

# The G702 High Speed Router User's Guide



**V1.1** 

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## 1 Preface

Thank you for choosing G702 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 G702 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 G702 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 modern, and a leased line.

G702 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:

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- 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.

#### 1.2GNU GPL Information

G702 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

## 1.3 Warning

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnemen.

This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. End-users and installers must be provided with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance.

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# 20verview

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

## **2.1G700series**

#### 2.1.1 G700 series

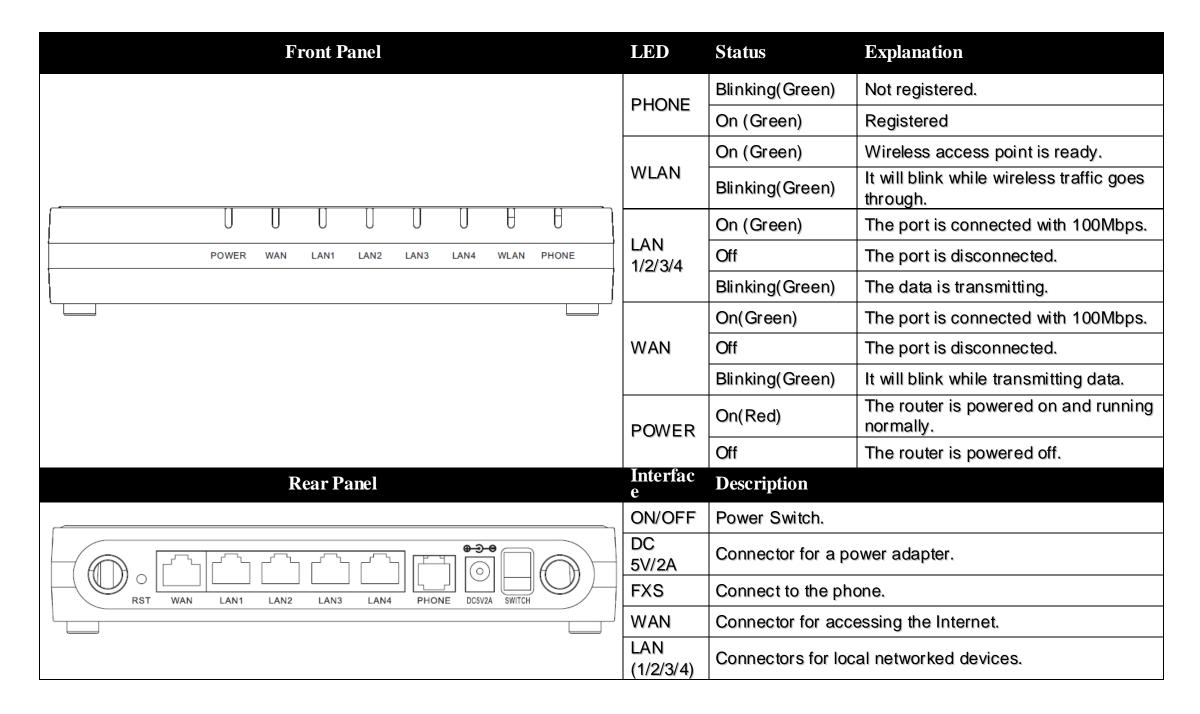
	G702	G702P	G701P	G701A	G700P	G700A			
WAN				1xFE in RJ45					
LAN				4xFE in RJ45					
WiFi	2X2 2.4G 8f02.11 b/g/n								
				1X1 5G 802.11ac					
USB	1X USB 2.0								
FXS 2xFXS in RJ11 1xFXS in RJ		xFXS in RJ11		No					
PoE	No	Yes	Yes	No	Yes	No			
Power Adapter	12V/2A	12V/3A	12V/3A	12V/2A	12V/3A	12V/1A			

## 2.1.2 Power Adapter

Model	Туре	Trade Mark	Features
S24B13-120A200-Y4	EU	GONGJIN	INPUT: 100-240VAC/50-60HZ/MAX 0.7A OUTPUT: 12VDC/2A
S24B12-120A200-Y4	UL	GONGJIN	INPUT: 100-240VAC/50-60HZ/MAX 0.7A OUTPUT: 12VDC/2A
F12W 3-120100SPAU	UL	FRECOM	INPUT: 100-240VAC/50-60HZ/MAX 0.3A OUTPUT: 12VDC/1A
F12W 3-120100SPAV	EU	FRECOM	INPUT: 100-240VAC/50-60HZ/MAX 0.3A OUTPUT: 12VDC/1A
SWPP-12003000-W	UL&EU	TOP-ASIA	INPUT: 100-240VAC/50-60HZ/MAX 1.5A OUTPUT: 12VDC/3A



### **2.2LED Indicators**



## 2.3 Hardware Installation

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

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- 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 G201N4 VoIP home gateway. Using other power adapter may damage G201N4 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.



