
Interface	Specifies the interface LAN/ INTERNET/ VOICE/ TR069/ VPN
Comment	Set comment of this routing.

5.4 Wireless

5.4.1 Basic



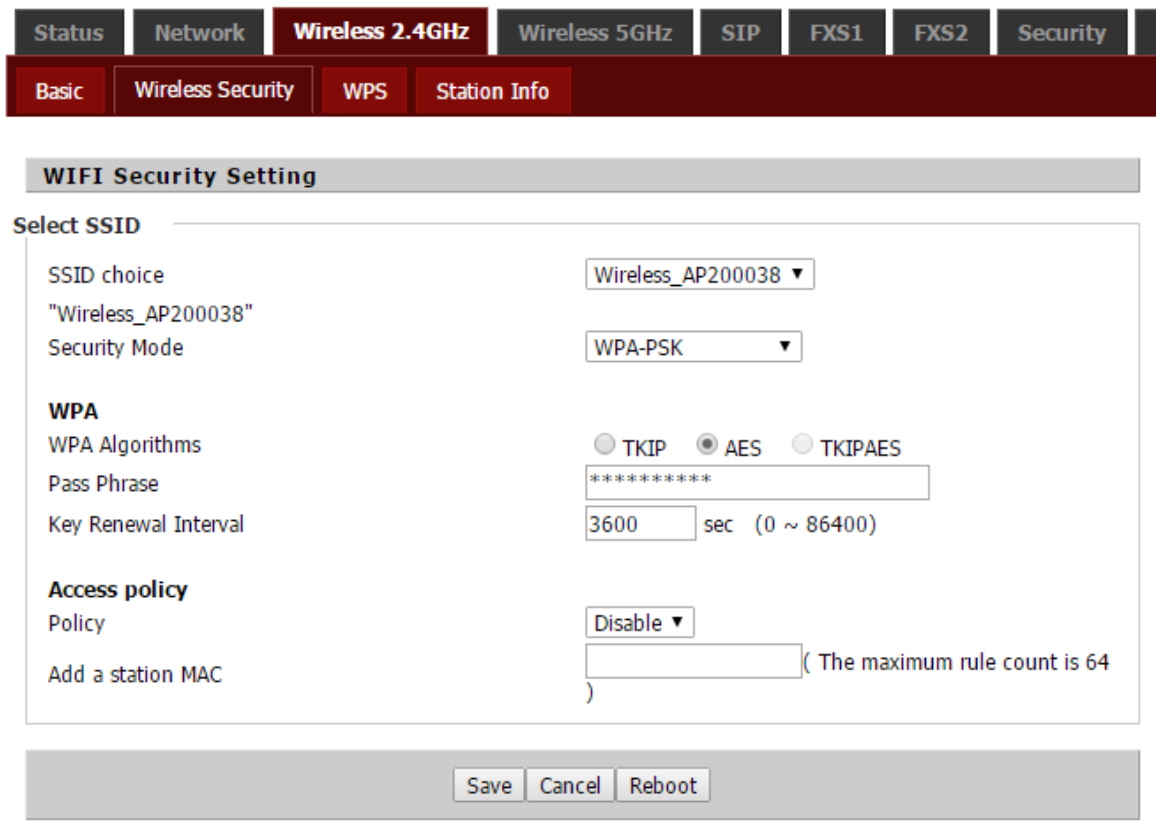
Radio On/Off	Select to enable or disable wireless.
Wireless Connection Mode	Select to AP or Client. WiFi Client would be option for Active WAN.
Network Mode	Choose one network mode from the drop down list.
Multiple SSSD	Set more wireless network.
Broadcast(SSID)	Broadcast or hide the SSID
AP Isolation	Prevents one wireless client communicating with another wireless client.
MBSSID AP Isolation	Other clients outside the AP can not access the clients under this AP
BSSID	A group of wireless workstations and a wireless local area network access point (AP) form a basic access device (BSS), each computer in the BSS must be configured with the same BSSID.
Frequency	Choose channel frequency.
HT Physical Mode	In HT (High Throughput) Physical mode setting allow for control of the 802.11n wireless environment.

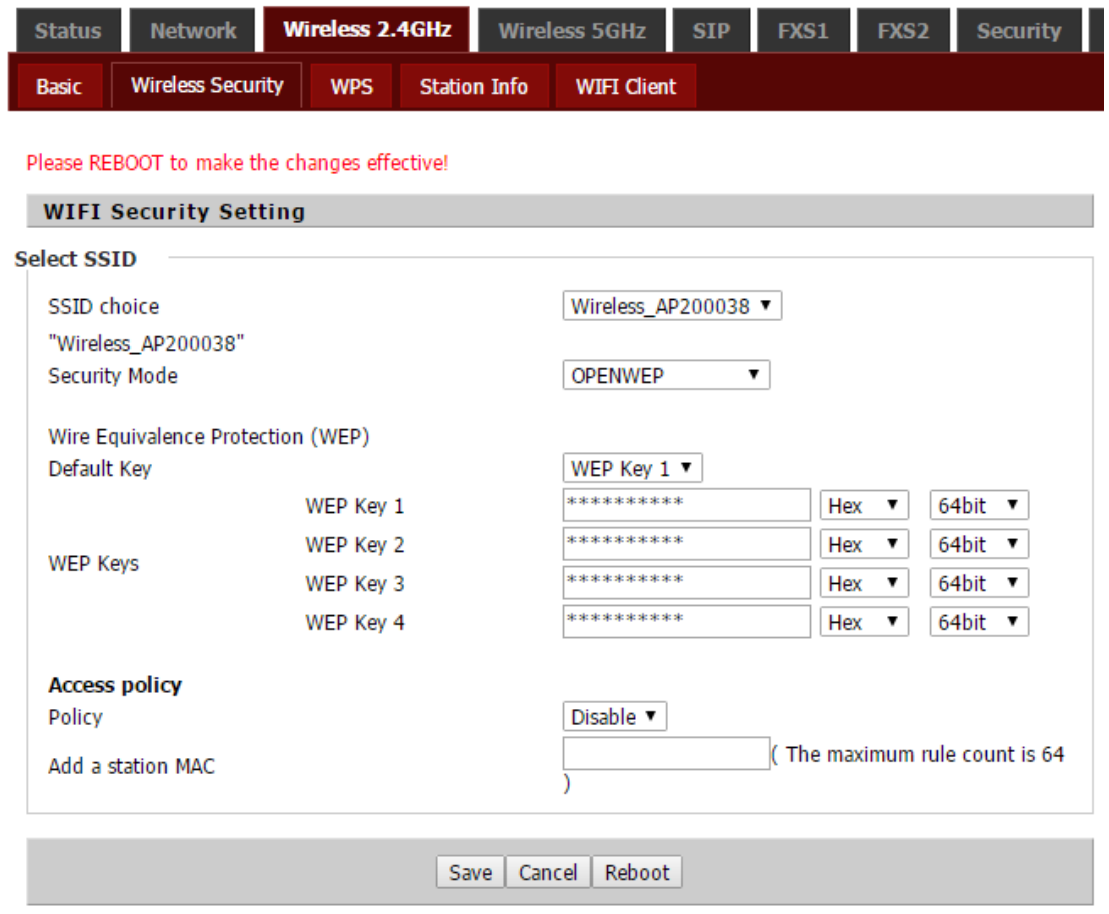


Operating Mode	Mixed Mode: In this mode packets are transmitted with a preamble compatible with the legacy 802.11a/g, the rest of the packet has a new format. Green Field: In this mode high throughput packets are transmitted without a legacy compatible part.
Channel Bandwidth	20 Channel Width = 20 MHz 20/40 Channel Width = 20/40 MHz
Extension Channel(5GHz Only)	Auto to choose extension channel frequency.
VHT Option(5GHz Only)	With IEEE 802.11ac standard, very-high-throughput can be configured to operate on the 5 GHz frequency band.
VHT Bandwidth(5GHz Only)	20/40 Channel Width = 20/40 MHz 80 Channel Width = 80 MHz

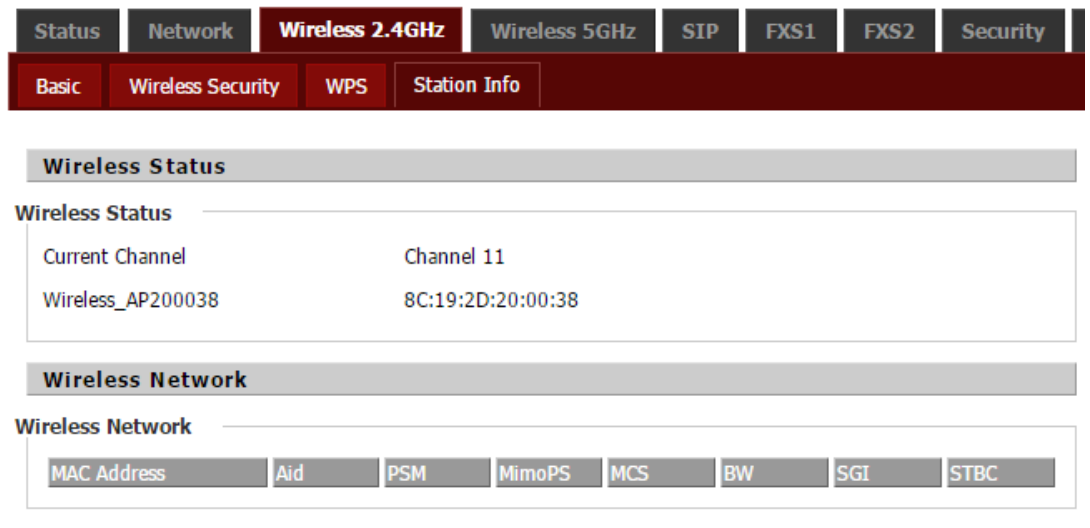
5.4.2 Security

Open **2.4G (5G)/Security** webpage to set the encryption of routers.

