# The FWR9202
# High Speed Router
# User's Guide

indoor use only

V1.0

# Table of Contents

# 1 Preface

Thank you for choosing FWR9202 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 FWR9202 wireless router with VoIP to the Internet. It also includes features and functions of wireless router with VoIP components, and how to use it correctly.

Before you can connect FWR9202 to the Internet and use it, you must have a high-speed broadband connection installed. A high-speed connection includes environments such as DSL, cable modem, and a leased line.

FWR9202 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.

## 1.1 Declaration of Conformity

### 1.1.1 Part 15 FCC Rules

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

This device may not cause harmful interference, and

This device must accept any interference received, including interference that may cause undesired operation.

### 1.1.2 Class B Digital Device or Perpheral

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

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

## 1.2 GNU GPL Information

FWR9202 firmware contains third-party software under the GNU General Public License (GPL). FLYINGVOICE uses software under the specific terms of the GPL. Please refer to the GPL for the exact terms and conditions of the license. The original GPL license, source code of components licensed under GPL and used in Yealink products can be downloaded online:

http://www.flyingvoice.com/index.php?m=content&c=index&a=lists&catid=169

# 2 Overview

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

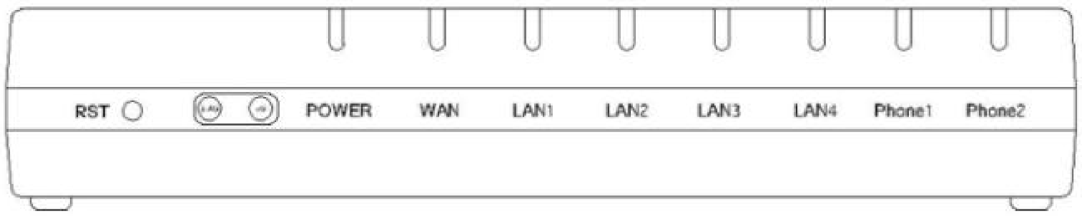
## 2.1 FWR9202

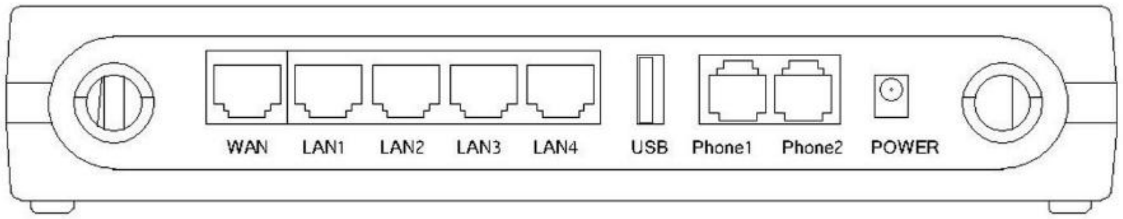
| | FWR9202 | |
|---|---|---|
| WAN | 1xGE in RJ45 | |
| LAN | 4xGE in RJ45 | |
| WiFi | 2X2 2.4G 802.11 b/g/n(300 Mbps) | |
| | 2X2 5G 802.11ac (867 Mbps) | |
| USB | 1X USB 2.0 | |
| VoIP | 2xFXS in RJ11 | |
| PoE | No | Yes |
| Power Adapter | 12V/2A | 15V/3A |

Trade Mark: Flyingvoive.

## 2.2 LED Indicators

### 2.2.1 FWR9202 LED Indicators

| Front Panel | LED | Status | Explanation |
|---|---|---|---|
|   RST<br>POWER<br>WAN<br>LAN1<br>LAN2<br>LAN3<br>LAN4<br>Phone1<br>Phone2<br>FWR9202 Front Panel | PHONE 1/2 | Blinking(Green) | Not registered. |
| | | On (Green) | Registered |
| | WLAN | On (Green) | Wireless access point is ready. |
| | | Blinking(Green) | It will blink while wireless traffic goes through. |
| | LAN 1/2/3/4 | On (Green) | The port is connected with 100Mbps. |
| | | Off | The port is disconnected. |
| | | Blinking(Green) | The data is transmitting. |
| | WAN | On(Green) | The port is connected with 100Mbps. |
| | | Off | The port is disconnected. |
| | | Blinking(Green) | It will blink while transmitting data. |
| | POWER | On(Green) | The router is powered on and running normally. |
| | | Off | The router is powered off. |

| Rear Panel | Interface | Description |
|---|---|---|
|   WAN<br>LAN1<br>LAN2<br>LAN3<br>LAN4<br>USB<br>Phone1<br>Phone2<br>POWER | ON/OFF | Power Switch. |
| | DC 12V/2A | Connector for a power adapter. |
| | FXS | Connect to the phone. |
| | WAN | Connector for accessing the Internet. |
| | LAN (1/2/3/4) | Connectors for local networked devices. |

## 2.3 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 4 LAN ports to your computer with a RJ-45 cable. This device allows you to connect 4 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.Push the ON/OFF button to power on the router.
Step 6.Check the Power and WAN, LAN LEDs to assure network connections.

***Warning: Please do not attempt to use other different power adapter or cut off power supply during configuration or updating the device VoIP home gateway. Using other power adapter may damage the device and will void the manufacturer warranty.***

***Warning: changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.***
***This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.***
***If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:***
***-- Reorient or relocate the receiving antenna.***
***-- Increase the separation between the equipment and receiver.***
***-- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.***
***-- Consult the dealer or an experienced radio/TV technician for help.***

# 2.4 Voice Prompt

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<br>Step 2.Choose “1”, and FWR9202 report the current WAN port connection type<br>Step 3.Prompt "Please enter password”, user need to input password with end char # if user want to configuration WAN |
| 2 | Step 1.Pick up phone and press “****” to start IVR<br>Step 2.Choose “2”, and FWR9202 report current WAN Port IP Address<br>Step 3.Input the new WAN port IP address and with the end char #,<br>using “*” to replace “.”, user can input 192*168*20*168 to set the new IP address 192.168.20.168<br>press # key to indicate that you have finished<br>Step 4.Report “operation successful” if user operation properly. |
| 3 | Step 1.Pick up phone and press “****” to start IVR<br>Step 2.Choose “3”, and FWR9202 report current WAN port subnet mask<br>Step 3.Input a new WAN port subnet mask and with the end char #<br>using “*” to replace “.”, user can input 255*255*255*0 to set the new WAN port subnet mask 255.255.255.0<br>press # key to indicate that you have finished<br>3) Report “operation successful” if user operation properly. |
| 4 | Step 1.Pick up phone and press “****” to start IVR<br>Step 2.Choose “4”, and FWR9202 report current gateway<br>Step 3.Input the new gateway and with the end char #<br>using “*” to replace “.”, user can input 192*168*20*1 to set the new gateway 192.168.20.1<br>press # (pound) key to indicate that you have finished<br>3) Report “operation successful” if user operation properly. |

| | |
|---|---|
| 5 | Step 1.Pick up phone and press "****" to start IVR<br>Step 2.Choose "5", and FWR9202 report current DNS<br>Step 3.Input the new DNS and with the end char #<br>using "*" to replace ".", user can input 192*168*20*1 to set the new gateway 192.168.20.1<br>press # (pound) key to indicate that you have finished<br>3) Report "operation successful" if user operation properly. |
| 6 | Step 1.Pick up phone and press "****" to start IVR<br>Step 2.Choose "6", and FWR9202 report "Factory Reset"<br>Step 3.Prompt "Please enter password", the method of inputting password is the same as operation 1.<br>If you want to quit by the wayside, press "*".<br>Step 4.Prompt "operation successful" if password is right and then FWR9202 will be factory setting. |
| 7 | Step 1.Pick up phone and press "****" to start IVR<br>Step 2.Choose "7", and FWR9202 report "Reboot"<br>Step 3.Prompt "Please enter password", the method of inputting password is same as operation 1.<br>Step 4.FWR9202 will reboot if password is right and operation is properly. |
| 8 | Step 1.Pick up phone and press "****" to start IVR<br>Step 2.Choose "8", and FWR9202 report "WAN Port Login"<br>Step 3.Prompt "Please enter password", the method of inputting password is same as operation 1.<br>If you want to quit by the wayside, press "*".<br>Step 4.Report "operation successful" if user operation properly.<br>Step 5.Prompt "1enable 2disable",choose 1 or 2, and with confirm char # |
| 9 | Step 1.Pick up phone and press "****" to start IVR<br>Step 2.Choose "9", and FWR9202 report " WEB Access Port"<br>Step 3.Prompt "Please enter password", the method of inputting password is same as operation 1.<br>Step 4.Report "operation successful" if user operation properly.<br>Step 5.Report the current WEB Access Port<br>Step 6.Set the new WEB access port and with end char # |
| 0 | Step 1.Pick up phone and press "****" to start IVR<br>Step 2.Choose "0", and FWR9202 report current Firmware version |

## Notice:

1. When using Voice Menu, press * (star) to return the main menu.
2. If any changes made in the IP assignment mode, please reboot the FWR9202 to take the setting into effect.
3. When enter IP address or subnet mask, use "*"(Star) to replace "." (Dot).
4. 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.
5. #(pound) key to indicate that you have finish entering the IP address or subnet mask
6. 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 FWR9202 is connected.
7. The default LAN port IP address of FWR9202 is 192.168.1.1 and do not set the WAN port IP address of FWR9202 in the same network segment of LAN port of FWR9202, otherwise it may lead to the FWR9202 fail to work properly.
8. 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'

# 3 Configuring Basic Settings

## 3.1 Two-Level Management

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

FWR9202 supports two-level management: administrator and user. For administrator mode operation, please type "admin/admin" on Username/Password and click Login button to configuration. While for user mode operation, please type "user/user" on Username/Password and click Login button for full configuration.

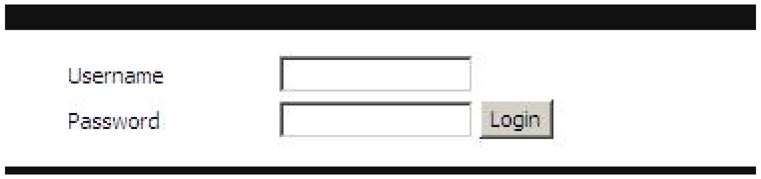
## 3.2 Accessing Web Page

### 3.2.1 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,and you can choose language.



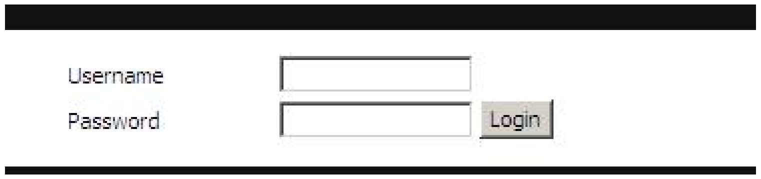
3. For administrator mode operation, please type "**admin/admin**" on Username/Password and click Login to configuration. Yet, for root user mode operation, please type "**user/user**" on Username/Password and click Login for full configuration.

> **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.

### 3.2.2 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://the **IP address of WAN port.** The following window will be open to ask for username and password.

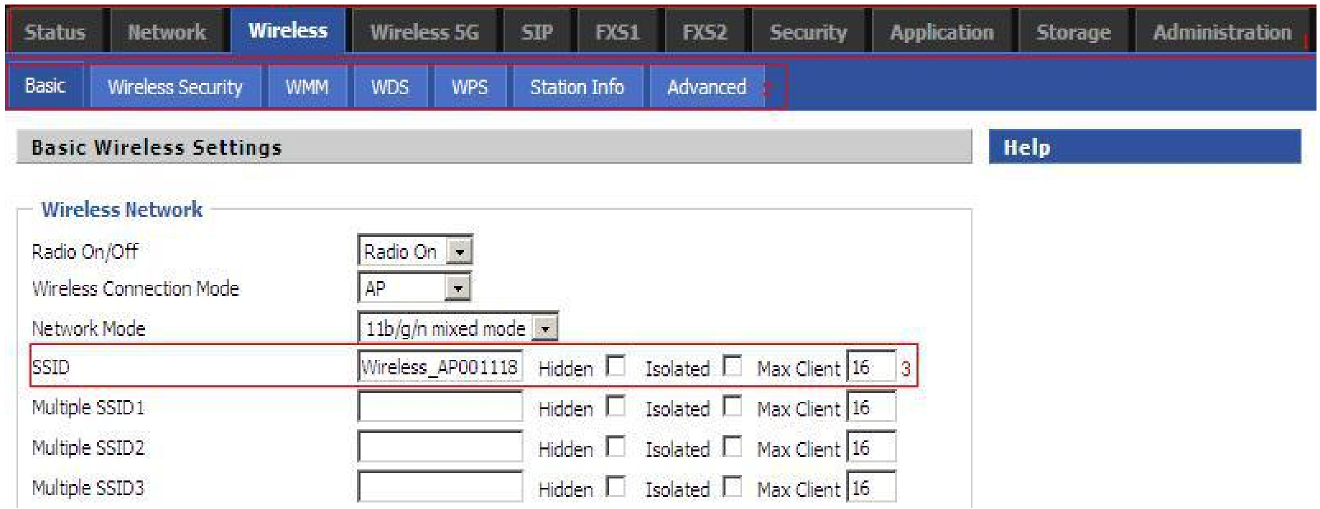
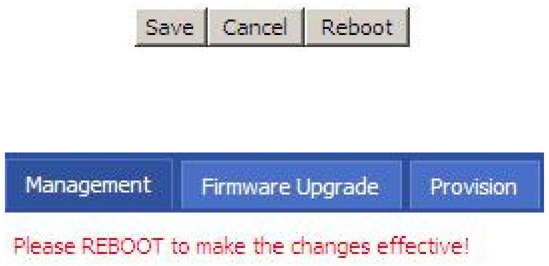


4. For administrator mode operation, please type "**admin/admin**" on Username/Password and click Login to configuration. Yet, for root user mode operation, please type "**user/user**" on Username/Password and click Login for full configuration.

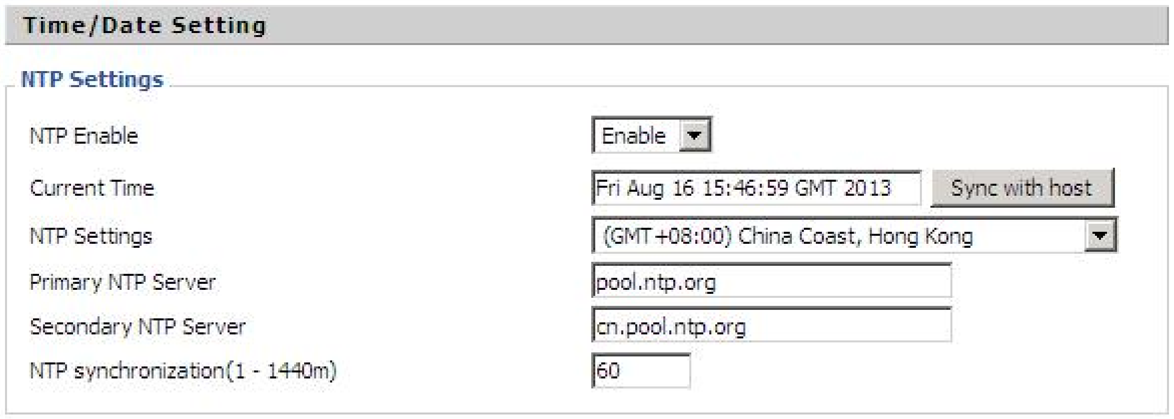
**Notice**: If you fail to access to the web configuration, please go to "Trouble Shooting" for detecting and solving your problem.

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

# 3.3 Web Page

|  | NO. | Field Name | Description |
|---|---|---|---|
| <br>Status Network Wireless Wireless 5G SIP FXS1 FXS2 Security Application Storage Administration 1<br>Basic Wireless Security WMM WDS WPS Station Info Advanced 2<br>Basic Wireless Settings<br>Help<br>Wireless Network<br>Radio On/Off: Radio On<br>Wireless Connection Mode: AP<br>Network Mode: 11b/g/n mixed mode<br>SSID: Wireless_AP001118 Hidden □ Isolated □ Max Client 16 3<br>Multiple SSID1: Hidden □ Isolated □ Max Client 16<br>Multiple SSID2: Hidden □ Isolated □ Max Client 16<br>Multiple SSID3: Hidden □ Isolated □ Max Client 16 | 1 | Navigation bar | Click navigation bar, many sub-navigation bar will appear in the place 2 |
|  | 2 | Title | Click sub-navigation bar to choose one configuration page |
|  | 3 | Parameter | To configuration the parameters |
| <br>Save Cancel Reboot<br>Management Firmware Upgrade Provision<br>Please REBOOT to make the changes effective! |  | Save | **1.**Every time making some changes, user should press this button to confirm the changes.<br>**2.**After pressing the button, the red<br>Please REBOOT to make the changes effe<br>will appear to notice rebooting. |
|  |  | Cancel | To cancel the changes. |
|  |  | Reboot | Press it to reboot the router |

# 3.4 Setting up the Time Zone



**Time/Date Setting**

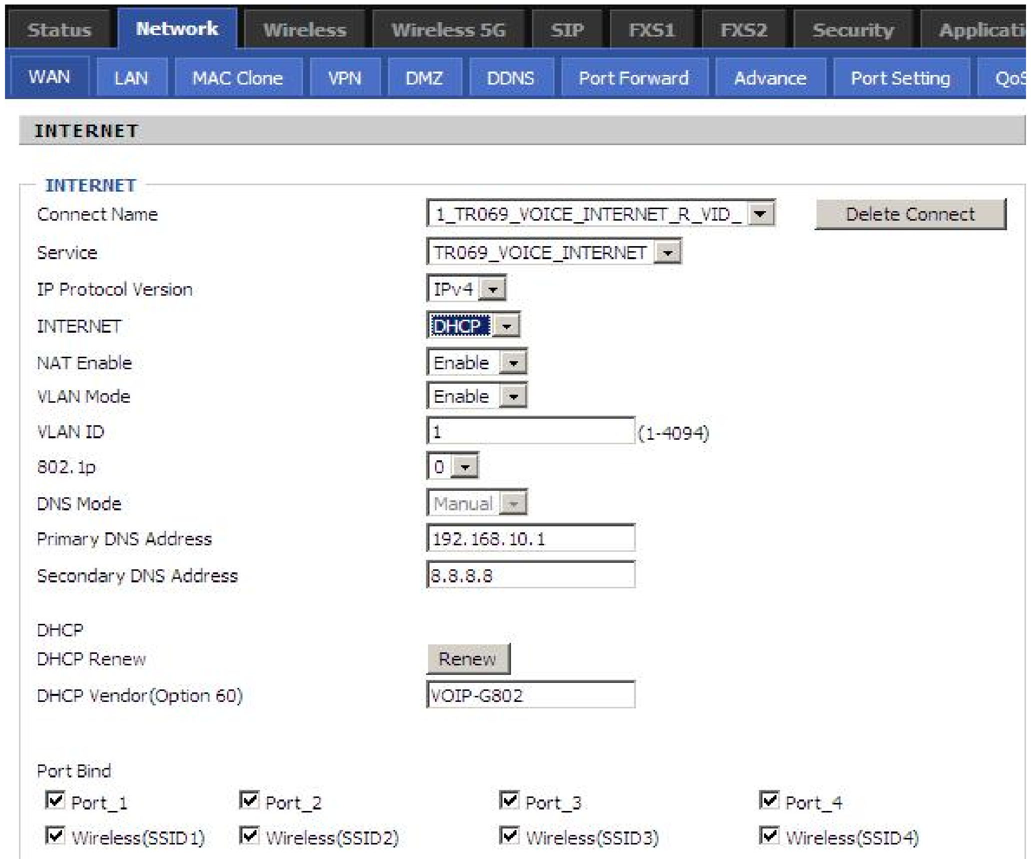
**NTP Settings**

| | |
|---|---|
| NTP Enable | Enable |
| Current Time | Fri Aug 16 15:46:59 GMT 2013 |
| NTP Settings | (GMT+08:00) China Coast, Hong Kong |
| Primary NTP Server | pool.ntp.org |
| Secondary NTP Server | cn.pool.ntp.org |
| NTP synchronization(1 - 1440m) | 60 |

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

# 3.5 Setting up the Internet Connection

From WAN page, multi wan connection could be built or deteted. If you want to know more information about Internet Connection setting, please refer to 5.3 section.



**INTERNET**

**INTERNET**

| | |
|---|---|
| Connect Name | 1_TR069_VOICE_INTERNET_R_VID_ |
| Service | TR069_VOICE_INTERNET |
| IP Protocol Version | IPv4 |
| INTERNET | DHCP |
| NAT Enable | Enable |
| VLAN Mode | Enable |
| VLAN ID | 1 (1-4094) |
| 802.1p | 0 |
| DNS Mode | Manual |
| Primary DNS Address | 192.168.10.1 |
| Secondary DNS Address | 8.8.8.8 |

DHCP

| | |
|---|---|
| DHCP Renew | Renew |
| DHCP Vendor(Option 60) | VOIP-G802 |

Port Bind

☑ Port_1 ☑ Port_2 ☑ Port_3 ☑ Port_4
☑ Wireless(SSID1) ☑ Wireless(SSID2) ☑ Wireless(SSID3) ☑ Wireless(SSID4)

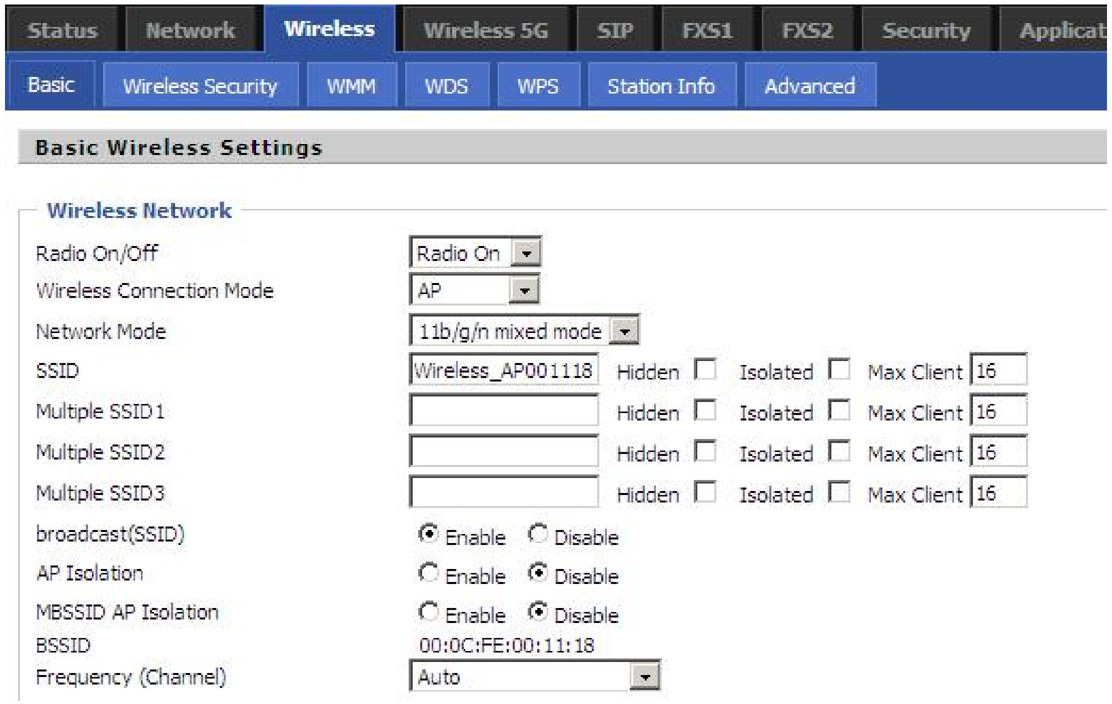
| Field Name | Description |
|---|---|
| **Connect Name** | Use keywords to indicate WAN port service model |
| **Service** | Chose the service mode. |
| **IP Protocol Version** | Only IPv4 for FWR9202 |
| **INTERNET** | Choose Internet connection mode. |
| **NAT Enable** | If or not enable NAT. |
| **VLAN Mode** | If or not enable VLAN Mode. |
| **VLAN ID** | Set the VLAN ID. |
| **802.1p** | Set the priority of VLAN, Options are 0~7. |
| **DNS Mode** | The default is Manual. |
| **Primary DNS Address** | The primary DNS of Internet port. |
| **Secondary DNS Address** | The secondary DNS of Internet port. |
| **Port Bind** | Port bind is used for binding the service for different LAN ports and SSIDs. |

# 3.6 Setting up the Wireless Connection

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

## 3.6.1 Enable Wireless and Setting SSID

Open **Wireless/Basic** webpage as shown below



Basic Wireless Settings

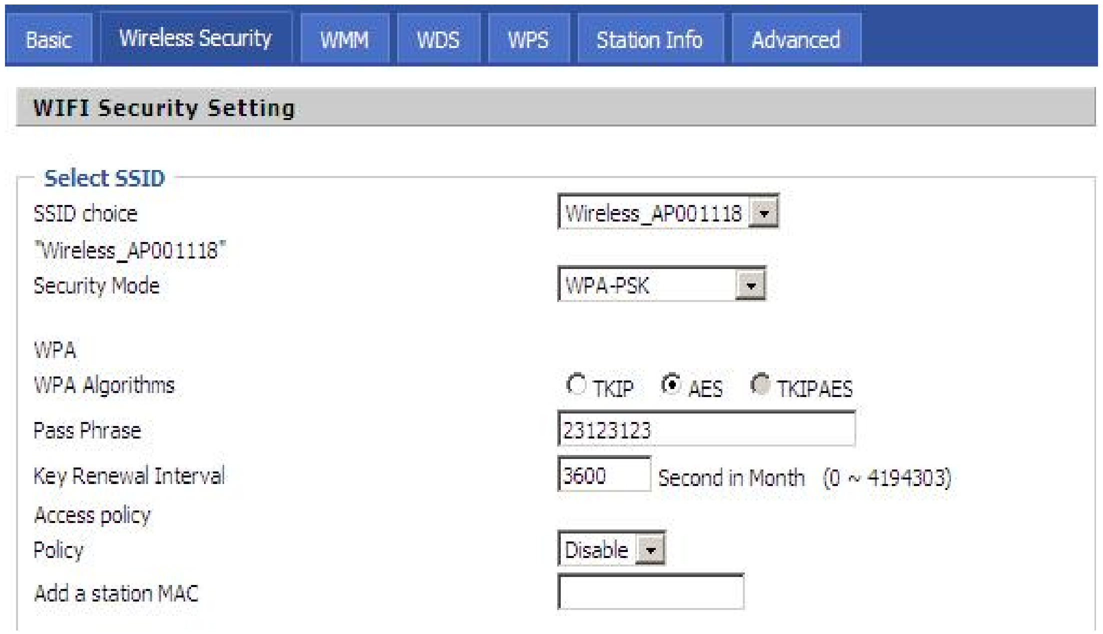
Wireless Network

| | | | | |
|---|---|---|---|---|
| Radio On/Off | Radio On | | | |
| Wireless Connection Mode | AP | | | |
| Network Mode | 11b/g/n mixed mode | | | |
| SSID | Wireless_AP001118 | Hidden □ | Isolated □ | Max Client 16 |
| Multiple SSID1 | | Hidden □ | Isolated □ | Max Client 16 |
| Multiple SSID2 | | Hidden □ | Isolated □ | Max Client 16 |
| Multiple SSID3 | | Hidden □ | Isolated □ | Max Client 16 |
| broadcast(SSID) | ● Enable ○ Disable | | | |
| AP Isolation | ○ Enable ● Disable | | | |
| MBSSID AP Isolation | ○ Enable ● Disable | | | |
| BSSID | 00:0C:FE:00:11:18 | | | |
| Frequency (Channel) | Auto | | | |

| Field Name | Description |
|---|---|
| **Radio On/Off** | Select "Radio Off" to disable wireless.<br>Select "Radio on"to enable wireless. |
| **Network Mode** | Choose one network mode from the drop down list. |
| **SSID** | The name of the wireless name, it can be any text numbers or various special characters. |
| **Multiple SSSD1-3** | Set more wireless network. |
| **Frequency** | Choose channel frequency. |

## 3.6.2 Encryption

Open Wireless/Wireless Security webpage to set the encryption of routers.

<table>
<tr><td rowspan="3">

Basic<br>Wireless Security<br>WMM<br>WDS<br>WPS<br>Station Info<br>Advanced

<br>WIFI Security Setting<br>Select SSID<br>SSID choice: Wireless_AP001118<br>"Wireless_AP001118"<br>Security Mode: WPA-PSK<br>WPA<br>WPA Algorithms: ○ TKIP ● AES ○ TKIPAES<br>Pass Phrase: 23123123<br>Key Renewal Interval: 3600 Second in Month (0 ~ 4194303)<br>Access policy<br>Policy: Disable<br>Add a station MAC:</td><th>Field Name</th><th>Description</th></tr>
<tr><td><b>SSID Choice</b></td><td>Choose one SSID from Off-premises 1, off-premises 2 and Premises.</td></tr>
<tr><td><b>Security Mode</b></td><td>Select an appropriate encryption mode to improve the security and privacy of your wireless data packets.<br>Each encryption mode will bring out different web page and ask you to offer additional configuration.</td></tr>
</table>

# 3.7 Register

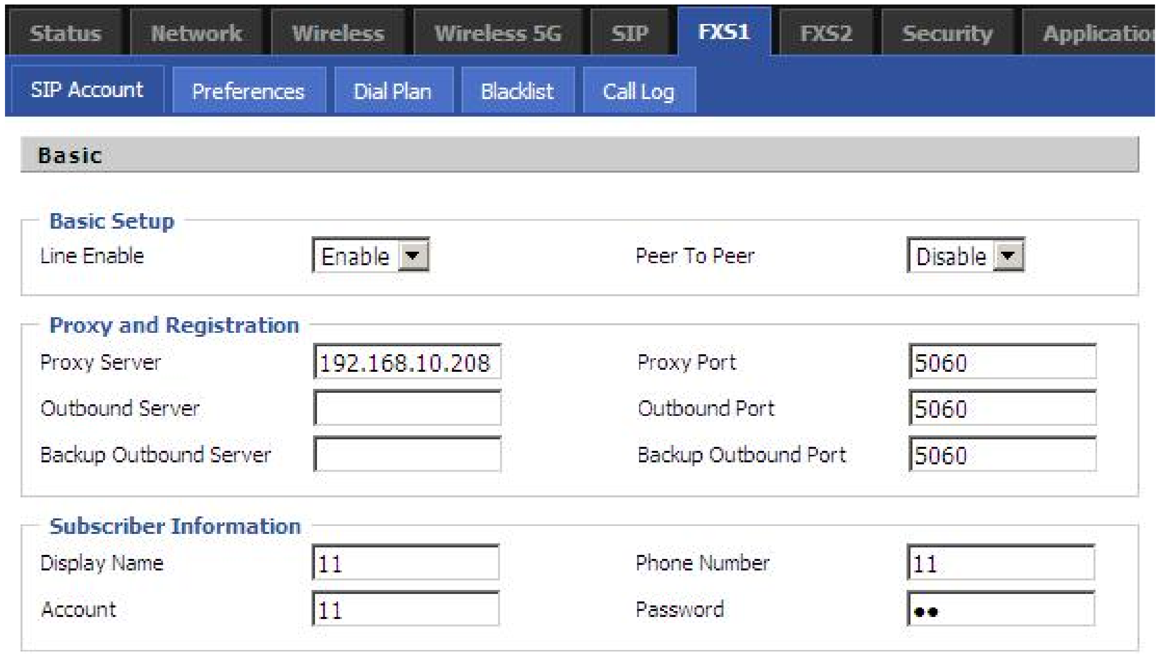
## 3.7.1 Get the Accounts

FWR9202 have a FXS port, you can use it to make SIP call, and before registering, you should get the SIP account from you administrator or provider.

## 3.7.2 Connections

Connect FWR9202 to the Internet properly

## 3.7.3 Configuration SIP from Webpage



**Basic**

**Basic Setup**

| | | | |
|---|---|---|---|
| Line Enable | Enable | Peer To Peer | Disable |

**Proxy and Registration**

| | | | |
|---|---|---|---|
| Proxy Server | 192.168.10.208 | Proxy Port | 5060 |
| Outbound Server | | Outbound Port | 5060 |
| Backup Outbound Server | | Backup Outbound Port | 5060 |

**Subscriber Information**

| | | | |
|---|---|---|---|
| Display Name | 11 | Phone Number | 11 |
| Account | 11 | Password | •• |

Step 1.Open FXS1(FXS2)/**SIP Account** webpage, as the picture in the right side.

Step 2.Fill the SIP Server domain and SIP Server address (which get from you administrator or provider) into Domain Name parameter, into SIP Server

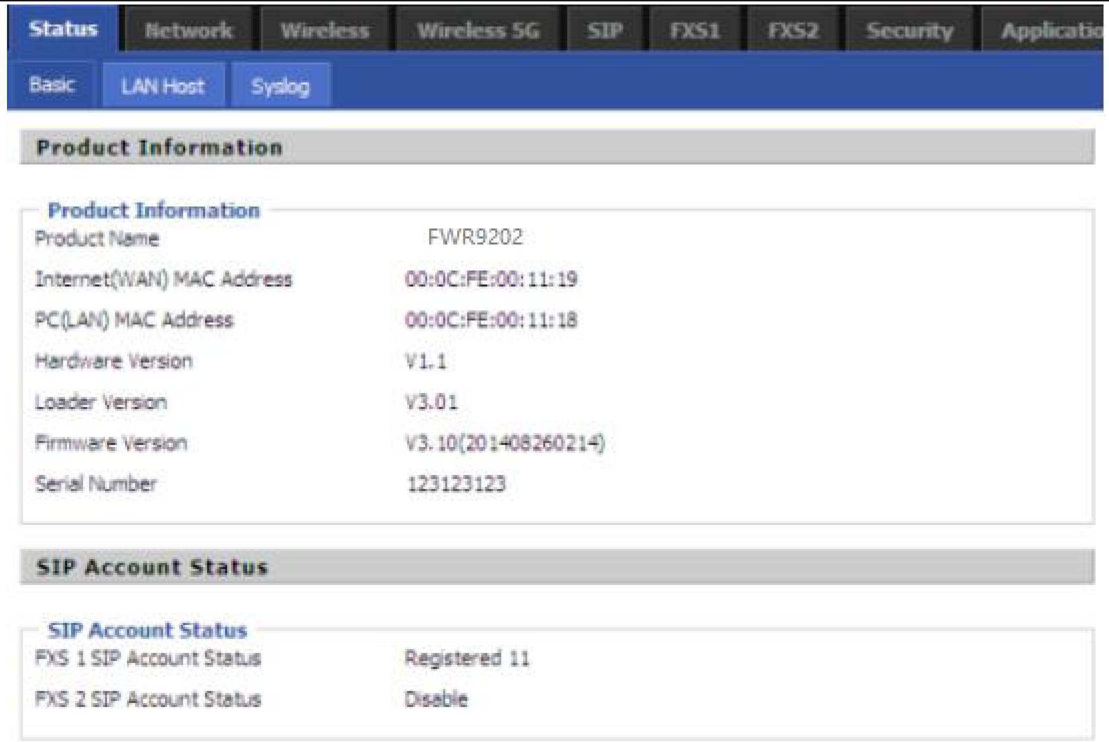
Step 3.Fill account which get from you administrator into Display Name parameter, Phone Number parameter, and Account parameter.

