

The FWR7302 High Speed Router User's Guide



indoor use only

V1.0

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1 Preface

Thank you for choosing FWR7302 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 FWR7302 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.

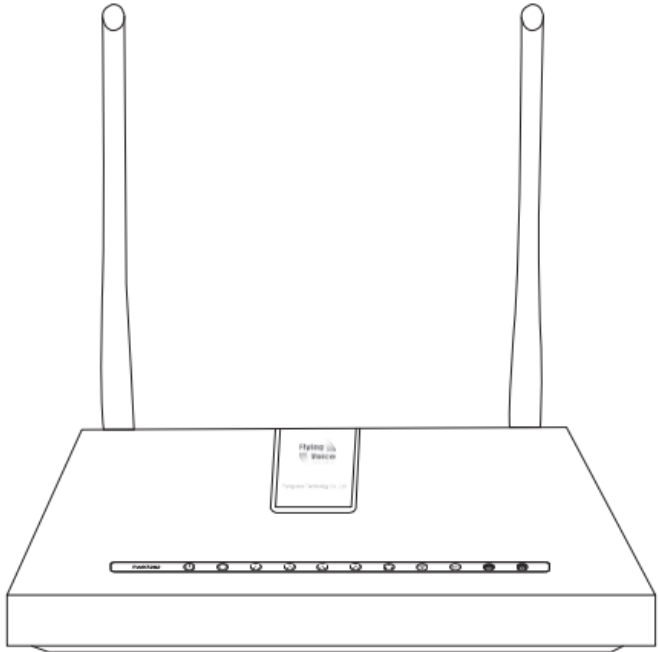
Before you can connect FWR7302 to the Internet and use it, you must have a high-speed broadband connection installed. A high-speed connection includes environments such as DSL, cable modem, and a leased line.

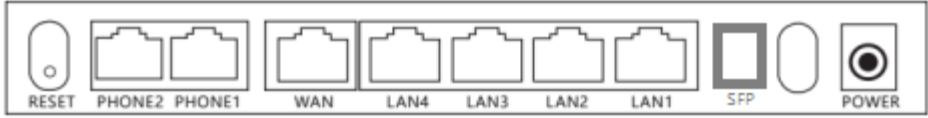
FWR7302 wireless router with VoIP is a stand-alone device, which requires no PC to make Internet calls. This product guarantees clear and reliable voice quality on Internet, which is fully compatible with SIP industry standard and able to interoperate with many other SIP devices and software on the market.

2 LED Indicators and Connectors

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

2.1 LED Indicators

Front Panel	LED	Status	Explanation
	PHONE1/2	Blinking(Green)	Not registered.
		On (Green)	Registered
	system	On (Green)	Wireless access point is ready.
		Blinking(Green)	It will blink while wireless traffic goes through.
	SFP	On	It will on when connect the SFP model
		Off	It will off when not connect the SFP model
	2.4G	Blinking(Green)	Data transfer
		On(Green)	2.4G work
		Off	2.4G disable
	5G	Blinking(Green)	Data transfer
		On(Green)	5G work
		Off	5G disable
	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(Red)	The router is powered on and running normally.	
	Off	The router is powered off.	

Rear Panel	Interface	Description
	DC 12V/1.5A	Connector for a power adapter.
	PHONE2	Connect to the phone.
	WAN	Connector for accessing the Internet.
	LAN (1/2/3/4)	Connectors for local networked devices.
	SFP	Connect to SFP model

2.2 Hardware Installation

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

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

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

Step 3. Connect one port of 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. Check the Power and WAN, LAN LEDs to assure network connections.

3 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	<p>Step 1.Pick up phone and press “*****” to start IVR</p> <p>Step 2.Choose “1”, and FWR7202 report the current WAN port connection type</p> <p>Step 3.Prompt "Please enter password", user need to input password with end char # if user want to configuration WAN port connection type.</p> <p>◇ The password in IVR is same as the one of WEB login, user can use phone keypad to enter password directly, and the matching table is in Note</p>
2	<p>Step 1.Pick up phone and press “*****” to start IVR</p> <p>Step 2.Choose “2”, and FWR7202 report current WAN Port IP Address</p> <p>Step 3.Input the new WAN port IP address and with the end char #,</p> <p>◇ using “*” to replace “.”, user can input 192*168*20*168 to set the new IP address 192.168.20.168</p> <p>◇ press # key to indicate that you have finished</p> <p>Step 4.Report “operation successful” if user operation properly.</p> <p>◇ Note: If you want to quit by the wayside, press “***”.</p>
3	<p>Step 1.Pick up phone and press “*****” to start IVR</p> <p>Step 2.Choose “3”, and FWR7202 report current WAN port subnet mask</p> <p>Step 3.Input a new WAN port subnet mask and with the end char #</p> <p>◇ using “*” to replace “.”, user can input 255*255*255*0 to set the new WAN port subnet mask 255.255.255.0</p> <p>◇ press # key to indicate that you have finished</p> <p>3) Report “operation successful” if user operation properly.</p> <p>◇ Note: If you want to quit by the wayside, press “***”.</p>
4	<p>Step 1.Pick up phone and press “*****” to start IVR</p> <p>Step 2.Choose “4”, and FWR7202 report current gateway</p> <p>Step 3.Input the new gateway and with the end char #</p> <p>◇ using “*” to replace “.”, user can input 192*168*20*1 to set the new gateway 192.168.20.1</p> <p>◇ press # (pound) key to indicate that you have finished</p> <p>3) Report “operation successful” if user operation properly.</p> <p>◇ Note: If you want to quit by the wayside, press “***”.</p>
5	<p>Step 1.Pick up phone and press “*****” to start IVR</p> <p>Step 2.Choose “5”, and FWR7202 report current DNS</p> <p>Step 3.Input the new DNS and with the end char #</p> <p>◇ using “*” to replace “.”, user can input 192*168*20*1 to set the new gateway 192.168.20.1</p> <p>◇ press # (pound) key to indicate that you have finished</p> <p>3) Report “operation successful” if user operation properly.</p> <p>◇ If you want to quit by the wayside, press “***”.</p>

6	<p>Step 1.Pick up phone and press “*****” to start IVR</p> <p>Step 2.Choose “6”, and FWR7202 report “Factory Reset”</p> <p>Step 3.Prompt "Please enter password", the method of inputting password is the same as operation 1. ✧ If you want to quit by the wayside, press “*”.</p> <p>Step 4.Prompt “operation successful” if password is right and then FWR7202 will be factory setting.</p> <p>Step 5.Press “7” reboot to make changes effective.</p>
7	<p>Step 1.Pick up phone and press “*****” to start IVR</p> <p>Step 2.Choose “7”, and FWR7202 report “Reboot”</p> <p>Step 3.Prompt "Please enter password", the method of inputting password is same as operation 1.</p> <p>Step 4.FWR7202 will reboot if password is right and operation is properly.</p>
8	<p>Step 1.Pick up phone and press “*****” to start IVR</p> <p>Step 2.Choose “8”, and FWR7202 report “WAN Port Login”</p> <p>Step 3.Prompt "Please enter password", the method of inputting password is same as operation 1. ✧ If you want to quit by the wayside, press “*”.</p> <p>Step 4.Report “operation successful” if user operation properly.</p> <p>Step 5.Prompt “1enable 2disable”,choose 1 or 2, and with confirm char #</p> <p>Step 6.Report “operation successful” if user operation properly.</p>
9	<p>Step 1.Pick up phone and press “*****” to start IVR</p> <p>Step 2.Choose “9”, and FWR7202 report “ WEB Access Port”</p> <p>Step 3.Prompt “Please enter password”, the method of inputting password is same as operation 1.</p> <p>Step 4.Report “operation successful” if user operation properly.</p> <p>Step 5.Report the current WEB Access Port</p> <p>Step 6.Set the new WEB access port and with end char #</p> <p>Step 7. Report “operation successful” if user operation properly.</p>
0	<p>Step 1.Pick up phone and press “*****” to start IVR</p> <p>Step 2.Choose “0”, and FWR7202 report current Firmware version</p>

Notice:

- ◆ When using Voice Menu, press * (star) to return the main menu.
- ◆ If any changes made in the IP assignment mode, please reboot the FWR7302 to take the setting into effect.
- ◆ When enter IP address or subnet mask, use “*” (Star) to replace “.” (Dot).

For example, to enter the IP address 192.168.20.159 by keypad, press these keys: 192*168*20*159,use the #(pound) key to indicate that you have finished entering the IP address.

- ◆ #(pound) key to indicate that you have finish entering the IP address or subnet mask
- ◆ When assigning IP address in Static IP mode, setting IP address, subnet mask and default gateway is a must. If in DHCP mode, please make sure that DHCP SERVER is available in your existing broadband connection to which WAN port of FWR7302 is connected.
- ◆ The default LAN port IP address of FWR7302 is 192.168.1.1 and do not set the WAN port IP address of FWR7302 in the same network segment of LAN port of FWR7302, otherwise it may lead to the FWR7302 fail to work properly.
- ◆ You can enter the password by phone keypad, the matching table between number and letters as follows:
 - To input: D, E, F, d, e, f -- press '3'
 - To input: G, H, I, g, h, i -- press '4'
 - To input: J, K, L, j, k, l -- press '5'
 - To input: M, N, O, m, n, o -- press '6'
 - To input: P, Q, R, S, p, q, r, s -- press '7'
 - To input: T, U, V, t, u, v -- press '8'
 - To input: W, X, Y, Z, w, x, y, z -- press '9'
 - To input all other characters in the administrator password-----press '0',
E.g. password is 'admin-admin', press '236460263'

4 Configuring Basic Settings

4.1 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.

FWR7302 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.

4.2 Accessing Web Page

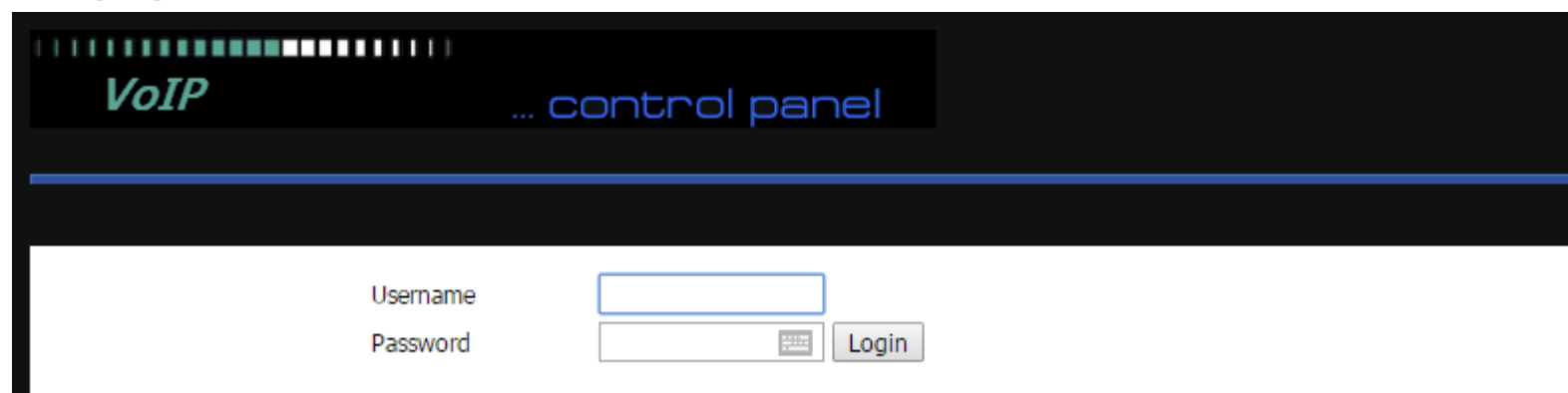
4.2.1 From LAN port

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



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

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



The screenshot shows a web browser window displaying the login page for the VoIP control panel. The page has a dark header with the text "VoIP" in green and "... control panel" in blue. Below the header is a white login form with two input fields: "Username" and "Password". The "Password" field has a small icon of a key and a "Login" button to its right.

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.