# **2.4Voice 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
	Step 2.Choose "1", and G702 report the current WAN port connection type
	Step 3.Prompt "Please enter password", user need to input password with end char # if user want to configuration WAN
2	Step 1.Pick up phone and press "****" to start IVR
	Step 2.Choose "2", and G702 report current WAN Port IP Address
	Step 3.Input the new WAN port IP address and with the end char #,
	using "*" to replace ".", user can input 192*168*20*168 to set the new IP address 192.168.20.168
	press # key to indicate that you have finished
	Step 4.Report "operation successful" if user operation properly.
3	Step 1.Pick up phone and press "****" to start IVR
	Step 2.Choose "3", and G702 report current WAN port subnet mask
	Step 3.Input a new WAN port subnet mask and with the end char #
	using "*" to replace ".", user can input 255*255*255*0 to set the new WAN port subnet mask 255.255.255.0
	press # key to indicate that you have finished
	3) Report "operation successful" if user operation properly.
4	Step 1.Pick up phone and press "****" to start IVR
	Step 2.Choose "4", and G702 report current gateway
	Step 3.Input the new gateway and with the end char #
	using "*" to replace ".", user can input 192*168*20*1 to set the new gateway 192.168.20.1
	press # (pound) key to indicate that you have finished
	3) Report "operation successful" if user operation properly.



5	Step 1.Pick up phone and press "****" to start IVR
	Step 2.Choose "5", and G702 report current DNS
	Step 3.Input the new DNS and with the end char #
	using "*" to replace ".", user can input 192*168*20*1 to set the new gateway 192.168.20.1
	press # (pound) key to indicate that you have finished
	3) Report "operation successful" if user operation properly.
	Step 1.Pick up phone and press "****" to start IVR
6	Step 2.Choose "6", and G702 report "Factory Reset"
	Step 3.Prompt "Please enter password", the method of inputting password is the same as operation 1.
	If you want to quit by the wayside, press "*".
	Step 4.Prompt "operation successful" if password is right and then G702 will be factory setting.
	Step 1.Pick up phone and press "****" to start IVR
7	Step 2.Choose "7", and G702 report "Reboot"
	Step 3.Prompt "Please enter password", the method of inputting password is same as operation 1.
	Step 4.G702 will reboot if password is right and operation is properly.
	Step 1.Pick up phone and press "****" to start IVR
	Step 2.Choose "8", and G702 report "WAN Port Login"
8	Step 3.Prompt "Please enter password", the method of inputting password is same as operation 1.
	If you want to quit by the wayside, press "*".
	Step 4.Report "operation successful" if user operation properly.
	Step 5.Prompt "1enable 2disable",choose 1 or 2, and with confirm char #
	Step 1.Pick up phone and press "****" to start IVR
	Step 2.Choose "9", and G702 report " WEB Access Port"
9	Step 3.Prompt "Please enter password", the method of inputting password is same as operation 1.
	Step 4.Report "operation successful" if user operation properly.
	Step 5.Report the current WEB Access Port
	Step 6.Set the new WEB access port and with end char #
0	Step 1.Pick up phone and press "****" to start IVR
	Step 2.Choose "0", and G702 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 G702 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 G702 is connected.
- 7. The default LAN port IP address of G702 is 192.168.1.1 and do not set the WAN port IP address of G702 in the same network segment of LAN port of G702, otherwise it may lead to the G702 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, I -- 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**

## 3.1Two-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.

G702 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.

## 3.2Accessing Web Page

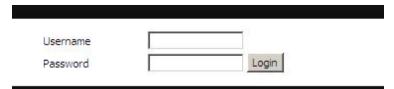
### 3.2.1 From LAN port

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.

Open a web browser on your PC and type <a href="http://192.168.1.1">http://192.168.1.1</a> 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.



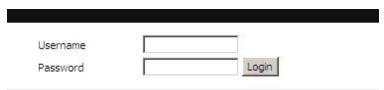
**Notice**: If you fail to access to the web configuration, please go to "Trouble Shooting" for detecting and solving your problem.

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 <a href="http://the">http://the</a> 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.