Step 4.Fill password which get from you administrator into Password parameter.

Step 5.Press Save 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.

## 3.7.4 View the Register Status



**Product Information**

**Product Information**

| | |
|---|---|
| Product Name | FWR9202 |
| Internet(WAN) MAC Address | 00:0C:FE:00:11:19 |
| PC(LAN) MAC Address | 00:0C:FE:00:11:18 |
| Hardware Version | V1.1 |
| Loader Version | V3.01 |
| Firmware Version | V3.10(201408260214) |
| Serial Number | 123123123 |

**SIP Account Status**

**SIP Account Status**

| | |
|---|---|
| FXS 1 SIP Account Status | Registered 11 |
| FXS 2 SIP Account Status | Disable |

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 FWR9202 have registered normally and you can make calls.

# 3.8 Make Call

## 3.8.1 Calling phone or extension numbers

To make a phone or extension number call:

1. Both ATA and the other VoIP device (i.e., another ATA or other SIP products) have public IP addresses, or
2. 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
3. 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 #.

## 3.8.2 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:

1. Both ATA and the other VoIP device (i.e., another ATA or other SIP products) have public IP addresses, or
2. 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
3. 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 "#".

## 3.8.3 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.

## 3.8.4 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.

### 3.8.5 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.

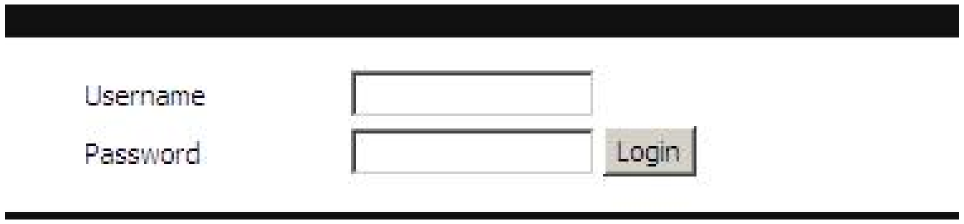
### 3.8.6 Conference

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.

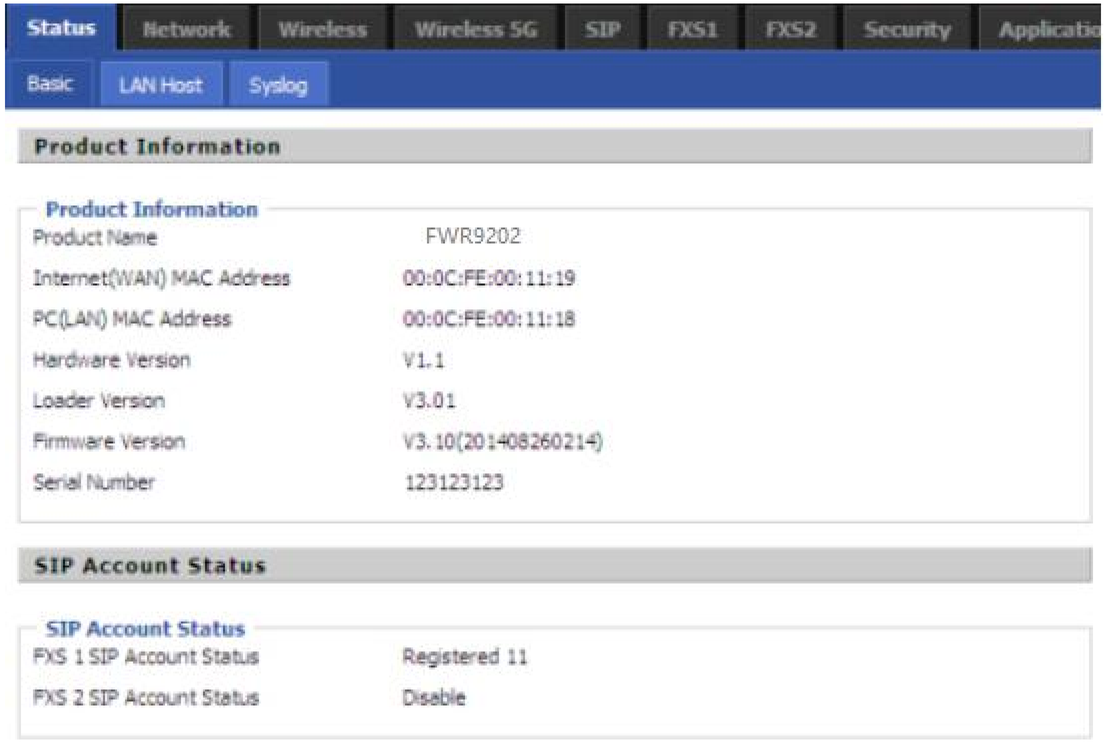
# 4Web Configuration

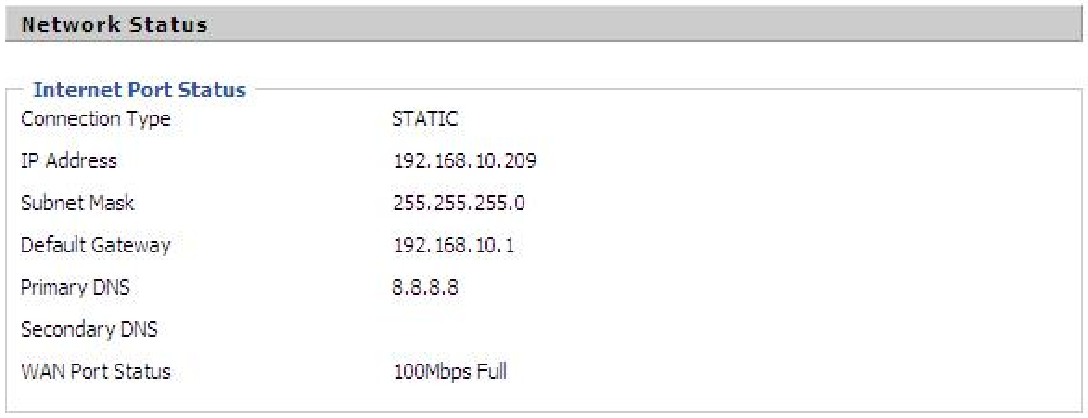
This chapter will guide users to execute advanced (full) configuration through admin mode operation.

## 4.1 Login

| | |
|---|---|
| <br>Username<br>Password<br>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. And you can choose language, too. |
| | Step 3.Please type "**admin/admin**" on Username/Password for administration operation. |

## 4.2 Status

| | |
|---|---|
| <br>Status Network Wireless Wireless 5G SIP FXS1 FXS2 Security Applicatio<br>Basic LAN Host Syslog<br>**Product Information**<br>Product Information<br>Product Name FWR9202<br>Internet(WAN) MAC Address 00:0C:FE:00:11:19<br>PC(LAN) MAC Address 00:0C:FE:00:11:18<br>Hardware Version V1.1<br>Loader Version V3.01<br>Firmware Version V3.10(201408260214)<br>Serial Number 123123123<br>**SIP Account Status**<br>SIP Account Status<br>FXS 1 SIP Account Status Registered 11<br>FXS 2 SIP Account Status Disable | 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. |



Network Status

Internet Port Status

| | |
|---|---|
| Connection Type | STATIC |
| IP Address | 192.168.10.209 |
| Subnet Mask | 255.255.255.0 |
| Default Gateway | 192.168.10.1 |
| Primary DNS | 8.8.8.8 |
| Secondary DNS | |
| WAN Port Status | 100Mbps Full |

The picture in the left side is the FWR9202's Status webpage.

# 4.3 Network&Security

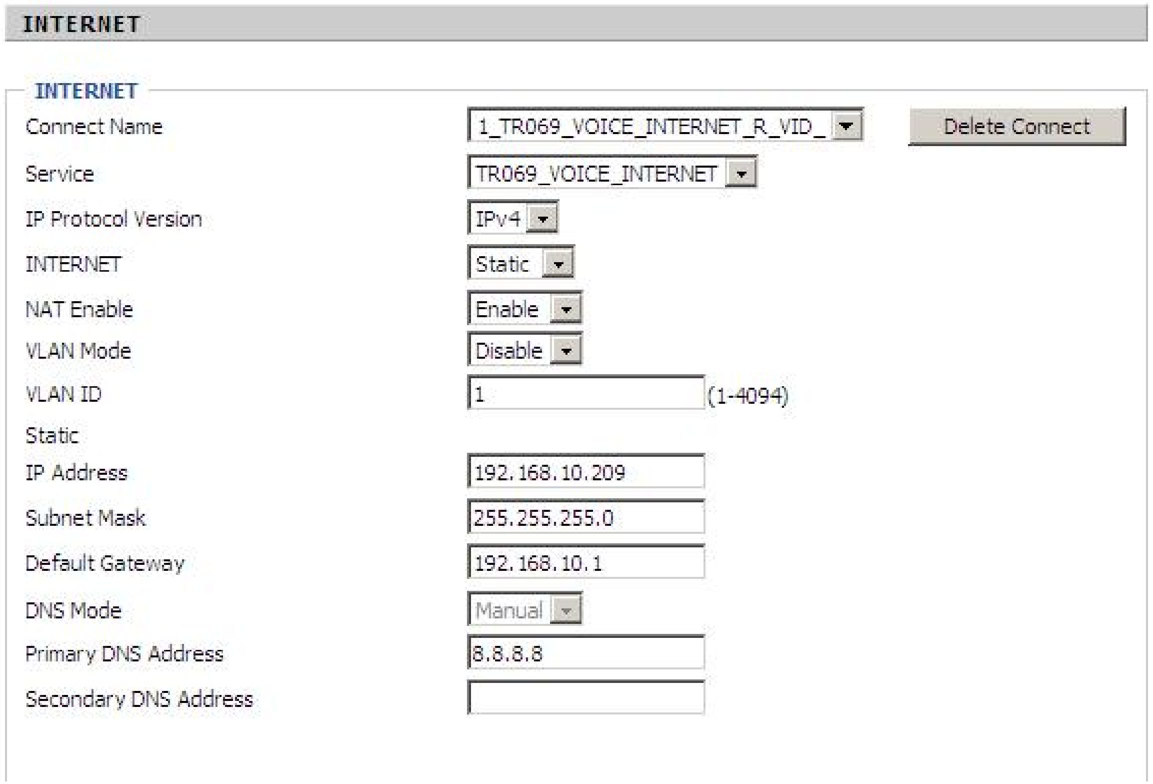
You can configuration the WAN port, LAN port, DDNS, Multi WAN,DMZ, MAC Clone, Port Forward and so on in these two bars.

## 4.3.1 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.

**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.



INTERNET

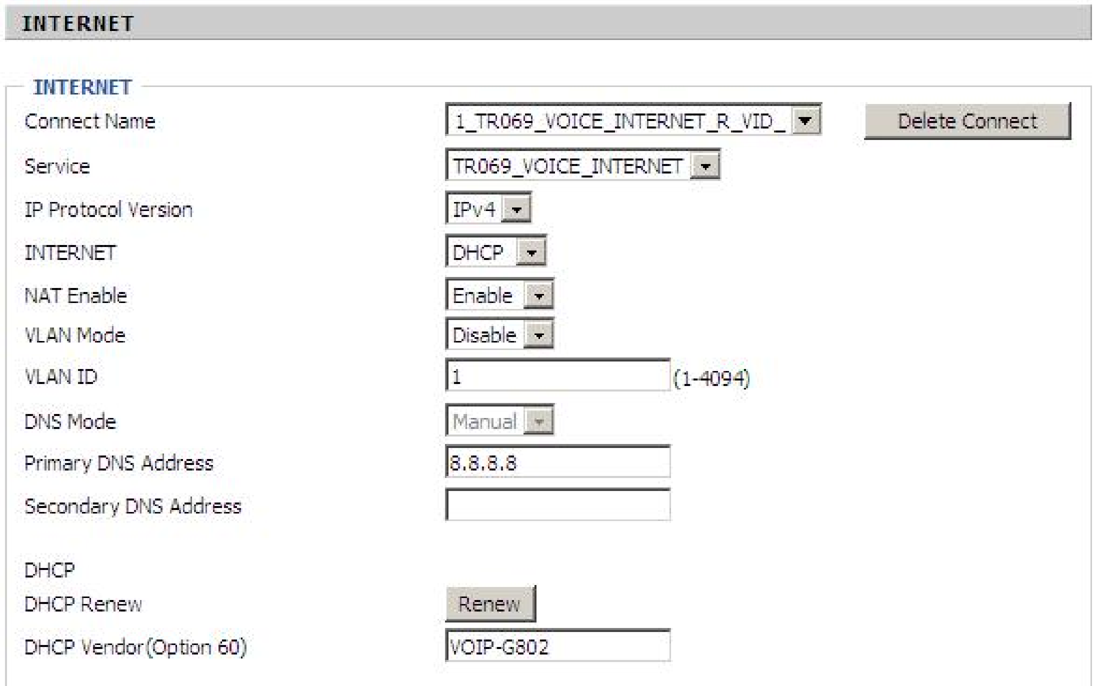
INTERNET

| | | |
|---|---|---|
| Connect Name | 1_TR069_VOICE_INTERNET_R_VID_ | Delete Connect |
| Service | TR069_VOICE_INTERNET | |
| IP Protocol Version | IPv4 | |
| INTERNET | Static | |
| NAT Enable | Enable | |
| VLAN Mode | Disable | |
| VLAN ID | 1 | (1-4094) |
| Static | | |
| IP Address | 192.168.10.209 | |
| Subnet Mask | 255.255.255.0 | |
| Default Gateway | 192.168.10.1 | |
| DNS Mode | Manual | |
| Primary DNS Address | 8.8.8.8 | |
| Secondary DNS Address | | |

| Field Name | Description |
|---|---|
| **IP Address** | The IP address of Internet port |
| **Subnet Mask** | The subnet mask of Internet port. |
| **Default Gateway** | The default gateway of Internet port. |
| **DNS Mode** | In Static mode, user need set the DNS manually. |
| **Primary DNS Address** | The primary DNS of Internet port. |
| **Secondary DNS Address** | The secondary DNS of Internet port. |

## 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.



INTERNET

INTERNET

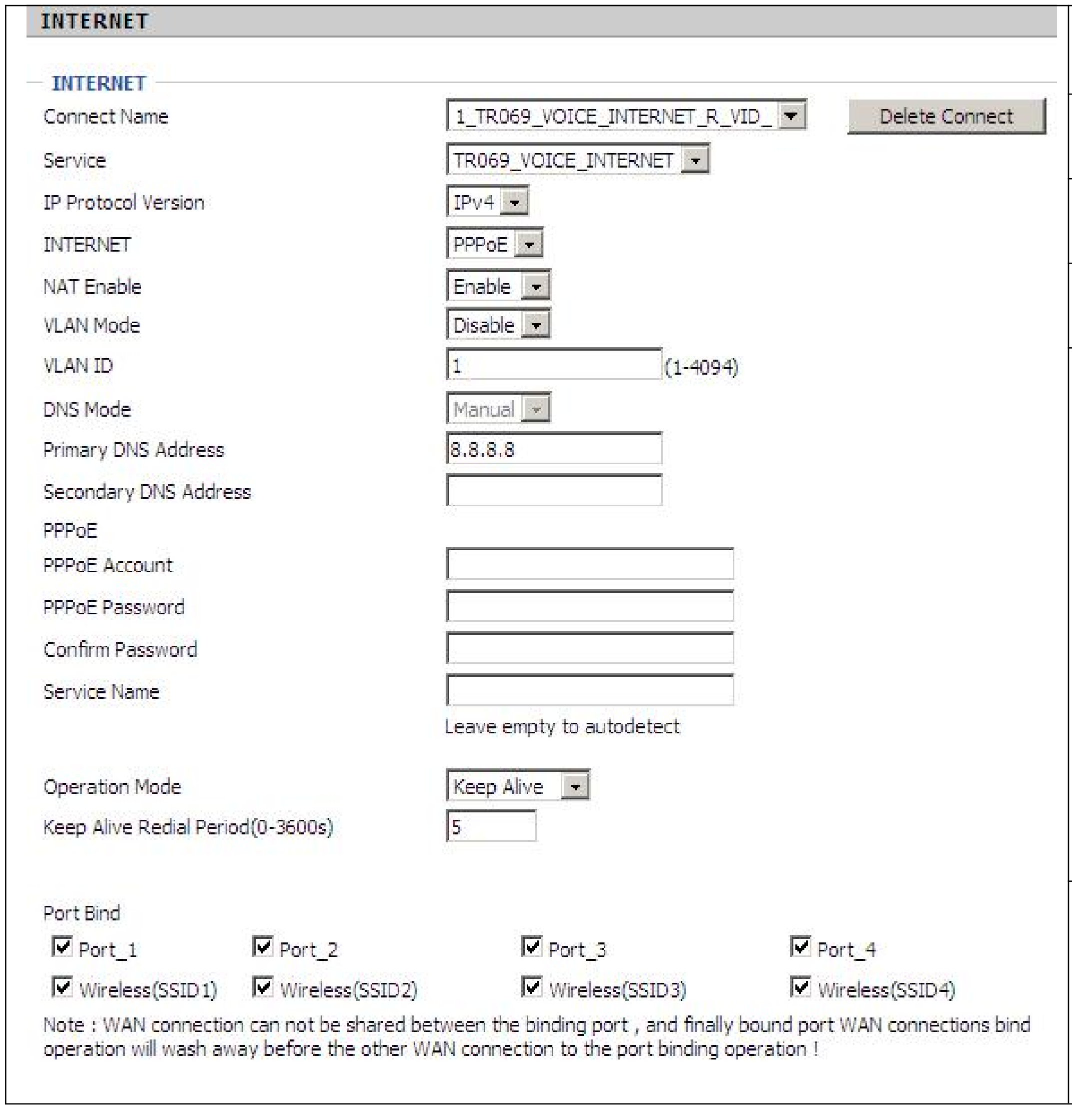
| | | |
|---|---|---|
| Connect Name | 1_TR069_VOICE_INTERNET_R_VID_ | Delete Connect |
| Service | TR069_VOICE_INTERNET | |
| IP Protocol Version | IPv4 | |
| INTERNET | DHCP | |
| NAT Enable | Enable | |
| VLAN Mode | Disable | |
| VLAN ID | 1 | (1-4094) |
| DNS Mode | Manual | |
| Primary DNS Address | 8.8.8.8 | |
| Secondary DNS Address | | |
| DHCP | | |
| DHCP Renew | Renew | |
| DHCP Vendor(Option 60) | VOIP-G802 | |

| Field Name | Description |
|---|---|
| **DNS Mode** | The Default is Manual |
| **Primary DNS Address** | The primary DNS of Internet port. |
| **Secondary DNS Address** | The secondary DNS of Internet port. |
| **DHCP Renew** | Refresh DHCP IP |
| **DHCP Vendor(Option60)** | Specify DHCP Vendor field<br>Display the vendor and product name |

### 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.



INTERNET

INTERNET

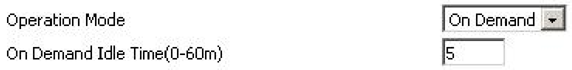
| | | |
|---|---|---|
| Connect Name | 1_TR069_VOICE_INTERNET_R_VID_ | Delete Connect |
| Service | TR069_VOICE_INTERNET | |
| IP Protocol Version | IPv4 | |
| INTERNET | PPPoE | |
| NAT Enable | Enable | |
| VLAN Mode | Disable | |
| VLAN ID | 1 | (1-4094) |
| DNS Mode | Manual | |
| Primary DNS Address | 8.8.8.8 | |
| Secondary DNS Address | | |
| PPPoE | | |
| PPPoE Account | | |
| PPPoE Password | | |
| Confirm Password | | |
| Service Name | Leave empty to autodetect | |
| Operation Mode | Keep Alive | |
| Keep Alive Redial Period(0-3600s) | 5 | |

Port Bind

☑ Port_1 ☑ Port_2 ☑ Port_3 ☑ Port_4

☑ Wireless(SSID1) ☑ Wireless(SSID2) ☑ Wireless(SSID3) ☑ Wireless(SSID4)

Note : WAN connection can not be shared between the binding port , and finally bound port WAN connections bind operation will wash away before the other WAN connection to the port binding operation !

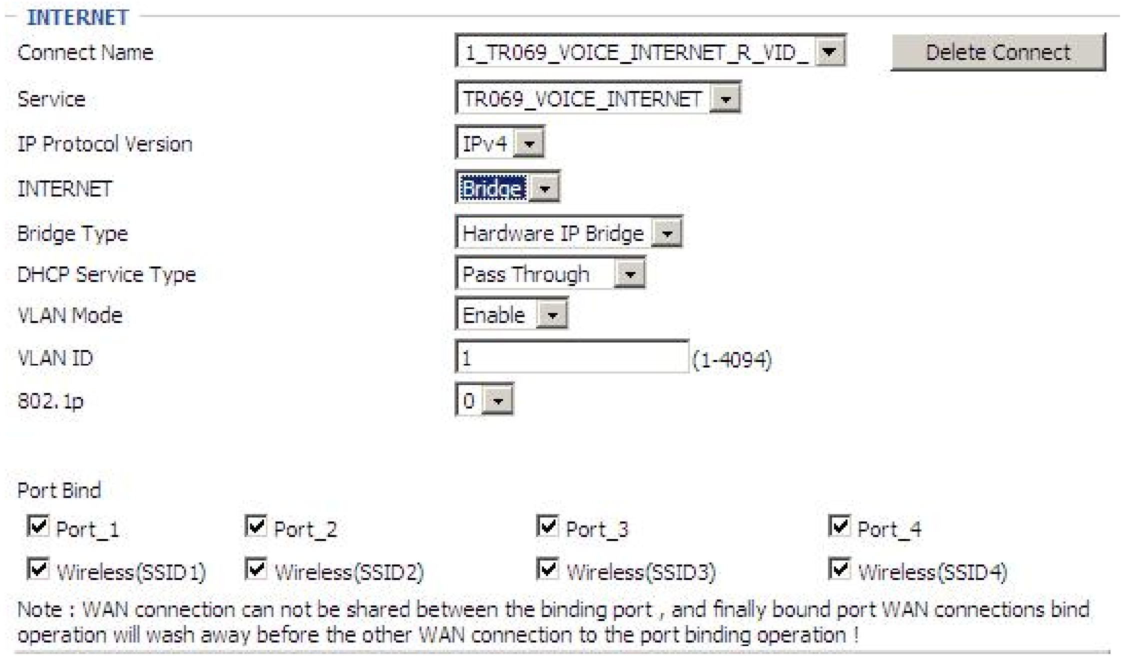
| Field Name | Description |
|---|---|
| **PPPoE Account** | Assign a valid user name provided by the ISP |
| **PPPoE Password** | Assign a valid password provided by the ISP |
| **Confirm Password** | Enter your PPPoE password again |
| **Operation Mode** | Select the mode of operation, options are Keep Alive, On Demand and Manual:<br>1.When the mode is Keep Alive, user need to set the 'keep alive redial period' values range from 0 to 3600s, the default setting is 5 minutes;<br>2. When the mode is On Demand, user need to set the 'on demand idle time' value in the range of 0-60 minutes, the default setting is 5 minutes;<br><br>Operation Mode On Demand<br>On Demand Idle Time(0-60m) 5<br>♦<br>3.When the mode is Manual, no need to do other settings. |
| **Keep Alive Redial Period** | Set the interval to send Keep Alive |

### 4. Bridge Mode

Bridge Mode under Multi WAN is different with traditional bridge setting. Bridge mode has no ip address and only work as a bridge between WAN port and LAN port. So Route Connection has to be build to give ip address to local service on device.
Under is example of bridge mode:
1_TR069_VOICE_INTERNET_R_VID_ is router connection for local service.

2_Other_B_VID_ is bridge connection for host of LAN port.

If bridge setting is complex, please refer to 6.4 section for fast setting of bridge mode.



INTERNET

| | |
|---|---|
| Connect Name | 1_TR069_VOICE_INTERNET_R_VID_ ▾ Delete Connect |
| Service | TR069_VOICE_INTERNET ▾ |
| IP Protocol Version | IPv4 ▾ |
| INTERNET | Bridge ▾ |
| Bridge Type | Hardware IP Bridge ▾ |
| DHCP Service Type | Pass Through ▾ |
| VLAN Mode | Enable ▾ |
| VLAN ID | 1 (1-4094) |
| 802.1p | 0 ▾ |

Port Bind

☑ Port_1 ☑ Port_2 ☑ Port_3 ☑ Port_4

☑ Wireless(SSID1) ☑ Wireless(SSID2) ☑ Wireless(SSID3) ☑ Wireless(SSID4)

Note : WAN connection can not be shared between the binding port , and finally bound port WAN connections bind operation will wash away before the other WAN connection to the port binding operation !

| Field Name | | Description |
|---|---|---|
| Bridge Type | IP Bridge | Allow all ethernet packets pass. PC could connect to upper network directly. |
| | PPPoE Bridge | Only Allow PPPoE packets pass. PC need PPPoE dial-up software. |
| | Hardware IP Bridge | Packets pass through hardware switch with wired speed. Do not support wireless port bind. |
| DHCP Service Type | Pass Through | Dhcp packets can be forwarded between WAN and LAN, dhcp server in gateway will not allocate IP to hosts of LAN port. |
| | DHCP Snooping | When gateway forwards dhcp packets form LAN to WAN it will add option82 to dhcp packet, and it will remove option82 when forward dhcp packet form WAN to LAN. Local dhcp service will not allocate ip to hosts of LAN port. |
| | Local Service | Gateway will not forward dhcp packets between Lan and Wan, it also block dhcp packet from WAN port. Hosts of LAN port can get ip from dhcp server run in gateway. |
| VLAN Mode | Disable | The WAN interface is untagged. LAN is untagged. |
| | Enable | The WAN interface is tagged. LAN is untagged. |
| | Trunk | Only valid in bridge mode. All ports, include WAN and LAN, belong to this VLAN Id and all ports are tagged in this VLAN id. Tagged packets could pass through WAN and LAN. |
| VLAN ID | | Set the VLAN ID. |
| 802.1p | | Set the priority of VLAN, Options are 0~7. |

## 5. Connect Name and Service

Connect Name Table is as below:

| Content | Define | Comment |
|---|---|---|
| **No** | 1～99 | WAN Connection id |
| **Service** | TR069 | The connection only support management application, like TR069, WEB, SNMP and Provision |
| | INTERNET | The connection only support internet service |
| | TR069_INTERNET | The connection support management and internet application |
| | VOICE | The connection only support voice application, like sip and rtp |
| | TR069_VOICE | The connection support both management and voice application |
| | VOICE_INTERNET | The connection support voice and internet application |
| | TR069_VOICE_INTERNET | The connection support management, voice and internet application |
| | Other | The connection support STB |
| **NAT Mode** | B | Bridge |
| | R | Router |
| **VLAN ID** | VID | VLAN ID |

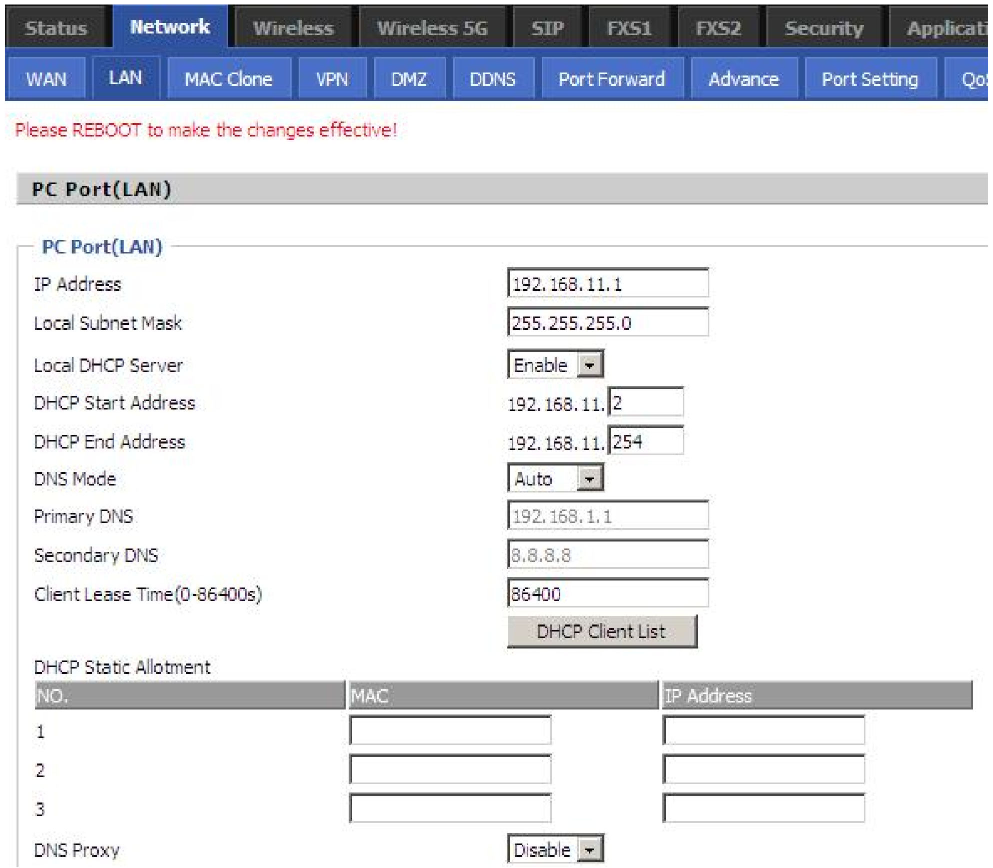
For example:

1. 1_TR069_R_VID_2 (First Interface, Service is TR069, NAT Mode, VLAN ID is 2)
2. 2_INTERNET_B_VID_(Second Interface, Service is INTERNET, Bridge Mode, VLAN is disabled)

## 4.3.2 LAN

### 1. LAN Port:

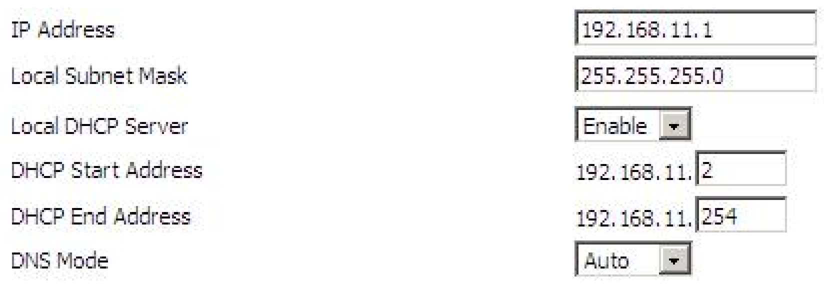
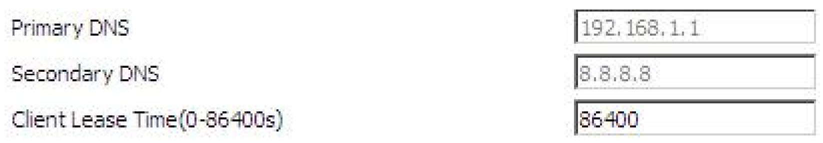
The most generic function of router is NAT. What NAT does is to translate the packets from public IP address to local IP address to forward the right packets to the right host and vice versa.

| | Field Name | Description |
|---|---|---|
| <br> Status<br>Network<br>Wireless<br>Wireless 5G<br>SIP<br>FXS1<br>FXS2<br>Security<br>Applicati<br>WAN<br>LAN<br>MAC Clone<br>VPN<br>DMZ<br>DDNS<br>Port Forward<br>Advance<br>Port Setting<br>Qo<br>DHCP Client List<br>Please REBOOT to make the changes effective!<br>PC Port(LAN)<br>PC Port(LAN)<br>IP Address 192.168.11.1<br>Local Subnet Mask 255.255.255.0<br>Local DHCP Server Enable<br>DHCP Start Address 192.168.11.2<br>DHCP End Address 192.168.11.254<br>DNS Mode Auto<br>Primary DNS 192.168.1.1<br>Secondary DNS 8.8.8.8<br>Client Lease Time(0-86400s) 86400<br>DHCP Static Allotment<br>NO. \| MAC \| IP Address<br>1<br>2<br>3<br>DNS Proxy Disable | **IP Address** | Enter the IP address of the router on the local area network, all the IP addresses of the computers which are in the router's LAN must be in the same network segment with this address, and the default gateway of the computers must be this IP address. (The default is 192.168.1.1) |
| | **Local Subnet Mask** | Enter the subnet mask to determine the size of the network (default is 255.255.255.0/24) |
| | **Local DHCP Server** | If or not enable Local DHCP Server |
| | **DHCP Start Address** | Enter a valid IP address as a starting IP address of the DHCP server, and if the router's LAN IP address is 192.168.1.1, starting IP address can be 192.168.1.2 or greater, but should be less than the ending IP address. |
| | **DHCP End Address** | Enter a valid IP address as an end IP address of the DHCP server. |
| | **DNS Mode** | Select DNS mode, options are Auto and Manual:<br>**1.** When DNS mode is Auto, the device under LAN port will automatically obtains the preferred DNS and alternate DNS.<br>**2.** When DNS mode is Manual, the user should manually configure the preferred DNS and alternate DNS |
| | **Primary DNS** | Enter the preferred DNS address. |
| | **Secondary DNS** | Enter the secondary DNS address. |
| | **Client Lease Time** | This option defines how long the address will be assigned to the computer within the network. In that period, the server does not assign the IP address to the other computer. |
| | **DNS Proxy** | Enable or disable; If enabled, the device will forward the DNS request of LAN-side network to the WAN side network |

### 2. DHCP Server:

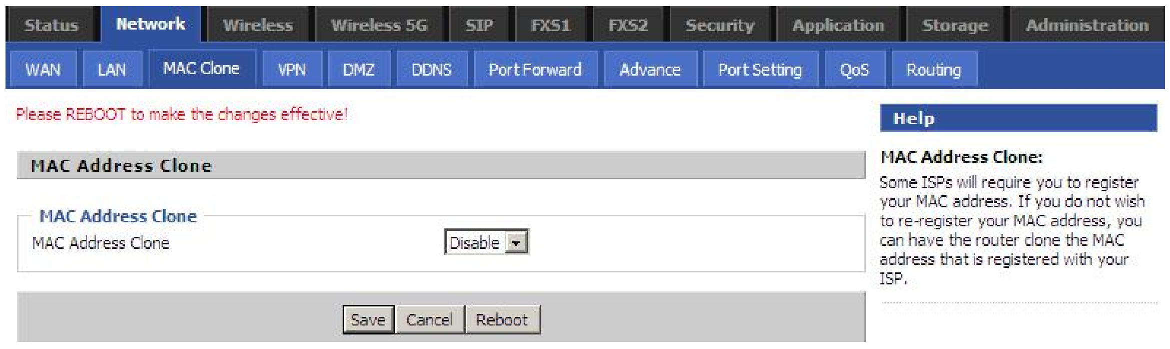
Router has a built-in DHCP server that assigns private IP address to each local host.