<table>
<tr>
<td>WAP-PSK/WAP2-PSK/WAPPSKWAP2PSK
 
</td>
<td>SSID Choice</td>
<td>Choose one SSID from Off-premises 1, off-premises 2 and Premises.</td>
</tr>
<tr>
<td></td>
<td>Security Mode</td>
<td>Unless one of these encryption modes is selected, wireless transmissions to and from your wireless network can be easily intercepted and interpreted by unauthorized users.</td>
</tr>
<tr>
<td></td>
<td>WPA Algorithms</td>
<td>TKIP (Temporal Key Integrity Protocol) provides per-packet key generation and is based on WEP.
AES (Advanced Encryption Standard) is a very secure block based encryption. With the "TKIP and AES" option, the router negotiates the cipher type with the client, and uses AES when available.</td>
</tr>
<tr>
<td></td>
<td>Pass Phrase</td>
<td>Security password</td>
</tr>
<tr>
<td></td>
<td>Key Renewal Interval</td>
<td>The amount of time before the group key used for broadcast and multicast data is changed.</td>
</tr>
<tr>
<td></td>
<td>Default Key</td>
<td>Select one of the four WEP keys, the key settings on the client network</td>
</tr>
</table>

OPENWEP  		card also need to correspond to this.
	WEP Keys	Set the WEP key. Select 64-bit key to enter Hex is 10 characters, or ASCII code is 5characters; select 128-bit keys need to enter Hex is 26 characters, or ASCII is 13characters.
	Policy	Select from Disable/Allow/Reject
	Add a station MAC	Use this section to add MAC addresses to the list below.

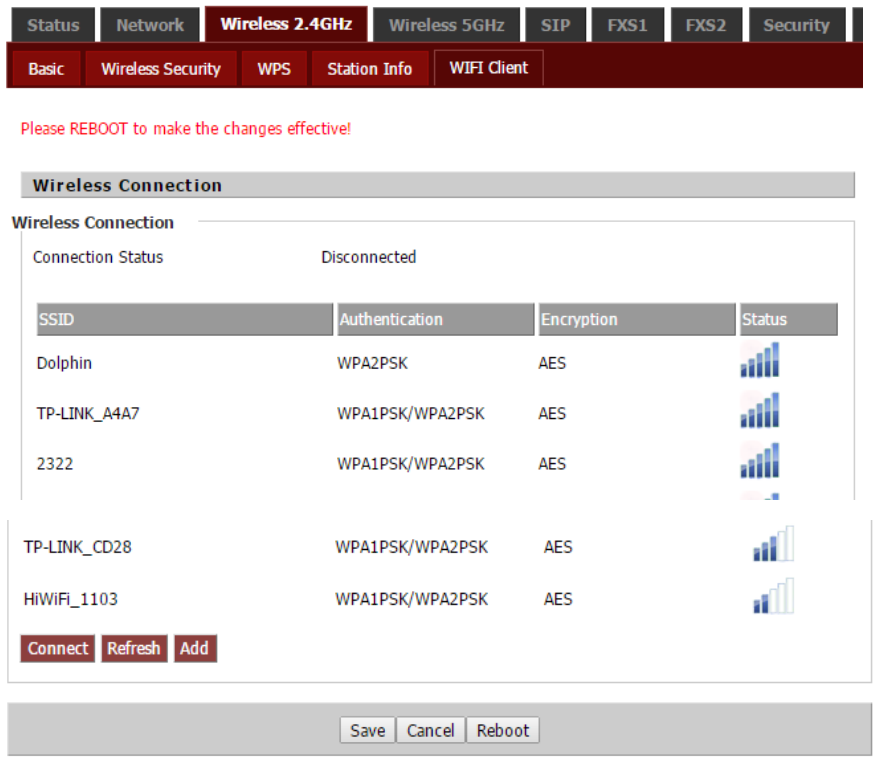
5.4.3 Station list



You could monitor stations which associated to this AP here.

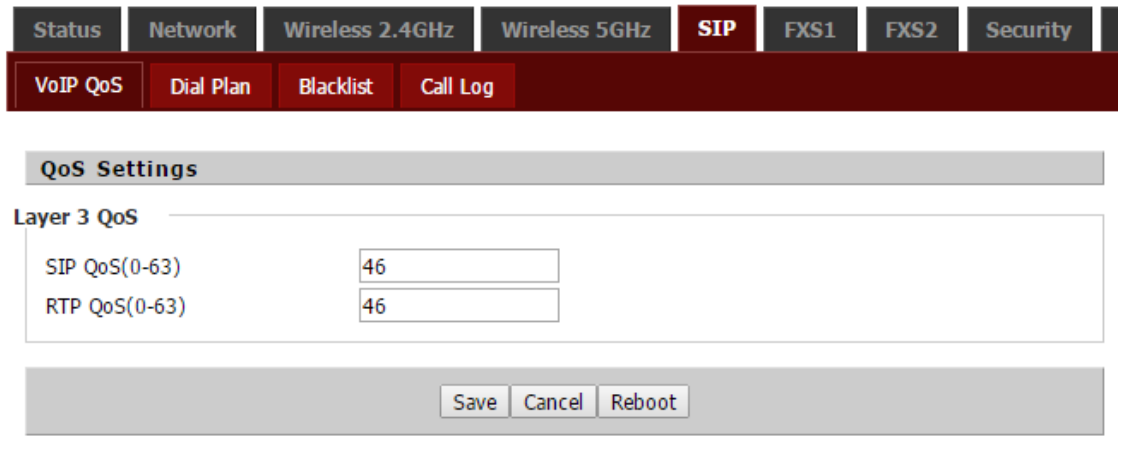
5.4.4 Client

Enable WiFi Client would be one option for WAN Failover, select as the default route.



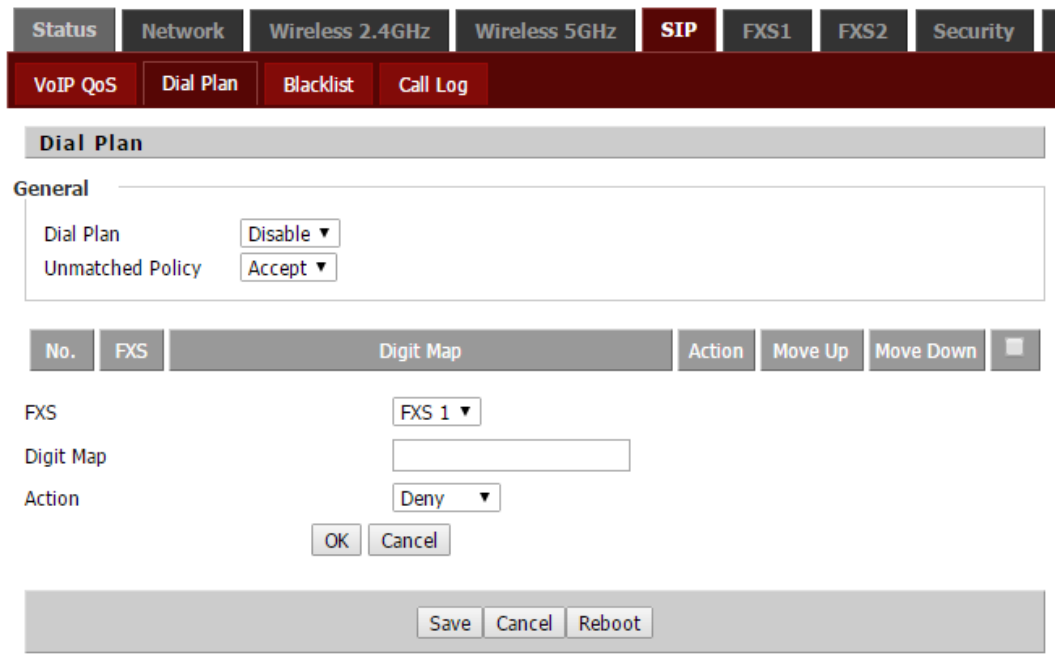
Connection Status	Current WiFi Client connect status
Connect	Select one SSID and press the button, enter the password for the SSID.
Refresh	Refresh the SSID scan result
Add	Add one new/hidden SSID manually

5.4.5 VoIP QoS



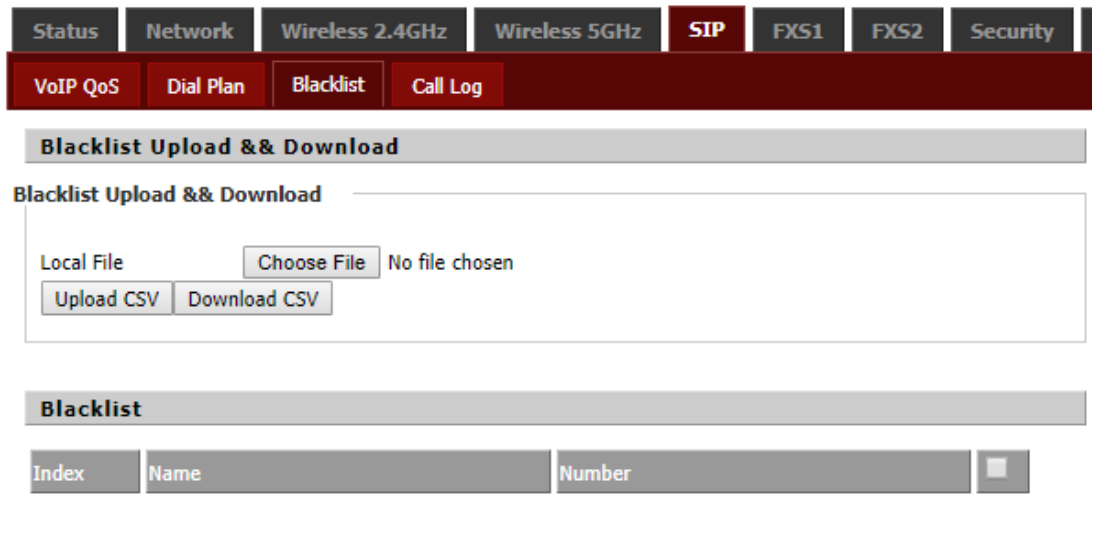
SIP QoS(0-63)	QoS services can improve the quality of voice applications. The default value is 46, and the range of values can be set from 0 to 63.
RTP QoS(0-63)	Once Multi-WAN port is enabled, select the corresponding voice PPPoE server VID, the devices under the same VLAN can transmit voice data.