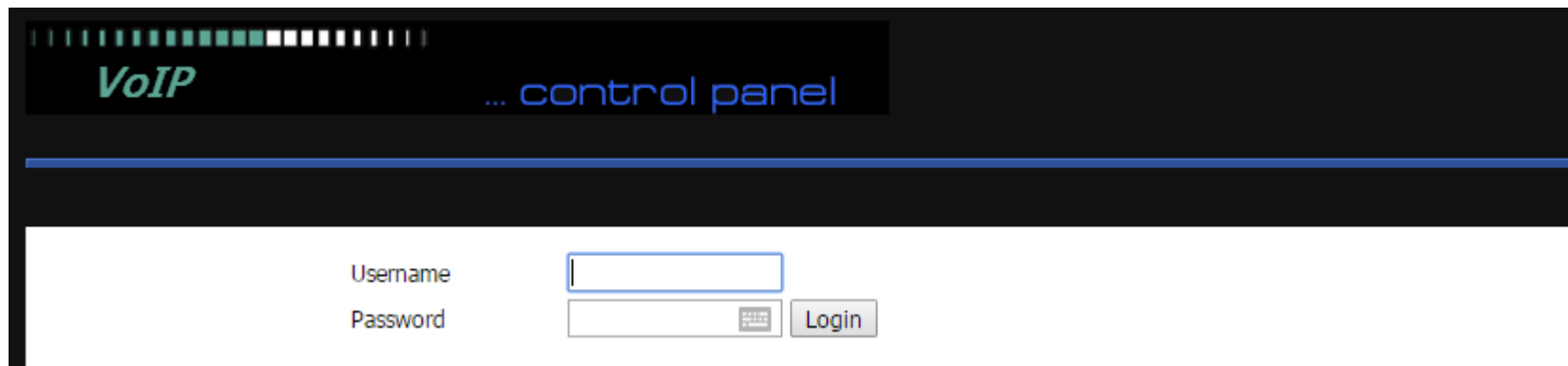


Notice: If you fail to access to the web configuration, please go to “Trouble Shooting” for detecting and solving your problem.

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

4.2.2 From WAN port

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



The screenshot shows a web browser window with a black header. On the left, the text "VoIP" is displayed in green. On the right, "... control panel" is displayed in blue. Below the header, there is a login form with two input fields: "Username" and "Password". To the right of the "Password" field is a "Login" button. The background of the page is black.

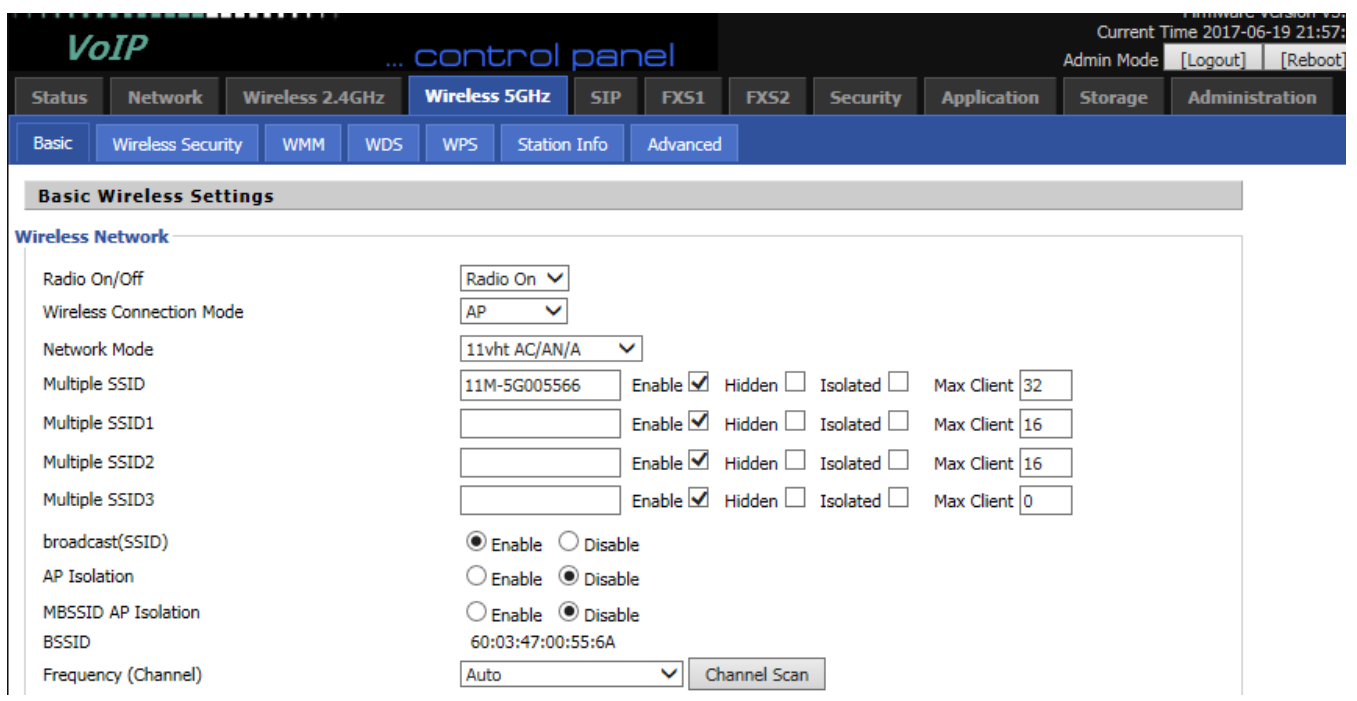
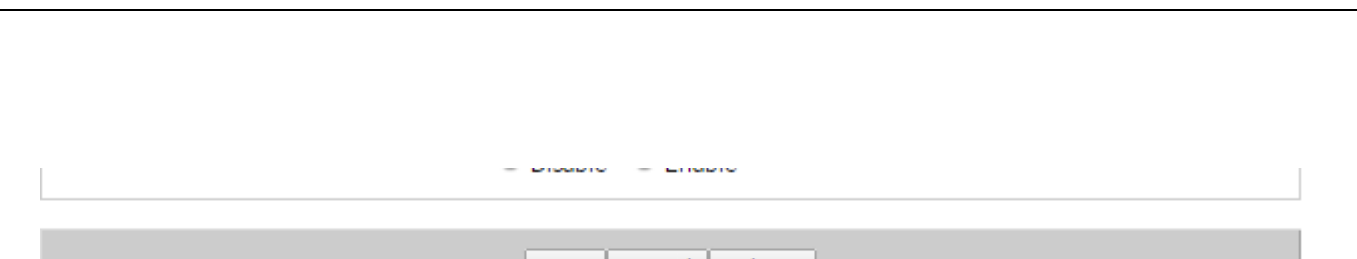

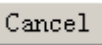
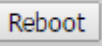
4. For administrator mode operation, please type “**admin/admin**” on Username/Password and click Login to configuration. Yet, for root user mode operation, please type “**user/user**” on Username/Password and click Login for full configuration.



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.

4.3 Webpage

	No.	Name	Description
	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
			<ul style="list-style-type: none"> ◆ Every time making some changes, user should press this button to confirm the changes. ◆ After pressing the button, the red <i>Please REBOOT to make the changes effective!</i> will appear to notice rebooting.
			To cancel the changes.
			Press it to reboot the router

4.4 Setting up the Time Zone

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

Time/Date Setting

NTP Settings

NTP Enable

Option 42

Current Time - - . : :

Sync with host

NTP Settings

Primary NTP Server

Secondary NTP Server

NTP synchronization(1 - 1440min)

4.5 Setting up the Internet Connection

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

VoIP

... control panel

Firmware Version V3
 Current Time 2016-02-24 21:40
 Admin Mode [\[Logout\]](#) [\[Reboot\]](#)

Status
Network
Wireless
SIP
FXS1
FXS2
Security
Application
Administration

WAN
LTE
LAN
VPN
Port Forward
DMZ
DDNS
QoS
MAC Clone
Port Setting
Routing
Advance

INTERNET

WAN

WAN IP Mode

DHCP Server

LAN Connection Mode

DNS Mode

Primary DNS

Secondary DNS

Help

WAN IP Mode:

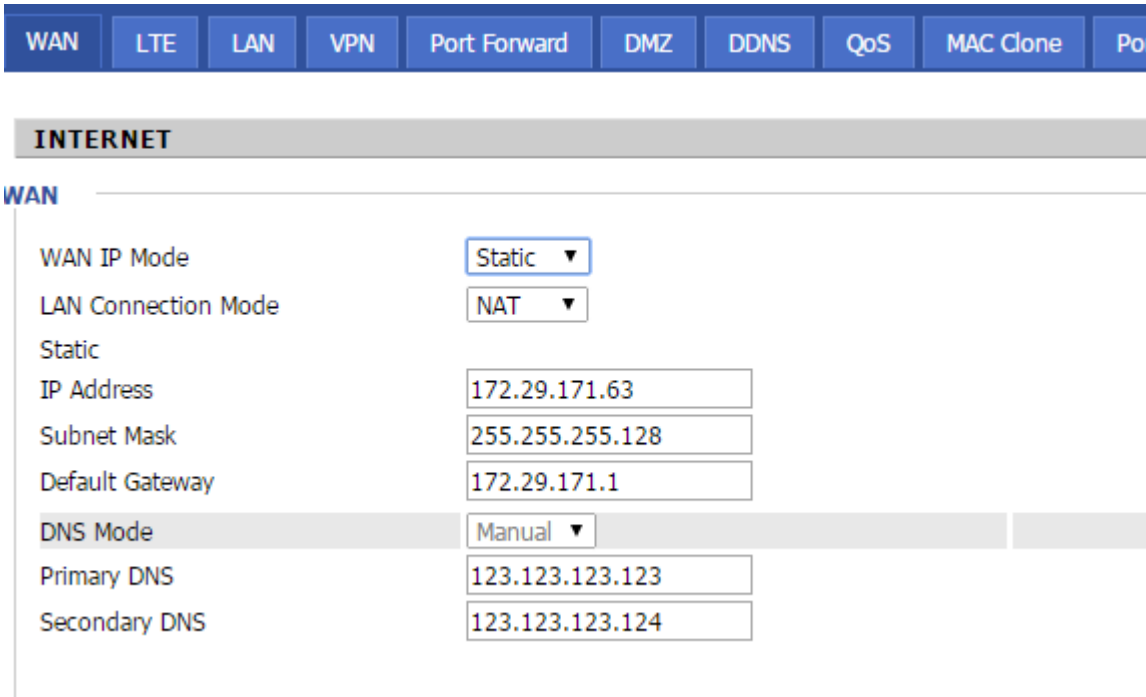
Static IP - Set the IP Address, Subnet Mask and Default Gateway that you have gotten from you ISP provider.

DHCP - You will get an IP Address, Subnet Mask and Default Gateway from some DHCP Server.

PPPoE - Set the PPPoE Account and PPPoE Password that you have gotten from your ISP provider.

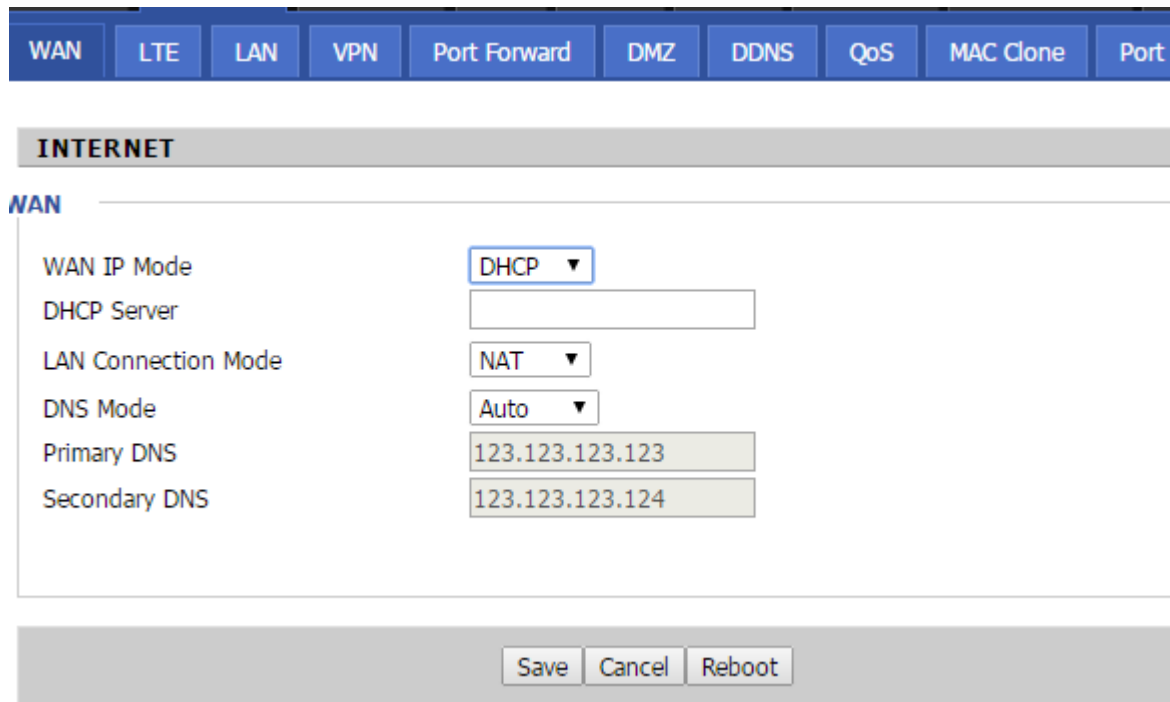
4.5.1 Static IP

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

	<p>IP Address Type the IP address</p> <p>Subnet Mask Type the subnet mask</p> <p>Gateway IP Address Type the gateway IP address</p> <p>Primary DNS Server Type in the primary IP address for the route</p> <p>Secondary DNS Server Type in secondary IP address for necessity in the future</p>
---	---