DHCP stands for Dynamic Host Configuration Protocol. The router by factory default acts a DHCP server for your network so it automatically dispatch related IP settings to any local user configured as a DHCP client. It is highly recommended that you leave the router enabled as a DHCP server if you do not have a DHCP server for your network.

| | Field Name | Description |
|---|---|---|
| <br>IP Address 192.168.11.1<br>Local Subnet Mask 255.255.255.0<br>Local DHCP Server Enable<br>DHCP Start Address 192.168.11.2<br>DHCP End Address 192.168.11.254<br>DNS Mode Auto | **Local DHCP Server** | If or not enable DHCP server. |
| | **DHCP Start Address** | Enter a value of the IP address pool for the DHCP server to start with when issuing IP addresses. If the LAN Interface IP |
| | **DHCP End Address** | Enter a value of the IP address pool for the DHCP server to end with when issuing IP addresses. |
| | **DNS Mode** | You should set "manual" in the "DNS Mode" if you set "DNS" by yourself. And then fill the DNS in the two following texts. Generally speaking, you can set "Auto" in the "DNS Mode" and the device will get "DNS" from DHCP Server automatically. |
| <br>Primary DNS 192.168.1.1<br>Secondary DNS 8.8.8.8<br>Client Lease Time(0-86400s) 86400 | **Primary DNS** | You must specify a DNS server IP address here because your ISP should provide you with usually more than one DNS Server. If your ISP does not provide it, the router will automatically apply default DNS Server IP address: 202.96.134.33 to this field. |
| | **Secondary DNS** | You must specify a DNS server IP address here because your ISP should provide you with usually more than one DNS Server. If your ISP does not provide it, the router will automatically apply default DNS Server IP address: 202.96.128.86 to this field.<br>If both the Primary IP and Secondary IP Address fields are left empty, the router will assign its own IP address to local users as a DNS proxy server and maintain a DNS cache. |
| | **Client Lease Time** | It allows you to set the leased time for the specified PC. |

## 4.3.3 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.

| | |
|---|---|
|  | Enabling MAC address cloning |
| | 1. Press the button Get Current PC MAC gets PC's MAC address |
| | 2. Press the button Save to save your changes if users don't want to use MAC clone, press the button Cancel to cancel the changes |
| | 3. Press the button Reboot to make the changes effective. |

Please REBOOT to make the changes effective!

MAC Address Clone

MAC Address Clone

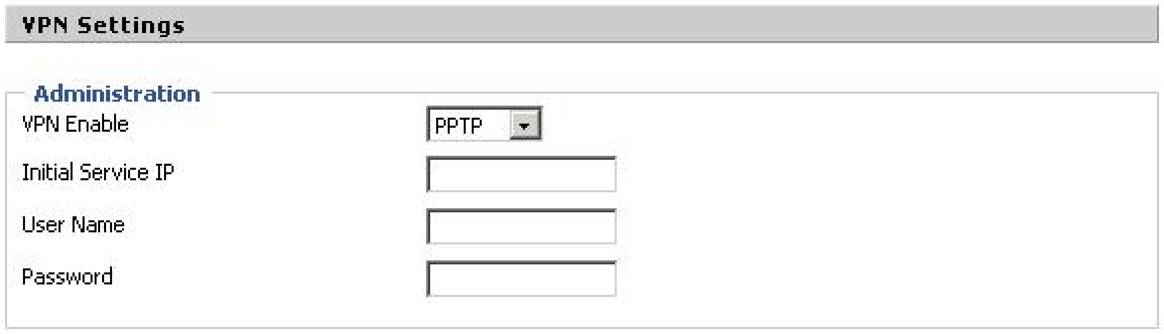
MAC Address Clone: Disable

Help

MAC Address 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.

## 4.3.4 VPN

A VPN is a kind of technology which establish a private network based on the public network. VPN network connection between any two nodes does not require the end to end physical connection as the traditional private network; it is structured on the network platform provided by the public network services, the user dhome gateway are transmitted in the logical link. Through VPN technology, users can establish connection between any two devices which are connected to public network and transmit dhome gateway.

| | Field Name | Description |
|---|---|---|
|  | VPN Enable | If or not enable VPN.If enable, you can select PPTP and L2TP mode VPN. |
| | Initial Service IP | Fill in the VPN server IP address |
| | User Name | Fill in the authentication username |
| | Password | Fill in the authentication password |

VPN Settings

Administration

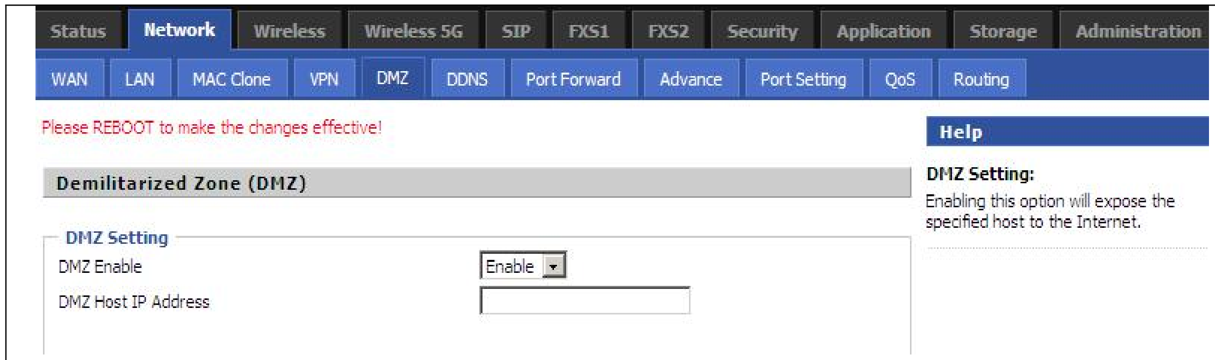
VPN Enable: PPTP

Initial Service IP:

User Name:

Password:

# 4.3.5 DMZ



Please REBOOT to make the changes effective!

Demilitarized Zone (DMZ)

DMZ Setting

DMZ Enable: Enable

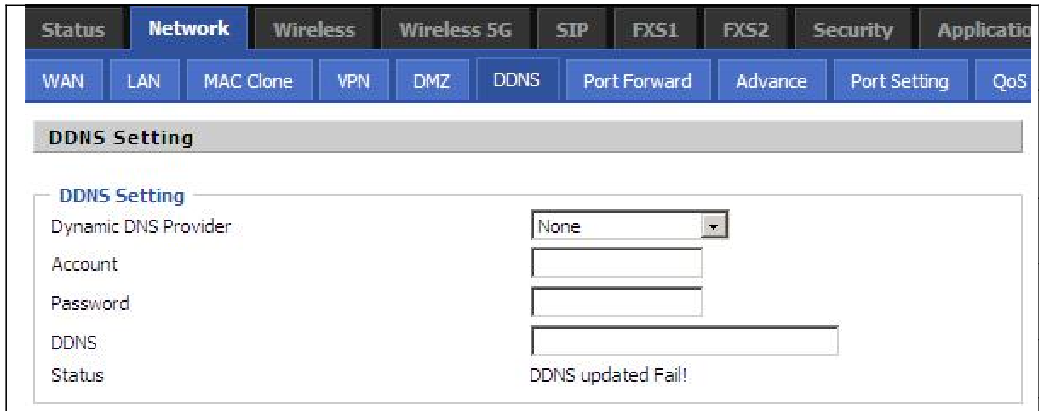
DMZ Host IP Address:

Help

DMZ Setting:
Enabling this option will expose the specified host to the Internet.

| Field Name | Description |
|---|---|
| **DMZ Enable** | If or not enable DMZ. |
| **DMZ Host IP Address** | Enter the private IP address of the DMZ host |

# 4.3.6 DDNS Setting



DDNS Setting

DDNS Setting

Dynamic DNS Provider: None

Account:

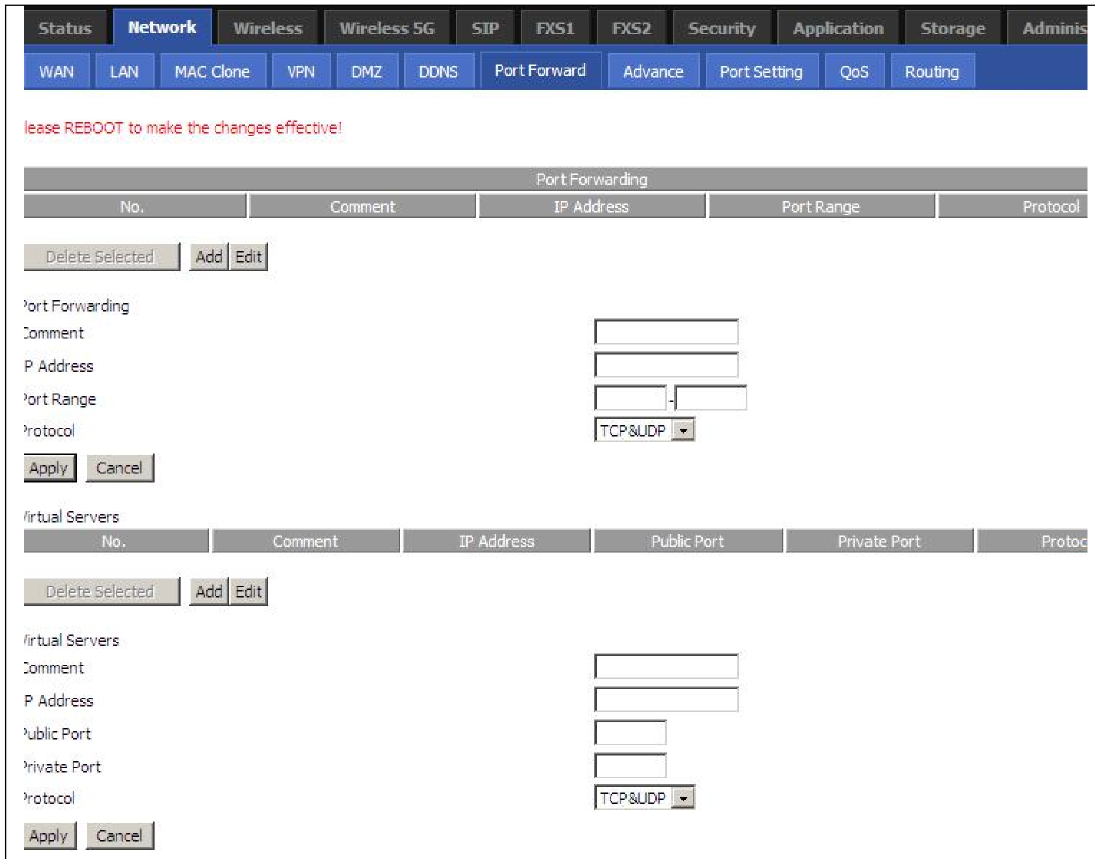
Password:

DDNS:

Status: DDNS updated Fail!

| Field Name | Description |
|---|---|
| **Dynamic DNS Provider** | DDNS is enabled and select a DDNS service provider |
| **Account** | Enter the DDNS service account |
| **Password** | Enter the DDNS service account password |
| **DDNS** | Enter the DDNS domain name or IP address |
| **Status** | See if DDNS is successfully upgraded |

# 4.3.7 Port Forward



lease REBOOT to make the changes effective!

Port Forwarding

| No. | Comment | IP Address | Port Range | Protocol |
|---|---|---|---|---|

'ort Forwarding

:omment
P Address
'ort Range -
'rotocol TCP&UDP

/irtual Servers

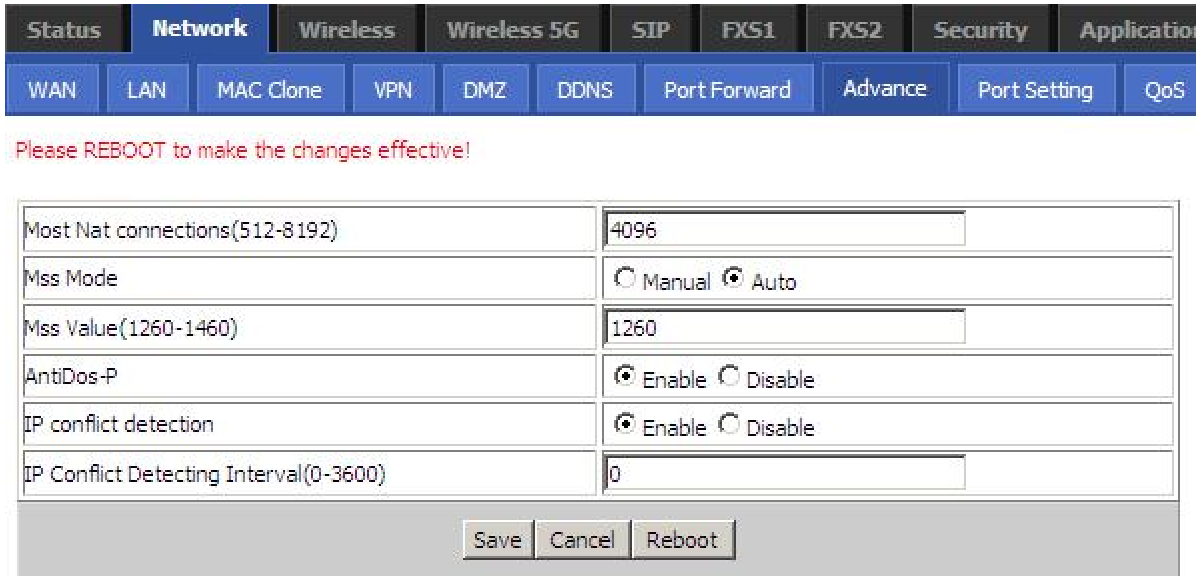
| No. | Comment | IP Address | Public Port | Private Port | Protoc |
|---|---|---|---|---|---|

/irtual Servers

:omment
P Address
'ublic Port
'rivate Port
'rotocol TCP&UDP

| Field Name | Description |
|---|---|
| **Comment** | Sets the name of a port mapping rule or comment |
| **IP Address** | The IP address of devices under the LAN port. |
| **Port Range** | Set the port range for the devices under the LAN port. (1-65535) |
| **Protocol** | You can select TCP, UDP, TCP & UDP three cases |
| **Apply/Cancel** | After finish configurations, click apply, the number will be generated under NO. List; click Cancel to if you do not want to make the changes. |
| **Comment** | To set up a virtual server notes |
| **IP Address** | Virtual server IP address |
| **Public Port** | Public port of virtual server |
| **Private Port** | Private port of virtual servers ports |
| **Protocol** | You can select from TCP, UDP, and TCP&UDP. |
| **Apply/Cancel** | After finish configurations, click apply, the number will be generated under NO. List; click Cancel to if you do not want to make the changes. |

## 4.3.8 Advance

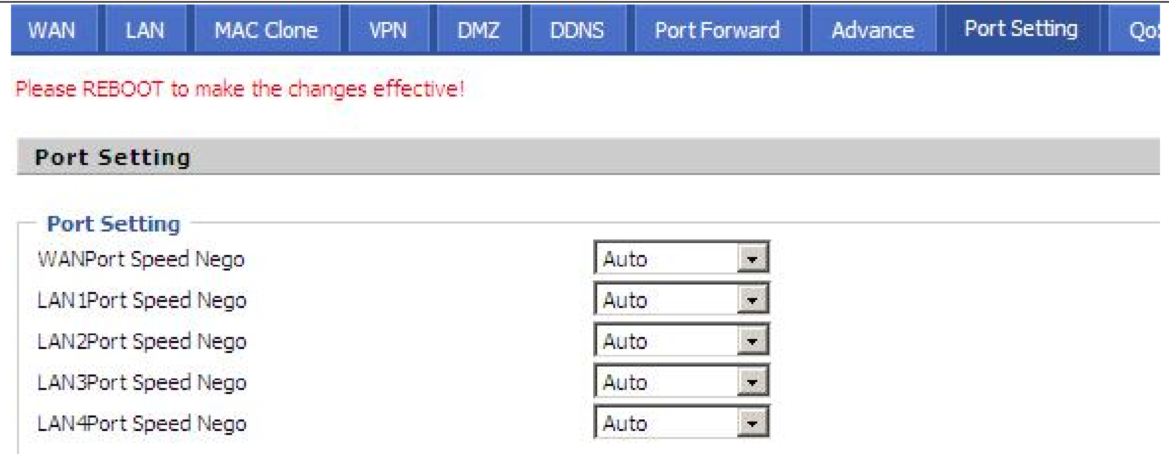


Please REBOOT to make the changes effective!

| | |
|---|---|
| Most Nat connections(512-8192) | 4096 |
| Mss Mode | ○ Manual ● Auto |
| Mss Value(1260-1460) | 1260 |
| AntiDos-P | ● Enable ○ Disable |
| IP conflict detection | ● Enable ○ Disable |
| IP Conflict Detecting Interval(0-3600) | 0 |

| Field Name | Description |
|---|---|
| **Most Nat connections** | The largest value which the FWR9202 can provide |
| **Mss Mode** | Choose Mss Mode from Manual and Auto |
| **Mss Value** | Set the value of TCP |
| **AntiDos-p** | You can choose to enable or prohibit |
| **IP conflict detection** | Select enable if enabled, phone IP conflict will have tips or prohibit； |
| **IP conflict Detecting Interval** | Detect IP address conflicts of the time interval |

## 4.3.9 Port Setting



Please REBOOT to make the changes effective!

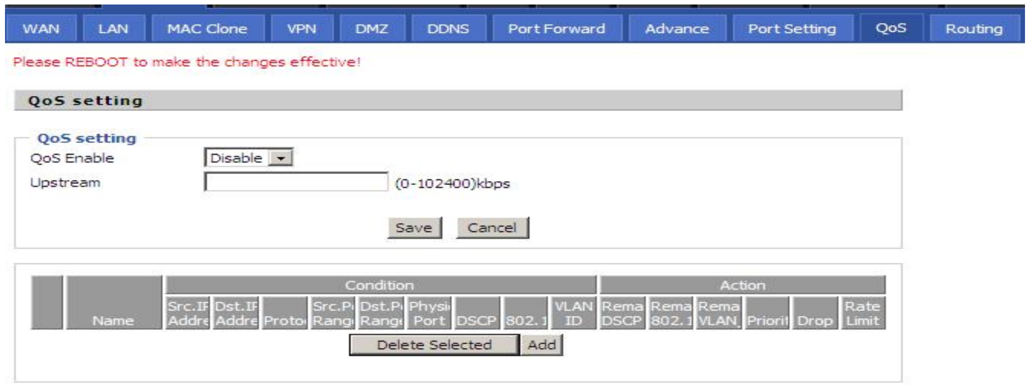
Port Setting

Port Setting

| | |
|---|---|
| WANPort Speed Nego | Auto |
| LAN1Port Speed Nego | Auto |
| LAN2Port Speed Nego | Auto |
| LAN3Port Speed Nego | Auto |
| LAN4Port Speed Nego | Auto |

| Field Name | Description |
|---|---|
| **WAN Port Speed Nego** | Auto-negotiation, options are Auto, 100M full, 100M half-duplex, 10M half and full, select port speed negotiation supported by methods. |
| **LAN1~LAN4Port Speed Nego** | Auto-negotiation, options are Auto, 100M full, 100M half, 10M half and 10M full, select port speed negotiation methods. |

# 4.3.10 QoS



Please REBOOT to make the changes effective!

QoS setting

QoS setting

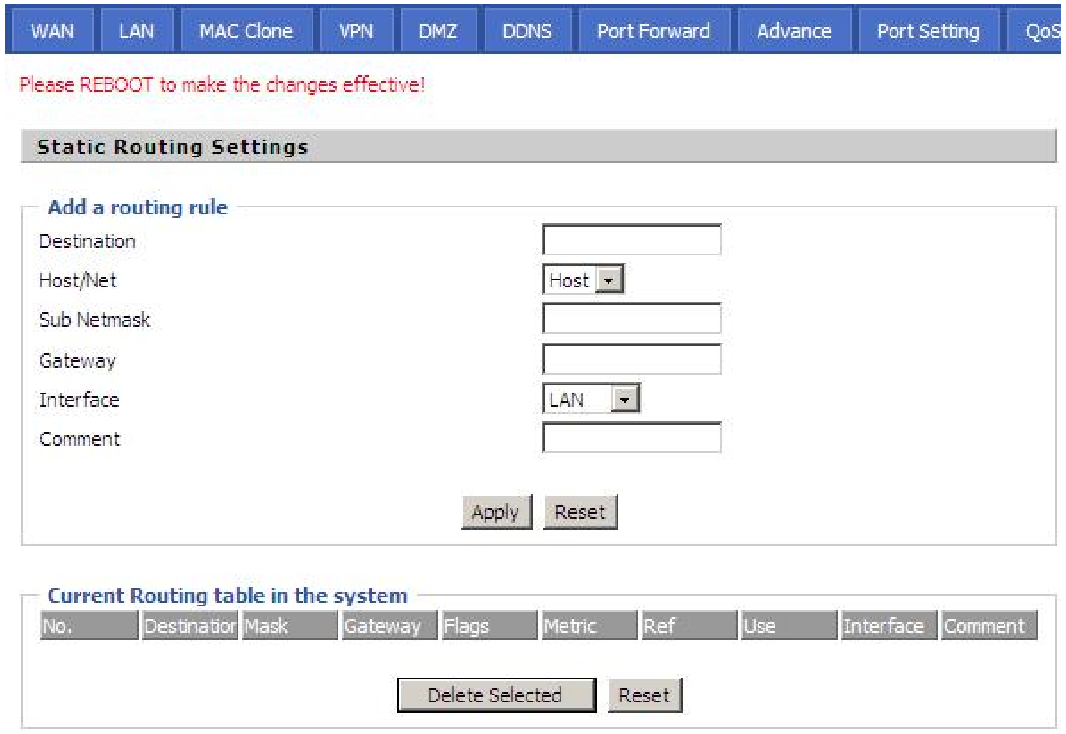
QoS Enable: Disable

Upstream: (0-102400)kbps

| | | Condition | | | | | | | | | Action | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Name | Src.IP Addre | Dst.IP Addre | Proto | Src.P Rang | Dst.P Range | Physi Port | DSCP | 802.1 | VLAN ID | Rema DSCP | Rema 802.1 | Rema VLAN_ | Priorit | Drop | Rate Limit |

| Field Name | Description |
|---|---|
| **QoS Enable** | If or not enable Qos function |
| **Upstream** | Set the upstream bandwidth |
| **Delete Selected** | In NO., Check the items you want to delete, click the Delete option |
| **Add** | Click Add to add a new parameter |

# 4.3.11 Routing



Please REBOOT to make the changes effective!

Static Routing Settings

Add a routing rule

Destination:

Host/Net: Host

Sub Netmask:

Gateway:

Interface: LAN

Comment:

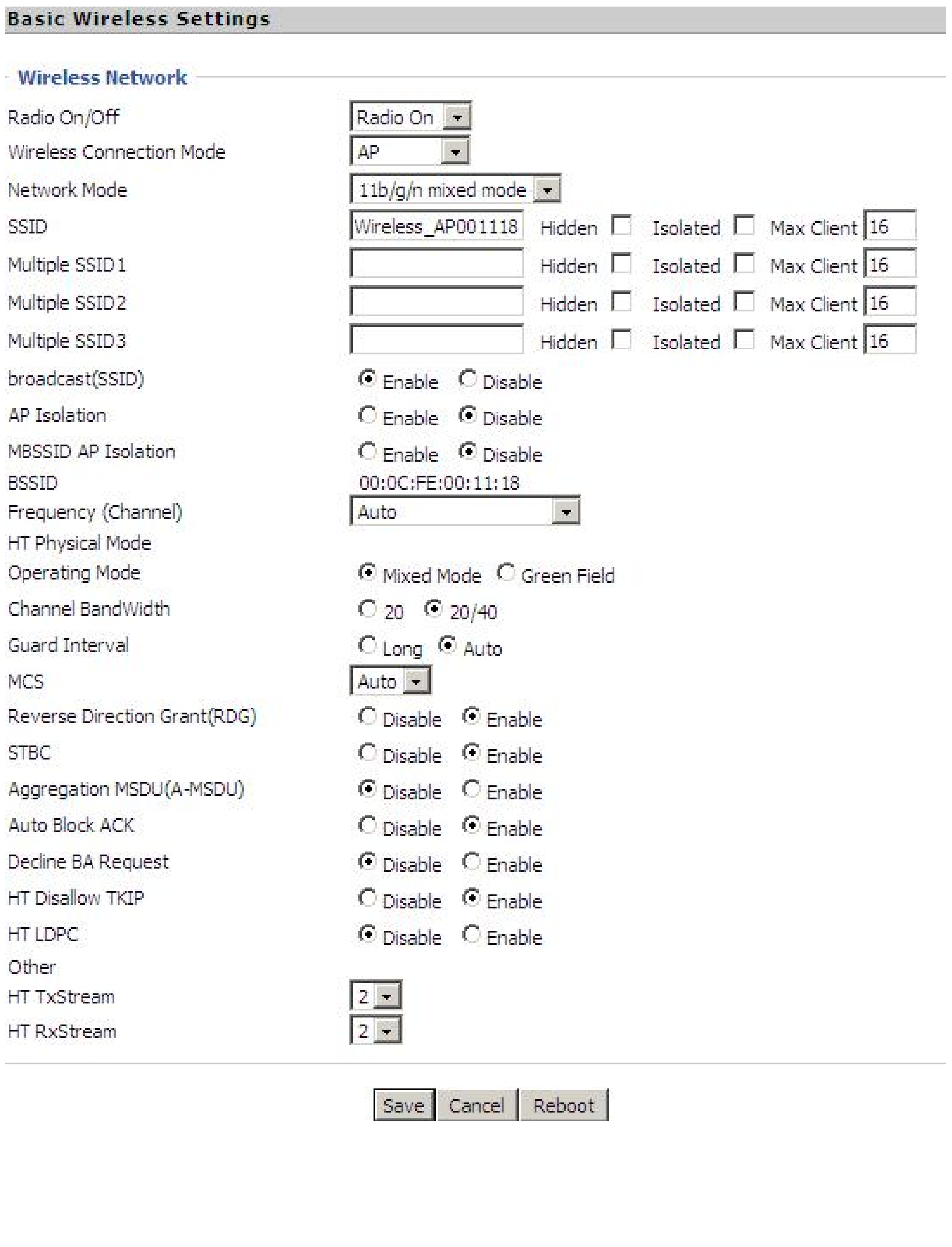
Current Routing table in the system

| No. | Destination | Mask | Gateway | Flags | Metric | Ref | Use | Interface | Comment |
|---|---|---|---|---|---|---|---|---|---|

| Field Name | Description |
|---|---|
| **Destination** | Destination address |
| **Host/Net** | Both Host and Net selection |
| **Gateway** | Gateway IP address |
| **Interface** | LAN/WAN/Custom three options, and add the corresponding address |
| **Comment** | Comment |

# 4.4 Wireless

## 4.4.1 Basic

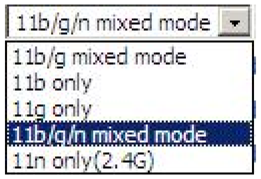


Basic Wireless Settings

Wireless Network

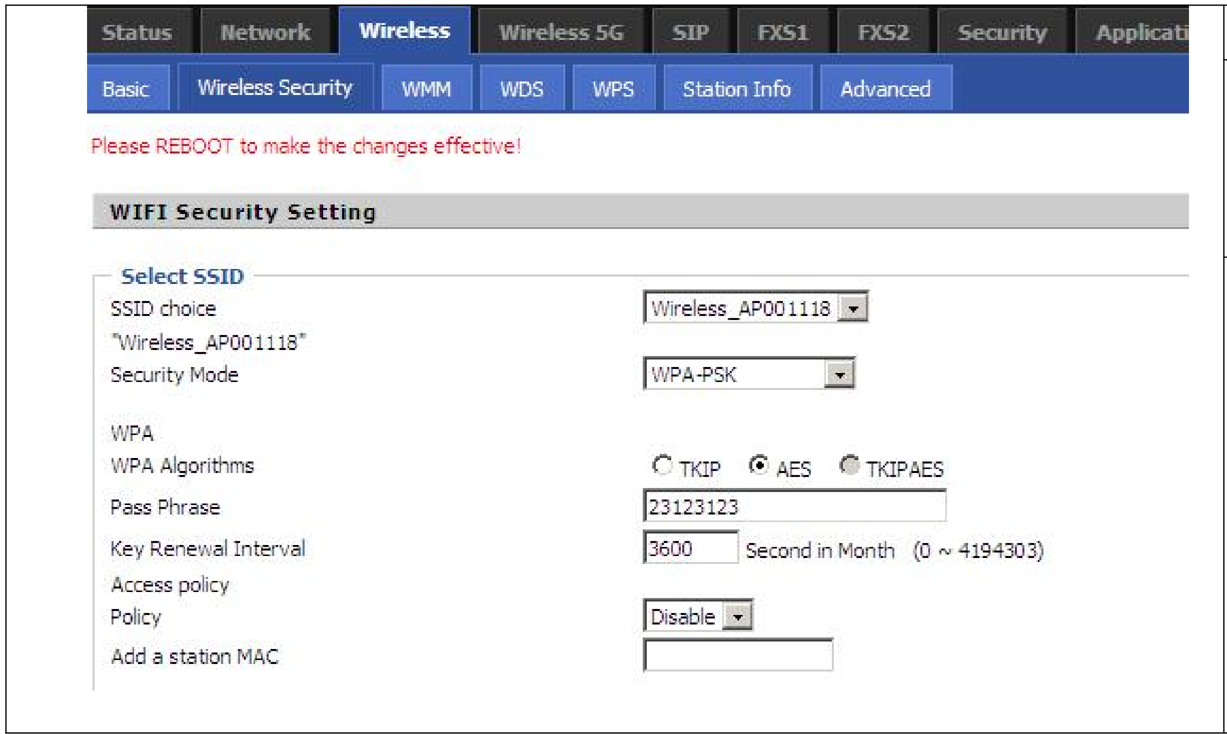
| | |
|---|---|
| Radio On/Off | Radio On |
| Wireless Connection Mode | AP |
| Network Mode | 11b/g/n mixed mode |
| SSID | Wireless_AP001118 Hidden □ Isolated □ Max Client 16 |
| Multiple SSID1 | Hidden □ Isolated □ Max Client 16 |
| Multiple SSID2 | Hidden □ Isolated □ Max Client 16 |
| Multiple SSID3 | Hidden □ Isolated □ Max Client 16 |
| broadcast(SSID) | ● Enable ○ Disable |
| AP Isolation | ○ Enable ● Disable |
| MBSSID AP Isolation | ○ Enable ● Disable |
| BSSID | 00:0C:FE:00:11:18 |
| Frequency (Channel) | Auto |
| HT Physical Mode | |
| Operating Mode | ● Mixed Mode ○ Green Field |
| Channel BandWidth | ○ 20 ● 20/40 |
| Guard Interval | ○ Long ● Auto |
| MCS | Auto |
| Reverse Direction Grant(RDG) | ○ Disable ● Enable |
| STBC | ○ Disable ● Enable |
| Aggregation MSDU(A-MSDU) | ● Disable ○ Enable |
| Auto Block ACK | ○ Disable ● Enable |
| Decline BA Request | ● Disable ○ Enable |
| HT Disallow TKIP | ○ Disable ● Enable |
| HT LDPC | ● Disable ○ Enable |
| Other | |
| HT TxStream | 2 |
| HT RxStream | 2 |

Save Cancel Reboot

| Field Name | Description |
|---|---|
| **Radio on/off** | Select "Radio Off" to disable wireless.<br>Select "Radio on"to enable wireless. |
| **Wireless connection mode** | According to the wireless client type, select one of these modes. Default is AP |
| **Network Mode** | Choose one network mode from the drop down list. Default is 11b/g/n mixed mode  11b/g/n mixed mode<br>11b/g mixed mode<br>11b only<br>11g only<br>11b/g/n mixed mode<br>11n only(2.4G) |
| **SSID** | It is the basic identity of wireless LAN. SSID can be any alphanumeric or a combination of special characters. It will appear in the wireless network access list. |
| **Multiple SSID1~SSID3** | FWR9202 supports multiple SSIDs. |
| **Hidden** | After the item is checked, the SSID is no longer displayed in the search for the Wi-Fi wireless network connection list |
| **Broadcast(SSID)** | After initial State opening, the device broadcasts the SSID of the router to wireless network |
| **AP Isolation** | If AP isolation is enabled, the clients of the AP cannot access each other. |
| **MBSSID AP Isolation** | AP isolation among the devices which are not belong to this AP and along to, when the option is enabled, the devices which do not belong to this AP cannot access the devices which are |

| | | |
|---|---|---|
| | | within the AP. |
| | **BSSID** | A group of wireless stations and a WLAN access point (AP) consists of a basic access device (BSS), each computer in the BSS must be configured with the same BSSID, that is, the wireless AP logo. |
| | **Frequency (Channel)** | You can select Auto Select and channel 1/2/3/4/5/6/7/8/9/10/11. |
| | **HT Physical Mode Operating Mode** | **1.** Mixed Mode: In this mode, the previous wireless card can recognize and connect to the Pre-N AP, but the throughput will be affected<br>**2.** Green Field: high throughput can be achieved, but it will affect backward compatibility, and security of the system |
| | **Channel Bandwidth** | Select channel bandwidth, default is 20MHz and 20/40MHz. |
| | **Guard Interval** | The default is automatic, in order to achieve good BER performance, you must set the appropriate guard interval |
| | **MCS** | Position control signal, options are 0 to 32, the default is automatic |
| | **Reverse Direction （RDG）** | You can choose to enable or disable this privilege |

# 4.4.2 Wireless Security



Please REBOOT to make the changes effective!