5.4.6 Dial Plan



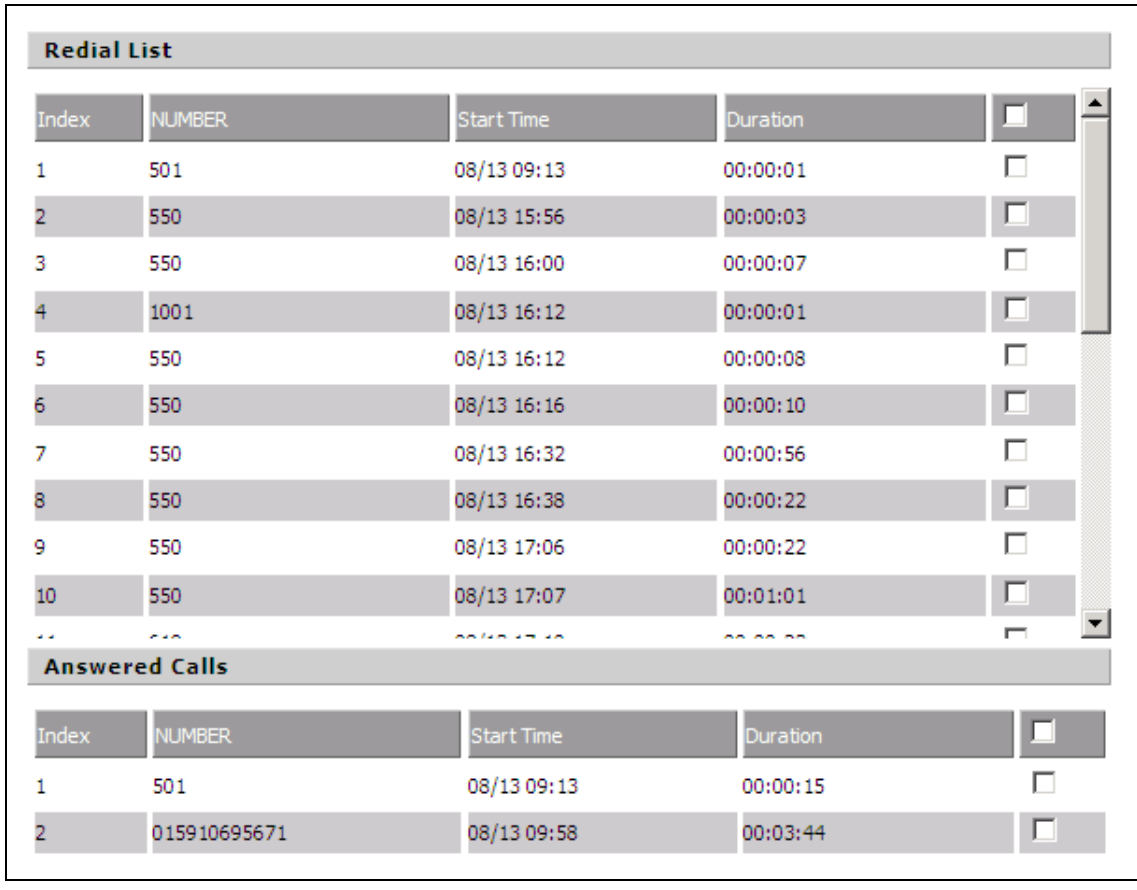
Dial Plan	Select to enable or disable
Unmatched Policy	Select from Accept or Reject
FXS	Select the FXS port
Digital Map	Fill in the expression of digital map, please refer to the digital map syntax.
Action	Select the match action of the digital map, Deny means the device will reject the matching number dialing, and Dial Out means the device can dial out the matching number

5.4.7 Blacklist



You can upload or download the phone book, blacklist.

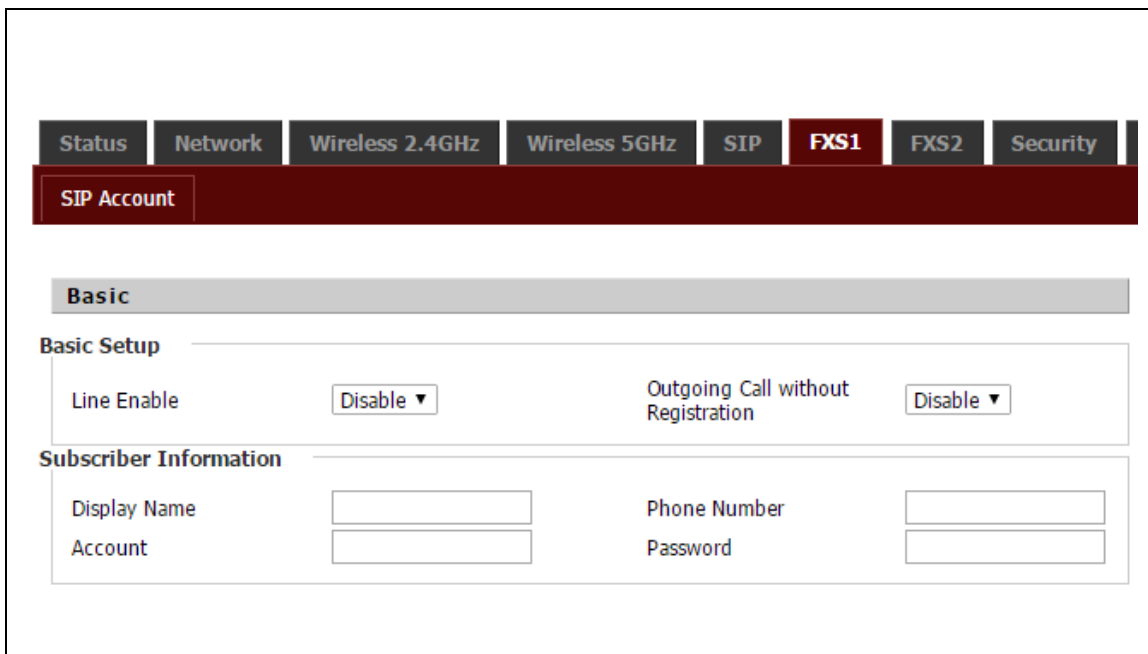
5.4.8 Call Log



On this page, users can view replay lists (outgoing calls), received calls, and missed calls.

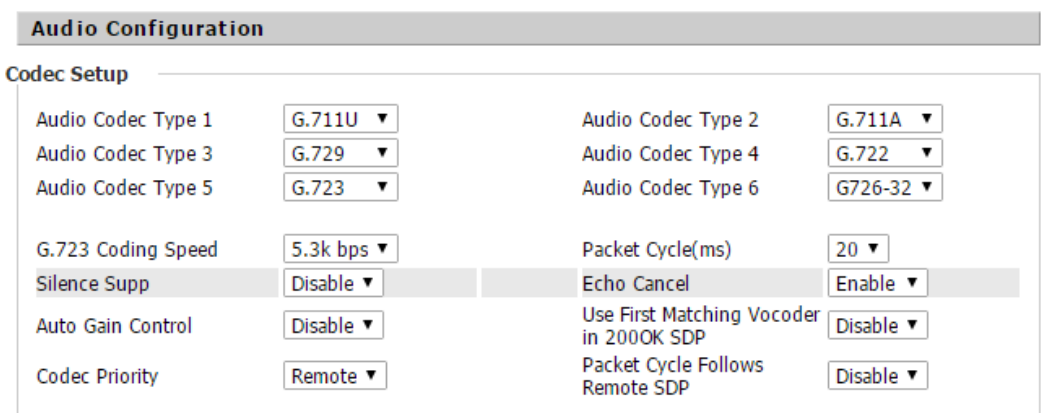
5.5 SIP Account

5.5.1 FXS1/2 SIP Account

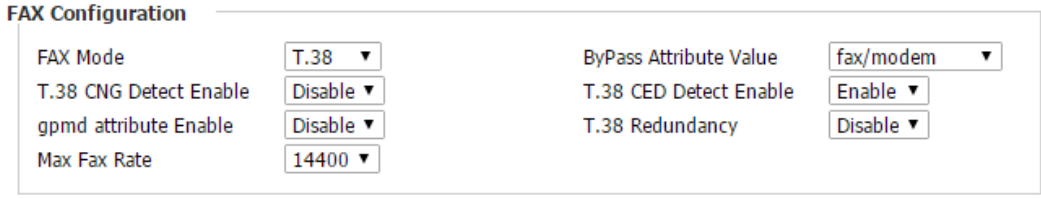


Line Enable	Select to enable or disable Line
Outgoing Call without Registration	Select to enable or disable this function
Display Name	The display name of this SIP number
Phone Number	The phone number provided by SIP server
Account	The account provided by SIP server for authentication
Password	The password provided by SIP server for authentication