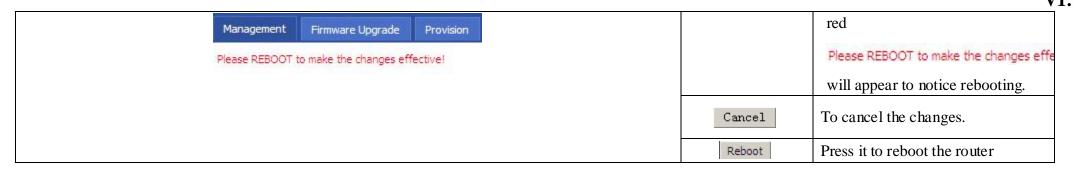
5. The web page can be logged out after 5 minutes without any operation.

# 3.3 Web Page

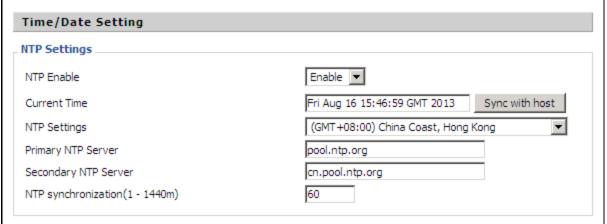
Status Network Wirele	SS Wireless 5G SIP FXS1 FXS2 Security Application	ion Storage Administration	Field Name	Description
Basic Wireless Security Wireless Settings Wireless Network	MM WDS WPS Station Info Advanced	Help	Navigation bar	Click navigation bar, many sub-navigation bar will appear in the place 2
Radio On/Off Wireless Connection Mode Network Mode SSID	Radio On  AP  AP  11b/g/n mixed mode  Wireless_AP001118 Hidden Isolated Max Client 16 3		Title	Click sub-navigation bar to choose one configuration page
Multiple SSID1 Multiple SSID2 Multiple SSID3	Hidden ☐ Isolated ☐ Max Client 16  Hidden ☐ Isolated ☐ Max Client 16  Hidden ☐ Isolated ☐ Max Client 16		Parameter	To configuration the parameters
	Save Cancel Reboot		Save	1.Every time making some changes, user should press this button to confirm the changes. 2.After pressing the button, the



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# 3.4Setting up the Time Zone



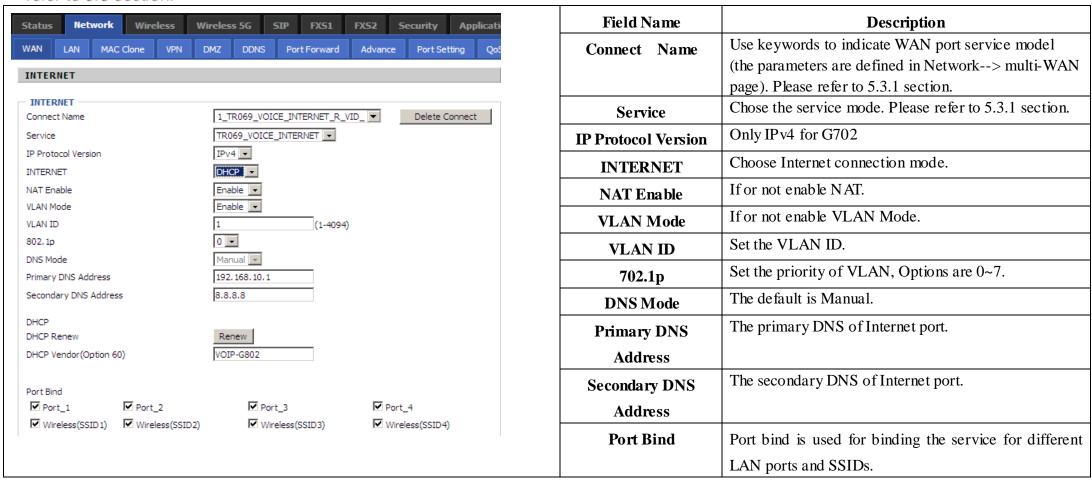
Open Administration/Management webpage as shown left, please select the Time Zone for the router installed and specify the NTP server and set the update interval in NTP synchronization.