WIFI Security Setting

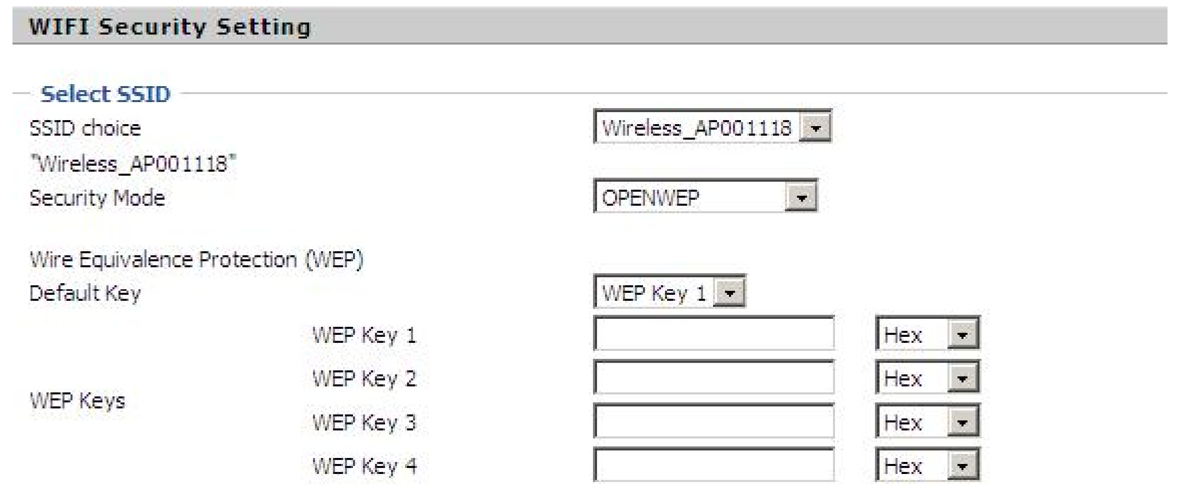
Select SSID

| | |
|---|---|
| SSID choice | Wireless_AP001118 |
| "Wireless_AP001118" | |
| Security Mode | WPA-PSK |
| WPA | |
| WPA Algorithms | ○ TKIP ● AES ○ TKIPAES |
| Pass Phrase | 23123123 |
| Key Renewal Interval | 3600 Second in Month (0 ~ 4194303) |
| Access policy | |
| Policy | Disable |
| Add a station MAC | |

| Field Name | Description |
|---|---|
| **SSID Choice** | Choose one SSID from SSID, Multiple SSID1, Multiple SSID2 and Multiple SSID3. |
| **Security Mode** | Select an appropriate encryption mode to improve the security and privacy of your wireless data packets.<br>Each encryption mode will bring out different web page and ask you to offer additional configuration. |

Select a different encryption mode, the web interface will be different, user can configure the corresponding parameters under the mode you select. Here are some common encryption method:

1. OPENWEP：A handshake way of WEP encryption, encryption via the WEP key:



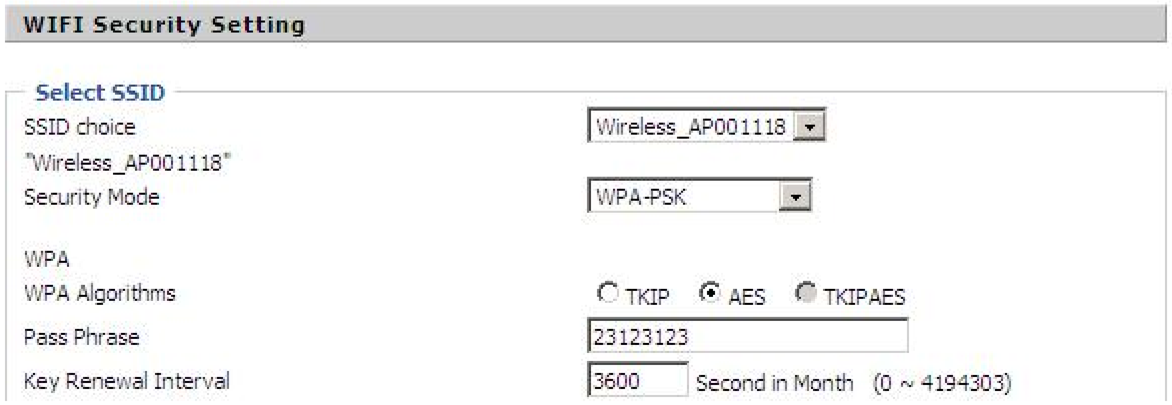
WIFI Security Setting

Select SSID

| | | | |
|---|---|---|---|
| SSID choice | | Wireless_AP001118 | |
| "Wireless_AP001118" | | | |
| Security Mode | | OPENWEP | |
| Wire Equivalence Protection (WEP) | | | |
| Default Key | | WEP Key 1 | |
| WEP Keys | WEP Key 1 | | Hex |
| | WEP Key 2 | | Hex |
| | WEP Key 3 | | Hex |
| | WEP Key 4 | | Hex |

| Field Name | Description |
|---|---|
| **Security Mode** | This is used to select one of the 4 WEP keys, key settings on the clients should be the same with this when connecting. |
| **WEP Keys** | Set the WEP key. A-64 key need 10 Hex characters or 5 ASCII characters; choose A-128 key need 26 Hex characters or 13 ASCII characters. |
| WEP represents Wired Equivalent Privacy, which is a basic encryption method. | |

2. WPA-PSK, the router will use WPA way which is based on the shared key-based mode:



**WIFI Security Setting**

Select SSID

SSID choice: Wireless_AP001118

"Wireless_AP001118"

Security Mode: WPA-PSK

WPA

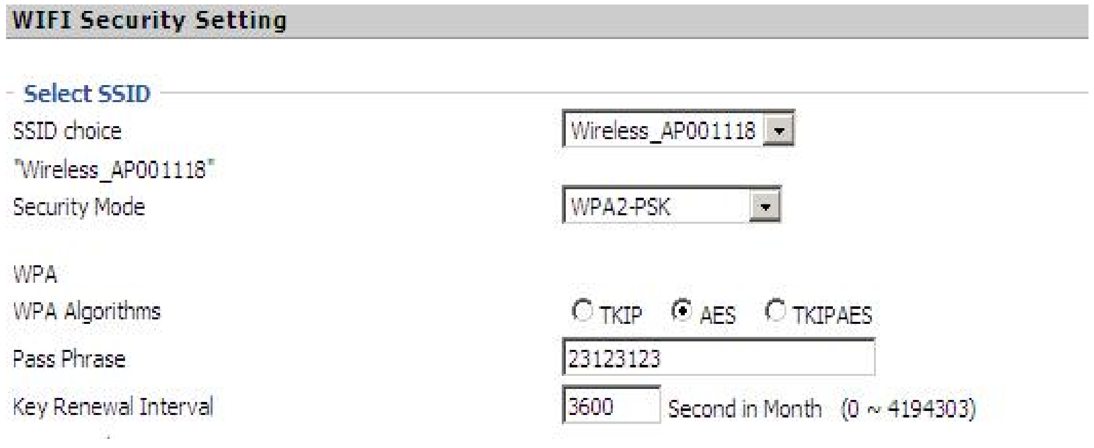
WPA Algorithms: ○ TKIP ● AES ○ TKIPAES

Pass Phrase: 23123123

Key Renewal Interval: 3600 Second in Month (0 ~ 4194303)

| Field Name | Description |
|---|---|
| **WPA Algorithms** | This item is used to select the encryption of wireless dhome gateway algorithms, options are TKIP, AES and TKIPAES. |
| **Pass Phrase** | Setting up WPA-PSK security password. |
| **Key Renewal Interval** | Set the key scheduled update cycle, default is 3600s. |

3. WPA2-PSK, the router will be based on shared key WPA2 modes:



**WIFI Security Setting**

Select SSID

SSID choice: Wireless_AP001118

"Wireless_AP001118"

Security Mode: WPA2-PSK

WPA

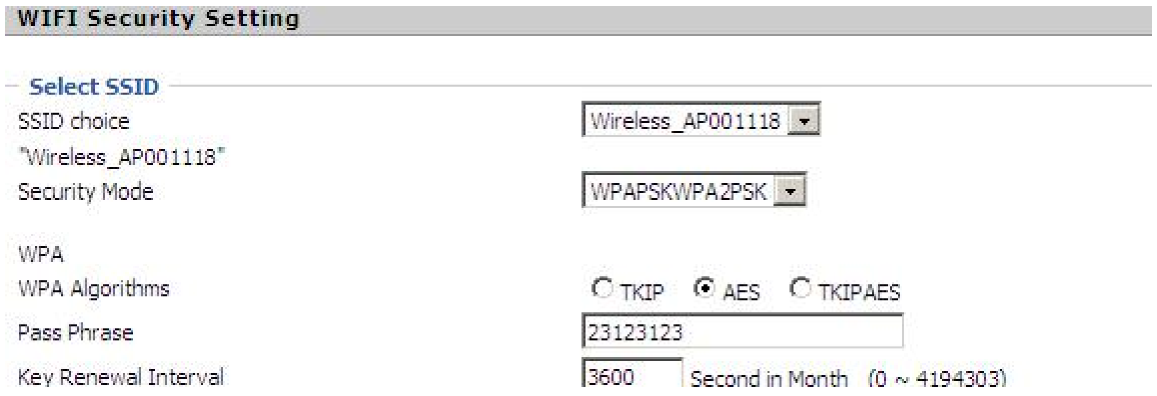
WPA Algorithms: ○ TKIP ● AES ○ TKIPAES

Pass Phrase: 23123123

Key Renewal Interval: 3600 Second in Month (0 ~ 4194303)

| Field Name | Description |
|---|---|
| **WPA Algorithms** | This item is used to select the security algorithm for encryption of wireless dhome gateway, options are TKIP, AES, TKIPAES three |
| **Pass phrase** | Setting up WPA2-PSK security password |
| **Key Renewal Interval** | Set the key scheduled update cycle, default is 3600s |

4. WPAPSKWPA2PSK manner is consistent with WPA2PSK settings



**WIFI Security Setting**

Select SSID

SSID choice: Wireless_AP001118

"Wireless_AP001118"

Security Mode: WPAPSKWPA2PSK

WPA

WPA Algorithms: ○ TKIP ● AES ○ TKIPAES

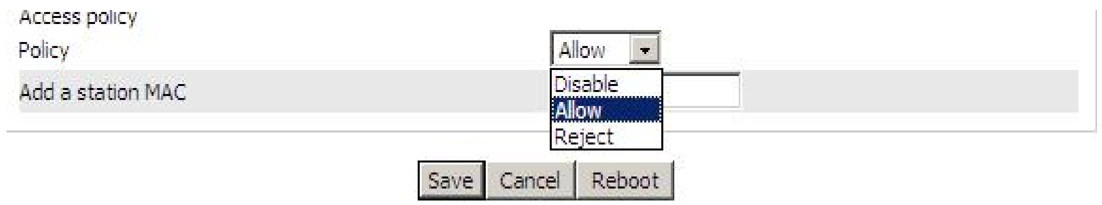
Pass Phrase: 23123123

Key Renewal Interval: 3600 Second in Month (0 ~ 4194303)

| Field Name | Description |
|---|---|
| **WPA Algorithms** | The dhome gateway is used to select the wireless security encryption algorithm options are TKIP, AES, TKIP / AES. 11N mode does not support TKIP algorithms. |
| **Pass Phrase** | Set WPA-PSK/WPA2-PSK security code |
| **Key Renewal Interval** | Set the key scheduled update cycle, default is 3600s |

WPA-PSK/WPA2-PSK WPA/WPA2 security type is actually a simplified version, which is based on the WPA shared key mode, higher security setting is also relatively simple, suitable for ordinary home users and small businesses.

## 5. Wireless Access Policy:



Access policy

Policy: Allow

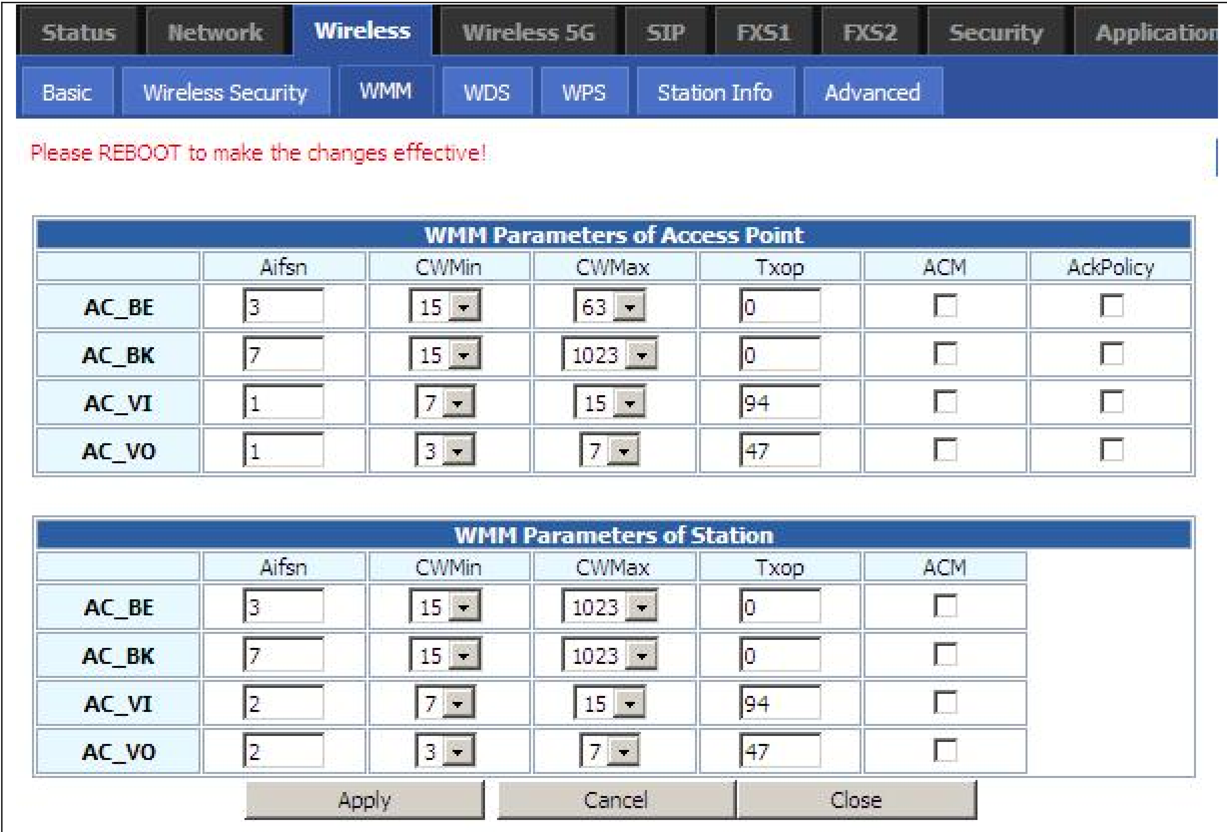
Add a station MAC

| Field Name | Description |
|---|---|
| **Access policy** | Wireless access control is used to allow or prohibit the specified client to access to your wireless network based on the MAC address. |
| **Policy** | Prohibition: disable wireless access control policy; allow: only allow the clients in the list to access, rejected: block the clients in the list to access. |
| **Add a station MAC** | Enter the MAC address of the clients which you want to allow or prohibit |

Example: Prohibit the device whose wireless network card MAC address is 00:1F: D0: 62: BA: FF's to access the wireless network, and allow other computers to access the network.

Implementation: As shown, the Policy is Reject, add 00:1F: D0: 62: BA: FF to the MAC, click Save and reboot the device settings to take effect.

## 4.4.3 WMM



Please REBOOT to make the changes effective!

**WMM Parameters of Access Point**

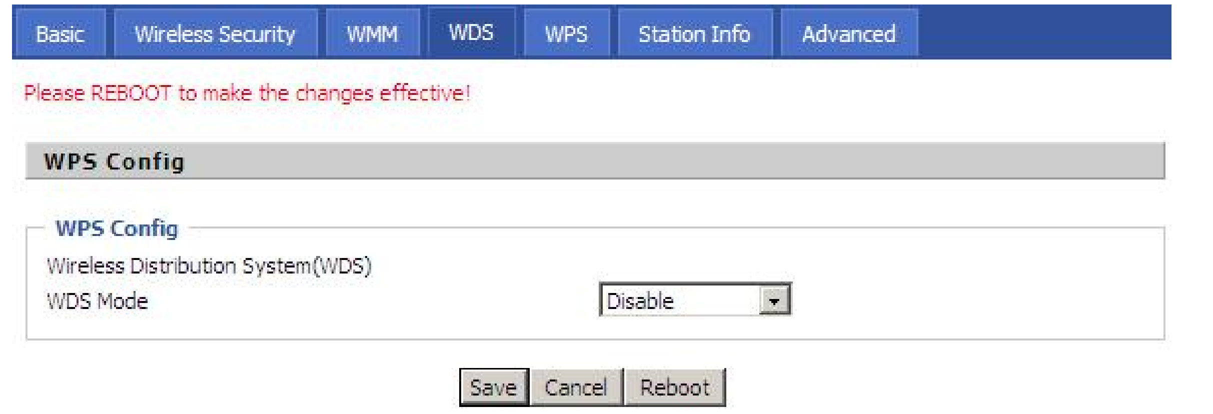
| | Aifsn | CWMin | CWMax | Txop | ACM | AckPolicy |
|---|---|---|---|---|---|---|
| AC_BE | 3 | 15 | 63 | 0 | ☐ | ☐ |
| AC_BK | 7 | 15 | 1023 | 0 | ☐ | ☐ |
| AC_VI | 1 | 7 | 15 | 94 | ☐ | ☐ |
| AC_VO | 1 | 3 | 7 | 47 | ☐ | ☐ |

**WMM Parameters of Station**

| | Aifsn | CWMin | CWMax | Txop | ACM |
|---|---|---|---|---|---|
| AC_BE | 3 | 15 | 1023 | 0 | ☐ |
| AC_BK | 7 | 15 | 1023 | 0 | ☐ |
| AC_VI | 2 | 7 | 15 | 94 | ☐ |
| AC_VO | 2 | 3 | 7 | 47 | ☐ |

WMM (Wi-Fi MultiMedia) is the QoS certificate of Wi-Fi Alliance (WFA). This provides you to configure the parameters of wireless multimedia; VMM allows wireless communication to define a priority according to the dhome gateway type. To make VMM effective, the wireless clients must also support VMM.

## 4.4.4 WDS



Please REBOOT to make the changes effective!

**WPS Config**

**WPS Config**

Wireless Distribution System(WDS)

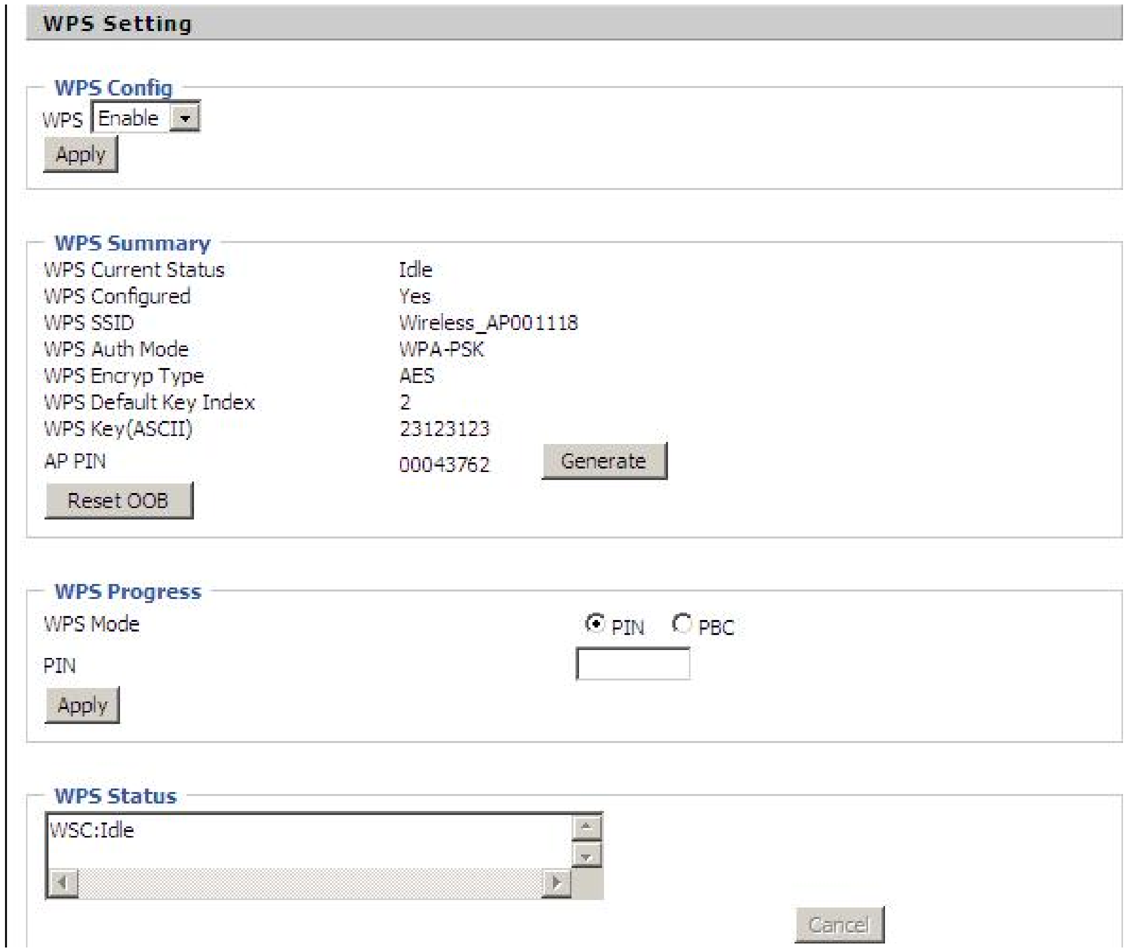
WDS Mode: Disable

If or not enable WDS mode

# 4.4.5 WPS

WPS (Wi-Fi Protected Setup) provides easy procedure to make network connection between wireless station and wireless access point (vigor router) with the encryption of WPA and WPA2.

It is the simplest way to build connection between wireless network clients and vigor router. Users do not need to select any encryption mode and type any long encryption passphrase to setup a wireless client every time. He/she only needs to press a button on wireless client, and WPS will connect for client and router automatically.



WPS Setting

WPS Config
WPS Enable
Apply

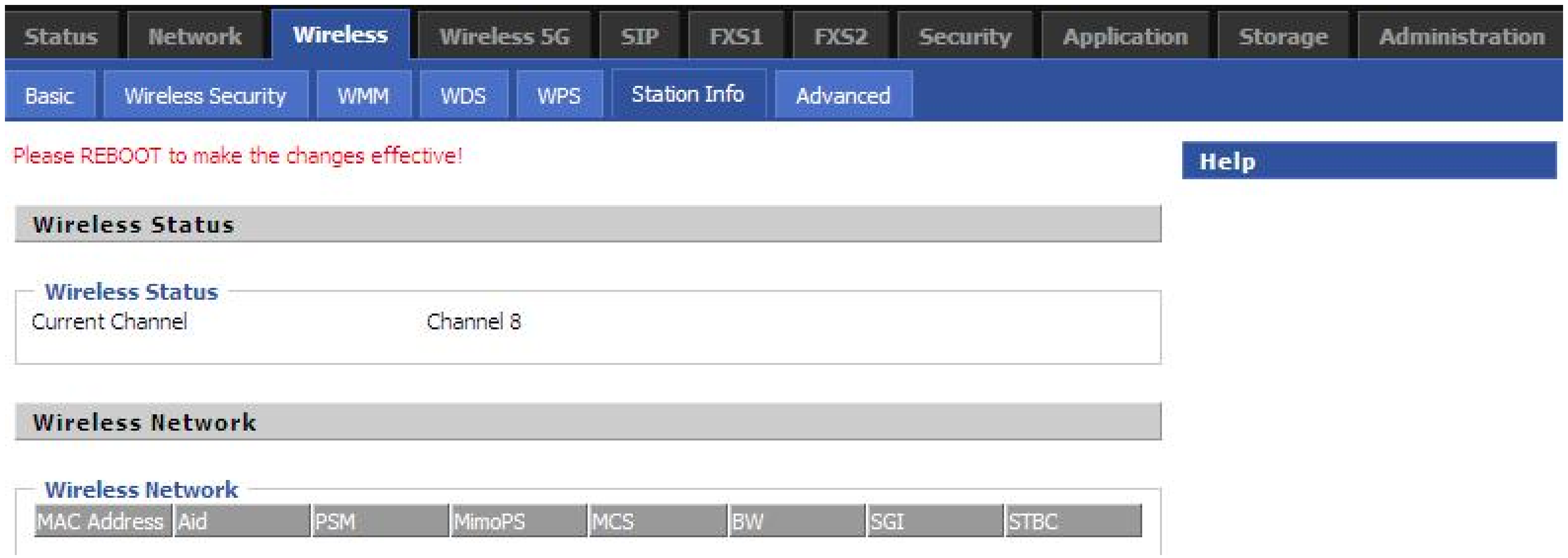
WPS Summary
WPS Current Status Idle
WPS Configured Yes
WPS SSID Wireless_AP001118
WPS Auth Mode WPA-PSK
WPS Encryp Type AES
WPS Default Key Index 2
WPS Key(ASCII) 23123123
AP PIN 00043762 Generate
Reset OOB

WPS Progress
WPS Mode ● PIN ○ PBC
PIN
Apply

WPS Status
WSC:Idle
Cancel

| Field Name | Description |
|---|---|
| **WPS Setting** | If or not enable WPS function |
| **WPS Summary** | Display the current status of WPS, including current state, SSSID name, authentication methods, encryption type and the PIN code of this AP. |
| **Generate** | Generate a new PIN code |
| **Reset OOB** | FWR9202 uses default security policy to allow other non-WPS users to access and apply. |
| **WPS Mode** | PIN： Enter the PIN code of the wireless device which accesses to this LAN in the following option, and press apply. Then FWR9202 begins to send signals, turn on the PIN accessing method on the clients, and then it can access the wireless AP automatically.<br>PBC： There are two ways to start PCB mode, user can press the PCB button directly on the device, or select PCB mode on the software and apply. Users can activate WPS connection in WPS mode through these two methods, only when the clients choose PCB access, the clients can connect the AP automatically. |
| **WPS Status** | WPS shows status in three ways:<br>WSC: Idle<br>WSC: Start WSC Process(begin to send messages)<br>WSC: Success; this means clients have accessed the AP successfully, WPS connects well. |

## 4.4.6 Station Info



Please REBOOT to make the changes effective!

**Wireless Status**

Wireless Status

Current Channel Channel 8

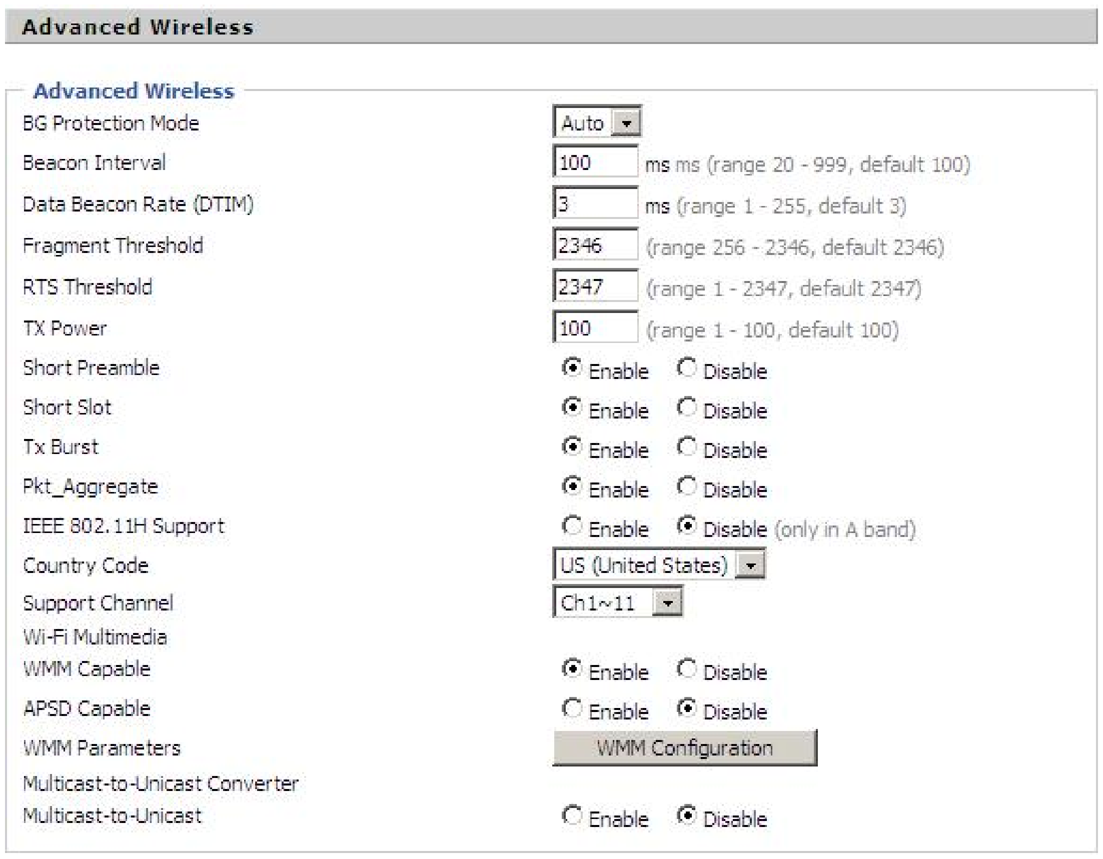
**Wireless Network**

Wireless Network

| MAC Address | Aid | PSM | MimoPS | MCS | BW | SGI | STBC |
|---|---|---|---|---|---|---|---|

This page shows user the clients' information which connects to the AP.