5.5.2 FXS1/2 Audio Configuration

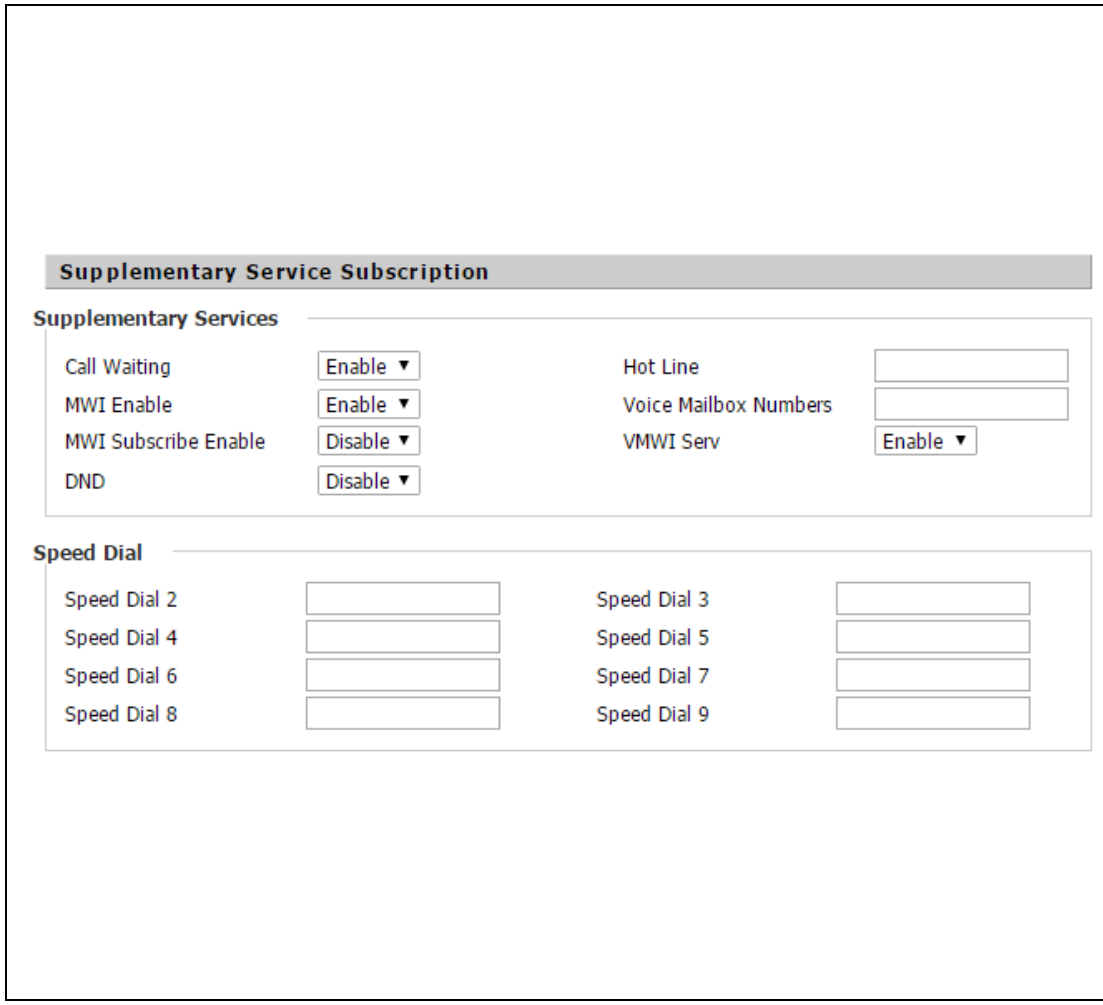


Audio Codec Type	Select the appropriate encoding
G.723 Coding Speed	Select from 5.3kbps or 6.3kbps
Packet Cycle(ms)	Set the RTP packetization period. The default configuration is 20ms
Silence Supp	Mute enable
Echo Cancel	Echo Cancellation is enabled by default
Auto Gain Control	Used to automatically adjust the speech level of an audio signal to a predetermined value.
Use First Matching	Select to enable or disable



Vocoder in 200OK SDP	
Codec Priority	Select from local or remote
Packet Cycle Follows Remote SDP	Select to enable or disable
FAX Mode	Select from T.30/ T.38/ ByPass
Bypass Attribute Value	Select from fax/modem or X-fax/X-modem
T.38 CNG Detect Enable	Select to enable or disable
T.38 CED Detect Enable	Select to enable or disable
gpmd attribute Enable	Select to enable or disable
T.38 Redundancy	Select to enable or disable
Max Fax Rate	Select from 14400/ 9600/ 4800

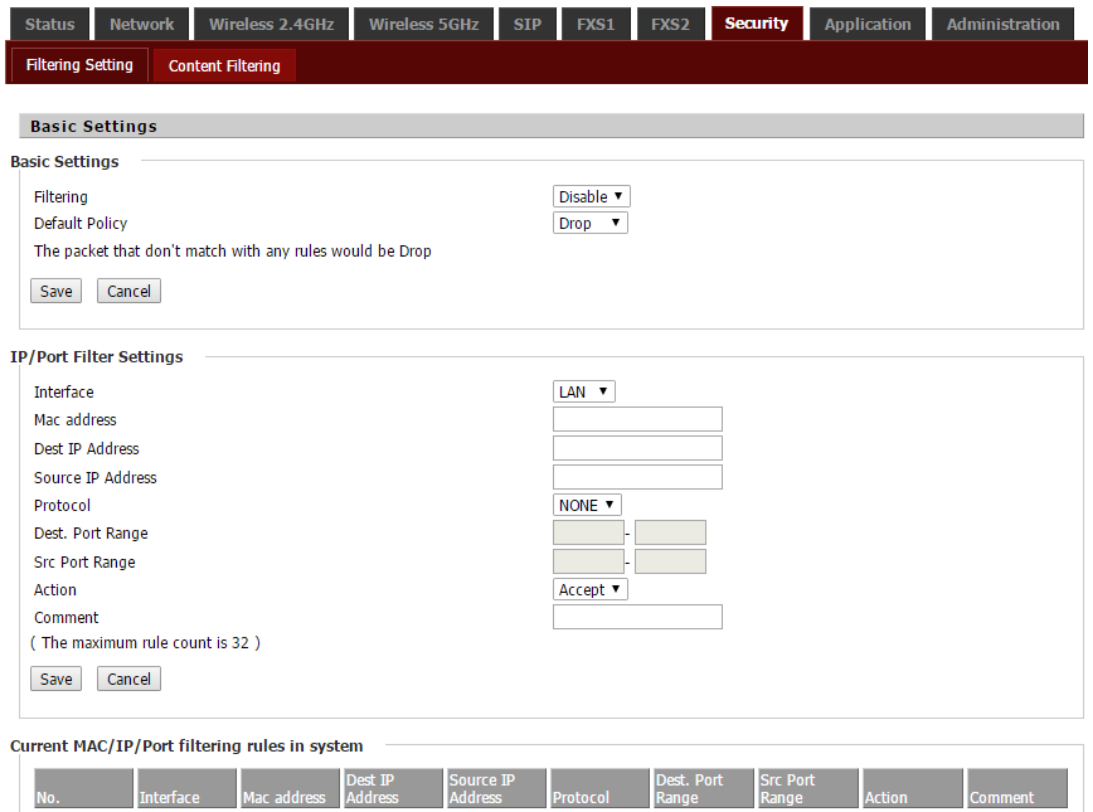
5.5.3 FXS1/2 Supplementary Service Subscription



Call Waiting	Select to enable or disable
Hot Line	Fill in the hotline number. After the subscriber is set up successfully, the hotline number will be automatically dialed immediately after off-hook
MWI Enable	Enable WMI (Message Waiting Indication), enable this function if you want to use voicemail
Voice Mailbox Numbers	Fill in the voicemail code provided by your ISP
MWI Subscribe Enable	Select to enable or disable
VMWI Serv	Select to enable or disable
DND	After enabling this option, any phone call can not be dialed in, default is disable.
Speed Dial	Pre-set the phone number for Fast call