## 3.5Setting 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.



## 3.6Setting 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



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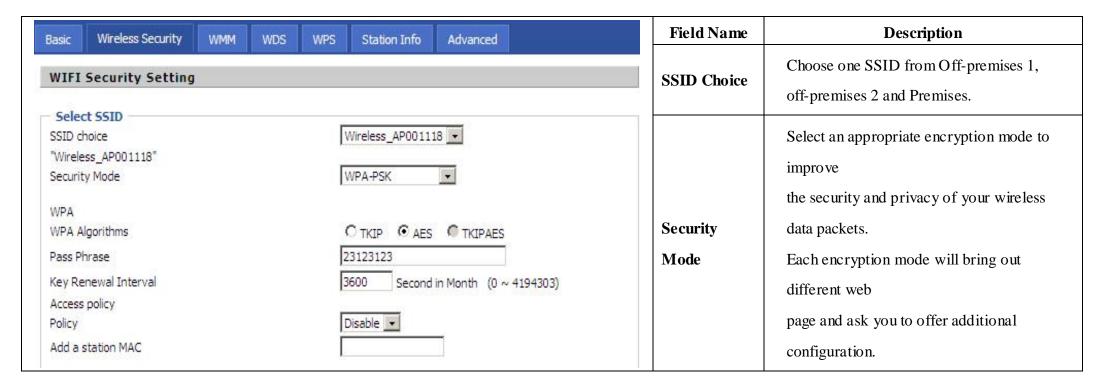
Status Network	Wireless	Wireles	ss 5G	SIP FXS	51 FX52	Security Applicat	Field Name	Description
Basic Wireless Securit	y WMM	WDS	WPS	Station Info	Advanced		D 1 0 /0 cc	Select "Radio Off" to disable wireless.
Basic Wireless Sett	ings						Radio On/Off	Select "Radio on" to enable wireless.
Wireless Network								Choose one network mode from the drop
Radio On/Off Wireless Connection Mode	e	Radio On	•				Network Mode	down list.
Network Mode		11b/g/n r	mixed mod	de 🔻				The name of the wireless name, it can be an
SSID Multiple SSID1		Wireless_	AP00111			Max Client 16  Max Client 16	SSID	text numbers or various special characters.
Multiple SSID2 Multiple SSID3						Max Client 16  Max Client 16	Multiple	Set more wireless network.
broadcast(SSID)		€ Enable	e O Dis	able			SSSD1-3	
AP Isolation		C Enable	e 🛈 Dis	able				
MBSSID AP Isolation BSSID Frequency (Channel)		O Enable 00:0C:FE					Frequency	Choose channel frequency.

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## 3.6.2 Encryption

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



# 3.7Register

#### 3.7.1 Get the Accounts

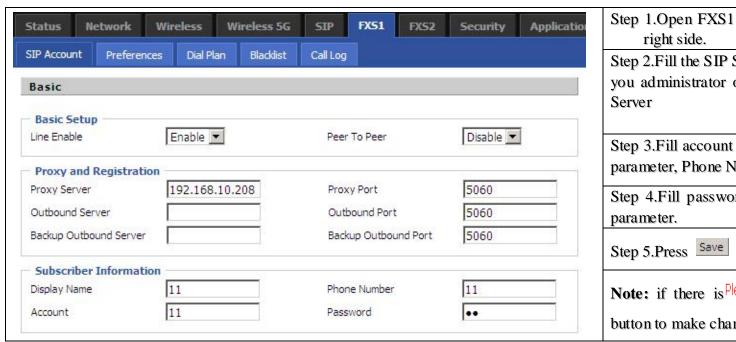
G702 have a FXS port, you can use it to make SIP call, and before registering, you should get the SIP account from you administrator or provider.

#### 3.7.2 Connections

Connect G702 to the Internet properly



#### 3.7.3 Configuration SIP from Webpage



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

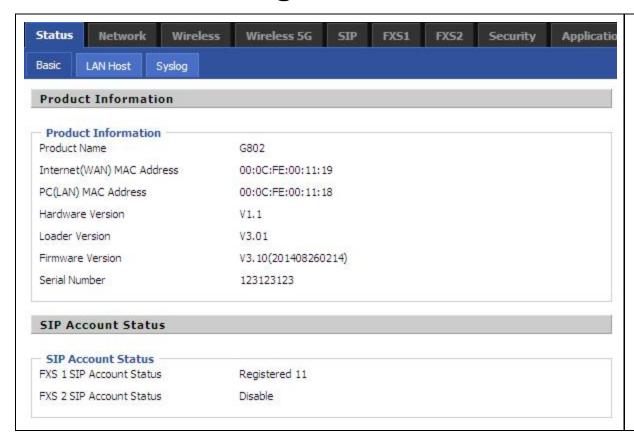
Step 3.Fill account which get from you administrator into Display Name parameter, Phone Number parameter, and Account parameter.

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 button to make changes effective.