## 4.4.7 Advanced



**Advanced Wireless**

Advanced Wireless

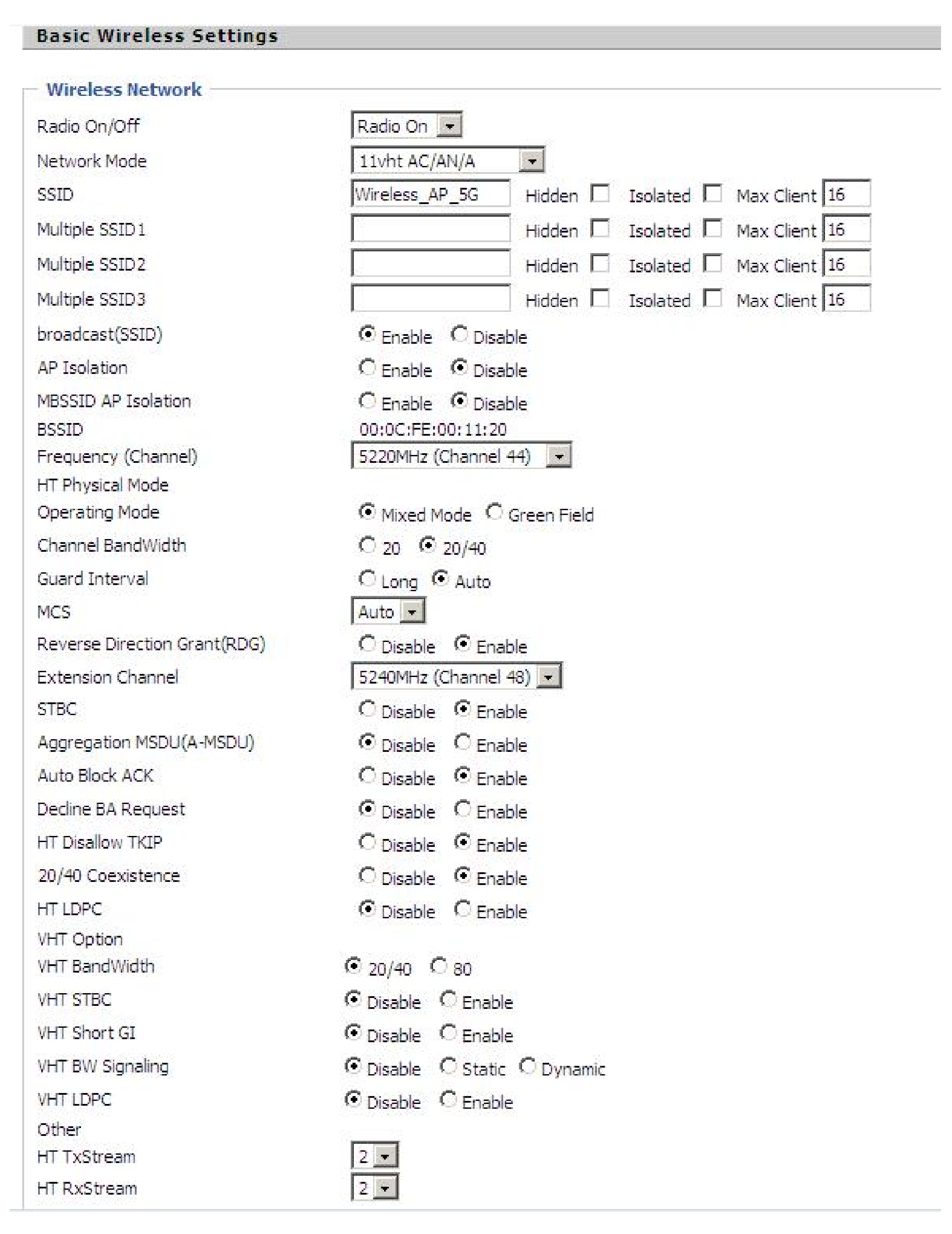
| | |
|---|---|
| BG Protection Mode | Auto |
| Beacon Interval | 100 ms ms (range 20 - 999, default 100) |
| Data Beacon Rate (DTIM) | 3 ms (range 1 - 255, default 3) |
| Fragment Threshold | 2346 (range 256 - 2346, default 2346) |
| RTS Threshold | 2347 (range 1 - 2347, default 2347) |
| TX Power | 100 (range 1 - 100, default 100) |
| Short Preamble | ● Enable ○ Disable |
| Short Slot | ● Enable ○ Disable |
| Tx Burst | ● Enable ○ Disable |
| Pkt_Aggregate | ● Enable ○ Disable |
| IEEE 802.11H Support | ○ Enable ● Disable (only in A band) |
| Country Code | US (United States) |
| Support Channel | Ch1~11 |
| Wi-Fi Multimedia | |
| WMM Capable | ● Enable ○ Disable |
| APSD Capable | ○ Enable ● Disable |
| WMM Parameters | WMM Configuration |
| Multicast-to-Unicast Converter | |
| Multicast-to-Unicast | ○ Enable ● Disable |

| Field Name | Description |
|---|---|
| **BG Protection Mode** | Select G protection mode, options are on, off and automatic. |
| **Beacon Interval** | The interval of sending a wireless beacon frame, within this range, it will send a beacon frame for the information of the surrounding radio network. |
| **Data Beacon Rate(DTIM)** | Specify the interval of transmitting the indication message, it is a kind of cut down operation, and it is used for informing the next client which is going to receive broadcast multi-cast. |
| **Fragment Threshold** | Specify the fragment threshold for the packet, when the length of the packet exceeds this value, the packet will be divided into multiple packets. |
| **RTS Threshold** | Specify the packet RTS threshold, when the packet exceeds this value, the router will send RTS to the destination site consultation |
| **TX Power** | Define the transmission power of the current AP, the greater it is, the stronger the signal is. |
| **Short Preamble** | Default is enable, FWR9202 system is not compatible with traditional IEEE802.11, the operation rate can be 1,2Mpbs |

| | | |
|---|---|---|
| | **Short Slot** | If or not enable short slot, default is enable, it is helpful in improving the transmission rate of wireless communication. |
| | **Tx Burst** | One of the features of MAC layer, it is used to improve the fairness for transmitting TCP. |
| | **Pkt_Aggregate** | It is a mechanism that is used to enhance the LAN, in order to ensure that the dhome gateway packets are sent to the destination correctly. |
| | **IEEE802.11H support** | If or not enable IEEE802.11H Support, default is disable. |
| | **Country Code** | Select country code, options are CN, US, JP, FR, TW, IE, HK and NONE. |
| | **Wi-Fi Multimedia(WMM)** | |
| | **WMM Capable** | If or not enable WMM. WMM take effects when it is enabled. |
| | **APSD Capable** | After enable this, it may affect wireless performance, but can play a role in energy-saving power |
| | **WMM Parameters** | Press WMM Configuration, the webpage will jump to the configuration page of Wi-Fi multimedia. |
| | **Multicast-to-Unicast Converter** | |
| | **Multicast-to-Unicast** | If or not enable Multicast-to-Unicast, by default, it is disabled, you can enable it. |

# 4.5 Wireless 5G

## 4.5.1 Basic



**Basic Wireless Settings**

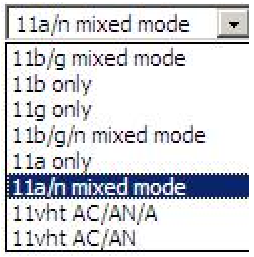
Wireless Network

Radio On/Off: Radio On
Network Mode: 11vht AC/AN/A
SSID: Wireless_AP_5G   Hidden □   Isolated □   Max Client 16
Multiple SSID1:   Hidden □   Isolated □   Max Client 16
Multiple SSID2:   Hidden □   Isolated □   Max Client 16
Multiple SSID3:   Hidden □   Isolated □   Max Client 16
broadcast(SSID): ● Enable ○ Disable
AP Isolation: ○ Enable ● Disable
MBSSID AP Isolation: ○ Enable ● Disable
BSSID: 00:0C:FE:00:11:20
Frequency (Channel): 5220MHz (Channel 44)

HT Physical Mode
Operating Mode: ● Mixed Mode ○ Green Field
Channel BandWidth: ○ 20 ● 20/40
Guard Interval: ○ Long ● Auto
MCS: Auto
Reverse Direction Grant(RDG): ○ Disable ● Enable
Extension Channel: 5240MHz (Channel 48)
STBC: ○ Disable ● Enable
Aggregation MSDU(A-MSDU): ● Disable ○ Enable
Auto Block ACK: ○ Disable ● Enable
Decline BA Request: ● Disable ○ Enable
HT Disallow TKIP: ○ Disable ● Enable
20/40 Coexistence: ○ Disable ● Enable
HT LDPC: ● Disable ○ Enable

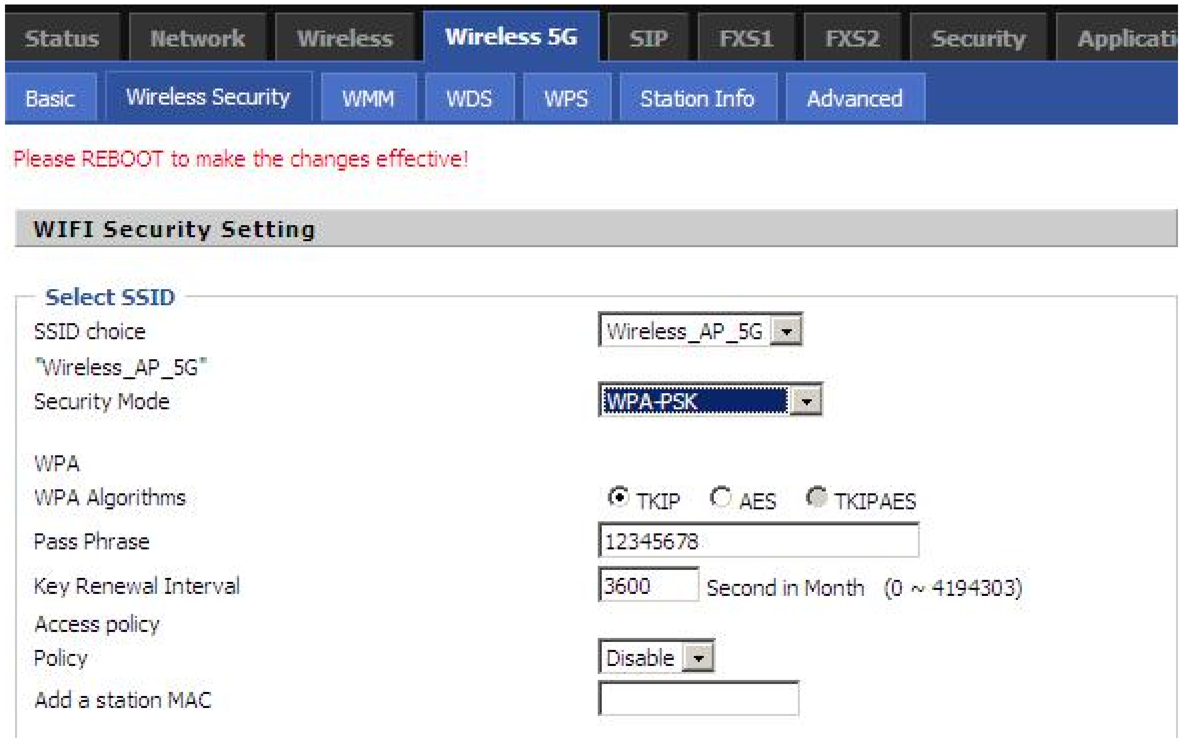
VHT Option
VHT BandWidth: ● 20/40 ○ 80
VHT STBC: ● Disable ○ Enable
VHT Short GI: ● Disable ○ Enable
VHT BW Signaling: ● Disable ○ Static ○ Dynamic
VHT LDPC: ● Disable ○ Enable

Other
HT TxStream: 2
HT RxStream: 2

| Field Name | Description |
|---|---|
| **Radio on/off** | Select “Radio Off” to disable wireless.<br>Select “Radio on”to enable wireless. |
| **Network Mode** | Choose one network mode from the drop down   11a/n mixed mode<br>11b/g mixed mode<br>11b only<br>11g only<br>11b/g/n mixed mode<br>11a only<br>11a/n mixed mode<br>11vht AC/AN/A<br>11vht AC/AN list |
| **SSID** | It is the basic identity of wireless LAN. SSID can be any alphanumeric or a combination of special characters. It will appear in the wireless network access list. |
| **Multiple SSID1~SSID3** | FWR9202 supports multiple SSIDs. |
| **Hidden** | After the item is checked, the SSID is no longer displayed in the search for the Wi-Fi wireless network connection list |
| **Broadcast(SSID)** | After initial State opening, the device broadcasts the SSID of the router to wireless network |
| **AP Isolation** | If AP isolation is enabled, the clients of the AP cannot access each other. |
| **MBSSID AP Isolation** | AP isolation among the devices which are not belong to this AP and along to, when the option is enabled, the devices which do not belong to this AP cannot access the devices which are within the AP. |

| | | |
|---|---|---|
| | **BSSID** | A group of wireless stations and a WLAN access point (AP) consists of a basic access device (BSS), each computer in the BSS must be configured with the same BSSID, that is, the wireless AP logo. |
| | **Frequency (Channel)** | You can select Auto Select and channel 1/2/3/4/5/6/7/8/9/10/11. |
| | **HT Physical Mode Operating Mode** | **1.** Mixed Mode: In this mode, the previous wireless card can recognize and connect to the Pre-N AP, but the throughput will be affected<br>**2.** Green Field: high throughput can be achieved, but it will affect backward compatibility, and security of the system |
| | **Channel Bandwidth** | Select channel bandwidth, default is 20MHz and 20/40MHz. |
| | **Guard Interval** | The default is automatic, in order to achieve good BER performance, you must set the appropriate guard interval |
| | **MCS** | Position control signal, options are 0 to 32, the default is automatic |
| | **Reverse Direction （RDG）** | You can choose to enable or disable this privilege |
| | **STBC** | |
| | **VHT Bandwidth** | |
| | **VHT STBC** | |
| | **VHT Short GI** | |
| | **VHT BW Signaling** | |
| | **VHT LDPC** | |

## 4.5.2 Wireless Security



Please REBOOT to make the changes effective!

WIFI Security Setting

Select SSID

| | |
|---|---|
| SSID choice | Wireless_AP_5G |
| "Wireless_AP_5G" | |
| Security Mode | WPA-PSK |
| WPA | |
| WPA Algorithms | ● TKIP ○ AES ○ TKIPAES |
| Pass Phrase | 12345678 |
| Key Renewal Interval | 3600 Second in Month (0 ~ 4194303) |
| Access policy | |
| Policy | Disable |
| Add a station MAC | |

| Field Name | Description |
|---|---|
| **SSID Choice** | Choose one SSID from SSID, Multiple SSID1, Multiple SSID2 and Multiple SSID3. |
| **Security Mode** | Select an appropriate encryption mode to improve the security and privacy of your wireless data packets.<br>Each encryption mode will bring out different web page and ask you to offer additional configuration. |

Select a different encryption mode, the web interface will be different, user can configure the corresponding parameters under the mode you select. Please refer to 4.4.2 section.

## 4.5.3 WMM

Please refer to 4.4.3 section.

## 4.5.4 WDS

Please refer to 4.4.4 section

## 4.5.5 WPS

Please refer to 4.4.5 section.

### 4.5.6 Station Info

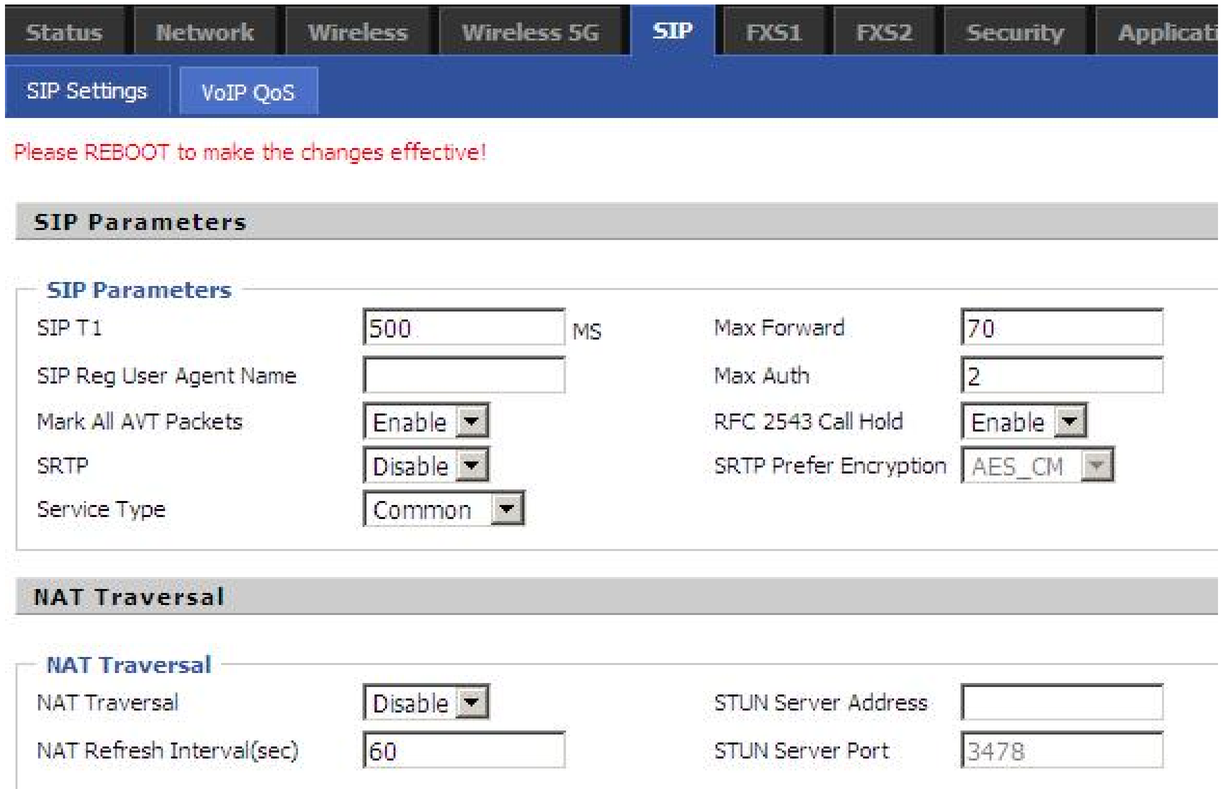
Please refer to 4.4.6 section.

### 4.5.7 Advanced

Please refer to 4.4.7 section.

# 4.6 SIP

## 4.6.1 SIP Settings



Please REBOOT to make the changes effective!

SIP Parameters

SIP Parameters

| | | | |
|---|---|---|---|
| SIP T1 | 500 MS | Max Forward | 70 |
| SIP Reg User Agent Name | | Max Auth | 2 |
| Mark All AVT Packets | Enable | RFC 2543 Call Hold | Enable |
| SRTP | Disable | SRTP Prefer Encryption | AES_CM |
| Service Type | Common | | |

NAT Traversal

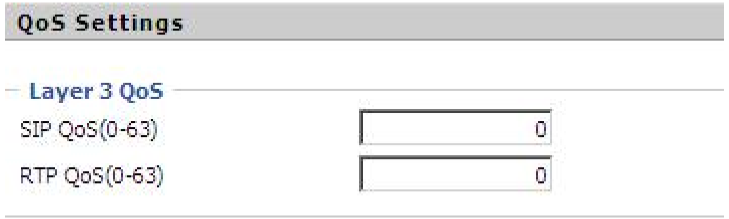
NAT Traversal

| | | | |
|---|---|---|---|
| NAT Traversal | Disable | STUN Server Address | |
| NAT Refresh Interval(sec) | 60 | STUN Server Port | 3478 |

| Field Name | Description |
|---|---|
| **SIP T1** | The minimum scale of retransmission time |
| **Max Forward** | Sip packets Max Forward message header fields used to limit the request which jump in his destination . To limit the number that forwarding a request to the proxy or gateway of next node intermediate. |
| **SIP Reg User Agent Name** | The agent name of SIP registered user |
| **Max Auth** | The maximum number of retransmissions |
| **Mark All AVT Packets** | Voice packet marking,to enable this item will see the mark on the voice message when the call environment changed (such as press a key during the call) |
| **RFC 2543 Call Hold** | Enable,the Connection Information field displays the address is 0.0.0.0 in the invite message of Hold. Disable,the Connection Information field displays the device ip address in the invite message of Hold. |
| **SRTP** | Whether to enable the call packet encryption function |
| **SRTP Prefer Encryption** | The preferred encryption type of calling packet (the Message body of INVITE Message) |
| **Service Type** | Choose the server type |
| **NAT Traversal** | 1. If or not enable NAT Traversal<br>2. FWR9202 supports STUN Traversal; If you want to traverse NAT/Firewall, select the STUN. |

| | | |
|---|---|---|
| | **STUN Server Address** | Add the correct STUN service provider IP address. |
| | **NAT Refresh Interval** | Set NAT Refresh Interval, default is 60s. |
| | **STUN Server Port** | Set STUN Server Port, default is 5060. |

## 4.6.2 VoIP Qos

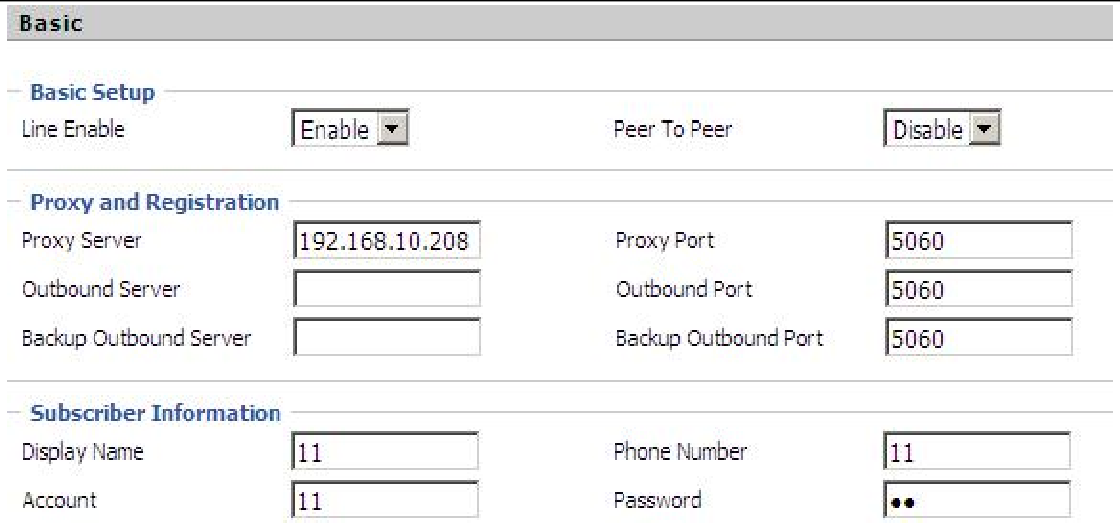
| | **Field Name** | **Description** |
|---|---|---|
| <br>QoS Settings<br>Layer 3 QoS<br>SIP QoS(0-63) 0<br>RTP QoS(0-63) 0 | **SIP /RTP QoS** | The default value is 0,you can set a range of values is 0~63 |

# 4.7 FXS1

## 4.7.1 SIP Account

### 1. Basic

Set the basic information provided by your VOIP Service Provider, such as Phone Number, Account, password, SIP Proxy and so on.



**Basic**

**Basic Setup**

| | | | |
|---|---|---|---|
| Line Enable | Enable | Peer To Peer | Disable |

**Proxy and Registration**

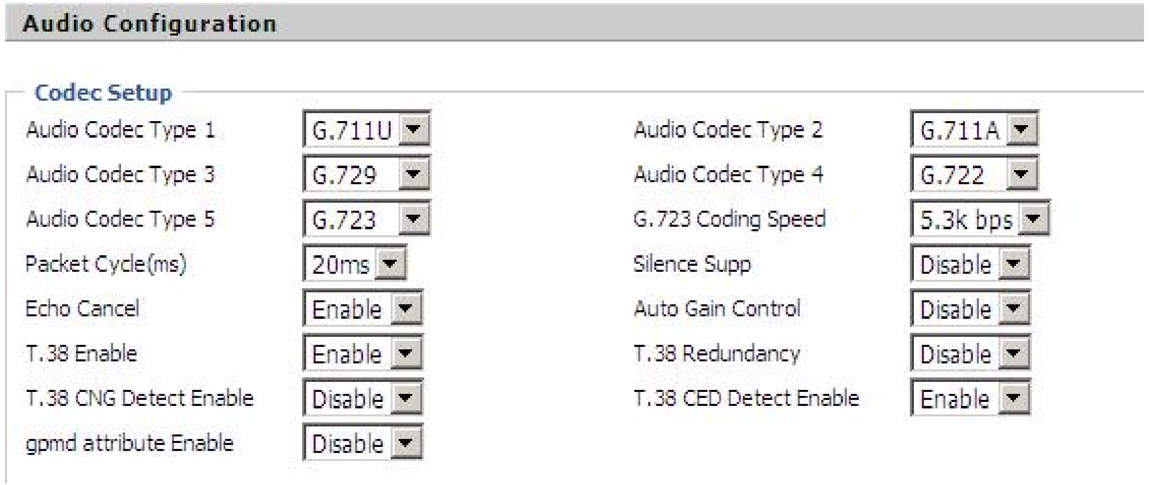
| | | | |
|---|---|---|---|
| Proxy Server | 192.168.10.208 | Proxy Port | 5060 |
| Outbound Server | | Outbound Port | 5060 |
| Backup Outbound Server | | Backup Outbound Port | 5060 |

**Subscriber Information**

| | | | |
|---|---|---|---|
| Display Name | 11 | Phone Number | 11 |
| Account | 11 | Password | •• |

| Field Name | Description |
|---|---|
| **Line Enable** | If or not enable the line. |
| **Peer To Peer** | If or not enable PEER to PEER.<br>If enable, SIP-1 will not send register request to SIP server; but in Status/ SIP Account Status webpage, Status is Registered; lines 1 can dial out, but the external line number cannot dialed line1. |
| **Proxy Server** | The IP address or the domain of SIP Server |
| **Outbound Server** | The IP address or the domain of Outbound Server |
| **Backup Outbound Server** | The IP address or the domain of Backup Outbound Server |
| **Proxy port** | SIP Service port, default is 5060 |
| **Outbound Port** | Outbound Proxy's Service port, default is 5060 |
| **Backup Outbound Port** | Backup Outbound Proxy's Service port, default is 5060 |
| **Display Name** | The number will be displayed on LCD |
| **Phone Number** | Enter telephone number provided by SIP Proxy |
| **Account** | Enter SIP account provided by SIP Proxy |
| **Password** | Enter SIP password provided by SIP Proxy |

## 2. Audio Configuration



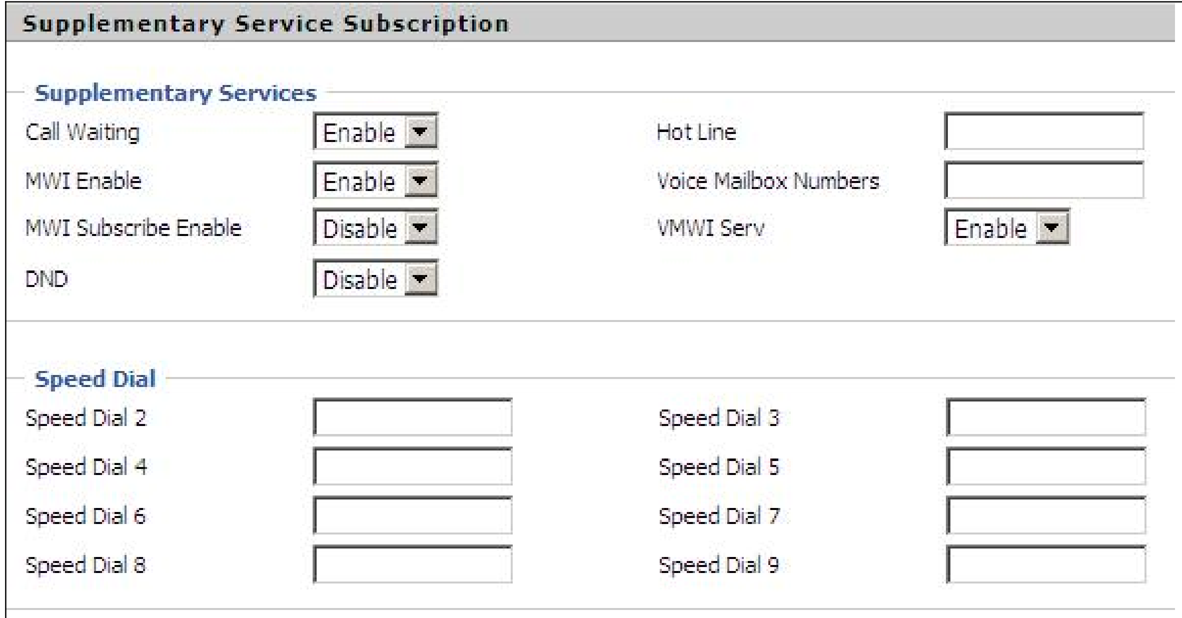
Audio Configuration

Codec Setup

| | | | |
|---|---|---|---|
| Audio Codec Type 1 | G.711U | Audio Codec Type 2 | G.711A |
| Audio Codec Type 3 | G.729 | Audio Codec Type 4 | G.722 |
| Audio Codec Type 5 | G.723 | G.723 Coding Speed | 5.3k bps |
| Packet Cycle(ms) | 20ms | Silence Supp | Disable |
| Echo Cancel | Enable | Auto Gain Control | Disable |
| T.38 Enable | Enable | T.38 Redundancy | Disable |
| T.38 CNG Detect Enable | Disable | T.38 CED Detect Enable | Enable |
| gpmd attribute Enable | Disable | | |

| Field Name | Description |
|---|---|
| **Audio Codec Type1** | Choose the audio codec type from G.711U, G.711A, G.722, G.729, G.723 |
| **Audio Codec Type2** | Choose the audio codec type from G.711U, G.711A, G.722, G.729, G.723 |
| **Audio Codec Type3** | Choose the audio codec type from G.711U, G.711A, G.722, G.729, G.723 |
| **Audio Codec Type4** | Choose the audio codec type from G.711U, G.711A, G.722, G.729, G.723 |
| **Audio Codec Type5** | Choose the audio codec type from G.711U, G.711A, G.722, G.729, G.723 |
| **G.723 Coding Speed** | Choose the speed of G.723 from 5.3kbps and 6.3kbps |
| **Packet Cycle** | The RTP packet cycle time, default is 20ms |
| **Silence Supp** | If or not enable silence |
| **Echo Cancel** | If or not enable echo cancel, default is enable |
| **Auto Gain Control** | If or not enable auto gain. |
| **T.38 Enable** | If or not enable T.38 |
| **T.38 Redundancy** | If or not enable T.38 Redundancy |
| **T.38 CNG Detect Enable** | If or not enable T.38 CNG Detect |
| **gmd attribute Enable** | If or not enable gmd attribute. |

## 3. Supplementary Service Subscription



**Supplementary Service Subscription**

**Supplementary Services**

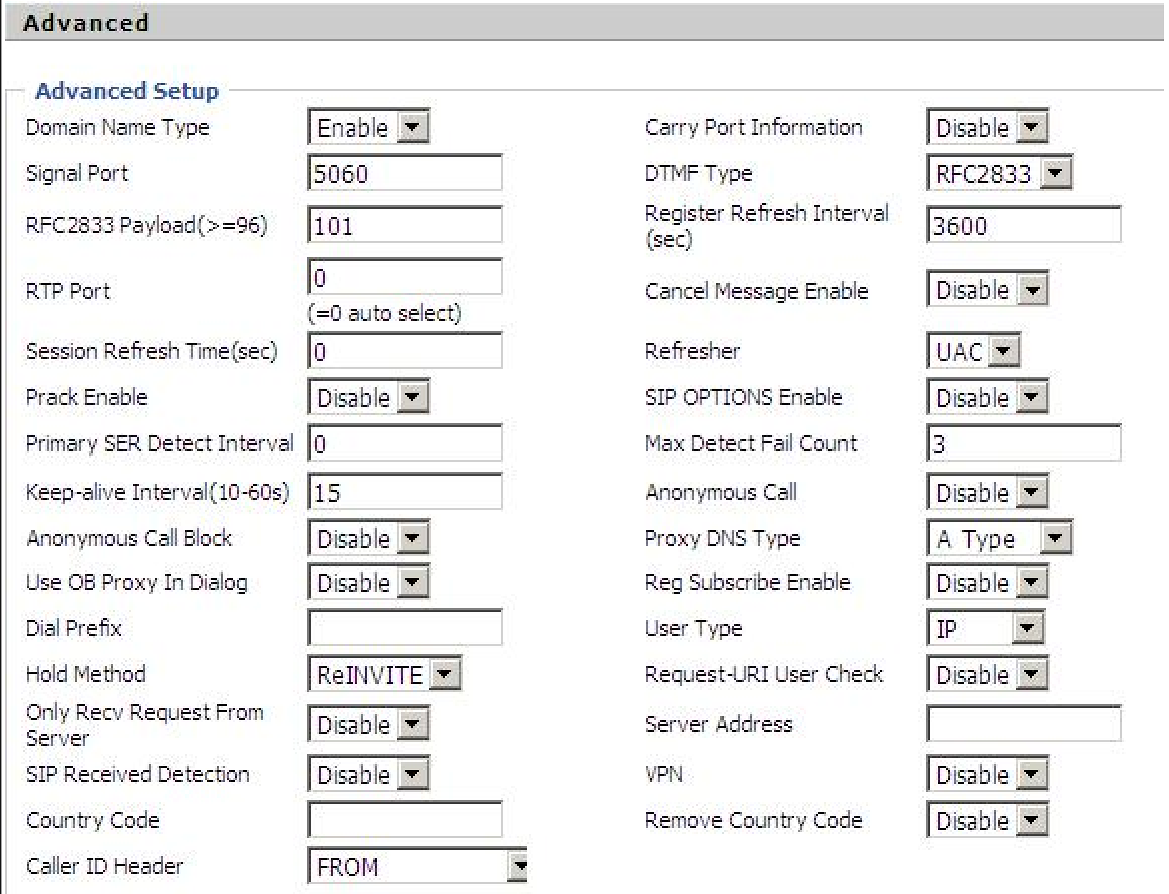
| | | | |
|---|---|---|---|
| Call Waiting | Enable | Hot Line | |
| MWI Enable | Enable | Voice Mailbox Numbers | |
| MWI Subscribe Enable | Disable | VMWI Serv | Enable |
| DND | Disable | | |

**Speed Dial**

| | | | |
|---|---|---|---|
| Speed Dial 2 | | Speed Dial 3 | |
| Speed Dial 4 | | Speed Dial 5 | |
| Speed Dial 6 | | Speed Dial 7 | |
| Speed Dial 8 | | Speed Dial 9 | |

| Field Name | Description |
|---|---|
| **Call Waiting** | If or not enable Call Waiting |
| **Hot Line** | Fill in the hotline number.<br>Pickup handset or press handsfree/headset button, the device will dial out the hotline number automatically. |
| **MWI Enable** | If or not enable MWI (message waiting indicate). If the user needs to user voice mail, please enable this feature. |
| **MWI Subscribe Enable** | If or not enable MWI Subscribe |
| **Voice Mailbox Numbers** | Fill in the voice mailbox phone number, Asterisk platform, for example, its default voice mail is *97 |
| **VMWI Serv** | If or not enable VMWI service. |
| **DND** | If or not enable DND (do not disturb).<br>If enable, any phone call cannot arrive at the device; default is disable. |
| **Speed Dial** | Enter the speed dial phone numbers.<br>Dial *74 to active speed dial function.<br>Then press the speed dial numbers, for example, press 2, phone will dial 075526099365 directly. |