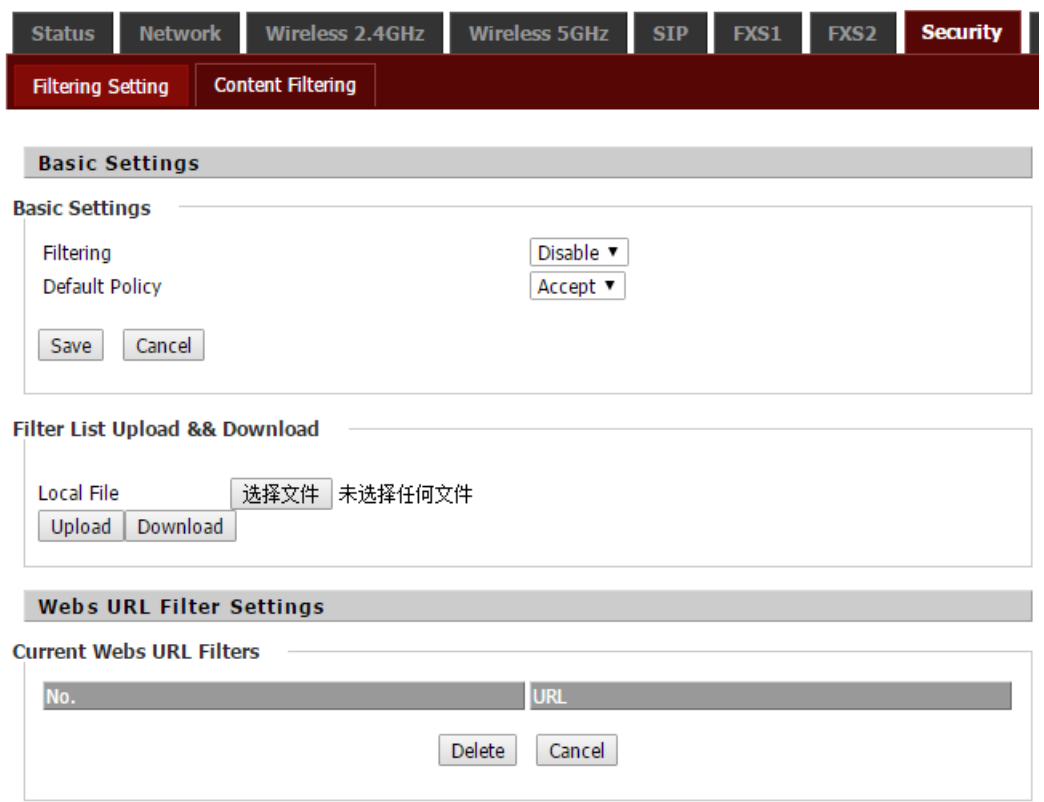
5.6 Security

5.6.1 Filtering Setting

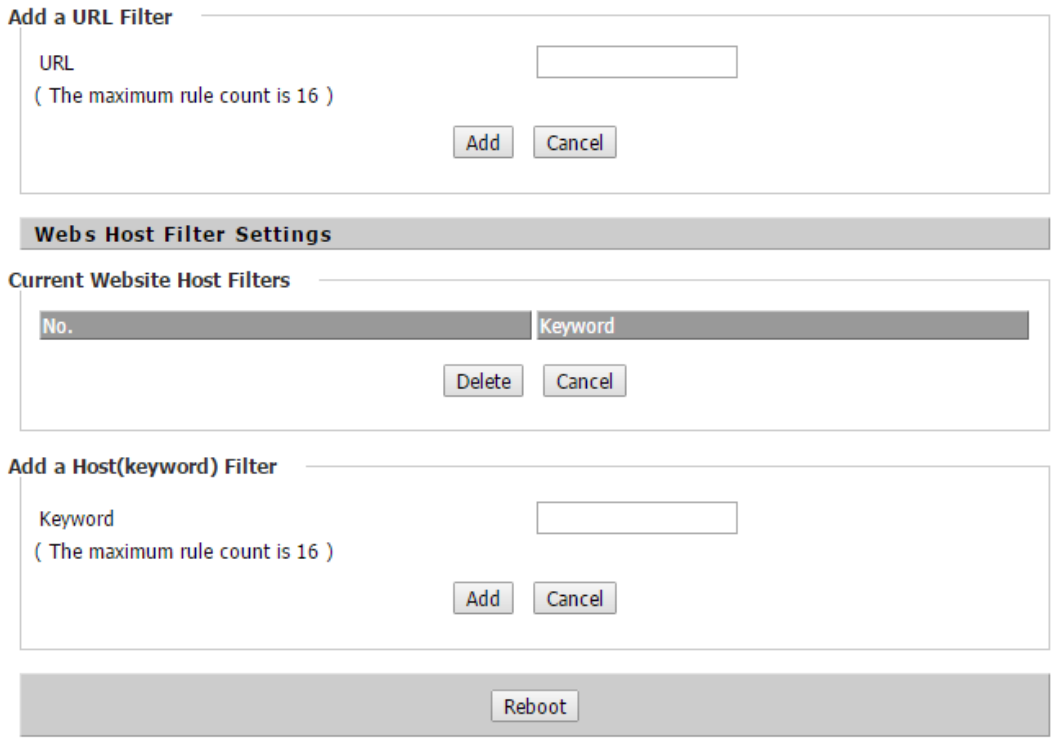


Filtering	Select to enable or disable
Default Policy	Select from Drop or Accept
Interface	Select from LAN or WAN
Mac address	Fill MAC address for Filtering control
Destination IP Address	Fill Destination IP address for Filtering control
Source IP Address	Fill source IP address for Filtering control
Protocol	Select from TCP/ UDP /ICMP
Dest. Port Range	Fill Destination port range for Filtering control
Src Port Range	Fill source port range for Filtering control
Action	Select from Accept or Drop
Comment	Fill the comment for this filtering rule

5.6.2 Content Filtering



Filtering	Select to enable or disable
Default Policy	Select from Drop or Accept
Local File	Select the local file for upload
Current Webs URL Filters	Existing URL filtering rules (blacklist)
Add a URL Filter	Add a URL filtering rule
URL	Fill the URL for webs filtering
Current Website Host Filters	Existing keywords (blacklist)
Add a Host(keyword) Filter	Add a keyword rule
Keyword	Fill the keyword for filtering

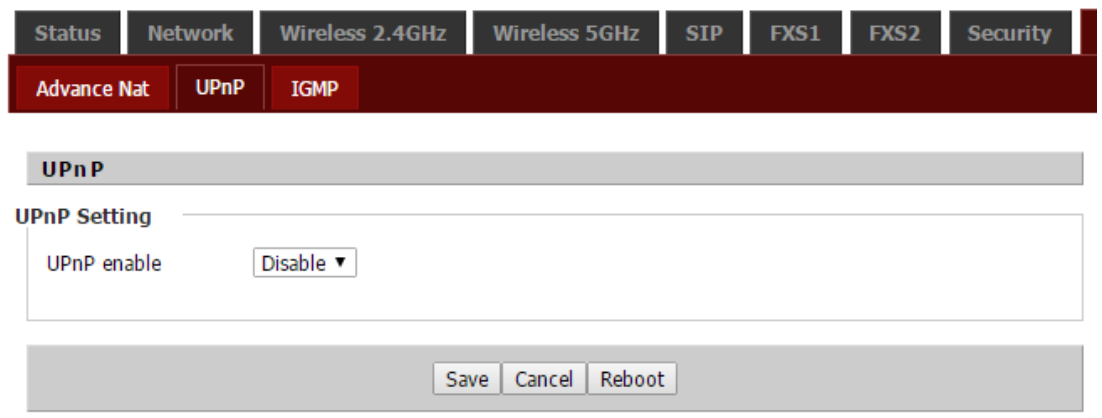


5.7 Application

5.7.1 Advance Nat

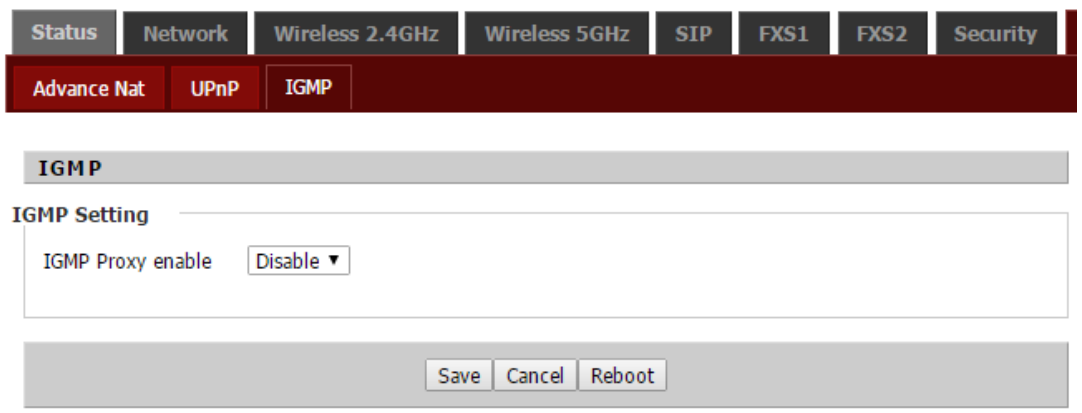
In this page, you can choose to enable / disable FTP, SIP, H323, PPTP, L2TP, IPSec services.

5.7.2 UPnP



UPnP (Universal Plug and Play) supports null-setting for networking, can automatically find a variety of networked devices. When UPnP is enabled, UPnP-enabled devices are allowed to dynamically access the network, obtain IP addresses, and transmit performance information. If you have DHCP and DNS servers on your network, you can automatically obtain DHCP and DNS services. UPnP-enabled devices can be automatically disconnected from the network without affecting the device or other devices on the network.

5.7.3 IGMP

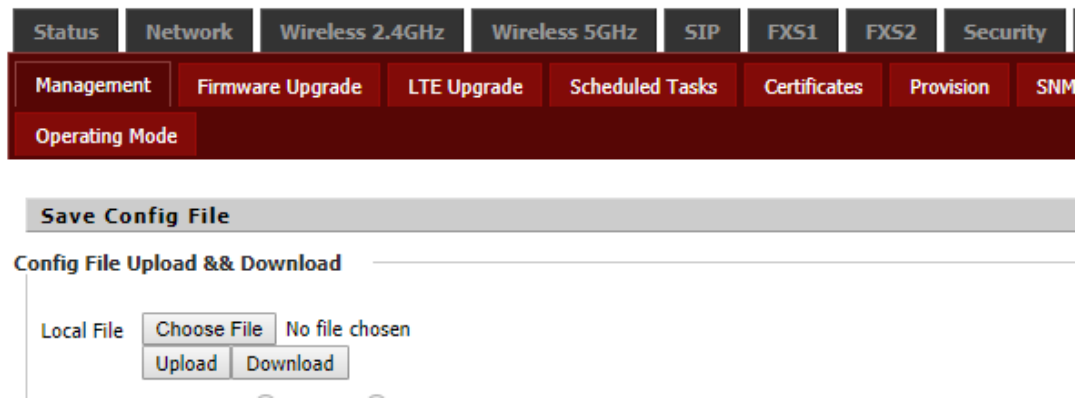


Multicast has the function of sending the same data to multiple devices. An IP host uses the IGMP (Internet Group Management Protocol) to report multicast group memberships to send data to neighboring routers, and the multicast router uses IGMP to discover which hosts belong to the same multicast group.