4.5.2 DHCP

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



- DNS Mode** Set the DNS Mode from Auto and Manual, If user choose manual, you should fill the primary DNS address and Secondary DNS address into Primary DNS Address and Secondary DNS Address.
- Primary DNS Server** Type in the primary IP address for the route
- Secondary DNS Server** Type in secondary IP address for necessity in the future

4.5.3 PPPoE

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

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

WAN LTE LAN VPN Port Forward DMZ DDNS QoS MAC Clone Port Setting	
INTERNET	
WAN	
WAN IP Mode	PPPoE ▼
LAN Connection Mode	NAT ▼
DNS Mode	Auto ▼
Primary DNS	123.123.123.123
Secondary DNS	123.123.123.124
PPPoE	
PPPoE Account	4567321092
PPPoE Password
Confirm Password
Service Name	
	Leave empty to autodetect
Operation Mode	Keep Alive ▼
Keep Alive Redial Period(0-3600s)	5

PPPoE Account	Assign a specific valid user name provided by the ISP
PPPoE Password	Assign a valid password provided by the ISP
Confirm Password	Input the password again
DNS Mode	Set the DNS Mode from Auto and Manual, If user choose manual, you should fill the primary DNS address and Secondary DNS address into Primary DNS Address and Secondary DNS Address.
Primary DNS Server	Type in the primary IP address for the route
Secondary DNS Server	Type in secondary IP address for necessity in the future


4.5.4 LTE

LTE Setting	
Basic Setting	
LTE Modem Enable	Enable ▼
4G Connection Type	Auto ▼
APN	CMNET
Dial Number	*99*1#
Username	
Password	

LTE Modem Enable	If open the 4G connection
4GConnection Type	4G connection type ,auto or manual
APN	Access Point Name
Dial Number	LTE connection dia numberl
Username	Auth username
Password	Auth password

<p>Internet Setting</p> <p>Internet connection <input type="text" value="Auto"/></p> <p>Lock Cell <input type="text" value="Disable"/></p>	<p>Internet Connection Here you can choose use 3G, 4G or auto mode</p> <p>Lock Cell Lock cell function</p>
<p>Binding Set</p> <p>Status <input type="text" value="Binding Success"/></p> <p>SIM Bind <input type="text" value=""/> <input type="button" value="Unbind"/></p> <p>The remaining number of unlock 3</p>	<p>Status PIN code bind status</p> <p>SIM bind Input the SIM bind code</p> <p>The remaining number of unlock Warning of the operation error time, should less than 3</p>
<p>Modify the PIN</p> <p>Old PIN number <input type="text"/></p> <p>New PIN number <input type="text"/></p> <p>Confirm PIN <input type="text"/> <input type="button" value="Modify"/></p>	<p>Old PIN number Input the old PIN number</p> <p>New PIN number Input the new PIN number</p> <p>Confirm PIN Confirm the PIN</p>

When LTE connected successfully, return the Status page, you can check the link status and the ip address obtained from the ISP.

LTE Status	
Sim Card Status	SIM Active
IMEI Code	866154021962517
Hardware Model	SIMCOM_SIM7100C
Software Version	4534B06SIM7100C
Signal Strength	
Service Providers	UNICOM
Connection Status	Connected
Data Rate	Up 0 kbit/s Down 0 kbit/s
Send/Recived	2.828 KB / 1.346 KB

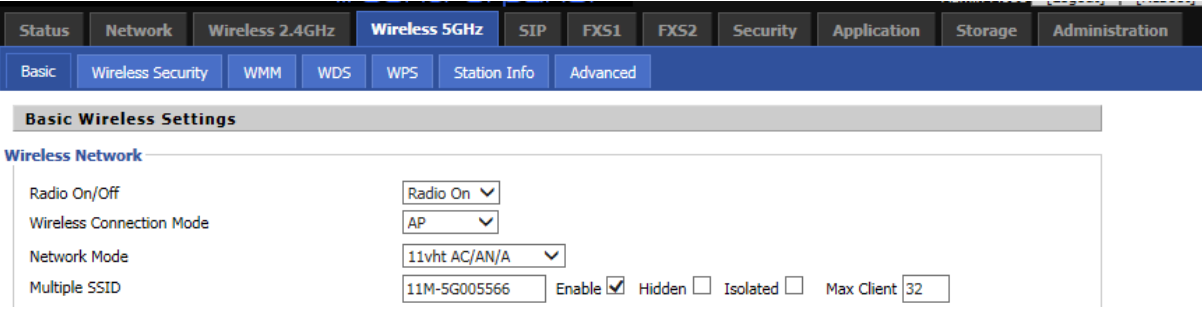
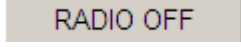
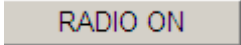
Network Status	
Internet Port Status	
Connection Type	DHCPoLTE
IP Address	10.10.139.111
Subnet Mask	255.255.255.224
Default Gateway	10.10.139.97
Primary DNS	123.123.123.123
Secondary DNS	123.123.123.124
WAN Port Status	Link Down

4.6 Setting up the Wireless Connection

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

4.6.1 Enable Wireless and Setting SSID

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

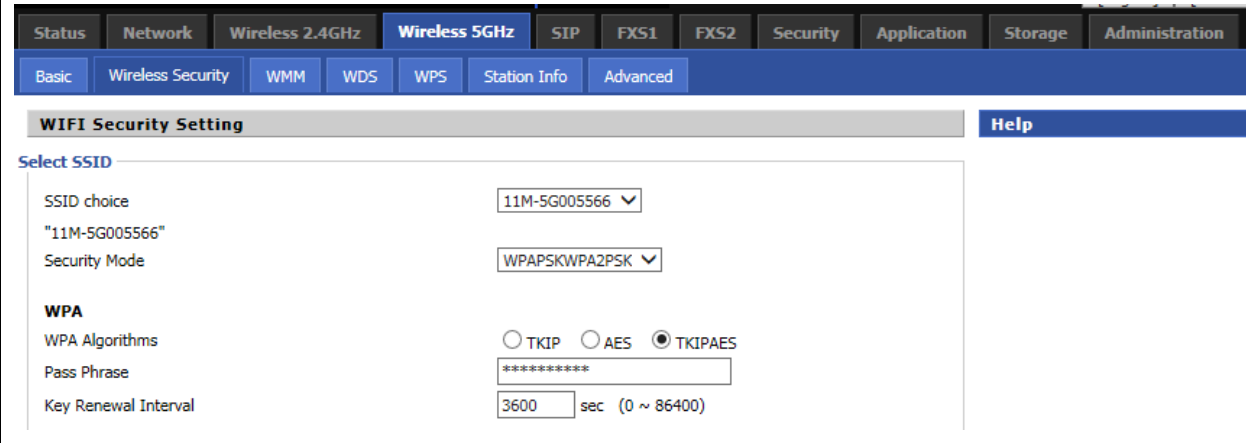
	<p>Radio On/Off Click the button to enable or disable wireless. Press  to disable wireless. Press  to enable wireless.</p> <p>Network Mode Choose one network mode from the drop down list.</p> <p>Network The name of the wireless name, it can be any text numbers or various special characters.</p> <p>Nmae(SSSID)</p> <p>Multiple SSSD1-3 Set more wireless network.</p>
--	--

Frequency

Choose channel frequency.

4.6.2 Encryption

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

	<p>SSID Choice</p> <p>Choose one SSID from Off-premises 1, off-premises 2 and Premises.</p> <p>Select an appropriate encryption mode to improve the security and privacy of your wireless data packets.</p> <p>Security Mode</p> <p>Each encryption mode will bring out different web page and ask you to offer additional configuration.</p>
---	---

4.7 Register

4.7.1 Get the Accounts

FWR7302 have 2 phone port, you can use it to make SIP call, and before registering, you should get the SIP account from you administrator or provider.

4.7.2 Connections

Connect FWR7302 to the Internet properly

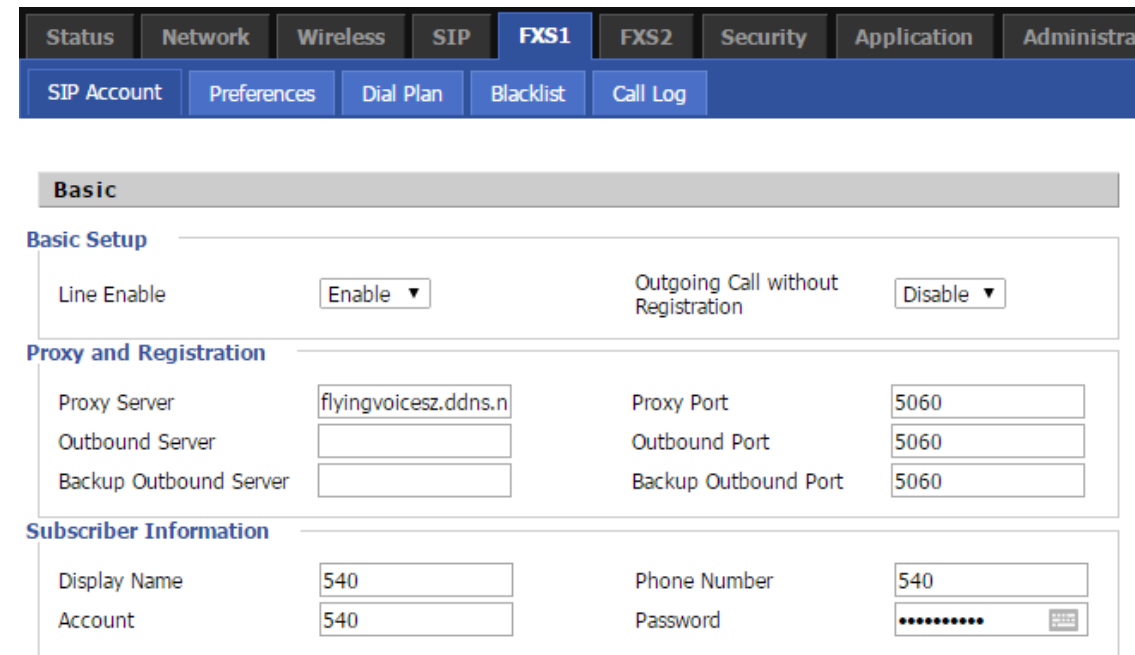
4.7.3 Configuration SIP from Webpage

- Step 1. Open **SIP Account/Line 1** 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.

4.7.4 View the Register Status

To view the status, please open Status webpage and view the value of register status. The value is registered like the following picture which means FWR7302 have registered normally and you can make calls.






The screenshot shows a web interface for configuring SIP settings. At the top, there are tabs for Status, Network, Wireless, SIP, FXS1 (selected), FXS2, Security, Application, and Administration. Below these are sub-tabs for SIP Account, Preferences, Dial Plan, Blacklist, and Call Log. The main content area is titled 'Basic' and contains three sections:

- Basic Setup:** Includes 'Line Enable' (set to 'Enable') and 'Outgoing Call without Registration' (set to 'Disable').
- Proxy and Registration:** Includes 'Proxy Server' (flyingvoicesz.ddns.n), 'Proxy Port' (5060), 'Outbound Server' (empty), 'Outbound Port' (5060), 'Backup Outbound Server' (empty), and 'Backup Outbound Port' (5060).
- Subscriber Information:** Includes 'Display Name' (540), 'Phone Number' (540), 'Account' (540), and 'Password' (masked with dots).

Status	Network	Wireless	SIP	FXS1	FXS2	Security	Application	Administration
Basic	LAN Host	Syslog						

Product Information		Help														
Product Information <table border="1"> <tr><td>Product Name</td><td>FWR7302</td></tr> <tr><td>Internet(WAN) MAC Address</td><td>00:21:F2:31:34:79</td></tr> <tr><td>PC(LAN) MAC Address</td><td>00:21:F2:31:34:78</td></tr> <tr><td>Hardware Version</td><td>V1.1</td></tr> <tr><td>Loader Version</td><td>V3.01(Nov 25 2015 17:34:06)</td></tr> <tr><td>Firmware Version</td><td>V3.10(201602240227)</td></tr> <tr><td>Serial Number</td><td>TEST000001</td></tr> </table>		Product Name	FWR7302	Internet(WAN) MAC Address	00:21:F2:31:34:79	PC(LAN) MAC Address	00:21:F2:31:34:78	Hardware Version	V1.1	Loader Version	V3.01(Nov 25 2015 17:34:06)	Firmware Version	V3.10(201602240227)	Serial Number	TEST000001	Product Information: It shows the basic inform product.
Product Name	FWR7302															
Internet(WAN) MAC Address	00:21:F2:31:34:79															
PC(LAN) MAC Address	00:21:F2:31:34:78															
Hardware Version	V1.1															
Loader Version	V3.01(Nov 25 2015 17:34:06)															
Firmware Version	V3.10(201602240227)															
Serial Number	TEST000001															
		Line Status: It shows the registration line.														
		Network Status: It shows the information Port,WIFI and PC port.														
		System Status: It shows the current time running time of the prod														

LTE Status											
LTE Status <table border="1"> <tr><td>Sim Card Status</td><td>SIM Active</td></tr> <tr><td>IMEI Code</td><td>866154021962517</td></tr> <tr><td>Hardware Model</td><td>SIMCOM_SIM7100C</td></tr> <tr><td>Software Version</td><td>4534B06SIM7100C</td></tr> <tr><td>Signal Strength</td><td></td></tr> </table>		Sim Card Status	SIM Active	IMEI Code	866154021962517	Hardware Model	SIMCOM_SIM7100C	Software Version	4534B06SIM7100C	Signal Strength	
Sim Card Status	SIM Active										
IMEI Code	866154021962517										
Hardware Model	SIMCOM_SIM7100C										
Software Version	4534B06SIM7100C										
Signal Strength											

4.8 Make Call

4.8.1 Calling phone or extension numbers

To make a phone or extension number call:

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

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

4.8.2 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:

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

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

4.8.3 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.