## 4. Advanced



Advanced

Advanced Setup

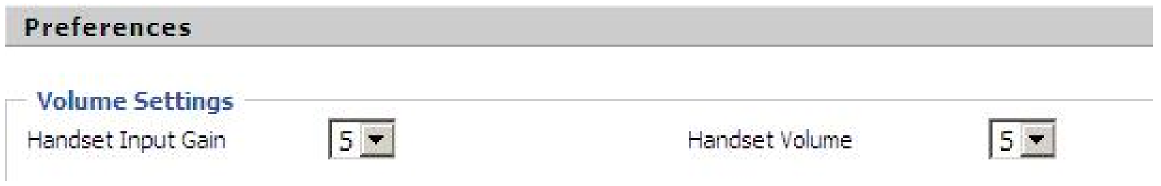
| | | | |
|---|---|---|---|
| Domain Name Type | Enable | Carry Port Information | Disable |
| Signal Port | 5060 | DTMF Type | RFC2833 |
| RFC2833 Payload(>=96) | 101 | Register Refresh Interval (sec) | 3600 |
| RTP Port | 0<br>(=0 auto select) | Cancel Message Enable | Disable |
| Session Refresh Time(sec) | 0 | Refresher | UAC |
| Prack Enable | Disable | SIP OPTIONS Enable | Disable |
| Primary SER Detect Interval | 0 | Max Detect Fail Count | 3 |
| Keep-alive Interval(10-60s) | 15 | Anonymous Call | Disable |
| Anonymous Call Block | Disable | Proxy DNS Type | A Type |
| Use OB Proxy In Dialog | Disable | Reg Subscribe Enable | Disable |
| Dial Prefix | | User Type | IP |
| Hold Method | ReINVITE | Request-URI User Check | Disable |
| Only Recv Request From Server | Disable | Server Address | |
| SIP Received Detection | Disable | VPN | Disable |
| Country Code | | Remove Country Code | Disable |
| Caller ID Header | FROM | | |

| Field Name | Description |
|---|---|
| **Domain Name Type** | If or not use domain name in the SIP URI. |
| **Carry Port Information** | If or not carry port information in the SIP URI. |
| **Signal Port** | The local port of SIP protocol, default is 5060. |
| **DTMF Type** | Choose the DTMF type from Inbound, RFC2833 and SIP INFO. |
| **RFC2833 Payload(>=96)** | User can use the default setting. |
| **Register Refresh Interval** | The interval between two normal Register messages. You can use the default setting. |
| **RTP Port** | Set the port to send RTP.<br>The device will select one idle port for RTP if you set “0”; otherwise use the value which user sets. |
| **Cancel Message Enable** | When you set enable, an unregistered message will be sent before registration, while you set disable, unregistered message will not be sent before registration. You should set the option for different Proxy. |
| **Session Refresh Time(sec)** | Time interval between two sessions, you can use the default settings. |
| **Refresher** | Choose refresher from UAC and UAS. |
| **Prack Enable** | If or not enable prack. |
| **SIP OPTIONS Enable** | When you set enable, the device will send SIP-OPTION to the server, instead of sending periodic Hello message. The sending interval is Keep-alive interval. |
| **Primary SER Detect Interval** | Test interval of the primary server, the default value is 0, it represents disable. |
| **Max Detect Fail Count** | Interval of detection of the primary server fail; the default value is 3, it means that if detect 3 |

| | | |
|---|---|---|
| | | times fail; the device will no longer detect the primary server. |
| | **Keep-alive Interval(10-60s)** | The interval that the device will send an empty packet to proxy. |
| | **Anonymous Call** | If or not enable anonymous call. |
| | **Anonymous Call Block** | If or not enable anonymous call block. |
| | **Proxy DNS Type** | Set the DNS server type, choose from A type and DNS SRV. |
| | **Use OB Proxy In Dialog** | If or not use OB Proxy In Dialog. |
| | **Reg Subscribe Enable** | If enable, subscribing will be sent after registration message, if not enable, do not send subscription. |
| | **Dial Prefix** | The number will be added before your telephone number when making calls. |
| | **User Type** | Choose the User Type from IP and Phone. |
| | **Hold Method** | Choose the Hold Method from ReINVITE and INFO. |
| | **Request-URI User Check** | If or not enable the user request URI check. |
| | **Only Recv request from server** | If or not enable the only receive request from server. |
| | **Server Address** | The IP address of SIP server. |
| | **SIP Received Detection** | If or not enable SIP Received Detection, if enable, use it to confirm the public network address of the device. |

# 4.7.2 Preferences

## 1. Volume Settings

|  | **Field Name** | **Description** |
|---|---|---|
| | **Handset Input Gain** | Adjust the handset input gain from 0 to 7. |
| | **Handset Volume** | Adjust the output gain from 0 to 7. |

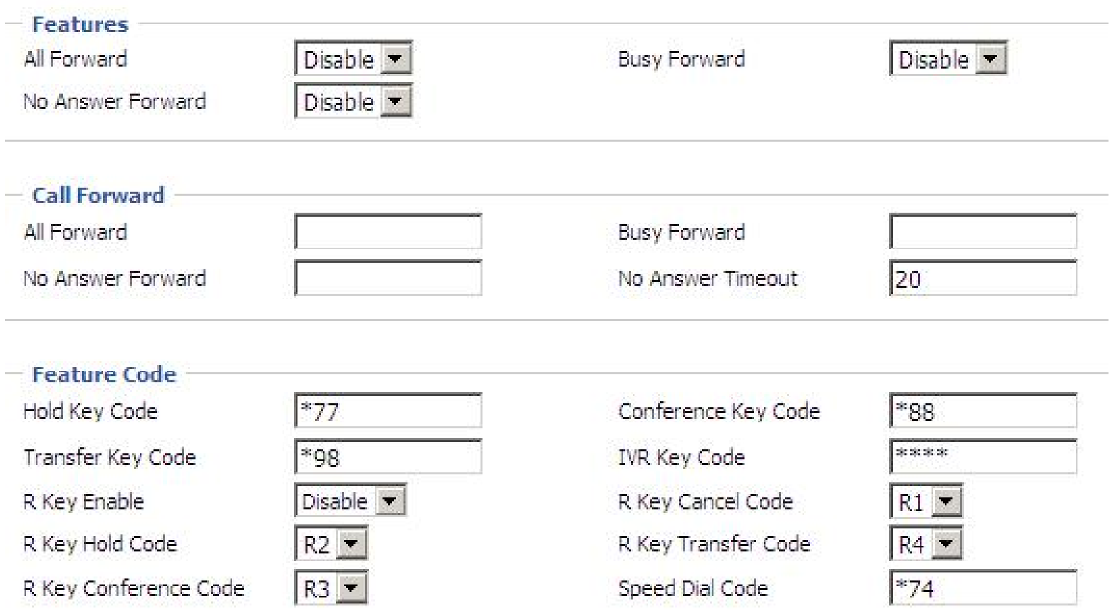
Preferences

Volume Settings

Handset Input Gain 5

Handset Volume 5

## 2. Features and Call Forward



**Features**

| | | | |
|---|---|---|---|
| All Forward | Disable | Busy Forward | Disable |
| No Answer Forward | Disable | | |

**Call Forward**

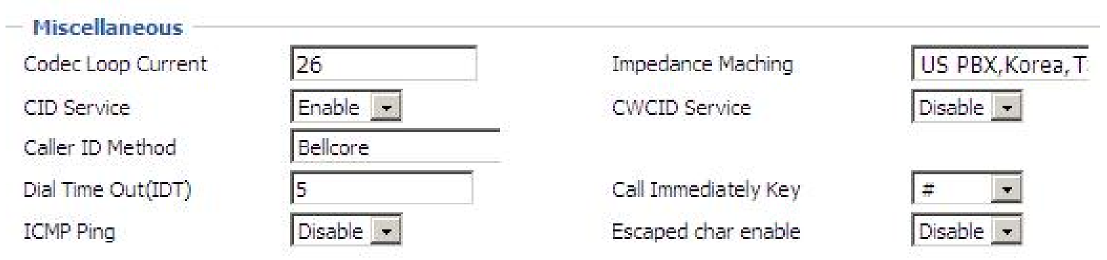
| | | | |
|---|---|---|---|
| All Forward | | Busy Forward | |
| No Answer Forward | | No Answer Timeout | 20 |

**Feature Code**

| | | | |
|---|---|---|---|
| Hold Key Code | *77 | Conference Key Code | *88 |
| Transfer Key Code | *98 | IVR Key Code | **** |
| R Key Enable | Disable | R Key Cancel Code | R1 |
| R Key Hold Code | R2 | R Key Transfer Code | R4 |
| R Key Conference Code | R3 | Speed Dial Code | *74 |

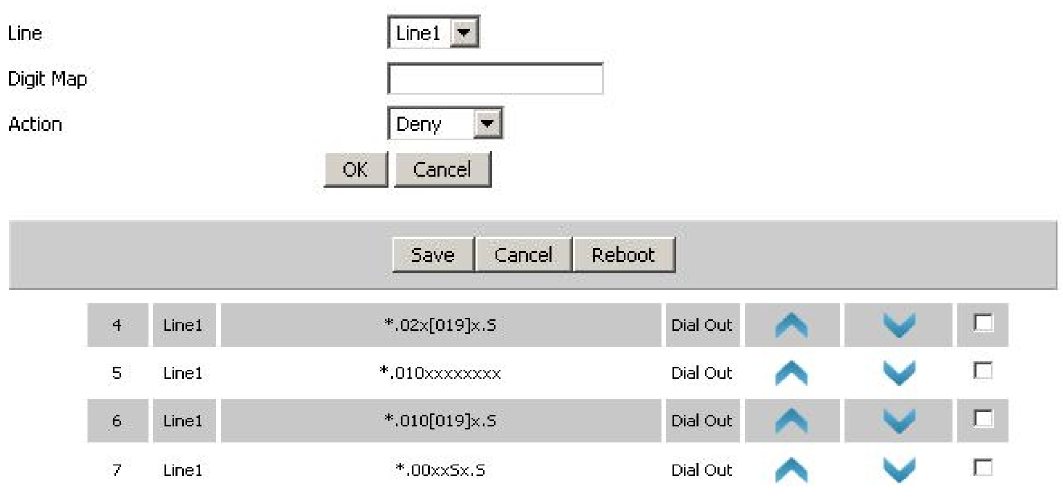
| Field Name | | Description |
|---|---|---|
| **Features** | **All Forward** | If or not enable forward all calls |
| | **Busy Forward** | If or not enable busy forward. |
| | **No Answer Forward** | If or not enable no answer forward. |
| **Call Forward** | **All Forward** | Set the target phone number for all forward. The device will forward all calls to the phone number immediately when there is an incoming call. |
| | **Busy Forward** | The phone number which the calls will be forwarded to when line is busy. |
| | **No Answer Forward** | The phone number which the call will be forwarded to when there's no answer. |
| | **No Answer Timeout** | The seconds to delay forwarding calls, if there is no answer at your phone. |
| **Feature Code** | **Hold key code** | Call hold signatures, default is *77. |
| | **Conference key code** | Signature of the tripartite session, default is *88. |
| | **Transfer key code** | Call forwarding signatures ,default is *98. |
| | **IVR key code** | Signatures of the voice menu, default is ****. |
| | **R key enable** | If or not enable R key way call features. |
| | **R key cancel code** | Set the R key cancel code, option are ranged from R1 to R9, default value is R1. |
| | **R key hold code** | Set the R key hold code, options are ranged from R1 to R9, default value is R2. |
| | **R key transfer code** | Set the R key transfer code, options are ranged from R1 to R9, default value is R4. |
| | **R key conference code** | Set the R key conference code, options are ranged from R1 to R9, default value is R3. |
| | Speed Dial Code | Speed dial code, default is *74. |

## 3. Miscellaneous

| | Field Name | Description |
|---|---|---|
| <br>Miscellaneous<br>Codec Loop Current: 26<br>Impedance Maching: US PBX,Korea,T<br>CID Service: Enable<br>CWCID Service: Disable<br>Caller ID Method: Bellcore<br>Dial Time Out(IDT): 5<br>Call Immediately Key: #<br>ICMP Ping: Disable<br>Escaped char enable: Disable | **Codec Loop Current** | Set off-hook loop current, default is 26 |
| | **Impedance Maching** | Set impedance matching, default is US PBX,Korea,Taiwan(600). |
| | **CID service** | If or not enable displaying caller ID; If enable, caller ID is displayed when there is an incoming call or it won't be displayed. Default is enable. |
| | **CWCID Service** | If or not enable CWCID. If enable, the device will display the waiting call's caller ID, or it won't display. Default is disable. |
| | **Dial Time Out** | How long FWR9202 will sound dial out tone when FWR9202 dials a number. |
| | **Call Immediately Key** | Choose call immediately key form * or #. |
| | **ICMP Ping** | If or not enable ICMP Ping.<br>If enable this option, home gateway will ping the SIP Server every interval time, otherwise, It will send "hello" empty packet to the SIP Server. |
| | **Escaped char enable** | Open special character translation function; if enable, when you press the # key, it will be translated to 23%, when disable, it is just # |

# 4.7.3 Dial Plan

## 1. Parameters and Settings

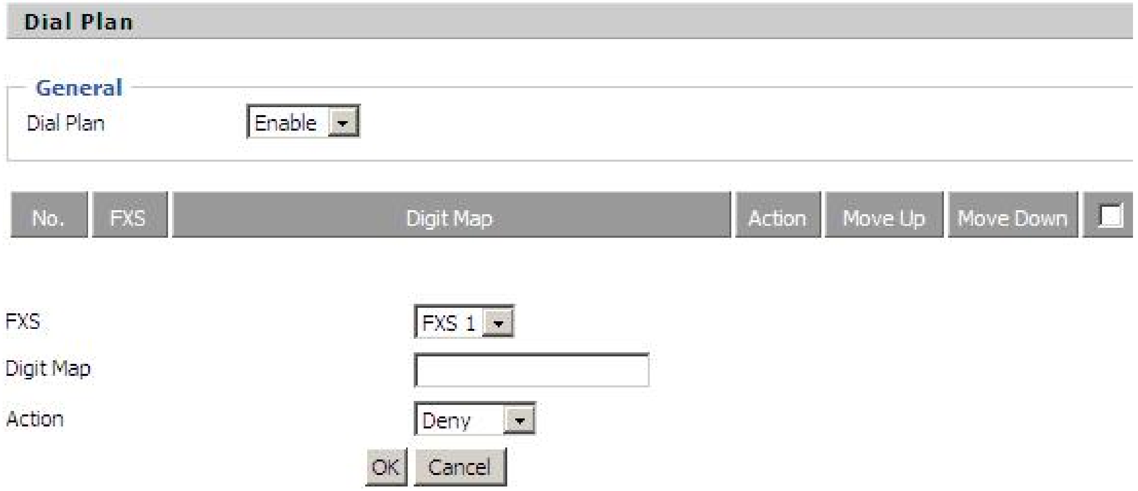


| | |
|---|---|
| Line | Line1 ▾ |
| Digit Map | |
| Action | Deny ▾ |

| | | | | | | |
|---|---|---|---|---|---|---|
| 4 | Line1 | *.02x[019]x.S | Dial Out | ▲ | ▼ | □ |
| 5 | Line1 | *.010xxxxxxxx | Dial Out | ▲ | ▼ | □ |
| 6 | Line1 | *.010[019]x.S | Dial Out | ▲ | ▼ | □ |
| 7 | Line1 | *.00xxSx.S | Dial Out | ▲ | ▼ | □ |

| Field Name | Description |
|---|---|
| **Dial Plan** | If or not enable dial plan. |
| **Line** | Set the line. |
| **Digit Map** | Fill in the sequence used to match input number<br>The syntactic, please refer to the following Dial Plan Syntactic |
| **Action** | Choose the dial plan mode from Deny and Dial Out.<br>Deny means FWR9202 will reject the matched number, while Dial Out means FWR9202 will dial out the matched number. |
| **Move Up** | Press it to move up. |
| **Move Down** | Press it to move down. |

## 2. Adding one dial plan:

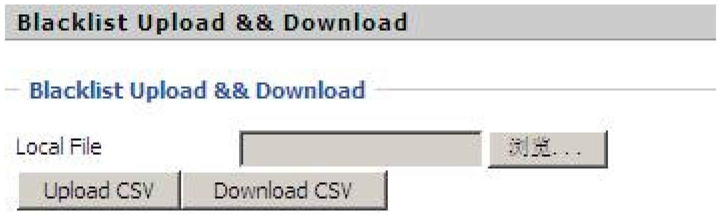
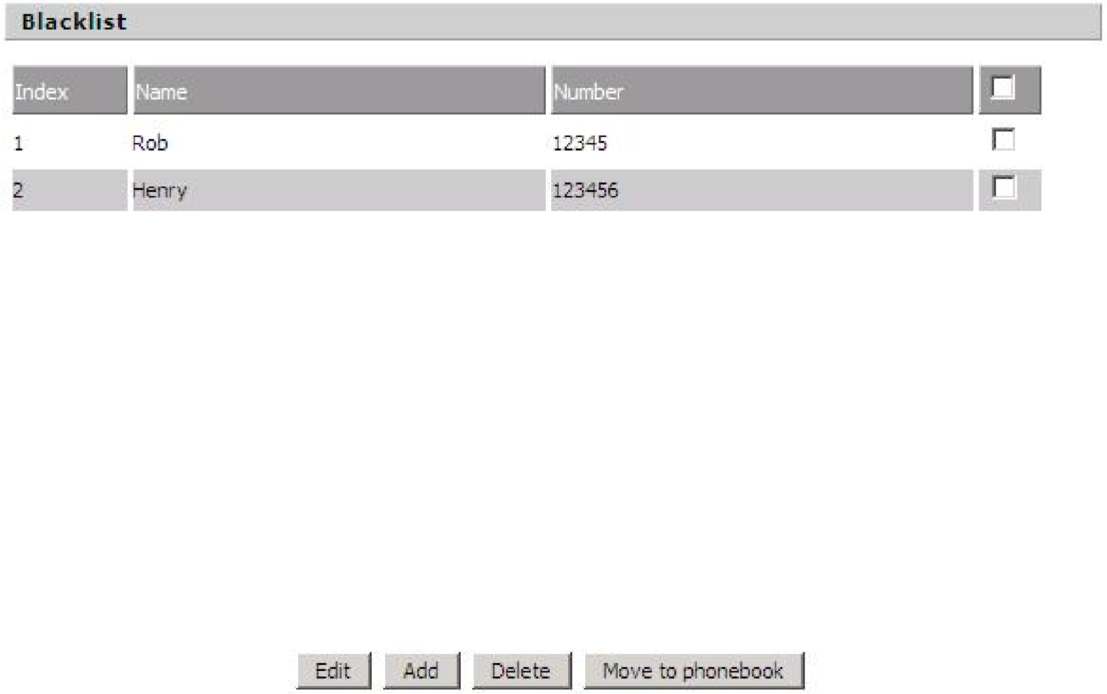
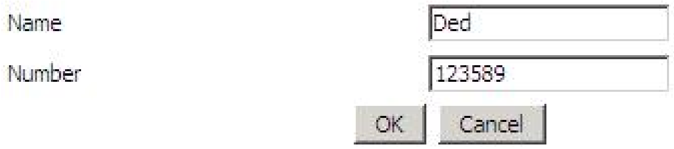
| | |
|---|---|
| <br>Dial Plan<br>General<br>Dial Plan: Enable<br>No. \| FXS \| Digit Map \| Action \| Move Up \| Move Down \| □<br>FXS: FXS 1<br>Digit Map:<br>Action: Deny<br>OK Cancel | Step 1. Enable Dial Plan |
| | Step 2. Click **Add** button, and the configuration table |
| | Step 3. Fill in the value of parameters. |
| | Step 4.Press **OK** button to end configuration. |
| | Step 5. Press **Save** button to save changes |

## 3. Dial Plan Syntactic

| No. | String | Description |
|---|---|---|
| 1 | 0 1 2 3 4 5 6 7 8 9 * # | Legal characters |
| 2 | x | Lowercase letter x stands for one legal character |
| 3 | [sequence] | To match one character form sequence.<br>For example:<br>6. [0-9]: match one digit form 0 to 9<br>7. [23-5*]: match one character from 2 or 3 or 4 or 5 or * |
| 4 | x. | Match to $x^0$,$x^1$,$x^2$, $x^3$…… $x^n$<br>For example:<br>“01.”:can match ”0”, “01”, “011”, ”0111”, ……., ”01111…” |
| 5 | <dialed:substituted> | Replace dialed with substituted.<br>For example：<br><8:1650>123456：input is “85551212”, output is“16505551212” |
| 6 | x,y | Make outside dial tone after dialing “x”, stop until dialing character “y”<br>For example：<br>“9,1xxxxxxxxxx”:the device reports dial tone after inputting “9”, stops tone until inputting “1”<br>“9,8,010x”: make outside dial tone after inputting “9”, stop tone until inputting “0” |
| 7 | T | Set the delayed time.<br>For example:<br>“<9:111>T2”: The device will dial out the matched number “111” after 2 seconds. |

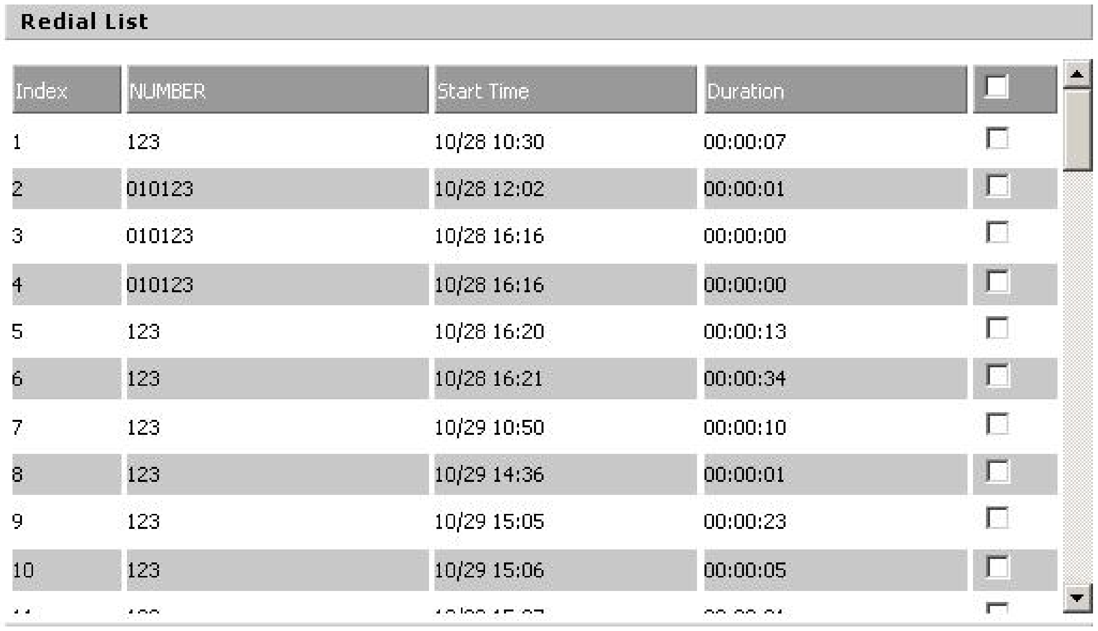
## 4.7.4 Blacklist

In this page, user can upload or download blacklist file, and can add or delete or edit blacklist one by one.

| | |
|---|---|
| <br>Blacklist Upload && Download<br>Blacklist Upload && Download<br>Local File 浏览...<br>Upload CSV Download CSV | Click 浏览… to select the blacklist file and click upload CSV to upload it to FWR9202; Click download CSV to save the blacklist file to your local computer. |
| <br>Blacklist<br>Index Name Number ☐<br>1 Rob 12345 ☐<br>2 Henry 123456 ☐<br>Edit Add Delete Move to phonebook | Select one contact and click edit to change the information, click delete to delete the contact, click Move to phonebook to move the contact to phonebook.<br>Click Add to add one blacklist, enter the name and phone number, click OK to confirm and click cancel to cancel.<br><br>Name Ded<br>Number 123589<br>OK Cancel |

## 4.7.5 Call Log

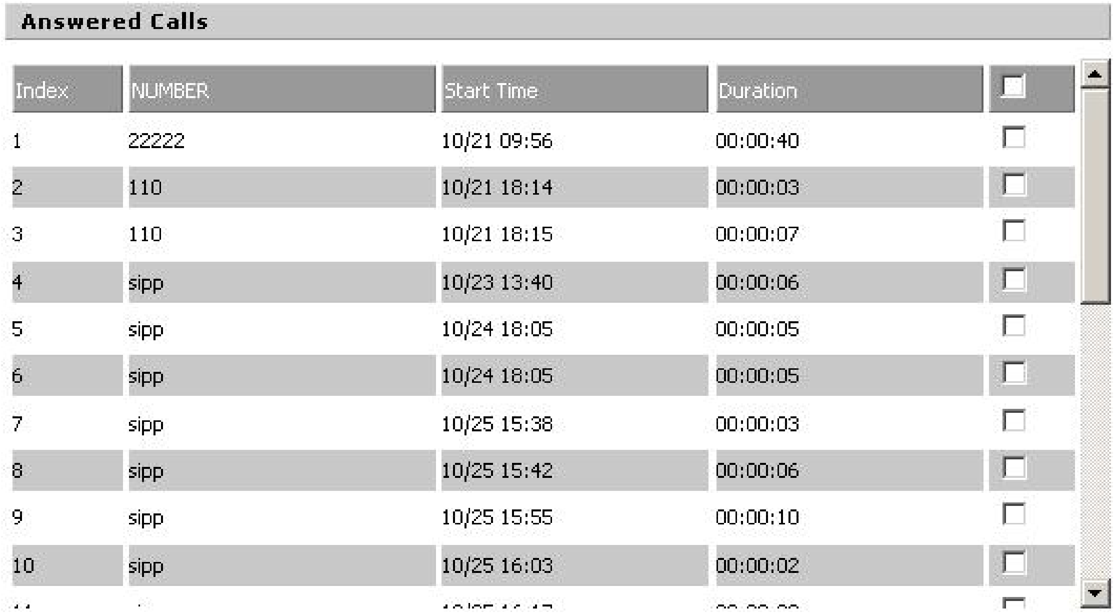
To view the call log information such as redial list (incoming call), answered call and missed cal



**Redial List**

| Index | NUMBER | Start Time | Duration | □ |
|---|---|---|---|---|
| 1 | 123 | 10/28 10:30 | 00:00:07 | □ |
| 2 | 010123 | 10/28 12:02 | 00:00:01 | □ |
| 3 | 010123 | 10/28 16:16 | 00:00:00 | □ |
| 4 | 010123 | 10/28 16:16 | 00:00:00 | □ |
| 5 | 123 | 10/28 16:20 | 00:00:13 | □ |
| 6 | 123 | 10/28 16:21 | 00:00:34 | □ |
| 7 | 123 | 10/29 10:50 | 00:00:10 | □ |
| 8 | 123 | 10/29 14:36 | 00:00:01 | □ |
| 9 | 123 | 10/29 15:05 | 00:00:23 | □ |
| 10 | 123 | 10/29 15:06 | 00:00:05 | □ |

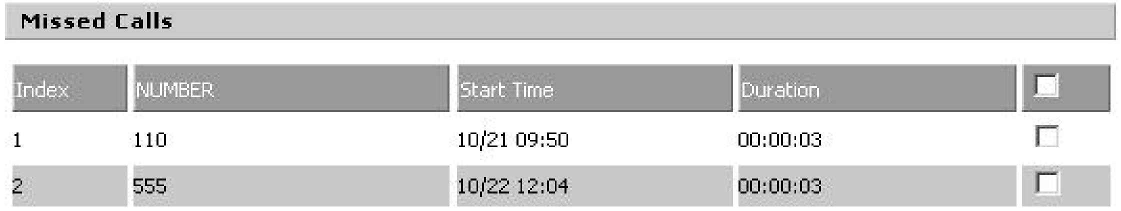
Redial List



**Answered Calls**

| Index | NUMBER | Start Time | Duration | □ |
|---|---|---|---|---|
| 1 | 22222 | 10/21 09:56 | 00:00:40 | □ |
| 2 | 110 | 10/21 18:14 | 00:00:03 | □ |
| 3 | 110 | 10/21 18:15 | 00:00:07 | □ |
| 4 | sipp | 10/23 13:40 | 00:00:06 | □ |
| 5 | sipp | 10/24 18:05 | 00:00:05 | □ |
| 6 | sipp | 10/24 18:05 | 00:00:05 | □ |
| 7 | sipp | 10/25 15:38 | 00:00:03 | □ |
| 8 | sipp | 10/25 15:42 | 00:00:06 | □ |
| 9 | sipp | 10/25 15:55 | 00:00:10 | □ |
| 10 | sipp | 10/25 16:03 | 00:00:02 | □ |

Answered Calls



**Missed Calls**

| Index | NUMBER | Start Time | Duration | □ |
|---|---|---|---|---|
| 1 | 110 | 10/21 09:50 | 00:00:03 | □ |
| 2 | 555 | 10/22 12:04 | 00:00:03 | □ |

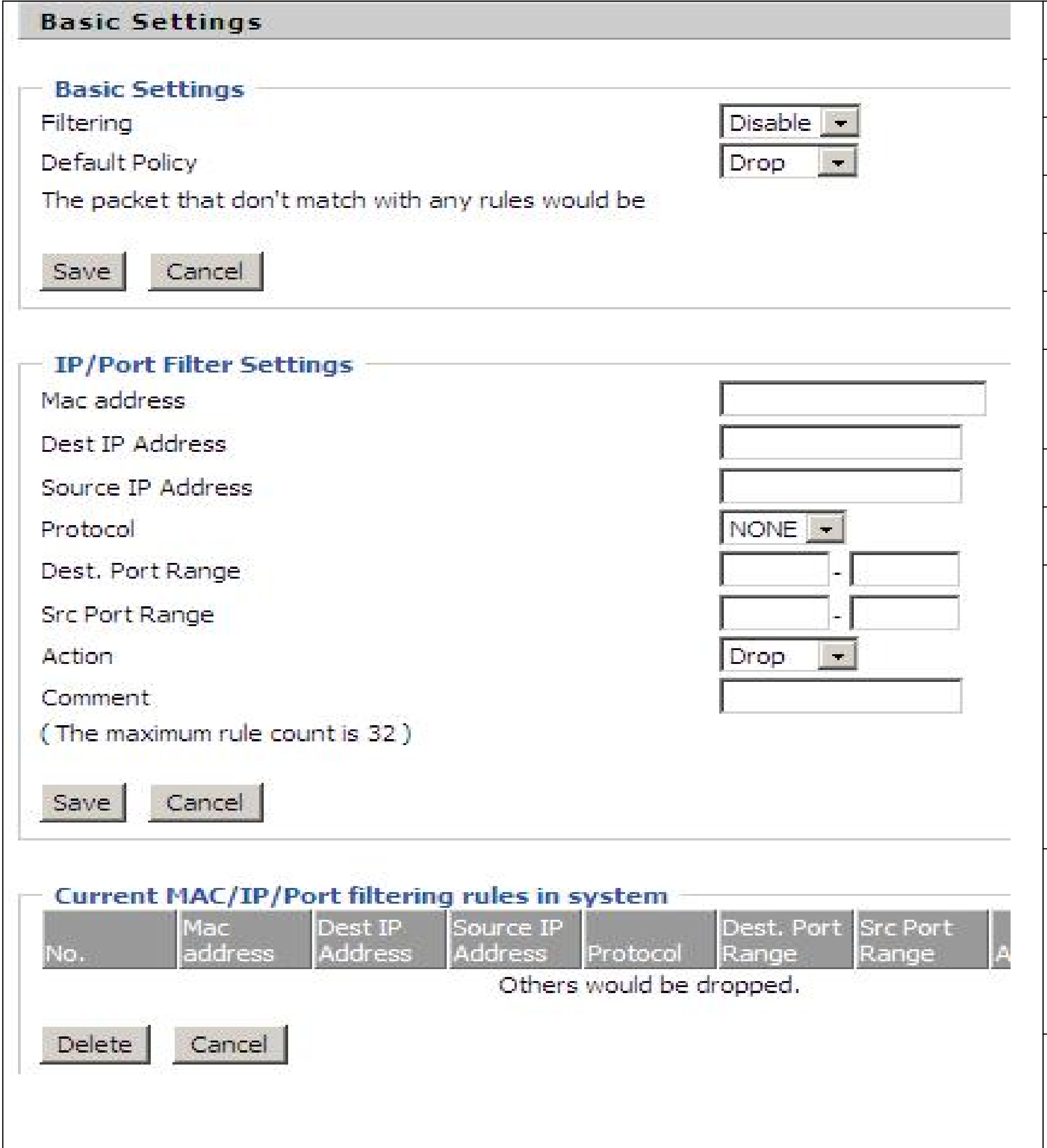
Missed Call

# 4.8 FXS2

The settings of FXS2 are the same as FXS1.

# 4.9 Security

## 4.9.1 Filtering Setting



Basic Settings

Basic Settings

Filtering: Disable

Default Policy: Drop

The packet that don't match with any rules would be

Save Cancel

IP/Port Filter Settings

Mac address:

Dest IP Address:

Source IP Address:

Protocol: NONE

Dest. Port Range: -

Src Port Range: -

Action: Drop

Comment:

( The maximum rule count is 32 )

Save Cancel

Current MAC/IP/Port filtering rules in system

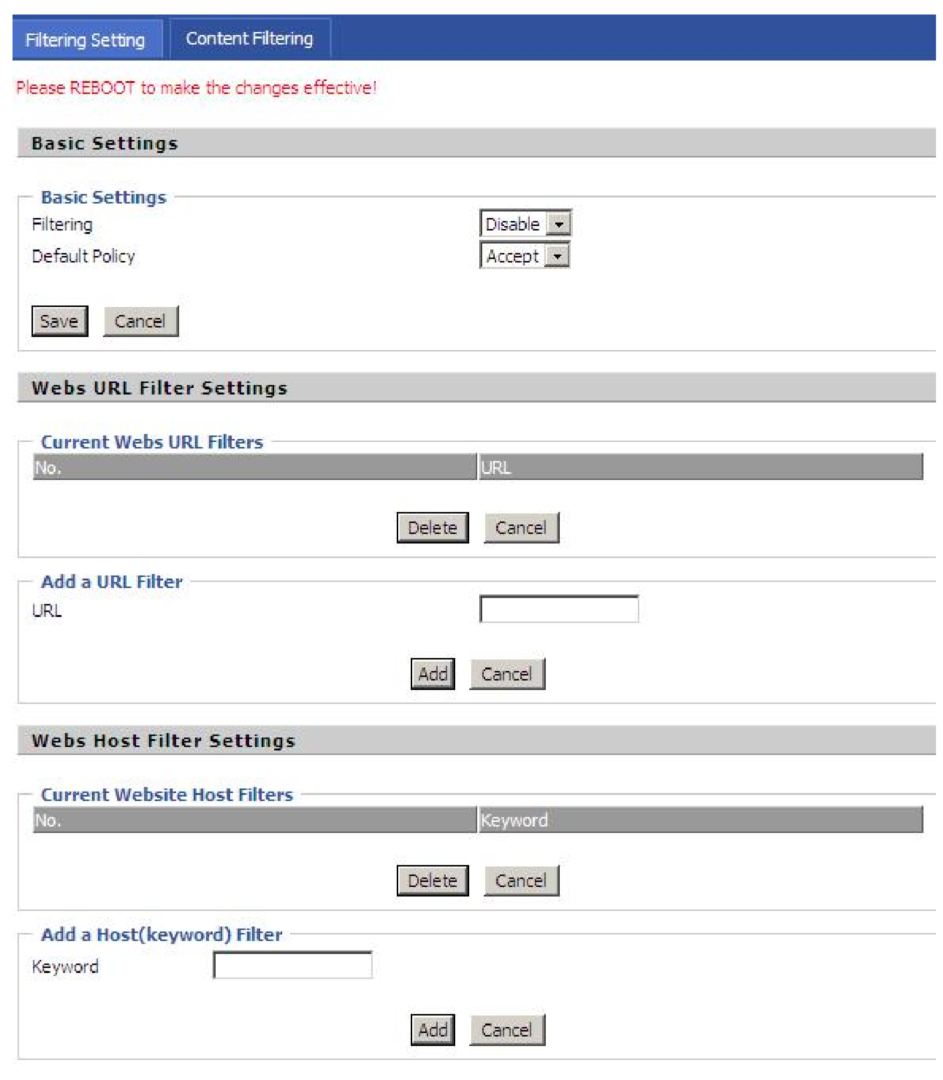
| No. | Mac address | Dest IP Address | Source IP Address | Protocol | Dest. Port Range | Src Port Range | A |
|---|---|---|---|---|---|---|---|

Others would be dropped.