## 3.7.4 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 G702 have registered normally and you can make calls.

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## 3.8Make 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

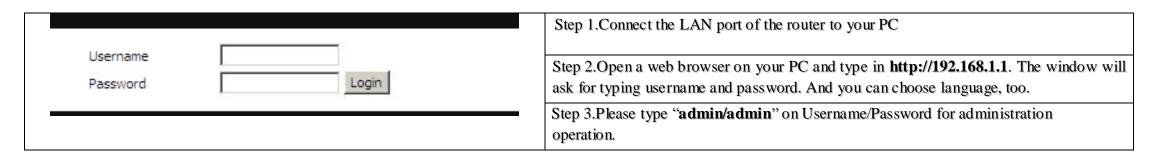
Assuming that call party A and B are in conversation. A wants to add C to the conference:

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.

## 4.1Login



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## 4.2Status

Product Information  Product Information  Product Name		information, Network and system.
Product Name		
	G802	
Internet(WAN) MAC Address	00:0C:FE:00:11:19	
PC(LAN) MAC Address	00:0C:FE:00:11:18	
Hardware Version	V1.1	It shows the basic information of the product, such as product name
Loader Version	V3.01	serial number, MAC address, hardware version and software version
Firmware Version	V3.10(201408260214)	
Serial Number	123123123	
		It also shows the information of Link Status, WAN Port Status, an
SIP Account Status		LAN Port Status.
SIP Account Status  FXS 1 SIP Account Status	Registered 11	
FXS 2 SIP Account Status	Disable	
	5.355615.4	And it shows the current time and the running time of the product.
FXS Port Status		The a shows the current time and the running time of the product.
FXS Port Status FXS 1 Hook State	On	
FXS 1 Port Status	Idle	The nieture in the left side is the C702's Status wehners
FXS 2 Hook State	On	The picture in the left side is the G702's Status webpage.
FXS 2 Port Status	Idle	
	1727   	
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	RECOVERS.	
WAN Port Status	100Mbps Full	
MAIN OF CALCIUS	2007/DpS 1 dil	



# 4.3Network&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		Field Name	Description
INTERNET Connect Name	1_TR069_VOICE_INTERNET_R_VID_ ▼ Delete Connect	IP Address	The IP address of Internet port
Service IP Protocol Version	TR069_VOICE_INTERNET _ IPv4 _	Subnet Mask	The subnet mask of Internet port.
INTERNET  NAT Enable	Static  Enable  Enable	Default Gate way	The default gateway of Internet port.
VLAN Mode VLAN ID Static	1 (1-4094)	DNS Mode	In Static mode, user need set the DNS manually.
IP Address Subnet Mask	192.168.10.209 255.255.255.0	Primary DNS Address	The primary DNS of Internet port.
Default Gateway DNS Mode Primary DNS Address	192.168.10.1  Manual   8.8.8.8	Secondary DNS Address	The secondary DNS of Internet port.

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#### 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.