4.8.4 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.

4.8.5 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.

4.8.6 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.

5 Web Configuration

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

5.1 Login

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

Step 2. Open a web browser on your PC and type in **http://192.168.1.1**. The window will ask for typing username and password. And you can choose language, too.






The screenshot shows a web browser window displaying the router's login page. The page has a dark header with the text "VoIP" in green and "... control panel" in blue. Below the header, there are two input fields: "Username" and "Password". The "Username" field is currently empty. To the right of the "Password" field is a "Login" button. A blue horizontal line is visible below the header area.

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

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

Status	Network	Wireless	SIP	FXS1	FXS2	Security	Application	Administration
Basic	LAN Host	Syslog						

Product Information		Help														
Product Information <table border="1"> <tr> <td>Product Name</td> <td>FWR7302</td> </tr> <tr> <td>Internet(WAN) MAC Address</td> <td>00:21:F2:31:34:79</td> </tr> <tr> <td>PC(LAN) MAC Address</td> <td>00:21:F2:31:34:78</td> </tr> <tr> <td>Hardware Version</td> <td>V1.1</td> </tr> <tr> <td>Loader Version</td> <td>V3.01(Nov 25 2015 17:34:06)</td> </tr> <tr> <td>Firmware Version</td> <td>V3.10(201602240227)</td> </tr> <tr> <td>Serial Number</td> <td>TEST000001</td> </tr> </table>		Product Name	FWR7302	Internet(WAN) MAC Address	00:21:F2:31:34:79	PC(LAN) MAC Address	00:21:F2:31:34:78	Hardware Version	V1.1	Loader Version	V3.01(Nov 25 2015 17:34:06)	Firmware Version	V3.10(201602240227)	Serial Number	TEST000001	Product Information: It shows the basic inform product. <hr/> Line Status: It shows the registration line. <hr/> Network Status: It shows the information Port,WIFI and PC port. <hr/> System Status: It shows the current time running time of the prod
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Sim Card Status	SIM Active															
IMEI Code	866154021962517															
Hardware Model	SIMCOM_SIM7100C															
Software Version	4534B06SIM7100C															
Signal Strength																

5.2 Status

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

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

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

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

The picture in the right side is the FWR7302's Status webpage.

LTE Status

running time:

LTE Status

Sim Card Status	SIM Active
IMEI Code	866154021962517
Hardware Model	SIMCOM_SIM7100C
Software Version	4534B06SIM7100C
Signal Strength	▬▬▬
Service Providers	UNICOM
Connection Status	Connected
Data Rate	Up 0 kbit/s Down 0 kbit/s
Send/Recived	11.464 KB / 5.452 KB

SIP Account Status

SIP Account Status

FXS 1 SIP Account Status	Registered 540
Primary Server	183.13.123.192
Backup Server	0.0.0.0
FXS 2 SIP Account Status	Disable
Primary Server	0.0.0.0
Backup Server	0.0.0.0

5.3 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.

5.3.1 WAN

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

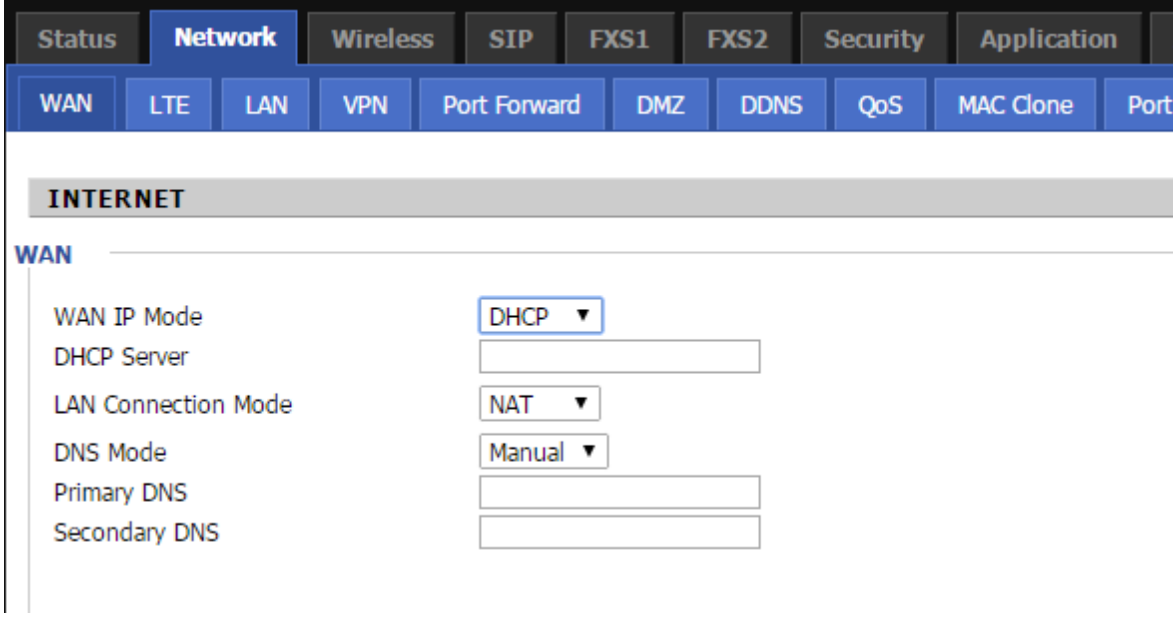
Static IP:

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

WAN	LTE	LAN	VPN	Port Forward	DMZ	DDNS	QoS
INTERNET							
WAN							
WAN IP Mode	Static ▼						
LAN Connection Mode	NAT ▼						
Static							
IP Address	10.20.34.131						
Subnet Mask	255.255.255.248						
Default Gateway	10.20.34.129						
DNS Mode	Manual ▼						
Primary DNS	123.123.123.123						
Secondary DNS	123.123.123.124						
IP Address	Type the IP address						
Subnet Mask	Type the subnet mask						
Gateway IP	Type the gateway IP address						
Address							
Primary DNS Server	Type in the primary IP address for the route						
Secondary DNS Server	Type in secondary IP address for necessity in the future						

DHCP:

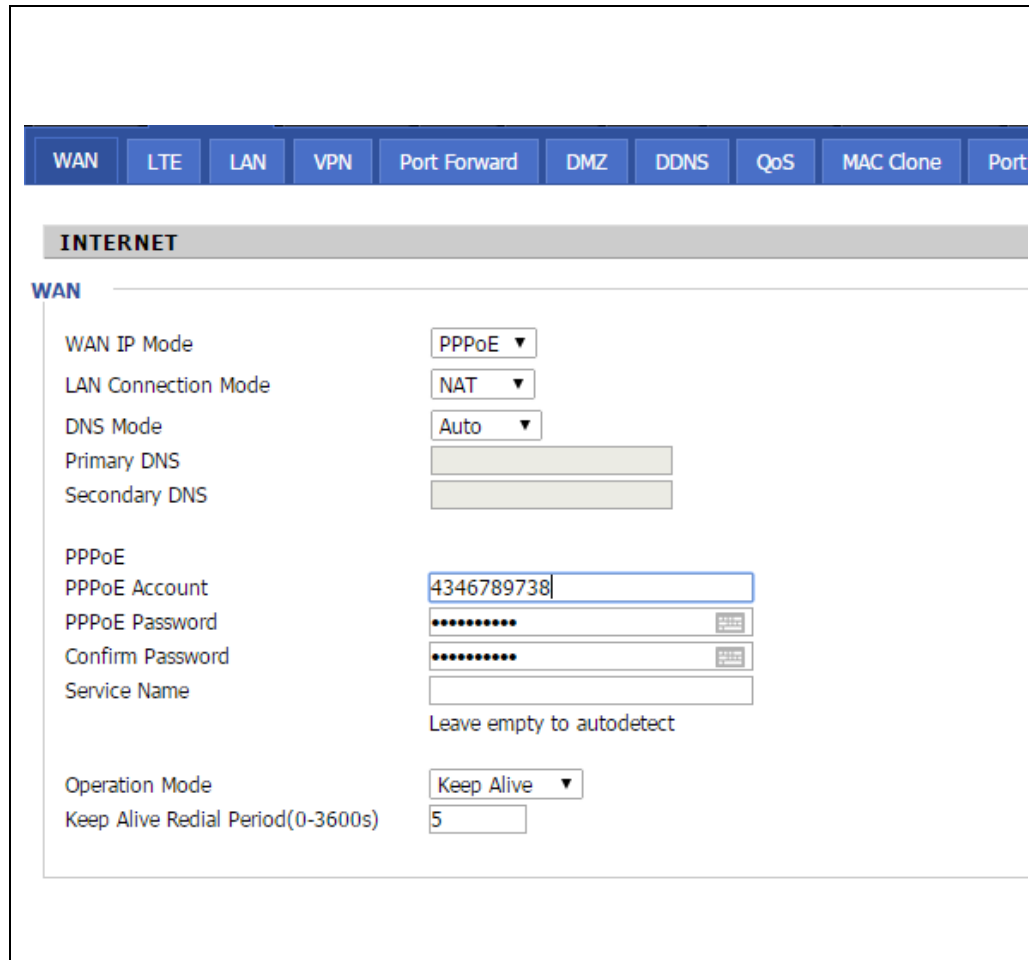
It is not necessary for you to type any IP address manually. Simply choose this type and the system will obtain the IP address automatically from DHCP server.

	<p>DNS Mode</p>	<p>Set the DNS Mode from Auto and Manual, If user choose manual, you should fill the primary DNS address and Secondary DNS address into Primary DNS Address and Secondary DNS Address.</p>
<p>WAN IP Mode: DHCP DHCP Server: []</p>	<p>Primary DNS Server</p>	<p>Type in the primary IP address for the route</p>
<p>LAN Connection Mode: NAT DNS Mode: Manual Primary DNS: [] Secondary DNS: []</p>	<p>Secondary DNS Server</p>	<p>Type in secondary IP address for necessity in the future</p>

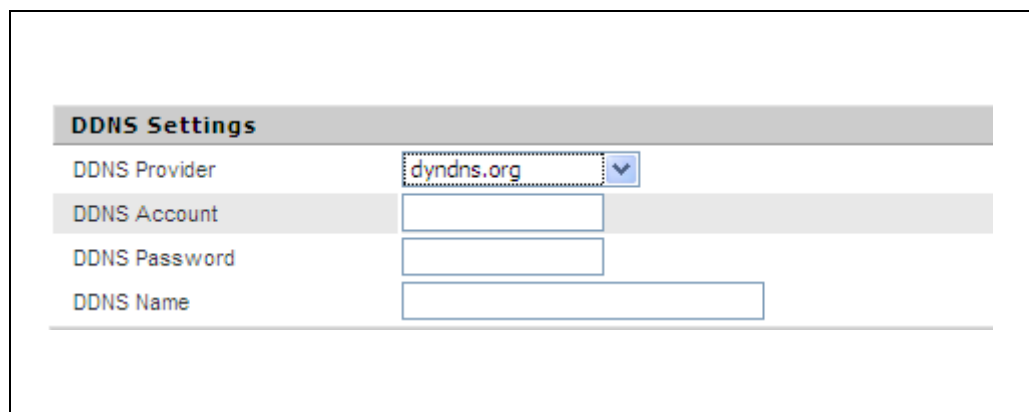
PPPoE:

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.