5.8 Administration

5.8.1 Management

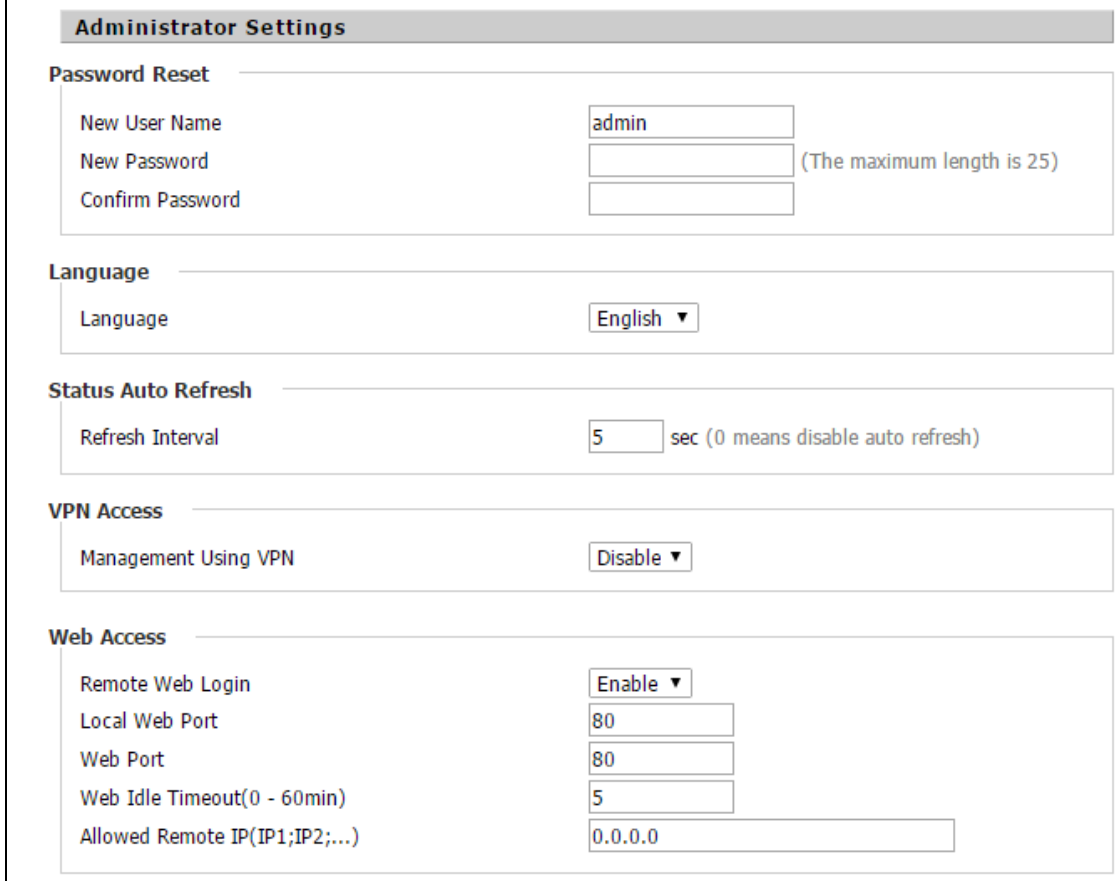
Save Config File



Local File	Select the local file for configuration
Upload	Use this option to restore previously saved router configuration settings.
Download	This option allows you to export and then save the router's configuration to a file on your computer. Be sure to save the configuration before performing a firmware upgrade.

Administrator Settings

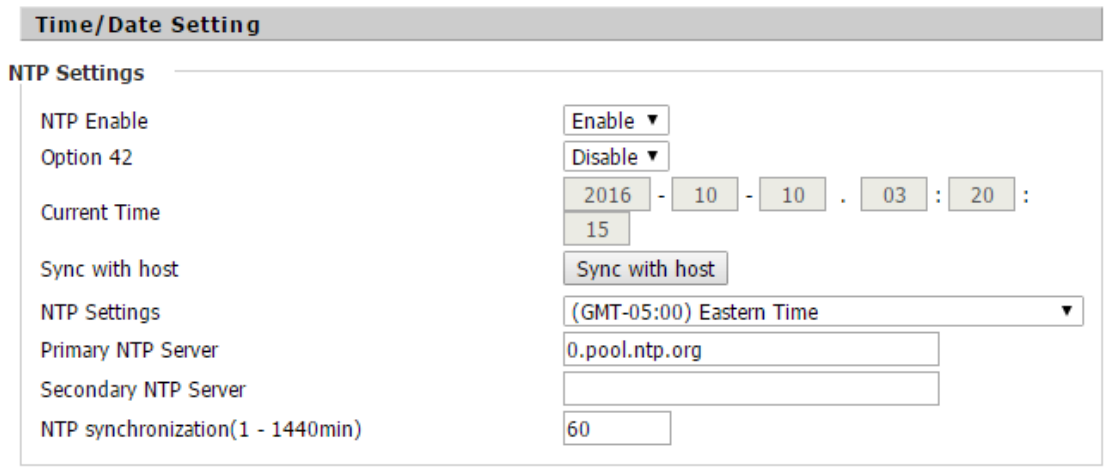
New User Name	New user name for management
New Password	Type the password for user
Confirm Password	Type the same password again
Language	Setup the language for operation, select from English or Spanish
Refresh Interval	The auto refresh interval for LTE status



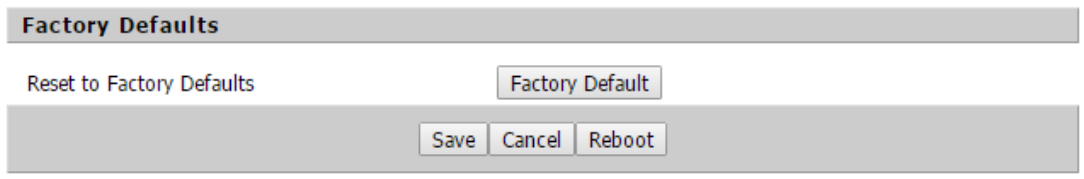
Management using VPN	Select to enable or disable
Remote Web Login	Allow host remote access from Active WAN
Local Web Port	Enter the HTTP port number for accessing from local side
Web Port	Enter the HTTP port number for accessing from remote side
Web Idle Timeout(0 - 60min)	Timeout for web idle activity
Allowed Remote IP(IP1;IP2;...)	Allow the host with specified IP address to access from webpage.

Time/Date Settings

	NTP Enable	Select this option if you want to synchronize the router's clock to a Network Time Server over the Internet.
	Option 42	Obtain NTP Server via DHCP Server
	Current Time	Displays the time currently maintained by the router.

	**Sync with host**	Synchronize with your current host's system time
	NTP Settings	Select your local time zone from pull down menu.
	Primary NTP Server	Type the primary Network Time Server for synchronization.
	Secondary NTP Server	Type the secondary Network Time Server for synchronization.
	NTP synchronization(1 - 1440min)	Interval time for NTP synchronization.

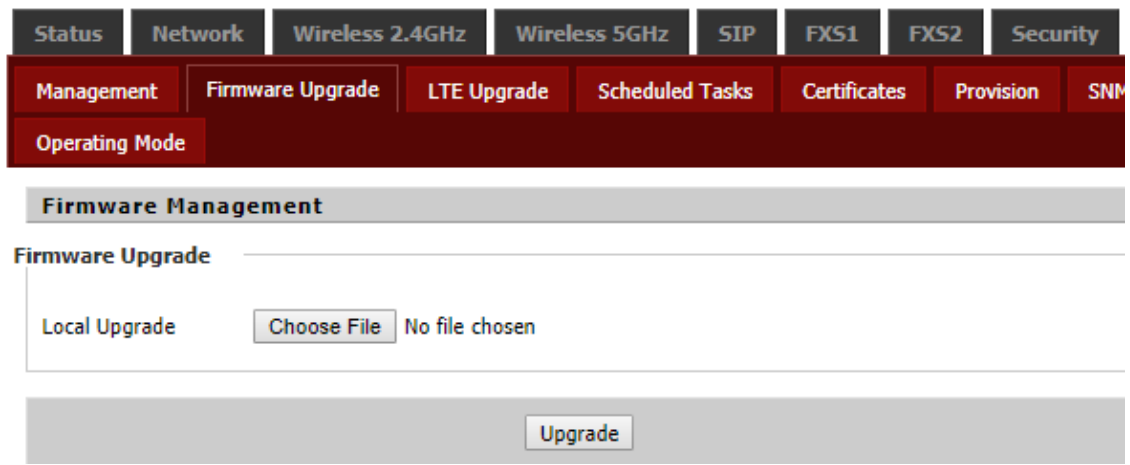
Reset to Factory Default

	This option restores all configuration settings back to the settings that were in effect at the time the router was shipped from the factory. Any settings that have not been saved will be lost.