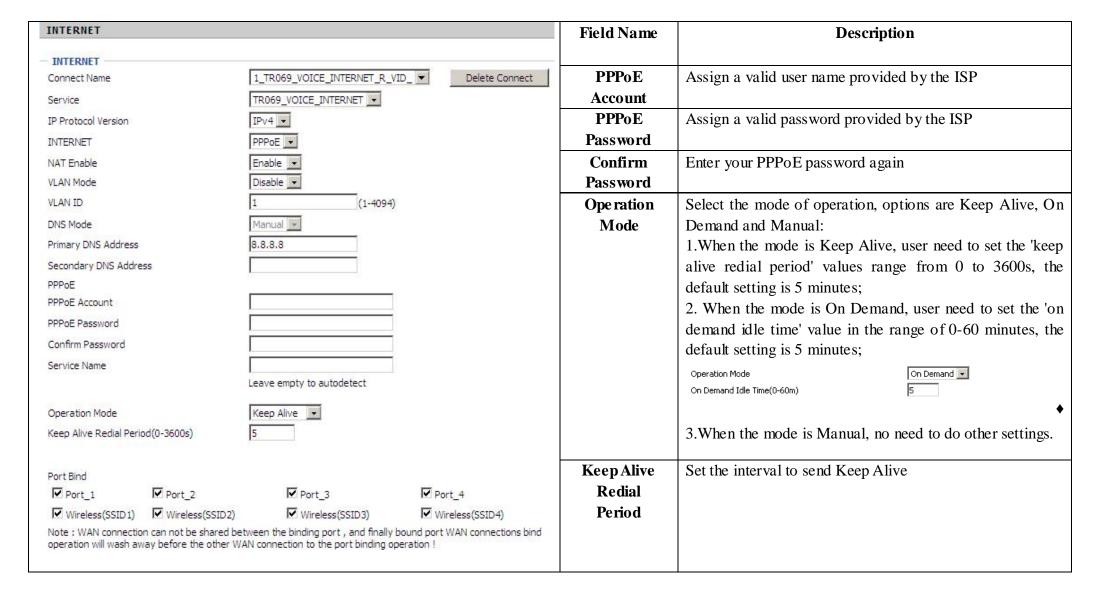
INTERNET			Field Name	Description
_ I	INTERNET		DNS Mode	The Default is Manual
C	Connect Name	1_TR069_VOICE_INTERNET_R_VID_ ▼ Delete Connect		
S	Service	TR069_VOICE_INTERNET _	Primary DNS	The primary DNS of Internet port.
IF	P Protocol Version	IPv4 ▼	Address	
I	NTERNET	DHCP 🔻	Secondary DNS	The secondary DNS of Internet port.
N	IAT Enable	Enable 🔽	Address	
V	LAN Mode	Disable 🔻	DHCP Rene w	Refresh DHCP IP
V	LAN ID	1 (1-4094)	DHCP	Creeify DUCD Vander field
D	NS Mode	Manual 🔻	Vendor(Option6	Specify DHCP Vendor field Display the vendor and product name
P	rimary DNS Address	8.8.8.8	0)	Display the vendor and product hame
S	econdary DNS Address		0)	
D	HCP			
D	HCP Renew	Renew		
D	HCP Vendor(Option 60)	VOIP-G802		

#### 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 modern. 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.





#### 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.



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- INTERNET				Field N	Name	Description
Connect Name		1_TR069_VOICE_INTERNET_R_VID	▼ Delete Connect		IP Bridge	Allow all ethernet packets pass. PC could
Service		TR069_VOICE_INTERNET _				connect to upper network directly.
IP Protocol Version		IPv4 ▼		Bridge	PPPoE	Only Allow PPPoE packets pass. PC need
INTERNET		Bridge 🔻		Type	Bridge	PPPoE dial-up software.
Bridge Type		Hardware IP Bridge 🔻			Hardware	Packets pass through hardware switch with
DHCP Service Type		Pass Through 🔻			IP Bridge	wired speed. Do not support wireless port
VLAN Mode		Enable 🔻				bind.
VLAN ID		1 (1-4094)		DHCP	Pass	Dhcp packets can be forwarded between
802.1p		0 🕶		Service	Through	WAN and LAN, dhcp server in gateway will
				Type		not allocate IP to hosts of LAN port.
Port Bind					DHCP	When gateway forwards dhcp packets form
Port_1	Port_2	Port_3	Port_4		Snooping	LAN to WAN it will add option82 to dhep
✓ Wireless(SSID 1)	✓ Wireless(SSID2)	✓ Wireless(SSID3)	✓ Wireless(SSID4)			packet, and it will remove option82 when
Note: WAN connection operation will wash aw	on can not be shared bet way before the other WA	tween the binding port , and finally boo AN connection to the port binding oper	und port WAN connections bind ation!			forward dhcp packet form WAN to LAN.
	,					Local dhcp service will not allocate ip to
						hosts of LAN port.
					Local	Gateway will not forward dhcp packets
					Service	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	Disable	The WAN interface is untagged. LAN is
				Mode		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		Set the VLAN ID.
				702.	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	В	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)