 <p>The screenshot shows the WAN configuration page. At the top, there are tabs for WAN, LTE, LAN, VPN, Port Forward, DMZ, DDNS, QoS, MAC Clone, and Port. The 'INTERNET' section is active. Under 'WAN', there are several settings: WAN IP Mode (set to PPPoE), LAN Connection Mode (set to NAT), DNS Mode (set to Auto), Primary DNS (empty), Secondary DNS (empty), PPPoE Account (4346789738), PPPoE Password (masked), Confirm Password (masked), Service Name (empty), Operation Mode (set to Keep Alive), and Keep Alive Redial Period (set to 5).</p>	<p>PPPoE Account Assign a specific valid user name provided by the ISP</p> <p>PPPoE Password Assign a valid password provided by the ISP</p> <p>PPPoE Auto-Dial If or not enable PPPoE Password.</p> <p>DNS Mode Set the DNS Mode from Auto and Manual, If user choose manual, you should fill the primary DNS address and Secondary DNS address into Primary DNS Address and Secondary DNS Address.</p> <p>Primary DNS Server Type in the primary IP address for the route</p> <p>Secondary DNS Server Type in secondary IP address for necessity in the future</p>
---	--

DDNS Setting

 <p>The screenshot shows the DDNS Settings page. It has a title bar 'DDNS Settings'. Below it are four fields: DDNS Provider (a dropdown menu with 'dyndns.org' selected), DDNS Account (empty), DDNS Password (empty), and DDNS Name (empty).</p>	<p>DDNS Provider Use the drop down list to select one DDNS Provider domain</p> <p>DDNS Account Fill in the DDNS account.</p> <p>DDNS Password Fill in the DDNS Password.</p> <p>DDNS Name Fill in the DDNS name.</p>
--	--

5.3.2 LAN

LAN Port:

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

<div style="border: 1px solid black; padding: 5px;"> <p>PC Port(LAN)</p> <p>PC Port(LAN)</p> <p>Local IP Address: <input type="text" value="192.168.1.1"/></p> <p>Local Subnet Mask: <input type="text" value="255.255.255.0"/></p> <p>Local DHCP Server: <input type="text" value="Enable"/></p> <p>DHCP Start Address: <input type="text" value="192.168.1.2"/></p> <p>DHCP End Address: <input type="text" value="192.168.1.254"/></p> <p>DNS Mode: <input type="text" value="Auto"/></p> <p>Primary DNS: <input type="text" value="202.96.134.133"/></p> <p>Secondary DNS: <input type="text" value="8.8.8.8"/></p> <p>Client Lease Time(0-86400s): <input type="text" value="86400"/></p> <p>DNS Proxy: <input type="text" value="Disable"/></p> </div>		<p>Local IP Address</p> <p>Type in local IP address for connecting to a local private network (Default: 192.168.1.1)</p> <p>Local Subnet Mask</p> <p>Type in an address code that determines the size of the network. (Default: 255.255.255.0/ 24)</p> <p>Local DHCP Server</p> <p>If or not enable DHCP server.</p>
---	--	---

DHCP Server:

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

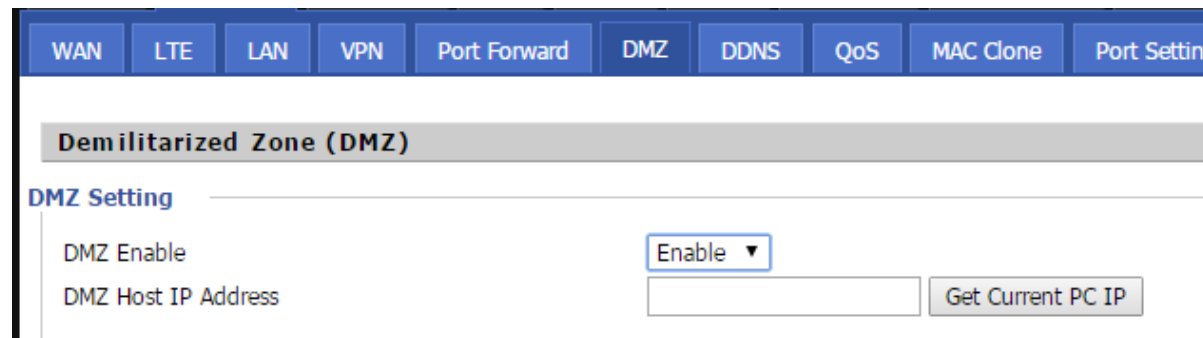
DHCP stands for Dynamic Host Configuration Protocol. The router by factory default acts a DHCP server for your network so it automatically dispatch related IP settings to any local user configured as a DHCP client. It is highly recommended that you leave the router enabled as a DHCP server if you do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

<div style="border: 1px solid black; padding: 5px;"> <p>Local IP Address: <input type="text" value="192.168.11.1"/></p> <p>Local Subnet Mask: <input type="text" value="255.255.255.0"/></p> <p>Local DHCP Server: <input type="text" value="Enable"/></p> <p>DHCP Start Address: <input type="text" value="192.168.11.2"/></p> <p>DHCP End Address: <input type="text" value="192.168.11.254"/></p> <p>DNS Mode: <input type="text" value="Auto"/></p> <p>Primary DNS: <input type="text" value="192.168.11.1"/></p> </div>		<p>Local DHCP Server</p> <p>If or not enable DHCP server.</p> <p>DHCP Starting Address</p> <p>Enter a value of the IP address pool for the DHCP server to start with when issuing IP addresses. If the LAN Interface IP</p> <p>DHCP Ending</p> <p>Enter a value of the IP address pool for the DHCP server to end</p>
--	--	--

<p>Primary DNS <input type="text" value="192.168.11.1"/></p> <p>Secondary DNS <input type="text"/></p> <p>Client Lease Time (0-86400s) <input type="text" value="86400"/></p> <p>DNS Proxy <input type="button" value="Enable"/></p>	<p>Address with when issuing IP addresses.</p> <p>Primary/Secondary DNS Input the primary or secondary DNS IP address.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>Client Lease Time It allows you to set the leased time for the specified PC.</p>
--	--

5.3.3 DMZ/Port Forward

DMZ



The screenshot shows a router configuration page with a navigation bar containing: WAN, LTE, LAN, VPN, Port Forward, DMZ, DDNS, QoS, MAC Clone, and Port Setting. The 'DMZ' tab is selected. Below the navigation bar is a header 'Demilitarized Zone (DMZ)'. Underneath, there is a section titled 'DMZ Setting' with two fields: 'DMZ Enable' set to 'Enable' and 'DMZ Host IP Address' with an empty text box and a 'Get Current PC IP' button.

DMZ Enable If or not enable DMZ.

DMZ Host IP Address Enter the private IP address of the DMZ host

Port Forward

WAN	LTE	LAN	VPN	Port Forward	DMZ	DDNS	QoS	MAC Clone	Port Setting	Routing	Advance
-----	-----	-----	-----	--------------	-----	------	-----	-----------	--------------	---------	---------

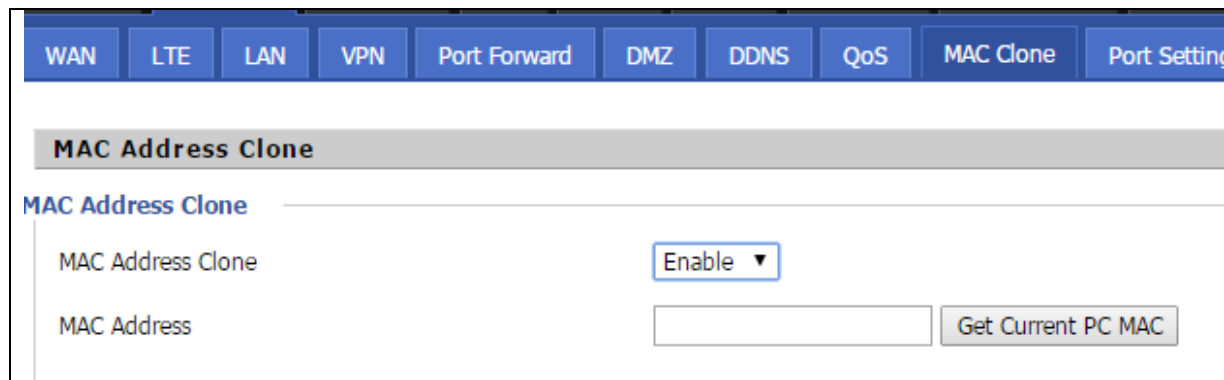
Port Forwarding				
No.	Comment	IP Address	Port Range	Protocol
<input type="button" value="Delete Selected"/> <input type="button" value="Add"/> <input type="button" value="Edit"/>				

Virtual Servers					
No.	Comment	IP Address	Public Port	Private Port	Protocol
<input type="button" value="Delete Selected"/> <input type="button" value="Add"/> <input type="button" value="Edit"/>					

Virtual Servers					
Comment	<input type="text"/>				
IP Address	<input type="text"/>				
Public Port	<input type="text"/>				
Private Port	<input type="text"/>				
Protocol	TCP&UDP ▼				
(The maximum rule count is 32)					
<input type="button" value="Apply"/> <input type="button" value="Cancel"/>					

5.3.4 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.



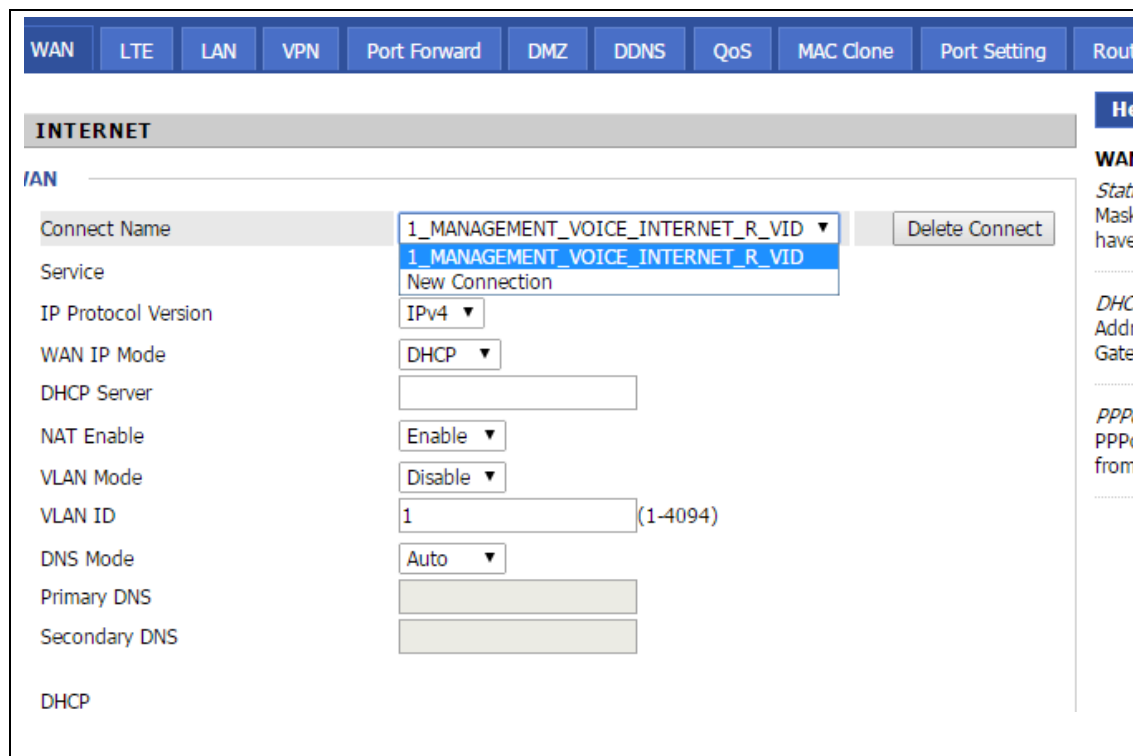
The screenshot shows the 'MAC Address Clone' configuration page. At the top, there is a navigation bar with tabs for WAN, LTE, LAN, VPN, Port Forward, DMZ, DDNS, QoS, MAC Clone, and Port Setting. The 'MAC Clone' tab is selected. Below the navigation bar, there is a header 'MAC Address Clone'. The main content area has a sub-header 'MAC Address Clone' and two rows of configuration options: 'MAC Address Clone' with a dropdown menu set to 'Enable', and 'MAC Address' with an empty text input field and a 'Get Current PC MAC' button.

Step 1. Press **Clone Address** button to clone the currently PC MAC address to router's Internet port.

Step 2. Press **Save** button to save the changes

Step 3. Press **Cancel** button to make changes effective

5.3.5 Multi WAN

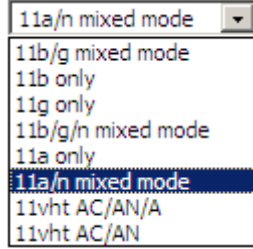


The screenshot shows the 'INTERNET' configuration page. At the top, there is a navigation bar with tabs for WAN, LTE, LAN, VPN, Port Forward, DMZ, DDNS, QoS, MAC Clone, Port Setting, and Router. The 'WAN' tab is selected. Below the navigation bar, there is a header 'INTERNET'. The main content area has a sub-header 'WAN' and a list of configuration options: 'Connect Name' (dropdown menu set to '1_MANAGEMENT_VOICE_INTERNET_R_VID'), 'Service' (dropdown menu set to '1_MANAGEMENT_VOICE_INTERNET_R_VID'), 'IP Protocol Version' (dropdown menu set to 'IPv4'), 'WAN IP Mode' (dropdown menu set to 'DHCP'), 'DHCP Server' (empty text input field), 'NAT Enable' (dropdown menu set to 'Enable'), 'VLAN Mode' (dropdown menu set to 'Disable'), 'VLAN ID' (text input field set to '1'), 'DNS Mode' (dropdown menu set to 'Auto'), 'Primary DNS' (empty text input field), and 'Secondary DNS' (empty text input field). There is also a 'Delete Connect' button.