5.8.2 Firmware Upgrade

	Once you have a firmware update on your computer, use this option to browse for the file and then upload the information into the router.

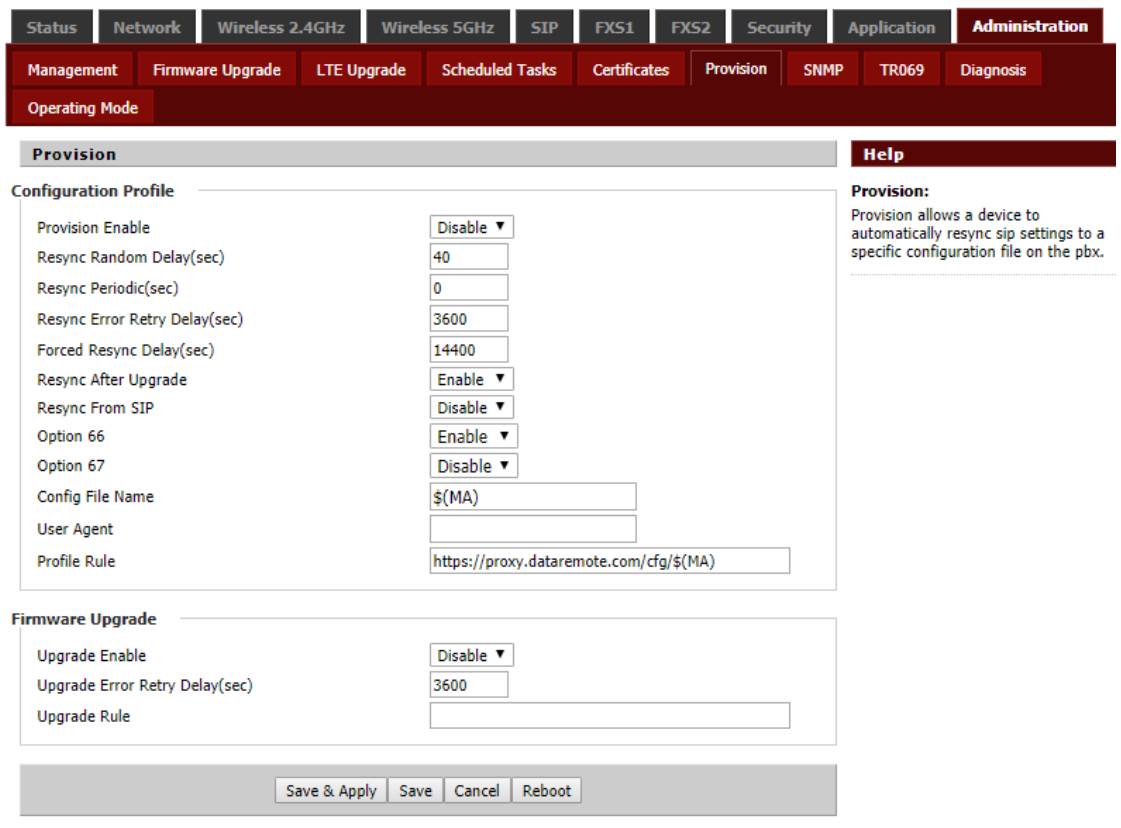
5.8.3 Scheduled Tasks



Scheduled WiFi Enable	Select to enable or disable
SSID	Choose the specified SSID for scheduled WiFi
Scheduled Mode	Select the Schedule mode for cycle time
WiFi Work Time	Setup the working time for WiFi broadcast
Schedule Reboot	Select to enable or disable
Scheduled Mode	Select the Schedule mode for cycle time
Time	Setup the reboot timing
Scheduled PPPOE	Select to enable or disable
Scheduled Mode	Select the Schedule mode for cycle time
Time	Setup the PPPoE connection timing

5.8.4 Provision

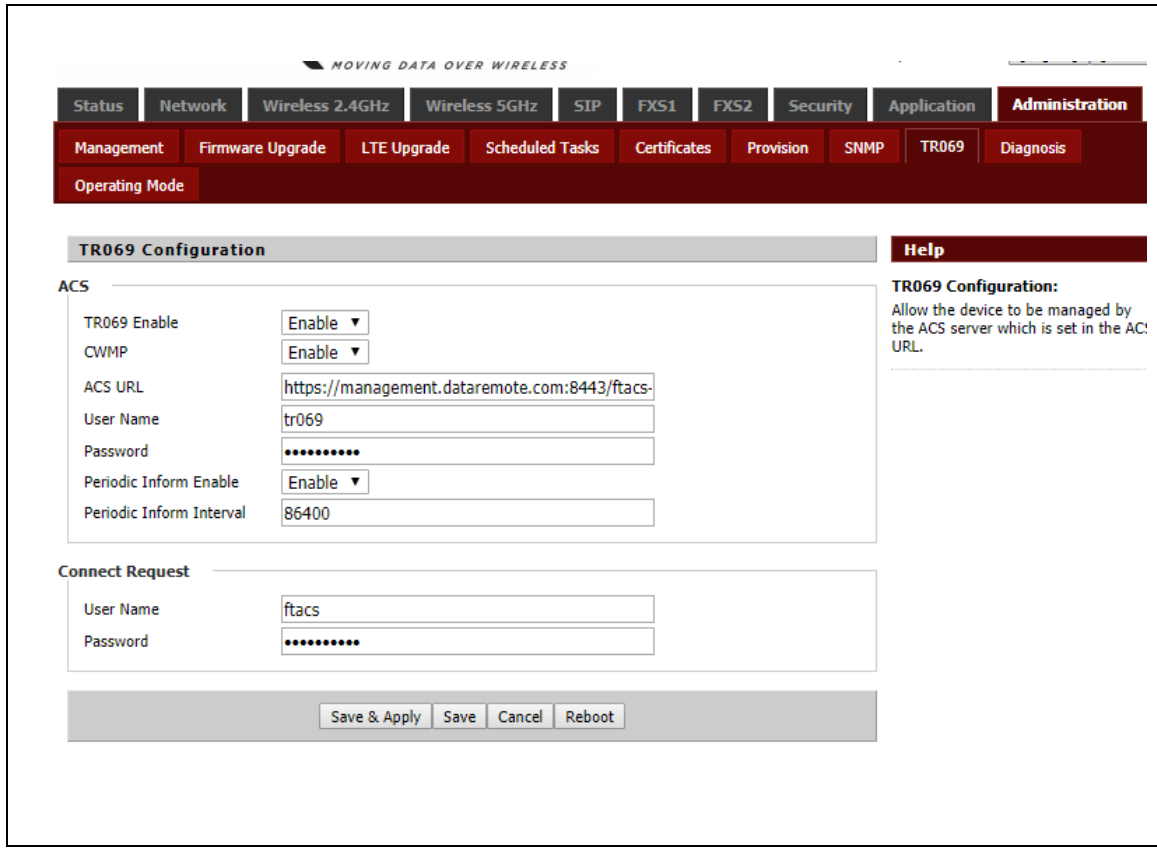
Please refer to the provision user manual to test provision.



Provision Enable	Select to enable or disable
Resync On Reset	Enable or disable DIV378 Resync after rebooting
Resync Random Delay(sec)	Setup the maximum delay for request synchronization
Resync Periodic(sec)	If the last resynchronization is unsuccessful, after the "Resync Retry Delay Error" time, after "time, the device will retry the resynchronization
Resync Error Retry Delay(sec)	Set the timed resynchronization
Forced Resync Delay(sec)	If it is time to re-sync, but the device is busy, in this case, the device will wait for some time, the longest is "forced resynchronization delay", the default is 14400s, time after the device will be forced to re-sync.
Resync After Upgrade	After the resynchronization, enable or disable the firmware update function
Resync From SIP	Select to enable or disable resync from SIP
Option 66	Specifies the TFTP (Simple File Transfer Protocol) server address
Option 67	Specifies the startup file name
Config File Name	Configure the file name

	User Agent	The name of user agent
	Profile Rule	The URL of the configuration file Note that the specified file path is relative to the root directory of the TFTP server
	Upgrade Enable	Select to enable or disable
	Upgrade Error Retry Delay(sec)	Interval time for retry upgrade firmware if error happen
	Upgrade Rule	The path of firmware located