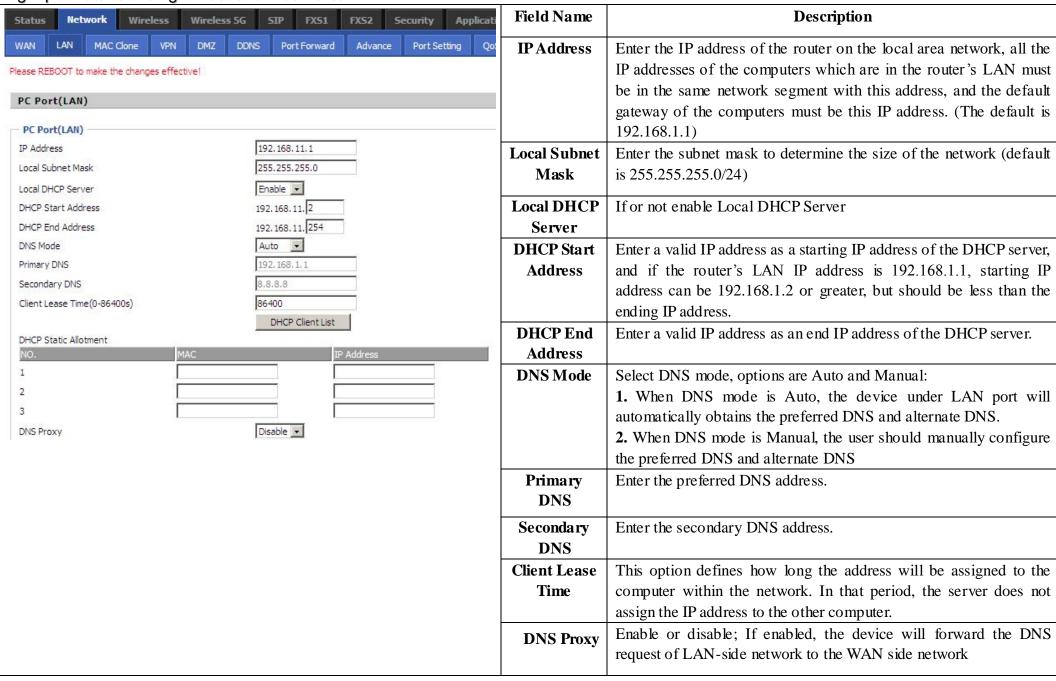




#### 4.3.2 LAN

#### 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.



#### 2. DHCP Server:

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



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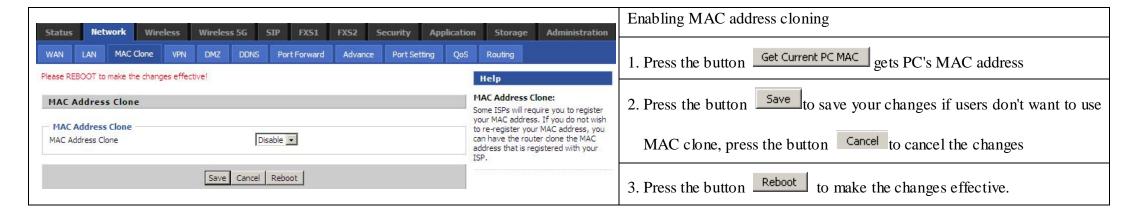
DHCP stands for Dynamic Host Configuration Protocol. The router by factory default acts a DHCP server for your network so it automatically dispatch related IP settings to any local user configured as a DHCP client. It is highly recommended that you leave the router enabled as a DHCP server if you do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

		Field Name	Description	
		Local DHCP Server	If or not enable DHCP server.	
TO Address	100 100 11 1		If or not enable DHCP server.	
IP Address Local Subnet Mask	192. 168. 11. 1 255. 255. 255. 0	DHCP Start	Enter a value of the IP address pool for the DHCP server to start with	
Local DHCP Server	Enable •	Address	when issuing IP addresses. If the LAN Interface IP	
DHCP Start Address	192.168.11. 2 192.168.11. 254 Auto	DHCP End	Enter a value of the IP address pool for the DHCP server to end with	
DHCP End Address DNS Mode		Address	when issuing IP addresses.	
7087.017.8K		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.	
			You must specify a DNS server IP address here because your ISP	
		Primary DNS	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	
Primary DNS			should provide you with usually more than one DNS Server. If your	
Secondary DNS			ISP does not provide it, the router will automatically apply default	
Client Lease Time(0-86400s)	86400		DNS Server IP address: 202.96.128.86 to this field.	
			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	
	Client Lease		server and maintain a DNS cache.	
		Time	It allows you to set the leased time for the specified PC.	



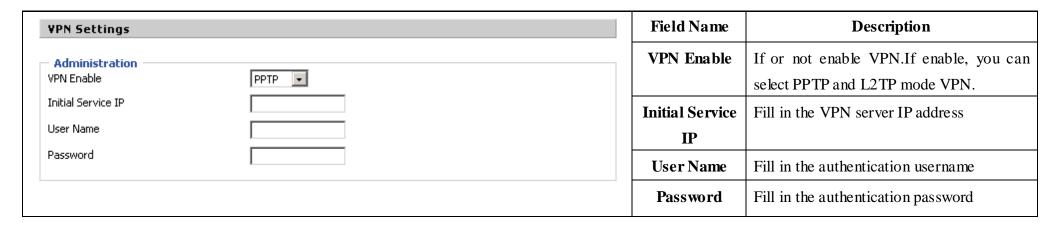
#### 4.3.3 MAC Clone

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.