Delete Cancel

| Field Name | Description |
|---|---|
| **Filtering** | If or not enable filter function |
| **Default Policy** | Choose to give up or accept |
| **Mac address** | Add the Mac address filtering |
| **Dest IP address** | Dest IP address |
| **Source IP address** | Source IP address |
| **Protocol** | Select a protocol name, support for TCP, UDP and TCP&UDP |
| **Dest. Port Range** | Destination port ranges |
| **Src Port Range** | Source port range |
| **Action** | You can choose to receive or give up; this should be consistent with the default policy. |
| **Comment** | Add callout |
| **Delete** | Delete selected item |

# 4.9.2 Content Filtering



Please REBOOT to make the changes effective!

Basic Settings

Basic Settings

Filtering: Disable

Default Policy: Accept

Webs URL Filter Settings

Current Webs URL Filters

| No. | URL |
|---|---|

Add a URL Filter

URL

Webs Host Filter Settings

Current Website Host Filters

| No. | Keyword |
|---|---|

Add a Host(keyword) Filter

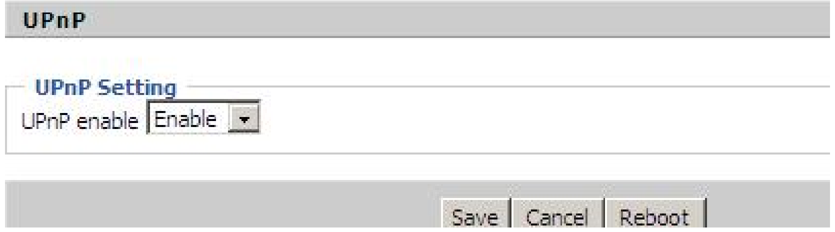
Keyword

| Field Name | Description |
|---|---|
| **Filtering** | If or not enable content Filtering |
| **Default Policy** | The default policy is to accept or to prohibit filtering rules |
| **Current Webs URL Filters** | List the URL filtering rules that already existed (blacklist) |
| **Delete/Cancel** | You can choose to delete or cancel the existing filter rules |
| **Add a URL Filter** | **Add URL filtering rules** |
| **Add/Cancel** | Click adds to add one rule or click cancel. |
| **Current Website Host Filters** | List the keywords that already exist (blacklist) |
| **Delete/Cancel** | You can choose to delete or cancel the existing filter rules the existing keywords. |
| **Add a Host Filter（Keyword）** | Add keywords |
| **Add/Cancel** | Click the Add or cancel |

# 4.10 Application

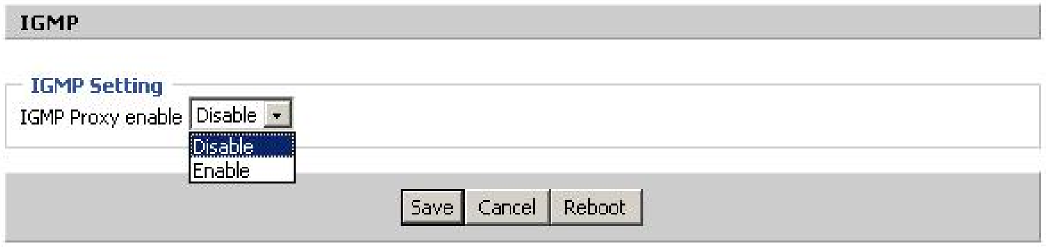
## 4.10.1 UPnP

UPnP (Universal Plug and Play) support zero setting networking, and can automatically discover a variety of networked devices. UPnP is enabled, allows the device supports UPnP function dynamically access network, obtain an IP address, and convey its performance information. If the network has a DHCP and DNS server, you can automatically obtain DHCP and DNS services.
Supports UPnP devices can be automatically off the network, the device or other devices on the network without affecting.

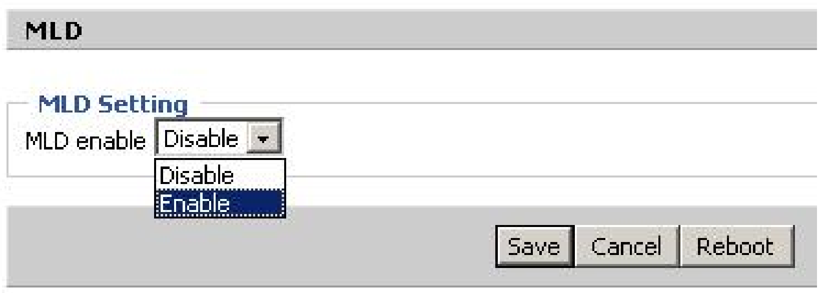
| | Field Name | Description |
|---|---|---|
| <br>UPnP<br>UPnP Setting<br>UPnP enable Enable<br> | **UPnP enable** | If or not enable UPnP function. |

## 4.10.2 IGMP

Multicast has the ability to send the same data to multiple devices.
IP hosts use IGMP (Internet Group Management Protocol) report multicast group memberships to the neighboring routers to transmit data, at the same time, the multicast router use IGMP to discover which hosts belong to the same multicast group.

| | Field Name | Description |
|---|---|---|
| <br>IGMP<br>IGMP Setting<br>IGMP Proxy enable Disable<br> | IGMP Proxy enable | If or not enable IGMP function. |

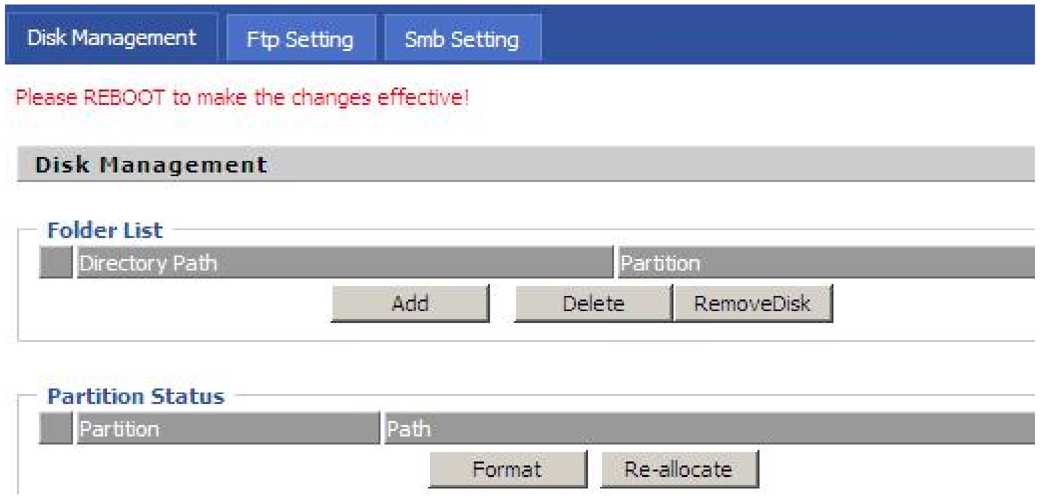
### 4.10.3 MLD

| | Field Name | Description |
|---|---|---|
| <br>MLD<br>MLD Setting<br>MLD enable: Disable<br> | **MLD enable** | If or not enable MLD function |

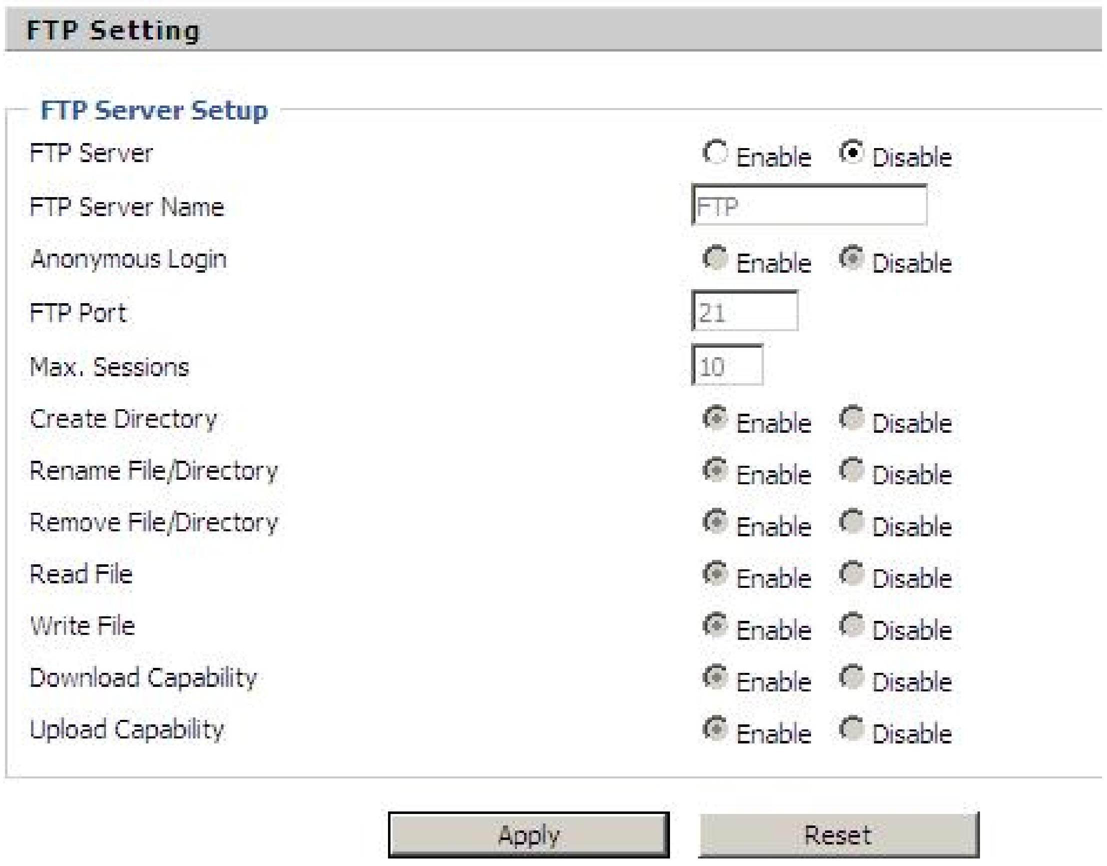
# 4.11 Storage

## 4.11.1 Disk Management

This page is used to manage the USB storage device.

| | Field Name | Description |
|---|---|---|
| <br>Please REBOOT to make the changes effective!<br>Disk Management<br>Folder List<br>Partition Status<br> Disk Management<br>Ftp Setting<br>Smb Setting<br>Directory Path<br>Partition<br>Add<br>Delete<br>RemoveDisk<br>Partition<br>Path<br>Format<br>Re-allocate | **Add** | Adding files to the USB storage device |
| | **Delete** | Remove the USB storage device file |
| | **Remove Disk** | Transfer files within a USB storage device |
| | **Format** | Format the USB storage device |
| | **Re-allocate** | Resetting the USB storage device |

## 4.11.2 FTP Setting



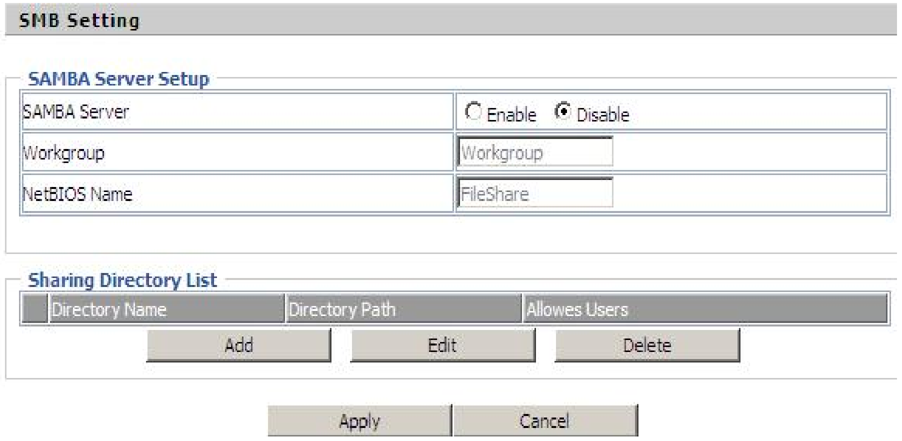
**FTP Setting**

**FTP Server Setup**

| | |
|---|---|
| FTP Server | ○ Enable ● Disable |
| FTP Server Name | FTP |
| Anonymous Login | ○ Enable ● Disable |
| FTP Port | 21 |
| Max. Sessions | 10 |
| Create Directory | ● Enable ○ Disable |
| Rename File/Directory | ● Enable ○ Disable |
| Remove File/Directory | ● Enable ○ Disable |
| Read File | ● Enable ○ Disable |
| Write File | ● Enable ○ Disable |
| Download Capability | ● Enable ○ Disable |
| Upload Capability | ● Enable ○ Disable |

| Field Name | Description |
|---|---|
| **FTP Server** | If or not enable FTP server |
| **FTP Server Name** | Set the FTP server name |
| **Anonymous Login** | If or not support anonymous login |
| **FTP Port** | Set FTP server port number |
| **Max. Sessions** | Maximum number of connections |
| **Create Directory** | If or not enable create directory |
| **Rename File/Directory** | If or not enable rename file/directory |
| **Remove File/Directory** | If or not enable transfer of files/directories |
| **Read File** | If or not enable read files |
| **Write File** | If or not enable write files |
| **Download Capability** | If or not enable download capability function. |
| **Upload Capability** | If or not enable upload capability function |

## 4.11.3 Smb Setting



**SMB Setting**

**SAMBA Server Setup**

| | |
|---|---|
| SAMBA Server | ○ Enable ● Disable |
| Workgroup | Workgroup |
| NetBIOS Name | FileShare |

**Sharing Directory List**

| | Directory Name | Directory Path | Allowes Users |
|---|---|---|---|

| Field Name | Description |
|---|---|
| **SAMBA Server** | If or not enable SAMBA server |
| **Workgroup** | Fill in the working group |
| **NetBIOS Name** | Network basic input/output system name |
| **Add** | Add a shared file |
| **Edit** | Edit a shared file |
| **Del** | Delete a shared file |

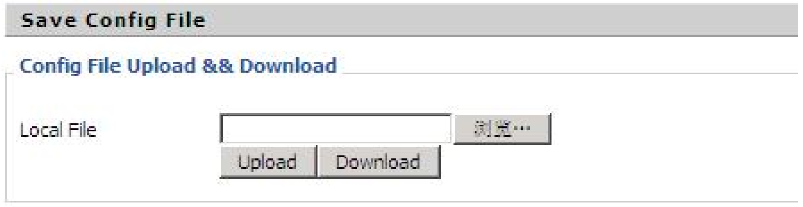
# 4.12 Administration

Use can manage the device in these webpage; you can configure the Time/Date, password, web access, system log and associated configuration TR069

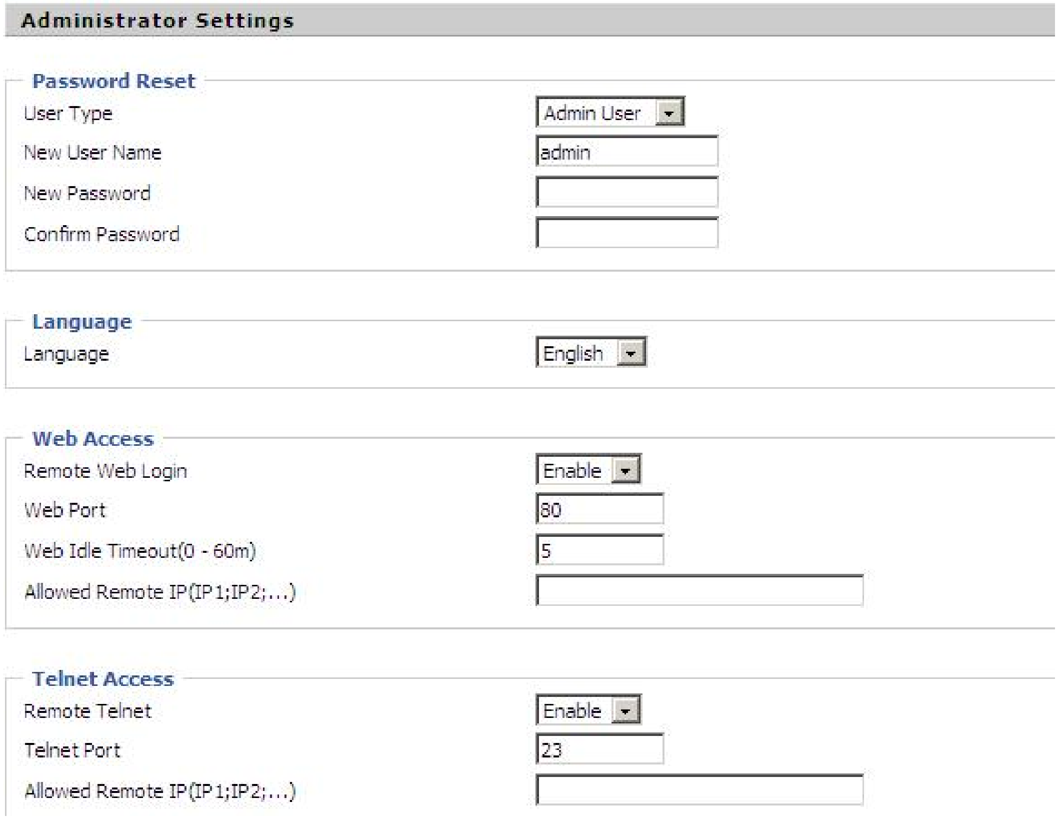
## 4.12.1 Management

You can configure the value of Time/Date, password, web access, and system log and so on.

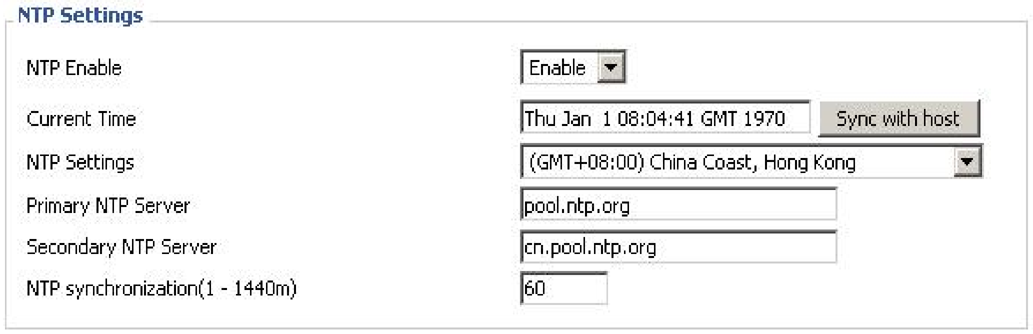
1. **Save config file**

| | Field Name | Description |
|---|---|---|
| <br>Save Config File<br>Config File Upload && Download<br>Local File<br>浏览…<br>Upload Download | **Config file upload and download** | Upload: click on browse, select file in the local, press the upload button to begin uploading files |
| | | Download: click to download, and then select contains the path to download the configuration file |

2. **Administrator settings**

| | Field Name | Description |
|---|---|---|
| <br>Administrator Settings<br>Password Reset<br>User Type: Admin User<br>New User Name: admin<br>New Password:<br>Confirm Password:<br>Language<br>Language: English<br>Web Access<br>Remote Web Login: Enable<br>Web Port: 80<br>Web Idle Timeout(0 - 60m): 5<br>Allowed Remote IP(IP1;IP2;...):<br>Telnet Access<br>Remote Telnet: Enable<br>Telnet Port: 23<br>Allowed Remote IP(IP1;IP2;...): | **User type** | Choose the user type from admin user and normal user and basic user. |
| | **New User Name** | You can modify the user name, set up a new user name |
| | **New Password** | Input the new password |
| | **Confirm Password** | Input the new password again |
| | **Language** | Select the language for the web, the device support Chinese, English, and Spanish and so on. |
| | **Remote Web Login** | If or not enable remote Web login |
| | **Web Port** | Set the port value which is used to login from Internet port and PC port, default is 80. |
| | **Web Idle timeout** | Set the Web Idle timeout time. The webpage can be logged out after Web Idle Timeout without any operation. |
| | **Allowed Remote IP(IP1,IP2,...)** | Set the IP which can login the device remotely. |
| | **Remote Telnet** | If or not enable remote telnet login |
| | **Telnet Port** | Set the port value which is used to telnet the device. |

## 3. NTP settings

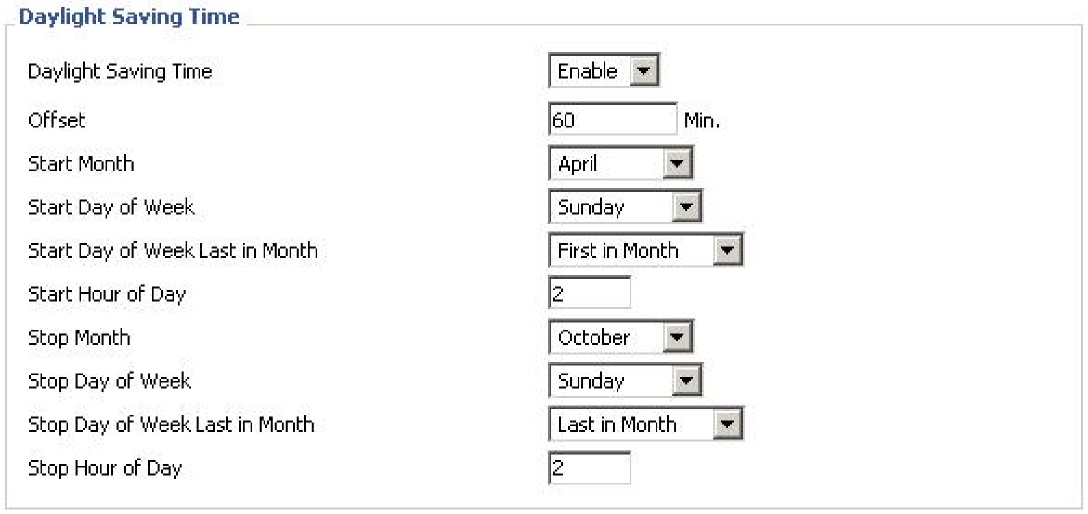


NTP Settings

| | |
|---|---|
| NTP Enable | Enable |
| Current Time | Thu Jan 1 08:04:41 GMT 1970 |
| NTP Settings | (GMT+08:00) China Coast, Hong Kong |
| Primary NTP Server | pool.ntp.org |
| Secondary NTP Server | cn.pool.ntp.org |
| NTP synchronization(1 - 1440m) | 60 |

| Field Name | Description |
|---|---|
| **NTP Enable** | If or not enable NTP |
| **Current Time** | Display current time |
| **NTP Settings** | Setting the Time Zone |
| **Primary NTP Server** | Primary NTP server's IP address or domain name |
| **Secondary NTP Server** | Options for NTP server's IP address or domain name |
| **NTP synchronization** | NTP synchronization cycle, cycle time can be 1 to 1440 minutes in any one, the default setting is 60 minutes |

## 4. Daylight Saving Time



Daylight Saving Time

| | |
|---|---|
| Daylight Saving Time | Enable |
| Offset | 60 Min. |
| Start Month | April |
| Start Day of Week | Sunday |
| Start Day of Week Last in Month | First in Month |
| Start Hour of Day | 2 |
| Stop Month | October |
| Stop Day of Week | Sunday |
| Stop Day of Week Last in Month | Last in Month |
| Stop Hour of Day | 2 |

Set the summer time steps:

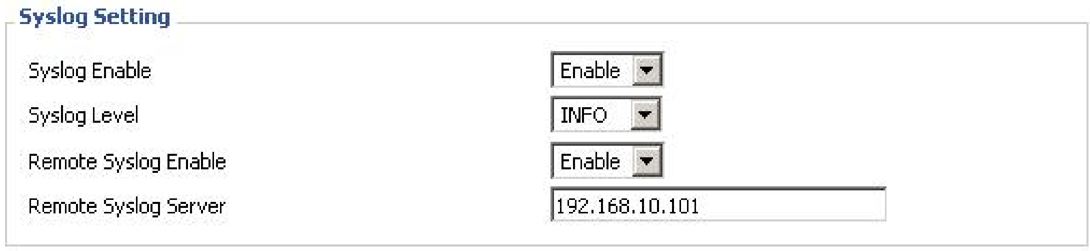
Step 1. Enable Daylight Saving Time.

Step 2. Set value of offset, like the upon picture

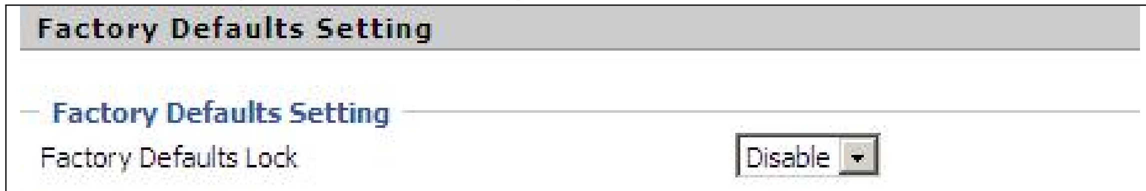
Step 3: Set staring Month/Week/Day/Hour in **Start Month/Start Day of Week Last in Month/Start Day of Week/Start Hour of Day**, analogously set stopping Month/Week/Day/Hour in **Stop Month/Stop Day of Week Last in Month/Stop Day of Week/Stop Hour of Day**.

Step 4.Press **Saving** button to save and press **Reboot** button to active changes.

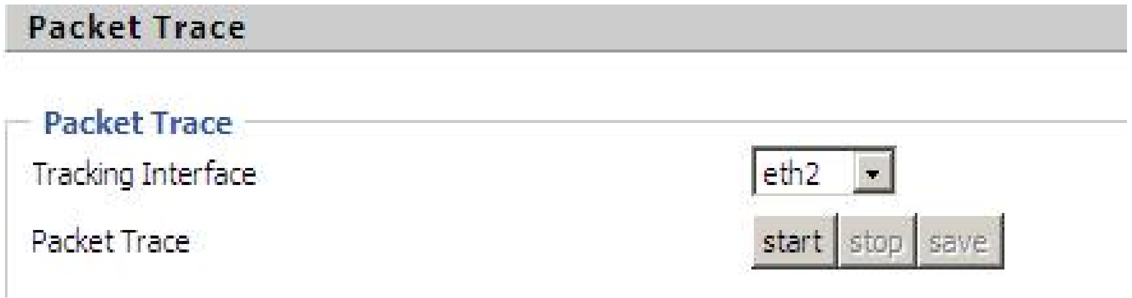
## 5. System Log Setting

| | Field Name | Description |
|---|---|---|
| <br>Syslog Setting<br>Syslog Enable: Enable<br>Syslog Level: INFO<br>Remote Syslog Enable: Enable<br>Remote Syslog Server: 192.168.10.101 | **Syslog Enable** | If or not enable syslog function |
| | **Syslog Level** | Select the system log, there is INFO and Debug two grades, the Debug INFO can provide more information. |
| | **Remote Syslog Enable** | If or not enable remote syslog function. |
| | **Remote Syslog server** | Add a remote server IP address. |

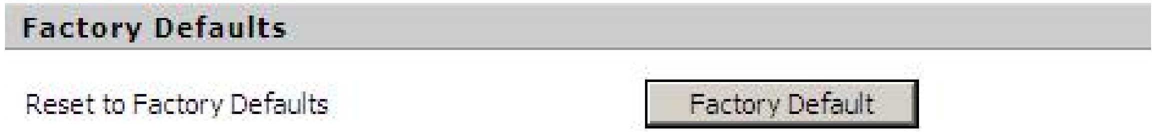
## 6. Factory Defaults Setting

| | |
|---|---|
| <br>Factory Defaults Setting<br>Factory Defaults Setting<br>Factory Defaults Lock: Disable | If enable this function ,the device will not be restore factory settings |

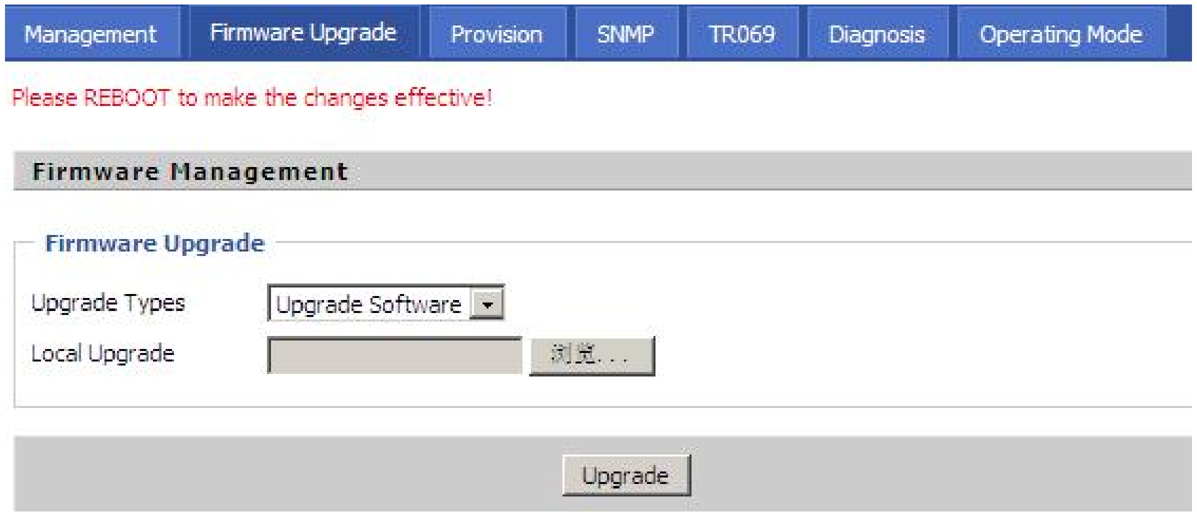
## 7. Packet Trace

| | |
|---|---|
| <br>Packet Trace<br>Packet Trace<br>Tracking Interface: eth2<br>Packet Trace: start stop save | Users can use the packet trace feature intercepts the packets that were sent. Click the Start button, start dhome gateway tracking and keep refreshing the page until the message trace shows to stop, click the Save button to save captured packets. |

## 8. Factory Defaults

| | |
|---|---|
| <br>Factory Defaults<br>Reset to Factory Defaults: Factory Default | Click Factory Default to restore the residential gateway to factory settings. |

## 4.12.2 Firmware Upgrade



Please REBOOT to make the changes effective!

Firmware Management

Firmware Upgrade

Upgrade Types: Upgrade Software

Local Upgrade: 浏览...

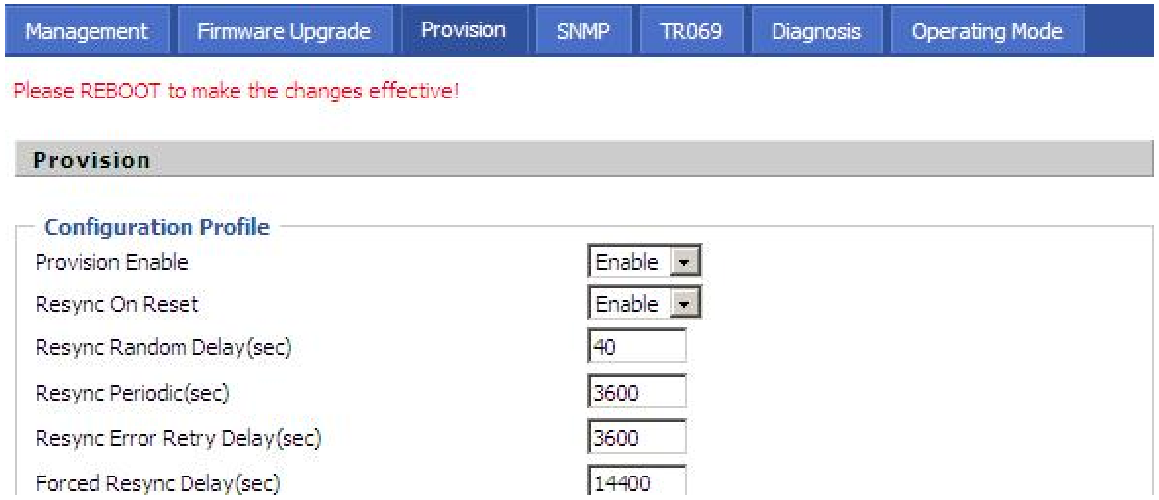
1. Choose upgrade file type from **Image File** and **Dial Rule**
2. Press 浏览... to browser file.
3. Press Upgrade to start upgrading.

## 4.12.3 Provision

Provisioning allows FWR9202 auto-upgrading and auto-configuring, and Flyingvoice devices support TFTP, HTTP and HTTPs three ways.

1. Before testing or using TFTP, user should have tftp server and upgrading file and configuring file.
2. Before testing or using HTTP, user should have http server and upgrading file and configuring file.
3. Before testing or using HTTPS, user should have https server and upgrading file and configuring file and CA Certificate file(should same as https server's) and Client Certificate file and Private key file(HTTPS provision will be supported soon)

User can uploading CA Certificate file and Client Certificate file and Private Key file in Security page.