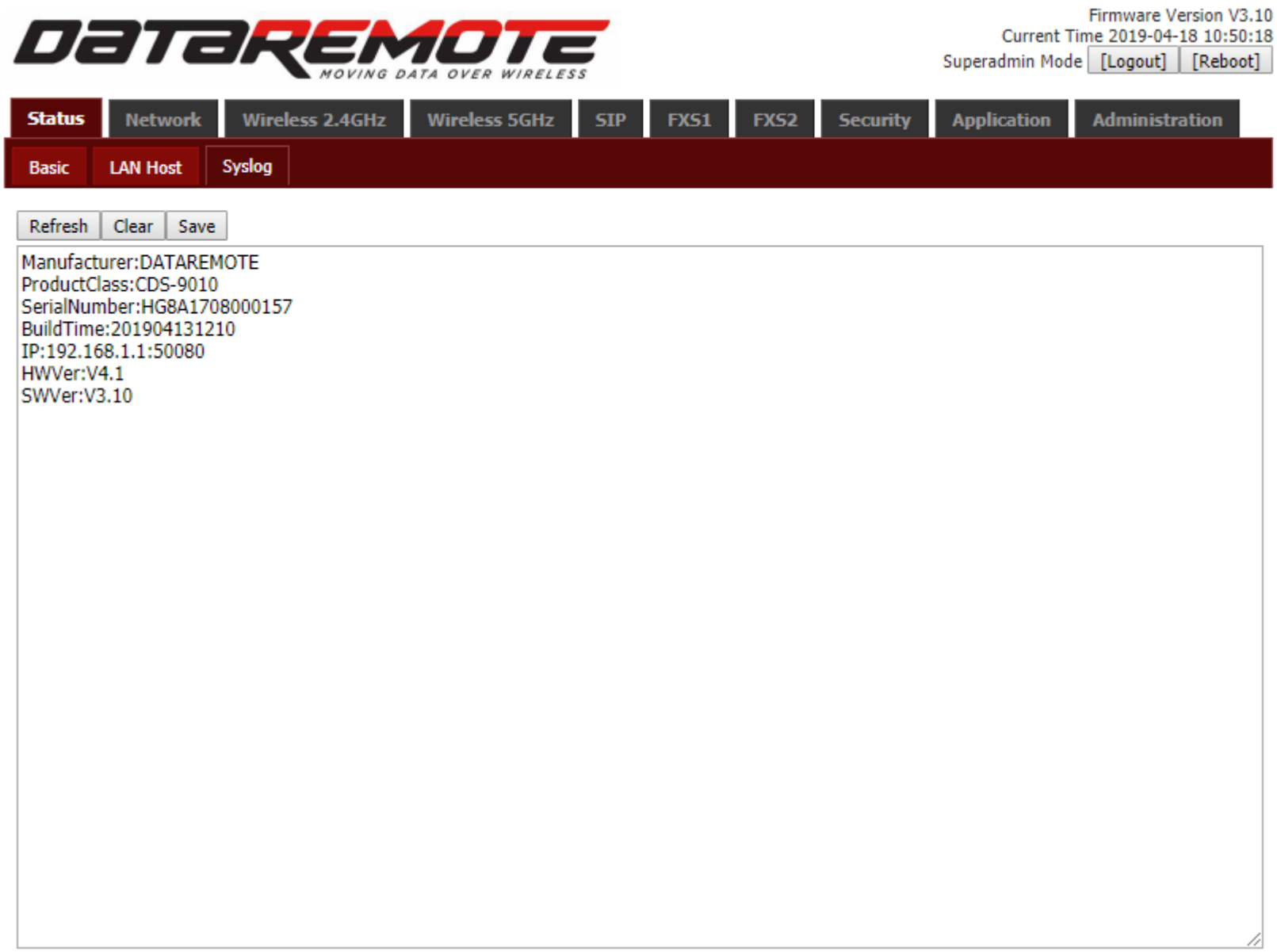
5.8.5 TR069



TR069 Enable	Select to enable or disable
CWMP	Select to enable or disable
ACS URL	The URL of ACS agent
User Name	The user name of ACS agent
Password	The password of ACS agent
Periodic Inform Enable	Select to enable or disable the periodic notification function is
Periodic Inform Interval	Setup periodic Notification Interval
User Name	Contact your customer service representative for username
Password	Contact your customer service representative for password

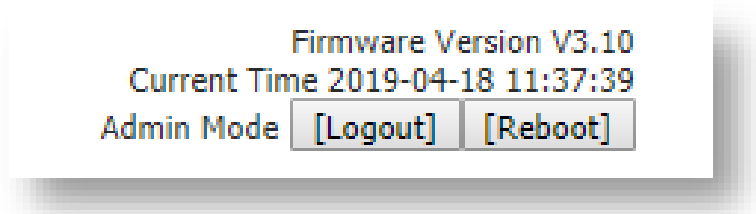
5.9 System Log

If you enable the system log in Status/syslog webpage, you can view the system log in this webpage.



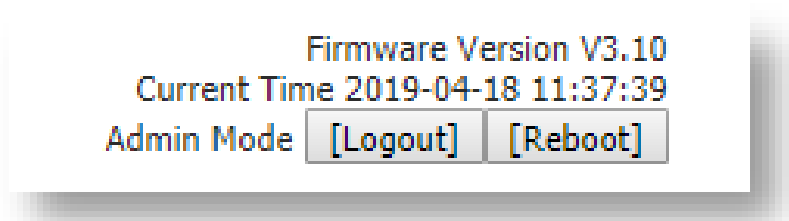
5.9.1 Logout

Press the logout button to logout, and then the login window will appear.



5.9.2 Reboot

Press the Reboot button to reboot CDS9010.



6 Trouble shooting of the guide

6.1 Setting your PC to get IP automatically

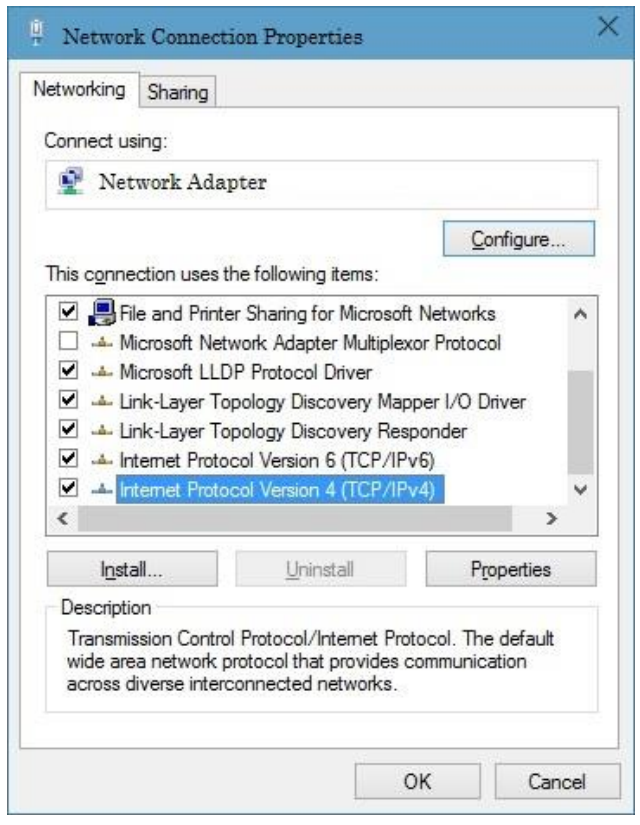
Following are the process of setting your PC to get IP automatically

Step 1.Click “begin”

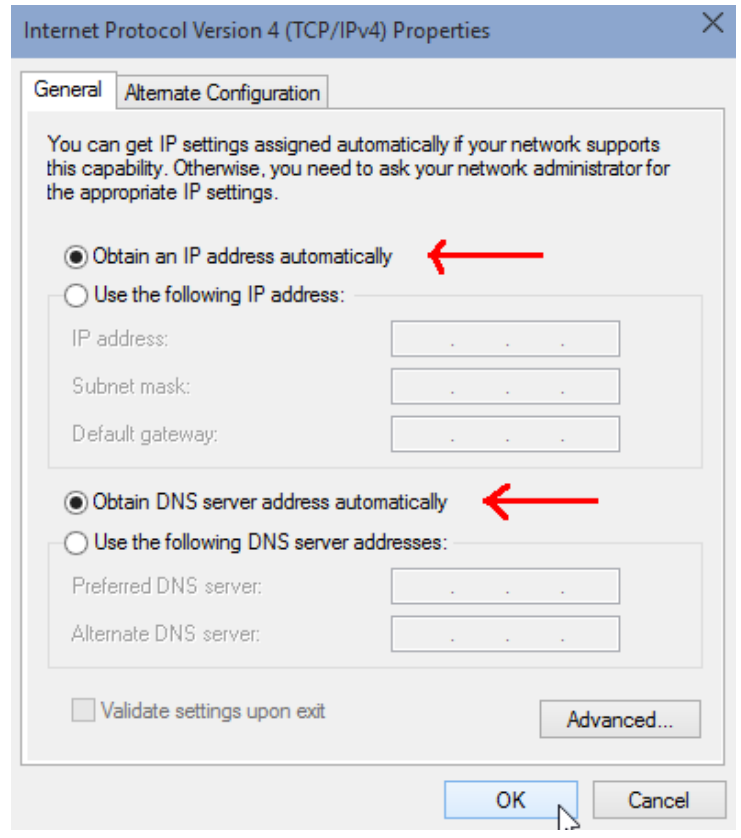
Step 2.Select “control panel”, then double click “network connections” in the “control panel”

Step 3. Right click the “network connection” that your PC uses, select “attribute” and you can see the interface as picture 1:

Step 4.Select “Internet Protocol (TCP/IP)”, click “attribute” button, and you can see the interface as following Picture 2 and you should click the “Get IP address automatically”.



Picture 1



Picture 2

6.2 Cannot connect to the configuration Website

Solution:

Check to ensure the Ethernet cable is properly connected, then

Check to ensure the URL is correct, the format of URL is: http:// the IP address: 8080, 8080 must be added, then

Check to ensure the version of IE is IE8, or use another browser such as Firefox or Mozilla, then Contact your administrator, supplier, or ITSP for more information or assistance.

6.3 Forget the Password

If password has been forgotten , and you cannot access to the device website.

The solution is to factory default: press reset button for 40 seconds.

7 Statement

FCC Radiation Exposure Statement

DataRemote Incorporated. Declares that this device is in compliance with the essential requirements.

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, many 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.

To assure continued compliance, any changes or modifications not expressly approved by the party responsible for compliance could void the user’s authority to operate this equipment. (Example- use only shielded interface cables when connecting to computer or peripheral devices)

FCC Radiation Exposure Statement

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

This equipment 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.

This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.