Note: Multi-wan only used in WAN connection mode, not in LTE mode

5.4 Wireless 5G

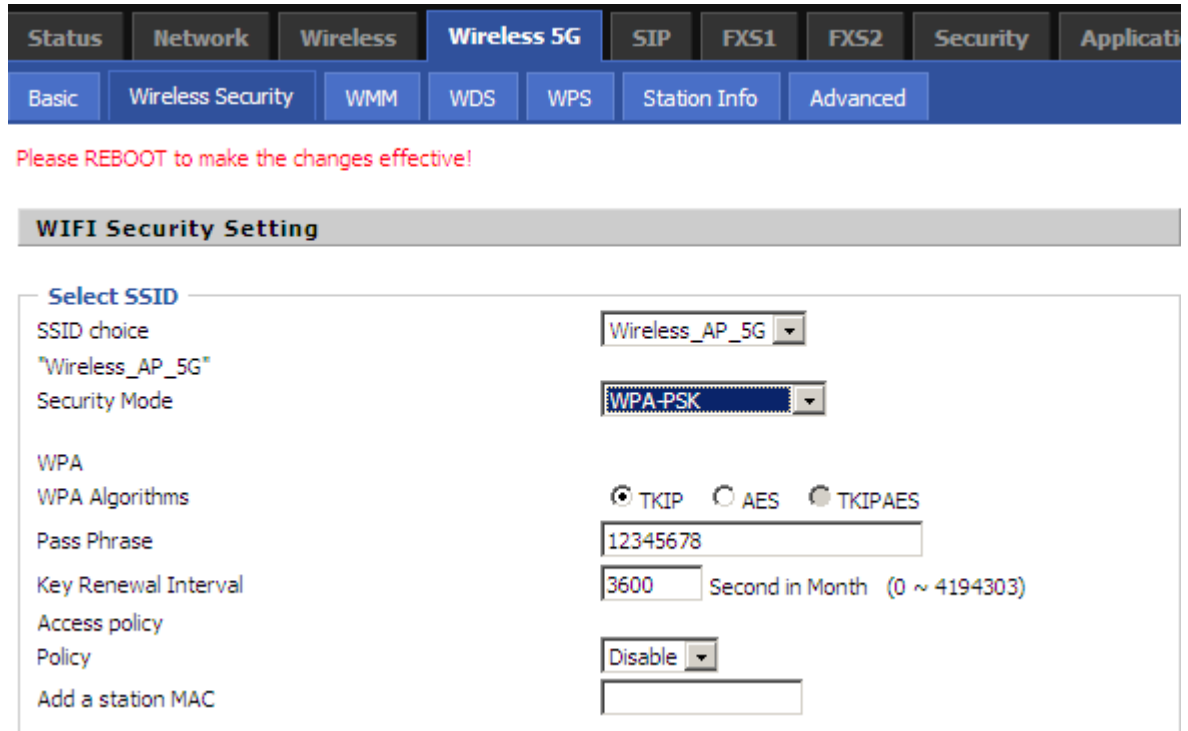
5.4.1 Basic

	Field Name	Description
<p>Basic Wireless Settings</p> <p>Wireless Network</p> <p>Radio On/Off: Radio On</p> <p>Network Mode: 11vht AC/AN/A</p> <p>SSID: Wireless_AP_5G Hidden <input type="checkbox"/> Isolated <input type="checkbox"/> Max Client: 16</p> <p>Multiple SSID1: <input type="text"/> Hidden <input type="checkbox"/> Isolated <input type="checkbox"/> Max Client: 16</p> <p>Multiple SSID2: <input type="text"/> Hidden <input type="checkbox"/> Isolated <input type="checkbox"/> Max Client: 16</p> <p>Multiple SSID3: <input type="text"/> Hidden <input type="checkbox"/> Isolated <input type="checkbox"/> Max Client: 16</p> <p>broadcast(SSID): <input checked="" type="radio"/> Enable <input type="radio"/> Disable</p> <p>AP Isolation: <input type="radio"/> Enable <input checked="" type="radio"/> Disable</p> <p>MBSSID AP Isolation: <input type="radio"/> Enable <input checked="" type="radio"/> Disable</p> <p>BSSID: 00:0C:FE:00:11:20</p> <p>Frequency (Channel): 5220MHz (Channel 44)</p> <p>HT Physical Mode: <input checked="" type="radio"/> Mixed Mode <input type="radio"/> Green Field</p> <p>Operating Mode: <input type="radio"/> 20 <input checked="" type="radio"/> 20/40</p> <p>Channel BandWidth: <input type="radio"/> Long <input checked="" type="radio"/> Auto</p> <p>MCS: Auto</p> <p>Reverse Direction Grant(RDG): <input type="radio"/> Disable <input checked="" type="radio"/> Enable</p> <p>Extension Channel: 5240MHz (Channel 48)</p> <p>STBC: <input type="radio"/> Disable <input checked="" type="radio"/> Enable</p> <p>Aggregation MSDU(A-MSDU): <input checked="" type="radio"/> Disable <input type="radio"/> Enable</p> <p>Auto Block ACK: <input type="radio"/> Disable <input checked="" type="radio"/> Enable</p> <p>Decline BA Request: <input checked="" type="radio"/> Disable <input type="radio"/> Enable</p> <p>HT Disallow TKIP: <input type="radio"/> Disable <input checked="" type="radio"/> Enable</p> <p>20/40 Coexistence: <input type="radio"/> Disable <input checked="" type="radio"/> Enable</p> <p>HT LDPC: <input checked="" type="radio"/> Disable <input type="radio"/> Enable</p> <p>VHT Option: <input checked="" type="radio"/> 20/40 <input type="radio"/> 80</p> <p>VHT BandWidth: <input checked="" type="radio"/> Disable <input type="radio"/> Enable</p> <p>VHT STBC: <input checked="" type="radio"/> Disable <input type="radio"/> Enable</p> <p>VHT Short GI: <input checked="" type="radio"/> Disable <input type="radio"/> Enable</p> <p>VHT BW Signaling: <input checked="" type="radio"/> Disable <input type="radio"/> Static <input type="radio"/> Dynamic</p> <p>VHT LDPC: <input checked="" type="radio"/> Disable <input type="radio"/> Enable</p> <p>Other: <input type="text"/></p> <p>HT TxStream: 2</p> <p>HT RxStream: 2</p>	<p>Radio on/off</p>	<p>Select “Radio Off” to disable wireless.</p> <p>Select “Radio on”to enable wireless.</p>
	<p>Network Mode</p>	<p>Choose one network mode from the drop down list</p> 
	<p>SSID</p>	<p>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.</p>
	<p>Multiple SSID1~SSID3</p>	<p>G802 supports multiple SSIDs.</p>
	<p>Hidden</p>	<p>After the item is checked, the SSID is no longer displayed in the search for the Wi-Fi wireless network connection list</p>
	<p>Broadcast(SSID)</p>	<p>After initial State opening, the device broadcasts the SSID of the router to wireless network</p>
	<p>AP Isolation</p>	<p>If AP isolation is enabled, the clients of the AP cannot access each other.</p>
	<p>MBSSID AP Isolation</p>	<p>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.</p>
	<p>BSSID</p>	<p>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.</p>
	<p>Frequency (Channel)</p>	<p>You can select Auto Select and channel 1/2/3/4/5/6/7/8/9/10/11.</p>

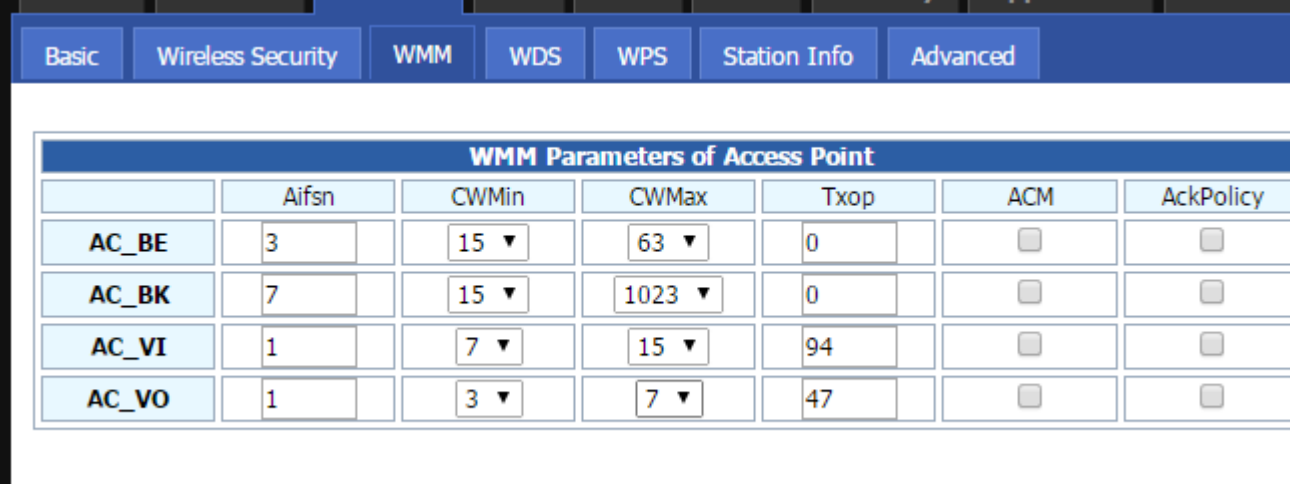
	HT Physical Mode Operating Mode	<p>1. Mixed Mode: In this mode, the previous wireless card can recognize and connect to the Pre-N AP, but the throughput will be affected</p> <p>2. Green Field: high throughput can be achieved, but it will affect backward compatibility, and security of the system</p>
	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	

5.4.2 Wireless Security

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. Each encryption mode will bring out different web page and ask you to offer additional configuration.



5.4.3 WMM



WMM Parameters of Access Point						
	Aifsn	CWMin	CWMax	Txop	ACM	AckPolicy
AC_BE	3	15 ▼	63 ▼	0	<input type="checkbox"/>	<input type="checkbox"/>
AC_BK	7	15 ▼	1023 ▼	0	<input type="checkbox"/>	<input type="checkbox"/>
AC_VI	1	7 ▼	15 ▼	94	<input type="checkbox"/>	<input type="checkbox"/>
AC_VO	1	3 ▼	7 ▼	47	<input type="checkbox"/>	<input type="checkbox"/>

5.4.4 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.

Status	Network	Wireless	SIP	FXS1	FXS2	Security	Application	Administr	
Basic	Wireless Security	WMM	WDS	WPS	Station Info	Advanced			

WPS Setting

WPS Config

WPS Enable

WPS If or not enable WPS.

 Press the button to apply.

5.4.5 Station list

Status	Network	Wireless 2.4GHz	Wireless 5GHz	SIP	FXS1	FXS2	Security	Application	Storage	Administration
Basic	Wireless Security	WMM	WDS	WPS	Station Info	Advanced				

Wireless Status Help

Wireless Status

Current Channel	Channel 36
11M-5G005566	60:03:47:00:55:6A

Wireless Network

Wireless Network

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

5.4.6 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	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
Short Slot	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
Tx Burst	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
Pkt Aggregate	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
IEEE 802.11H Support	<input type="radio"/> Enable <input checked="" type="radio"/> Disable (only in A band)
Wi-Fi Multimedia	
WMM Capable	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
APSD Capable	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
WMM Parameters	WMM Configuration
Multicast-to-Unicast Converter	
Multicast-to-Unicast	<input type="radio"/> Enable <input checked="" type="radio"/> Disable

5.5 SIP Account

5.5.1 SIP Settings

Status	Network	Wireless	SIP	FXS1	FXS2	Security	Application	Administration
SIP Settings		VoIP QoS						
SIP Parameters								
SIP Parameters								
SIP T1	500	ms	Max Forward	70				
SIP User Agent Name			Max Auth	2				
Reg Retry Intvl	30	sec	Reg Retry Long Intvl	1200	sec			
Mark All AVT Packets	Enable	▼	RFC 2543 Call Hold	Enable	▼			
SRTP	Disable	▼	SRTP Prefer Encryption	AES_CM	▼			
Service Type	Common	▼	DNS Refresh Timer	0	sec			
Response Status Code Handling								
Retry Reg RSC								
NAT Traversal								
NAT Traversal								
NAT Traversal	Disable	▼	STUN Server Address					
NAT Refresh Interval(sec)	60		STUN Server Port					

Help

SIP Para
These para
registration

NAT Trav
It is helpfu
NAT.