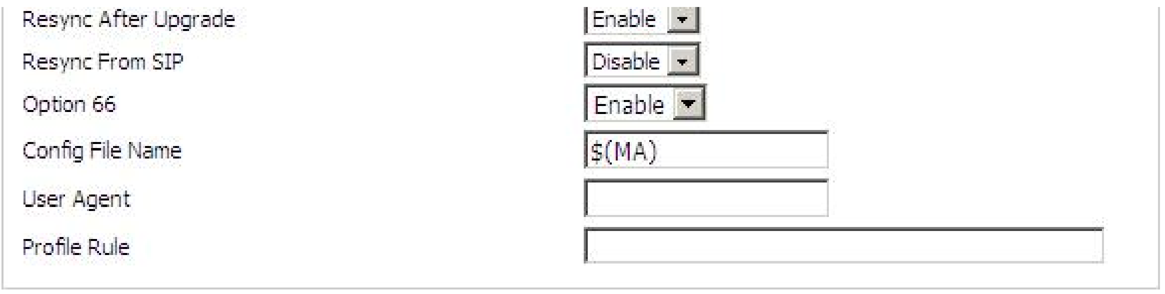
Please REBOOT to make the changes effective!

Provision

Configuration Profile

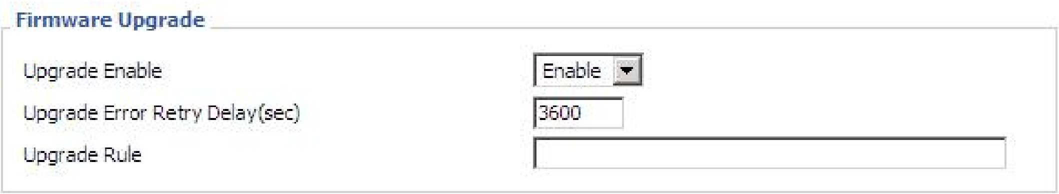
Provision Enable: Enable
Resync On Reset: Enable
Resync Random Delay(sec): 40
Resync Periodic(sec): 3600
Resync Error Retry Delay(sec): 3600
Forced Resync Delay(sec): 14400

| Field Name | Description |
|---|---|
| **Provision Enable** | If or not enable provision. |
| **Resync on Reset** | If or not enable resync after restart |
| **Resync Random Delay(sec)** | Set the maximum delay for request the synchronization file, default is 40. |
| **Resync Periodic(sec)** | If the last resync was failure, FWR9202 will retry resync after the "Resync Error Retry Delay " time, default is 3600s. |
| **Resync Error Retry Delay(rec)** | Set the periodic time for resync, default is 3600s. |
| **Forced Resync Delay(sec)** | If it's time to resync, but FWR9202 is busy now, in this case, FWR9202 will wait for a period time, the longest is |



Resync After Upgrade: Enable
Resync From SIP: Disable
Option 66: Enable
Config File Name: $(MA)
User Agent:
Profile Rule:

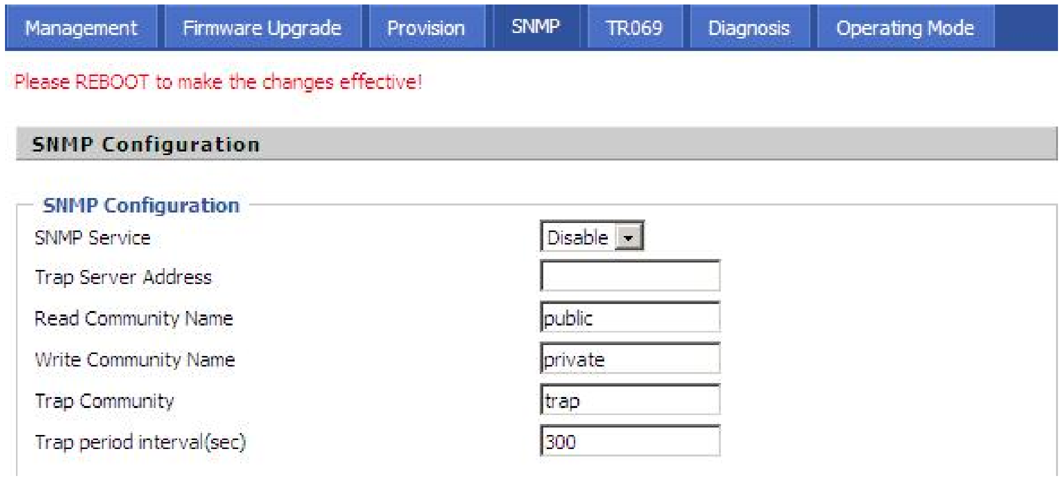
| | |
|---|---|
| | “Forced Resync Delay”, default is 14400s, when the time over, FWR9202 will forced to resync. |
| **Resync After Upgrade** | If or not enable firmware upgrade after resync, by default it is enabled. |
| **Resync From SIP** | If or not enable resync from SIP. |
| **Option 66** | It is used for In-house provision mode only. When use TFTP with option 66 to realize provisioning, user must input right configuration file name in IP542N's webpage. When disable **Option 66**, this parameter has no effect. |
| **Config File Name** | It is used for In-house provision mode only. When use TFTP with option 66 to realize provisioning, user must input right configuration file name in the webpage. When disable **Option 66**, this parameter has no effect. |
| **Profile Rule** | URL of profile provision file<br>Note that the specified file path is relative to the TFTP server’s virtual root directory. |



Firmware Upgrade
Upgrade Enable: Enable
Upgrade Error Retry Delay(sec): 3600
Upgrade Rule:

| Field Name | Description |
|---|---|
| **Upgrade Enable** | If or not enable firmware upgrade via provision. |
| **Upgrade Error Retry Delay(sec)** | If the last upgrade fails, FWR9202 will try upgrading again after “Upgrade Error Retry Delay” period, default is 3600s. |
| **Upgrade Rule** | URL of upgrade file |

## 4.12.4 SNMP



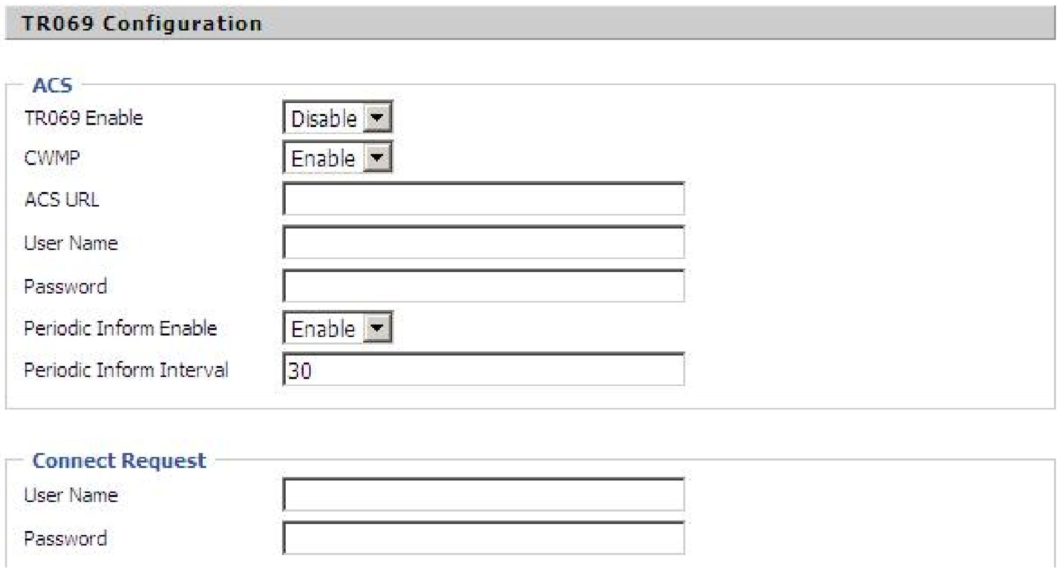
Please REBOOT to make the changes effective!

SNMP Configuration

SNMP Configuration
SNMP Service: Disable
Trap Server Address:
Read Community Name: public
Write Community Name: private
Trap Community: trap
Trap period interval(sec): 300

| Field Name | Description |
|---|---|
| **SNMP Service** | If or not enable SNMP. |
| **Trap Server Address** | Enter the trap server address. |
| **Read Community Name** | String, as an express password between management progress and agent progress. |
| **Write Community Name** | String, as an express password between management progress and agent progress. |
| **Trap Community** | The community field in trap. |
| **Trap period interval(sec)** | The interval of sending trap. |

## 4.12.5 TR069



TR069 Configuration

ACS

TR069 Enable: Disable

CWMP: Enable

ACS URL:

User Name:

Password:

Periodic Inform Enable: Enable

Periodic Inform Interval: 30

Connect Request

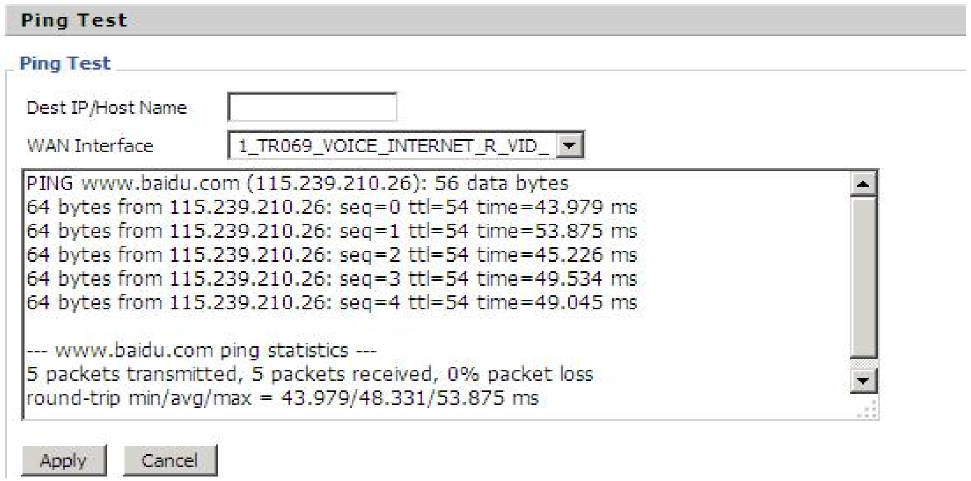
User Name:

Password:

| Field Name | Description |
|---|---|
| **TR069 Enable** | If or not enable TR069 |
| **CWMP** | If or not enable CWMP |
| **ACS URL** | ACS URL address |
| **User Name** | ACS username |
| **Password** | ACS password |
| **Periodic Inform Enable** | If or not enable the function of periodic inform, default is enable |
| **Periodic Inform Interval** | Periodic notification interval, the unit is seconds, default is 43200s |
| **User Name** | The username used to connect the TR069 server to the DUT. |
| **Password** | The password used to connect the TR069 server to the DUT. |

### 4.12.6 Diagnoisis

In this page, user can do ping test and traceroute test to diagnose the device's connection status.



Ping Test

Ping Test

Dest IP/Host Name

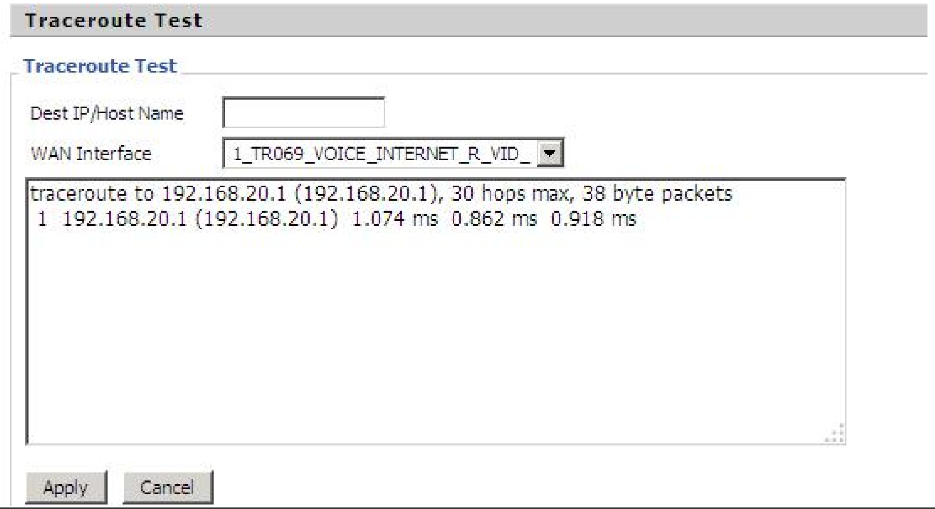
WAN Interface: 1_TR069_VOICE_INTERNET_R_VID_

```
PING www.baidu.com (115.239.210.26): 56 data bytes
64 bytes from 115.239.210.26: seq=0 ttl=54 time=43.979 ms
64 bytes from 115.239.210.26: seq=1 ttl=54 time=53.875 ms
64 bytes from 115.239.210.26: seq=2 ttl=54 time=45.226 ms
64 bytes from 115.239.210.26: seq=3 ttl=54 time=49.534 ms
64 bytes from 115.239.210.26: seq=4 ttl=54 time=49.045 ms

--- www.baidu.com ping statistics ---
5 packets transmitted, 5 packets received, 0% packet loss
round-trip min/avg/max = 43.979/48.331/53.875 ms
```

1. Ping Test

Enter the destination IP or host name, and then click Apply, device will perform ping test.



Traceroute Test

Traceroute Test

Dest IP/Host Name

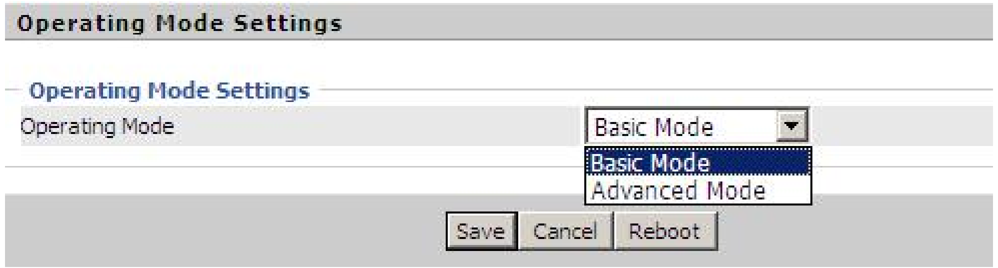
WAN Interface: 1_TR069_VOICE_INTERNET_R_VID_

```
traceroute to 192.168.20.1 (192.168.20.1), 30 hops max, 38 byte packets
 1  192.168.20.1 (192.168.20.1)  1.074 ms  0.862 ms  0.918 ms
```

2. Traceroute Test

Enter the destination IP or host name, and then click Apply, device will perform traceroute test.

### 4.12.7 Operation Mode



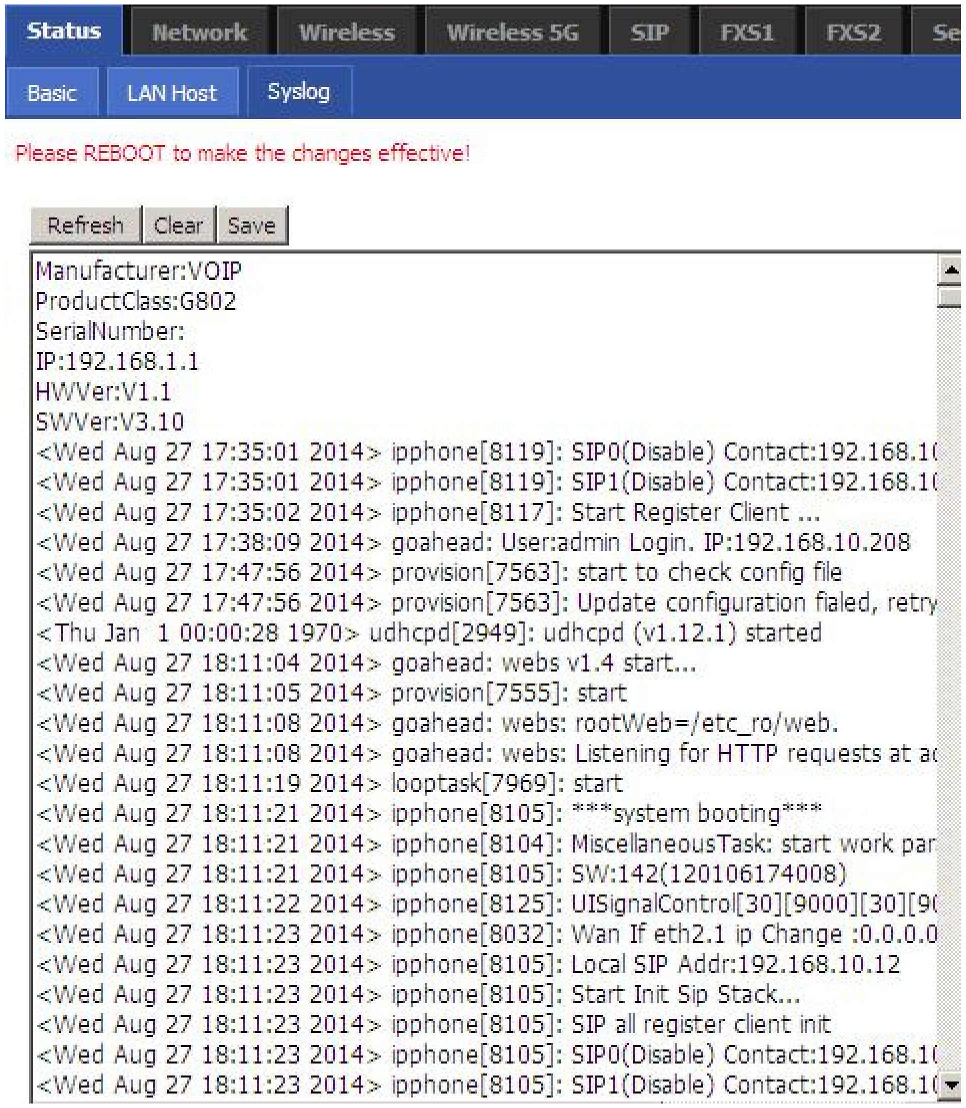
Operating Mode Settings

Operating Mode Settings

Operating Mode: Basic Mode

Choose the Operation Mode as Basic Mode or Advance Mode.

# 4.13 System Log

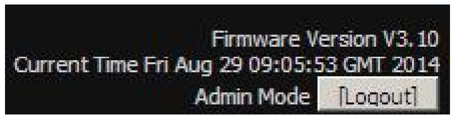


Please REBOOT to make the changes effective!

```
Manufacturer:VOIP
ProductClass:G802
SerialNumber:
IP:192.168.1.1
HWVer:V1.1
SWVer:V3.10
<Wed Aug 27 17:35:01 2014> ipphone[8119]: SIP0(Disable) Contact:192.168.1(
<Wed Aug 27 17:35:01 2014> ipphone[8119]: SIP1(Disable) Contact:192.168.1(
<Wed Aug 27 17:35:02 2014> ipphone[8117]: Start Register Client ...
<Wed Aug 27 17:38:09 2014> goahead: User:admin Login. IP:192.168.10.208
<Wed Aug 27 17:47:56 2014> provision[7563]: start to check config file
<Wed Aug 27 17:47:56 2014> provision[7563]: Update configuration fialed, retry
<Thu Jan  1 00:00:28 1970> udhcpd[2949]: udhcpd (v1.12.1) started
<Wed Aug 27 18:11:04 2014> goahead: webs v1.4 start...
<Wed Aug 27 18:11:05 2014> provision[7555]: start
<Wed Aug 27 18:11:08 2014> goahead: webs: rootWeb=/etc_ro/web.
<Wed Aug 27 18:11:08 2014> goahead: webs: Listening for HTTP requests at a(
<Wed Aug 27 18:11:19 2014> looptask[7969]: start
<Wed Aug 27 18:11:21 2014> ipphone[8105]: ***system booting***
<Wed Aug 27 18:11:21 2014> ipphone[8104]: MiscellaneousTask: start work par
<Wed Aug 27 18:11:21 2014> ipphone[8105]: SW:142(120106174008)
<Wed Aug 27 18:11:22 2014> ipphone[8125]: UISignalControl[30][9000][30][9(
<Wed Aug 27 18:11:23 2014> ipphone[8032]: Wan If eth2.1 ip Change :0.0.0.0
<Wed Aug 27 18:11:23 2014> ipphone[8105]: Local SIP Addr:192.168.10.12
<Wed Aug 27 18:11:23 2014> ipphone[8105]: Start Init Sip Stack...
<Wed Aug 27 18:11:23 2014> ipphone[8105]: SIP all register client init
<Wed Aug 27 18:11:23 2014> ipphone[8105]: SIP0(Disable) Contact:192.168.1(
<Wed Aug 27 18:11:23 2014> ipphone[8105]: SIP1(Disable) Contact:192.168.1(
```

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

# 4.14 Logout



Firmware Version V3. 10
Current Time Fri Aug 29 09:05:53 GMT 2014
Admin Mode [Logout]

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

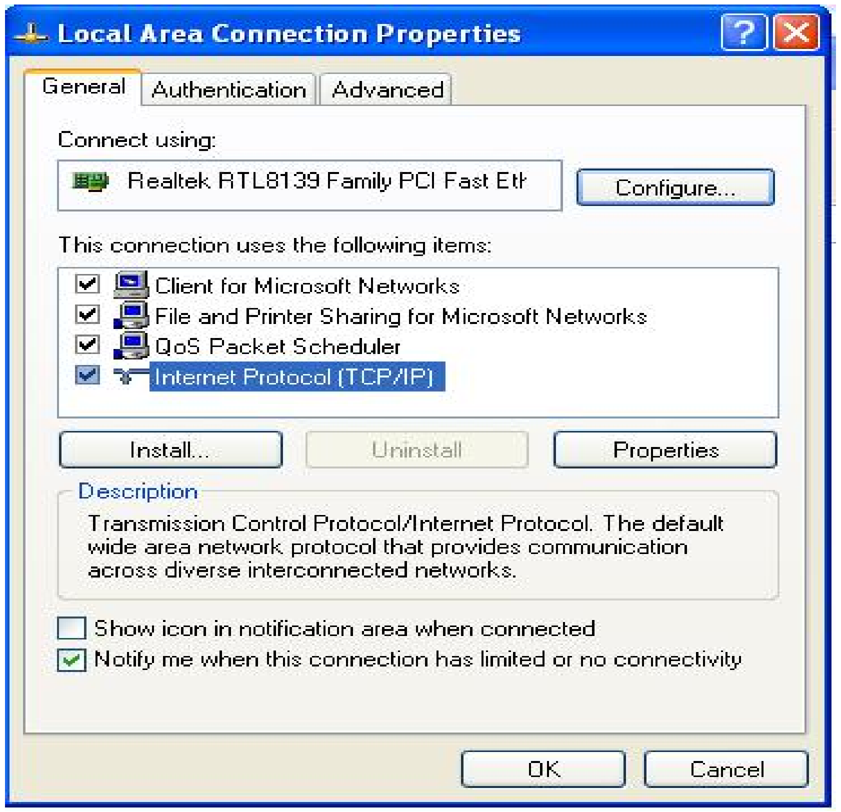
## 4.15 Reboot

Press the Reboot button to reboot FWR9202.

# 5Trouble shooting of the guide

## 5.1 Setting your PC gets IP automatically

Following are the process of setting your PC gets IP automatically
Step 1.Click the "begin"
Step 2.Select "control panel", then double click "network connections" in the "control panel"
Step 3.Right clicks 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".



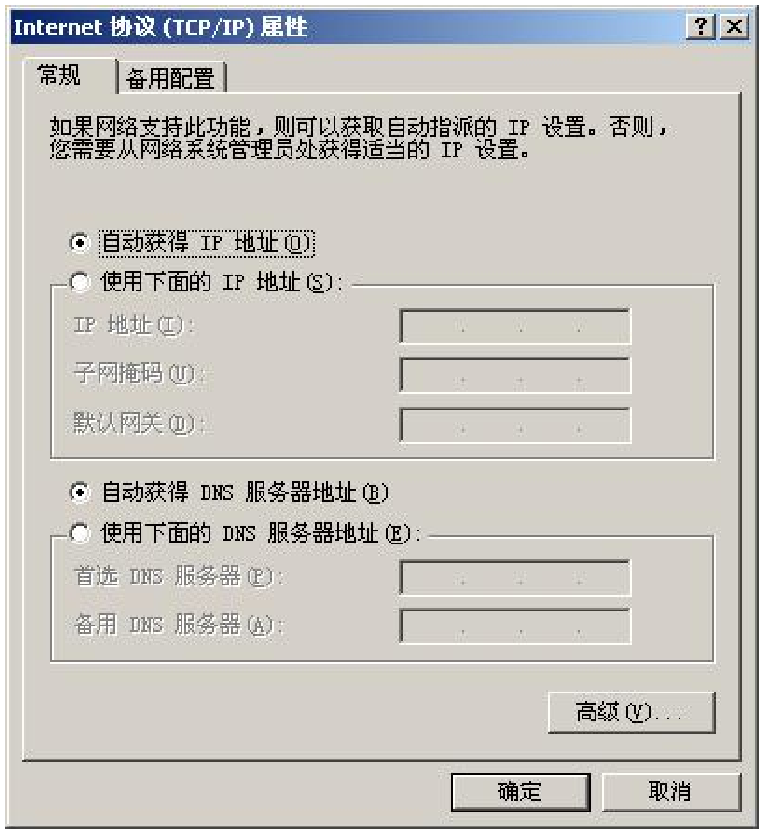
Connect using:
Realtek RTL8139 Family PCI Fast Eth

This connection uses the following items:
☑ Client for Microsoft Networks
☑ File and Printer Sharing for Microsoft Networks
☑ QoS Packet Scheduler
☑ Internet Protocol (TCP/IP)

Description
Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.

□ Show icon in notification area when connected
☑ Notify me when this connection has limited or no connectivity

Picture 1



如果网络支持此功能，则可以获取自动指派的 IP 设置。否则，您需要从网络系统管理员处获得适当的 IP 设置。

● 自动获得 IP 地址(O)
○ 使用下面的 IP 地址(S):
IP 地址(I):
子网掩码(U):
默认网关(D):

● 自动获得 DNS 服务器地址(B)
○ 使用下面的 DNS 服务器地址(E):
首选 DNS 服务器(P):
备用 DNS 服务器(A):

Picture 2

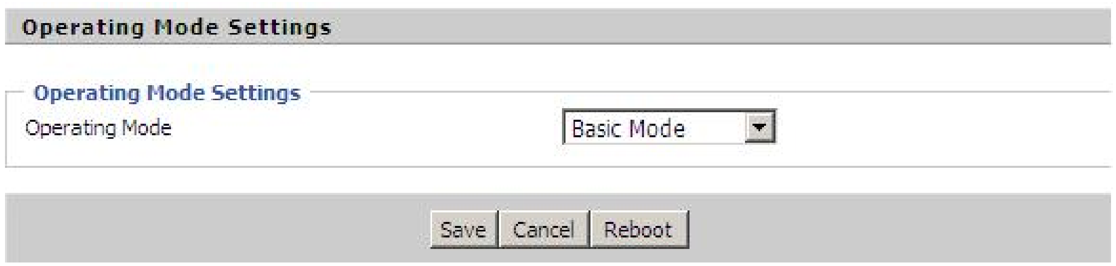
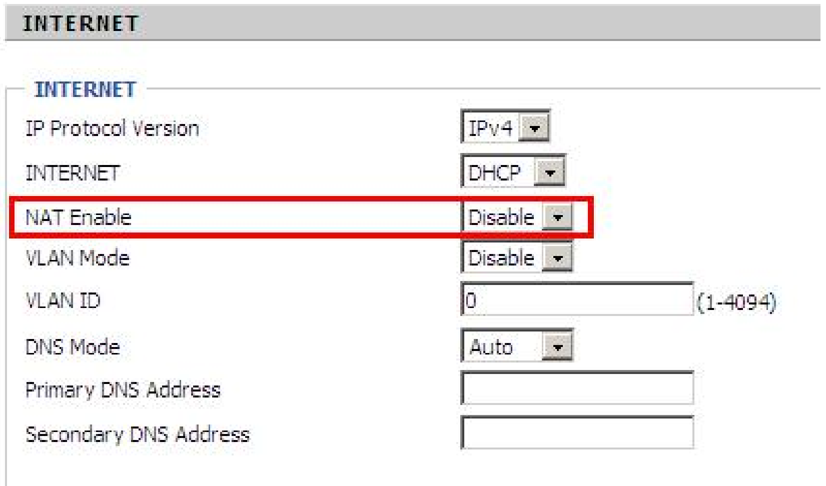
## 5.2 Can not connect to the configuration Website

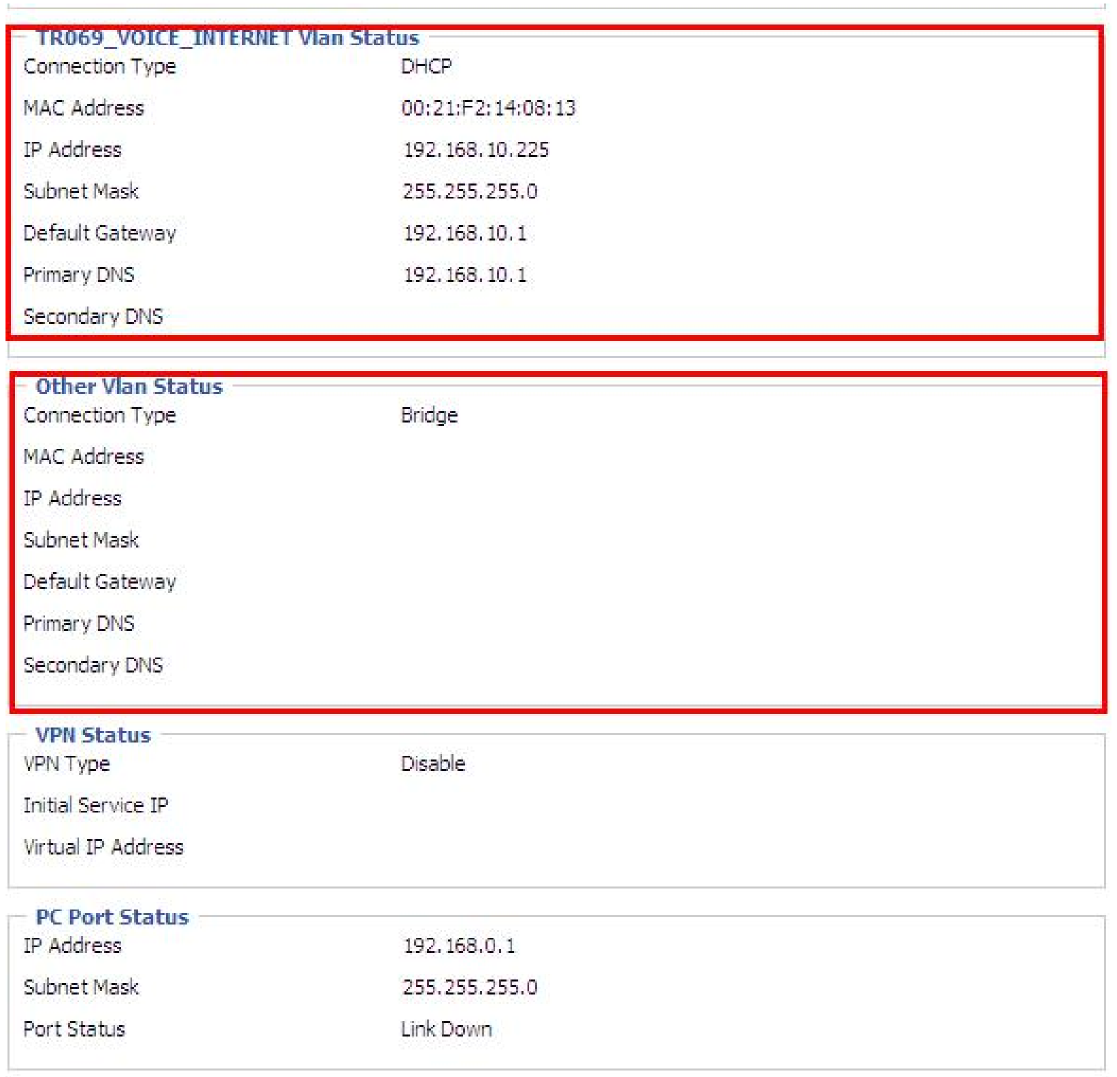
Solution:
Check if the Ethernet cable is properly connected, then
Check if the URL is right wrote, the format of URL is: http:// the IP address: 8080, 8080 must be added, then
Check if the version of IE is IE8, or use other browser such as Firefox or Mozilla, then
Contact your administrator, supplier, or ITSP for more information or assistance.

## 5.3 Forget the Password

If user changed the password and then forgot, you can not access to the configuration website.
Solution:
To factory default: press reset button 10s.

## 5.4 Fast Bridge Setting

| | |
|---|---|
| <br>Operating Mode Settings<br>Operating Mode Settings<br>Operating Mode: Basic Mode<br> | Step 1: Login WEB of Device.Turn to Page Administration->Operating Mode. Set Operating mode to Basic Mode. Save. |
| <br>INTERNET<br>INTERNET<br>IP Protocol Version: IPv4<br>INTERNET: DHCP<br>NAT Enable: Disable<br>VLAN Mode: Disable<br>VLAN ID: 0 (1-4094)<br>DNS Mode: Auto<br>Primary DNS Address:<br>Secondary DNS Address: | Step 2: Open Network->wan, Change Nat Enable to Disable. Save and Reboot. Now Device works in Bridge mode. |



### TR069_VOICE_INTERNET Vlan Status

| | |
|---|---|
| Connection Type | DHCP |
| MAC Address | 00:21:F2:14:08:13 |
| IP Address | 192.168.10.225 |
| Subnet Mask | 255.255.255.0 |
| Default Gateway | 192.168.10.1 |
| Primary DNS | 192.168.10.1 |
| Secondary DNS | |

### Other Vlan Status

| | |
|---|---|
| Connection Type | Bridge |
| MAC Address | |
| IP Address | |
| Subnet Mask | |
| Default Gateway | |
| Primary DNS | |
| Secondary DNS | |

### VPN Status

| | |
|---|---|
| VPN Type | Disable |
| Initial Service IP | |
| Virtual IP Address | |

### PC Port Status

| | |
|---|---|
| IP Address | 192.168.0.1 |
| Subnet Mask | 255.255.255.0 |
| Port Status | Link Down |

Step 3: Please Login from WAN port.  Under is example of Page Status->Basic.

Federal Communications Commission (FCC) Statement

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

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

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

Warning: Changes or modifications made to this device not expressly approved by Flyingvoice Network Technology Co., Ltd may void the FCC authorization to operate this device.
Note: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.

**RF exposure statement:**
The transmitter must not be colocated or operated in conjunction with any other antenna or transmitter. This equipment complies with the FCC RF radiation exposure limits set forth for
an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20cm between the radiator and any part of your body.