5.5.2 FXS

Status	Network	Wireless	SIP	FXS1	FXS2	Security	Application	Administration									
<table border="1"> <tr> <td>SIP Account</td> <td>Preferences</td> <td>Dial Plan</td> <td>Blacklist</td> <td>Call Log</td> <td colspan="4"></td> </tr> </table>									SIP Account	Preferences	Dial Plan	Blacklist	Call Log				
SIP Account	Preferences	Dial Plan	Blacklist	Call Log													
Help																	
Basic																	
Basic Setup																	
Line Enable	Enable ▼			Outgoing Call without Registration	Disable ▼												
Proxy and Registration																	
Proxy Server	flyingvoicesz.ddns.net			Proxy Port	5060												
Outbound Server				Outbound Port	5060												
Backup Outbound Server				Backup Outbound Port	5060												
Subscriber Information																	
Display Name	540			Phone Number	540												
Account	540			Password	●●●●●●●●												
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 ▼																

[Help](#)

Basic:

Set the basic your VoIP Se Phone Numb SIP Proxy an

Audio Confi

Select the au use.

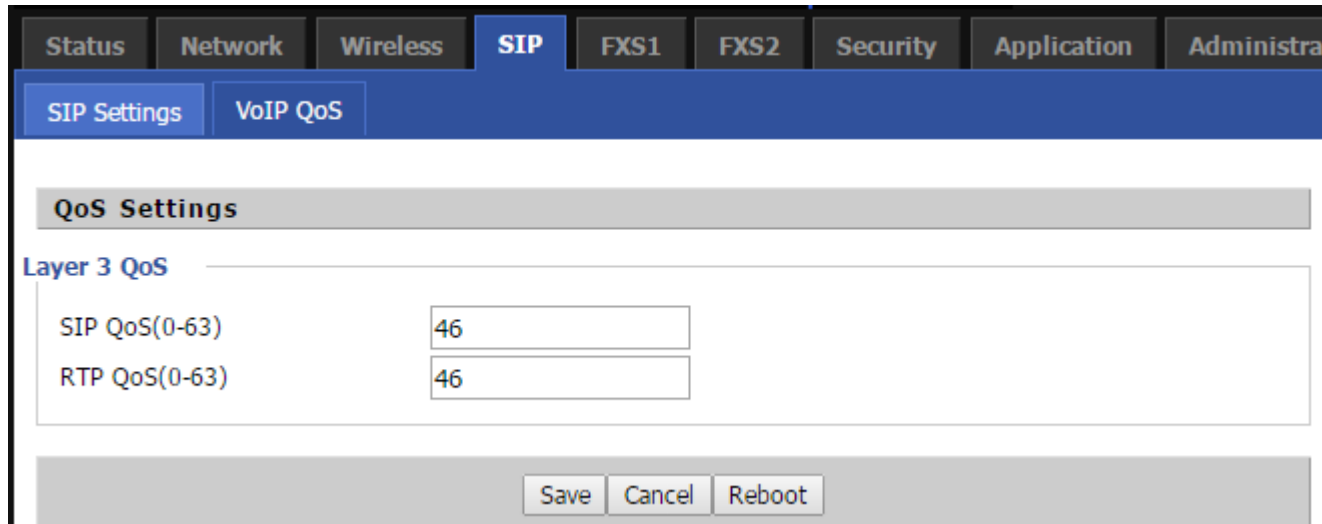
Supplemen Subscriptio

Call Waiting your phone t calls during t

Advanced:

The Advance Administrator

5.5.3 VOIP QoS Setting



The screenshot shows a web-based configuration interface for a device. At the top, there is a navigation bar with tabs for Status, Network, Wireless, SIP (selected), FXS1, FXS2, Security, Application, and Administration. Below this, there are sub-tabs for SIP Settings and VoIP QoS. The main content area is titled 'QoS Settings' and contains a section for 'Layer 3 QoS'. This section has two rows of input fields: 'SIP QoS(0-63)' and 'RTP QoS(0-63)', both of which have the value '46' entered. At the bottom of the configuration area, there are three buttons: 'Save', 'Cancel', and 'Reboot'.

QoS Settings	
Layer 3 QoS	
SIP QoS(0-63)	46
RTP QoS(0-63)	46

Save Cancel Reboot

5.6 Phone

5.6.1 Dial Plan

Status
Network
Wireless
SIP
FXS1
FXS2
Security
Application
Administration

SIP Account
Preferences
Dial Plan
Blacklist
Call Log

Dial Plan

General

Dial Plan Enable ▾

Unmatched Policy Accept ▾

No.	FXS	Digit Map	Action	Move Up	Move Down	
1	FXS 1	100xx	Dial Out	⬆	⬇	<input type="checkbox"/>
2	FXS 1	11[03459]	Dial Out	⬆	⬇	<input type="checkbox"/>
3	FXS 1	111xx	Dial Out	⬆	⬇	<input type="checkbox"/>
4	FXS 1	12[02]	Dial Out	⬆	⬇	<input type="checkbox"/>
5	FXS 1	121xx	Dial Out	⬆	⬇	<input type="checkbox"/>
6	FXS 1	123xx	Dial Out	⬆	⬇	<input type="checkbox"/>
7	FXS 1	12530	Dial Out	⬆	⬇	<input type="checkbox"/>

Help

Dial Plan:
Controls how calls will be dialed on this line. It can add Prefix to Matched Number and remove Digits by setting Dial Cuts.

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 from sequence. For example:
[0-9] : match one digit from 0 to 9;
[23-5*] : match one character from 2 or 3 or 4 or 5 or *.

4. 'x.' : Match to x, xx, xxx, xxxx, ... ; For example?01.'can match'0'?01'?011'?011111?.

5. '<'dialed':substituted'>' : Replace dialed with substituted. For example?'<#:23%>xx<#:23%>',

5.6.2 Phonebook

Phonebook Upload && Download

Phonebook Upload && Download

Local File: 浏览...

upload CSV download CSV

Blacklist Upload && Download

Blacklist Upload && Download

Local File: 浏览...

upload CSV download CSV

Phonebook

Index	Name	Number	Ring	
-------	------	--------	------	--

Edit Add Delete Move to blacklist

Blacklist

5.6.3 Call Log

Redial List				
Index	NUMBER	Start Time	Duration	<input type="checkbox"/>
1	501	08/13 09:13	00:00:01	<input type="checkbox"/>
2	550	08/13 15:56	00:00:03	<input type="checkbox"/>
3	550	08/13 16:00	00:00:07	<input type="checkbox"/>
4	1001	08/13 16:12	00:00:01	<input type="checkbox"/>
5	550	08/13 16:12	00:00:08	<input type="checkbox"/>
6	550	08/13 16:16	00:00:10	<input type="checkbox"/>
7	550	08/13 16:32	00:00:56	<input type="checkbox"/>
8	550	08/13 16:38	00:00:22	<input type="checkbox"/>
9	550	08/13 17:06	00:00:22	<input type="checkbox"/>
10	550	08/13 17:07	00:01:01	<input type="checkbox"/>
..	<input type="checkbox"/>

Answered Calls				
Index	NUMBER	Start Time	Duration	<input type="checkbox"/>
1	501	08/13 09:13	00:00:15	<input type="checkbox"/>
2	015910695671	08/13 09:58	00:03:44	<input type="checkbox"/>

5.7 Security

5.7.1 Filtering Setting

Basic Settings

Basic Settings

MAC/IP/Port Filtering Disable ▾

Default Policy Drop ▾

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

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.)

Current MAC/IP/Port filtering rules in system

#	Mac address	Dest IP Address	Source IP Address	Protocol	Dest. Port Range	Src Port Range	Action	Comment	PktCnt
Others would be dropped.									

5.7.2 DMZ

Status	Network	Wireless	SIP Account	Phone	Administration	Security
Filtering Setting	DMZ	MAC Clone	Port Forward	Content Filtering		

Please REBOOT to make the changes effective!

Demilitarized Zone (DMZ)

DMZ Setting

DMZ Enable	Enable
DMZ Host IP Address	<input type="text"/>

5.7.3 MAC Clone

MAC Address Clone

MAC Address Clone

MAC Address Clone	Enable
MAC Address	<input type="text"/> <input type="button" value="Get Current PC MAC"/>

5.7.4 Port Forward

Status | **Network** | Wireless | SIP | FXS1 | FXS2 | Security | Application | Administration

WAN | LTE | LAN | VPN | **Port Forward** | DMZ | DDNS | QoS | MAC Clone | Port Setting | Routing | Advance

Please REBOOT to make the changes effective!

Port Forwarding				
No.	Comment	IP Address	Port Range	Protocol
<input type="button" value="Delete Selected"/> <input type="button" value="Add"/> <input type="button" value="Edit"/>				

Virtual Servers

No.	Comment	IP Address	Public Port	Private Port	Protocol
1 <input type="checkbox"/>	http	192.168.4.55	5000	80	TCP&UDP
<input type="button" value="Delete Selected"/> <input type="button" value="Add"/> <input type="button" value="Edit"/>					

5.7.5 Content Filtering

Webs URL Filter Settings

Current Webs URL Filters:

No.	URL

Add a URL Filter:

URL:

Webs Host Filter Settings

Current Website Host Filters:

No.	Host(Keyword)

Add a Host (keyword) Filter:

Keyword:

5.8 Administration

5.8.1 Mnagement

Status	Network	Wireless	SIP	FXS1	FXS2	Security	Application	Administration
Management	Firmware Upgrade	Scheduled Tasks	Certificates	Provision	SNMP	TR069	Diagnosis	Operating Mode

Please REBOOT to make the changes effective!

Save Config File

Config File Upload && Download

Local File 未选择任何文件

Administrator Settings

Password Reset

User Type: Admin User ▼
 New User Name: superadmin
 New Password: (The maximum length is 25)
 Confirm Password:

Language

Language: English ▼

VPN Access

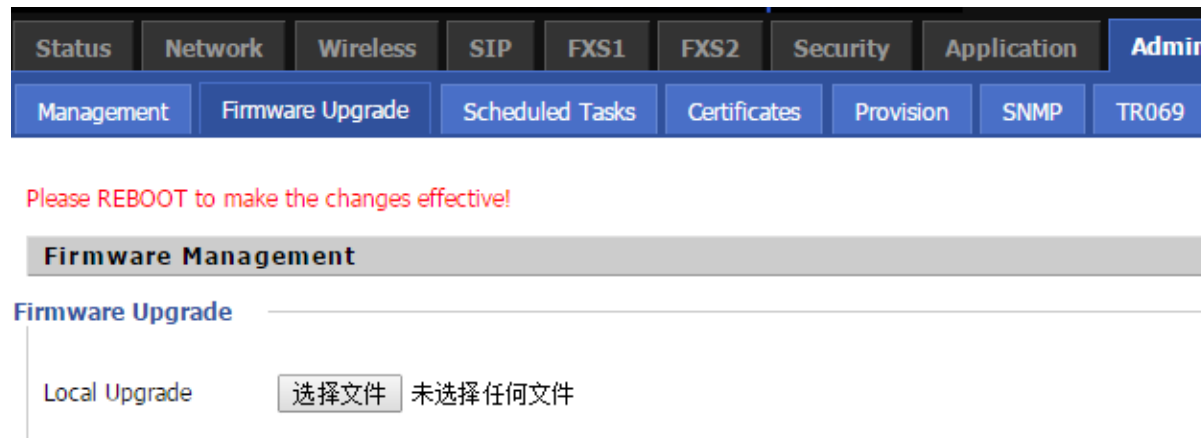
Help

NTP Settings:
Time Zone - Choose the time zone you are in and Summer Time (DST) period. The router can use local or UTC time.

Administrator Settings:
Web Access - Enable or Disable login function from WAN interface and set the login port that is http request.

Factory Defaults Setting:
Factory Default Lock - Enable or Disable a long press RST button or a long press power button to restore settings to factory state, the router will reboot without restoring state.

5.8.2 Firmware Upgrade



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

5.8.3 Provision

Please refer to the provision user manual to test provision.

Status	Network	Wireless	SIP	FXS1	FXS2	Security	Application	Administration
Management	Firmware Upgrade	Scheduled Tasks	Certificates	Provision	SNMP	TR069	Diagnosis	Open

Please REBOOT to make the changes effective!

Help

Provision:
Provision allows resync to a specific server on a TFTP server which use HTTP

Provision

Configuration Profile

Provision Enable	Disable ▾
Resync On Reset	Enable ▾
Resync Random Delay(sec)	40
Resync Periodic(sec)	3600
Resync Error Retry Delay(sec)	3600
Forced Resync Delay(sec)	14400
Resync After Upgrade	Enable ▾
Resync From SIP	Disable ▾
Option 66	Enable ▾
Option 67	Disable ▾
Config File Name	\$(MA)
User Agent	
Profile Rule	

Firmware Upgrade

5.8.4 SNMP

Status	Network	Wireless	SIP	FXS1	FXS2	Security	Application	Administration
Management	Firmware Upgrade	Scheduled Tasks	Certificates	Provision	SNMP	TR069	Diagnosis	Op

Please REBOOT to make the changes effective!

SNMP Configuration

SNMP Configuration

SNMP Service	Disable ▼
Trap Server Address	192.168.10.78
Read Community Name	public
Write Community Name	private
Trap Community	trap
Trap period interval(sec)	1800

Help

SNMP Config
Allow the device to be managed by the Manager with the Manager IP.

5.8.5 TR069

Status	Network	Wireless	SIP	FXS1	FXS2	Security	Application	Administration
Management	Firmware Upgrade	Scheduled Tasks	Certificates	Provision	SNMP	TR069	Diagnosis	Operating Mode

Please REBOOT to make the changes effective!

Help

TR069 Configuration

ACS

TR069 Enable	Disable ▾
CWMP	Enable ▾
ACS URL	<input type="text"/>
User Name	TEST000001
Password	•••••••• <input type="button" value="⌨"/>
Periodic Inform Enable	Enable ▾
Periodic Inform Interval	600

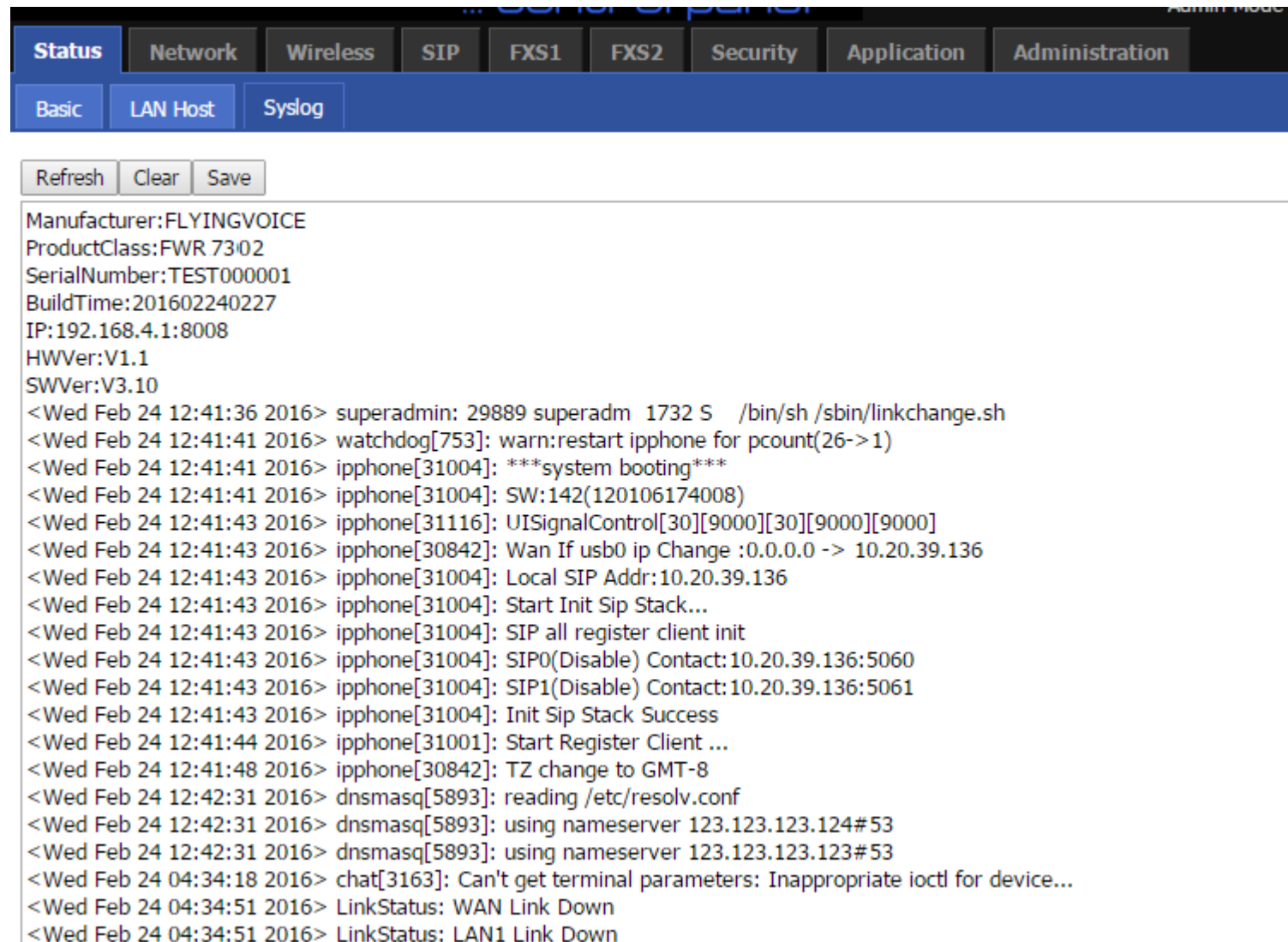
Connect Request

User Name	TEST
Password	•••••••• <input type="button" value="⌨"/>

TR069 Configuration:
Allow the device to be managed the ACS server which is set in the URL.

5.9 System Log

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



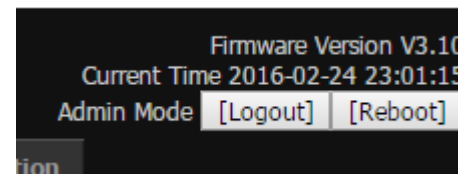
The screenshot shows the 'Syslog' configuration page in the device's web interface. The top navigation bar includes 'Status', 'Network', 'Wireless', 'SIP', 'FXS1', 'FXS2', 'Security', 'Application', and 'Administration'. Below this, there are sub-tabs for 'Basic', 'LAN Host', and 'Syslog'. The 'Syslog' tab is active, showing a list of log entries. At the top of the log area are buttons for 'Refresh', 'Clear', and 'Save'. The log entries include system booting messages, SIP stack initialization, and link status changes.

```

Manufacturer:FLYINGVOICE
ProductClass:FWR 7302
SerialNumber:TEST000001
BuildTime:201602240227
IP:192.168.4.1:8008
HWVer:V1.1
SWVer:V3.10
<Wed Feb 24 12:41:36 2016> superadmin: 29889 superadm 1732 S /bin/sh /sbin/linkchange.sh
<Wed Feb 24 12:41:41 2016> watchdog[753]: warn:restart ipphone for pcount(26->1)
<Wed Feb 24 12:41:41 2016> ipphone[31004]: ***system booting***
<Wed Feb 24 12:41:41 2016> ipphone[31004]: SW:142(120106174008)
<Wed Feb 24 12:41:43 2016> ipphone[31116]: UISignalControl[30][9000][30][9000][9000]
<Wed Feb 24 12:41:43 2016> ipphone[30842]: Wan If usb0 ip Change :0.0.0.0 -> 10.20.39.136
<Wed Feb 24 12:41:43 2016> ipphone[31004]: Local SIP Addr:10.20.39.136
<Wed Feb 24 12:41:43 2016> ipphone[31004]: Start Init Sip Stack...
<Wed Feb 24 12:41:43 2016> ipphone[31004]: SIP all register client init
<Wed Feb 24 12:41:43 2016> ipphone[31004]: SIP0(Disable) Contact:10.20.39.136:5060
<Wed Feb 24 12:41:43 2016> ipphone[31004]: SIP1(Disable) Contact:10.20.39.136:5061
<Wed Feb 24 12:41:43 2016> ipphone[31004]: Init Sip Stack Success
<Wed Feb 24 12:41:44 2016> ipphone[31001]: Start Register Client ...
<Wed Feb 24 12:41:48 2016> ipphone[30842]: TZ change to GMT-8
<Wed Feb 24 12:42:31 2016> dnsmasq[5893]: reading /etc/resolv.conf
<Wed Feb 24 12:42:31 2016> dnsmasq[5893]: using nameserver 123.123.123.124#53
<Wed Feb 24 12:42:31 2016> dnsmasq[5893]: using nameserver 123.123.123.123#53
<Wed Feb 24 04:34:18 2016> chat[3163]: Can't get terminal parameters: Inappropriate ioctl for device...
<Wed Feb 24 04:34:51 2016> LinkStatus: WAN Link Down
<Wed Feb 24 04:34:51 2016> LinkStatus: LAN1 Link Down
  
```

5.10 Logout

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



5.11 Reboot

Press the **Reboot** button to reboot FWR7302.

6 Trouble shooting of the guide

6.1 Setting your PC gets IP automatically

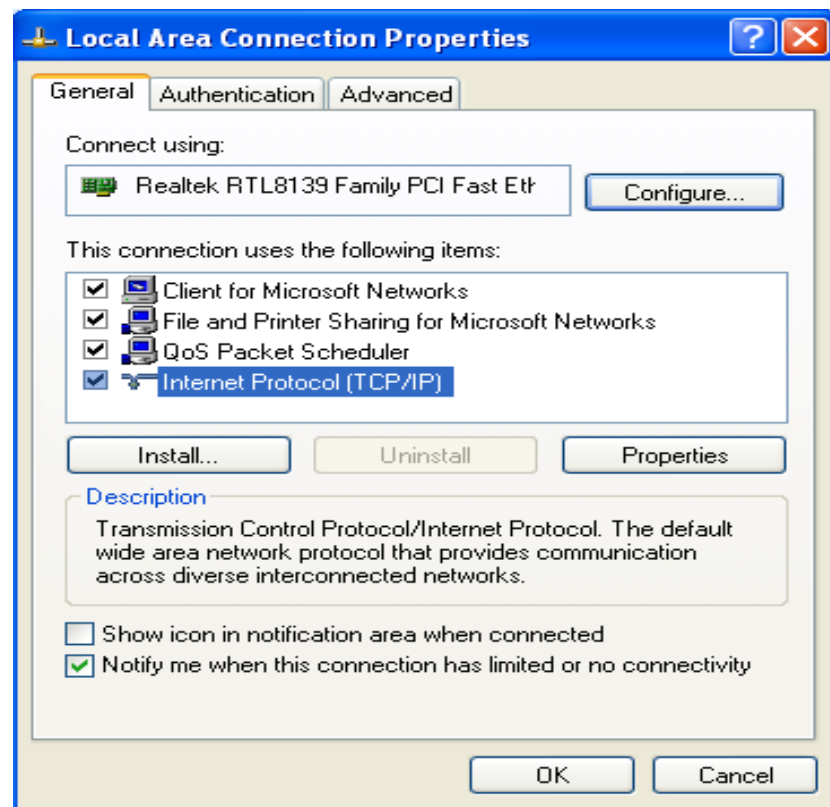
Following are the process of setting your PC gets IP automatically

Step 1. Click the “begin”

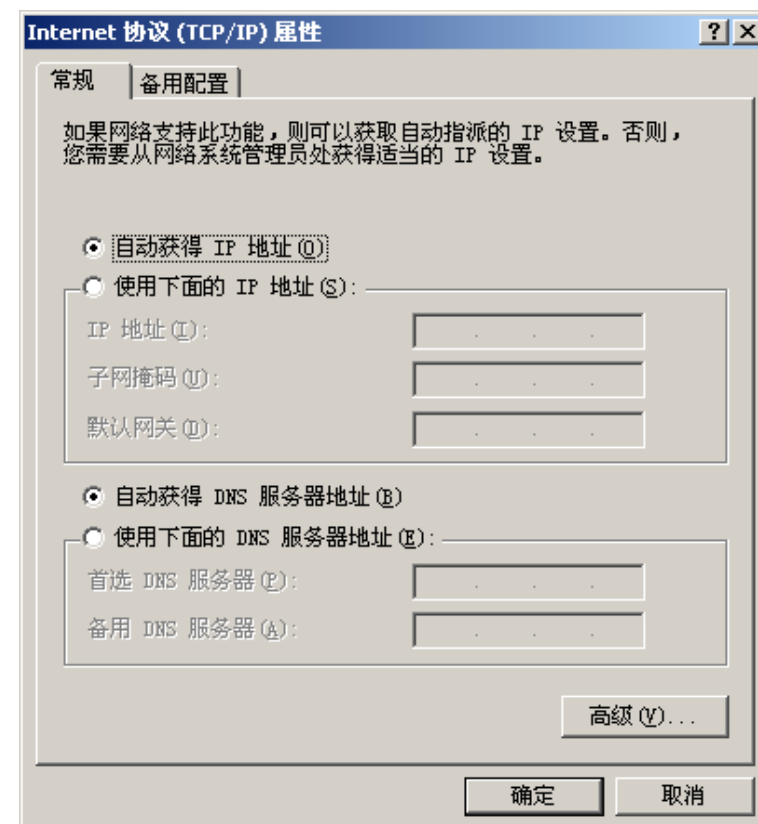
Step 2. Select “control panel”, then double click “network connections” in the “control panel”

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”.



Picture 1



Picture 2

6.2 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.

6.3 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.

7 Statement

FCC Radiation Exposure Statement

FlyingVoice Technology Ltd. Declares that this device is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

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.

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

FCC Radiation Exposure Statement

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



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

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

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

Indoor use only