#### 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.

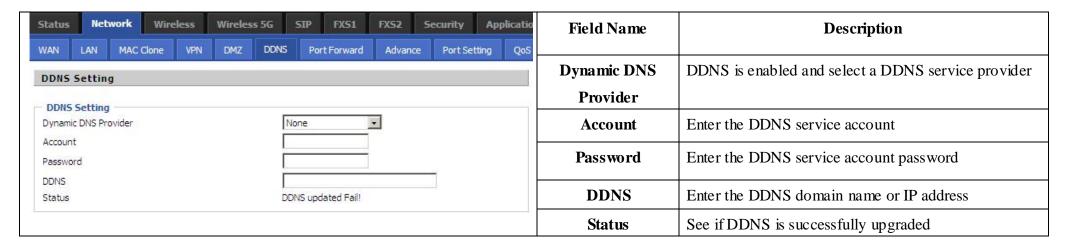




#### 4.3.5 DMZ

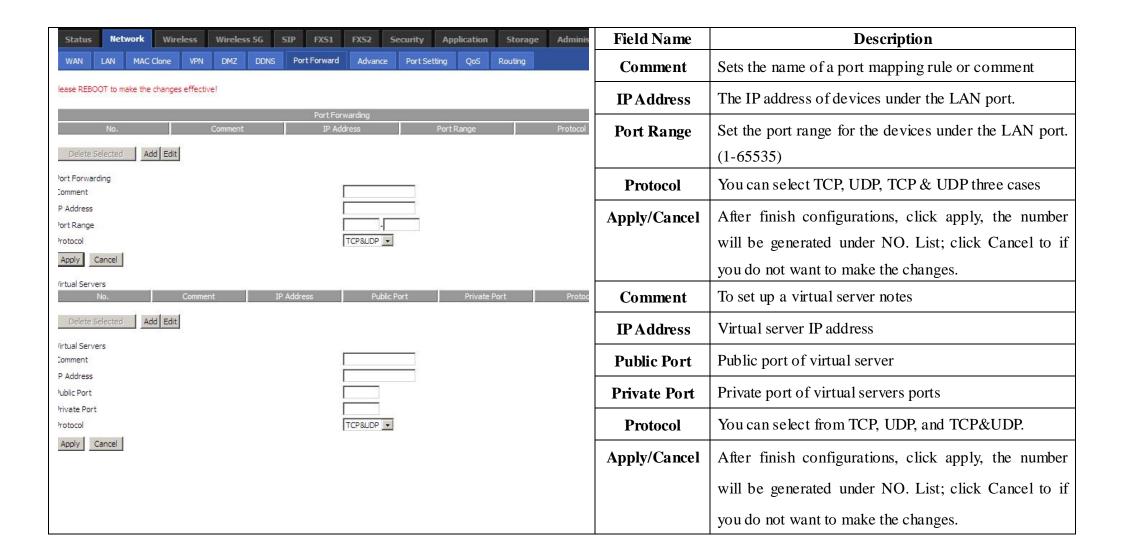


## 4.3.6 DDNS Setting



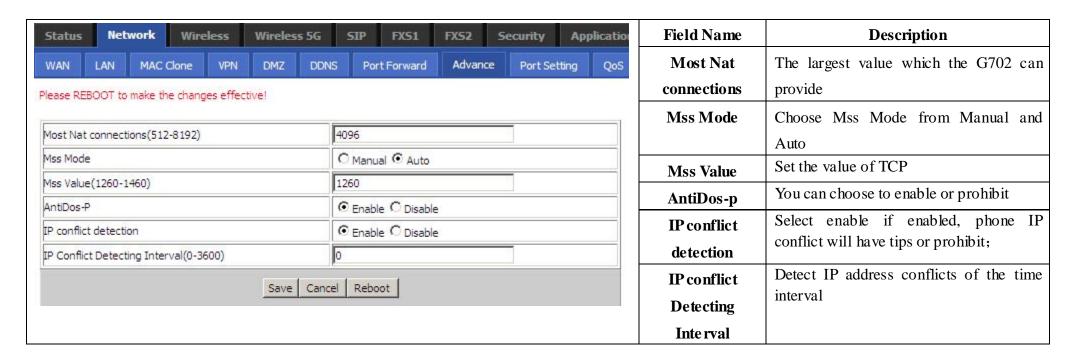


#### 4.3.7 Port Forward

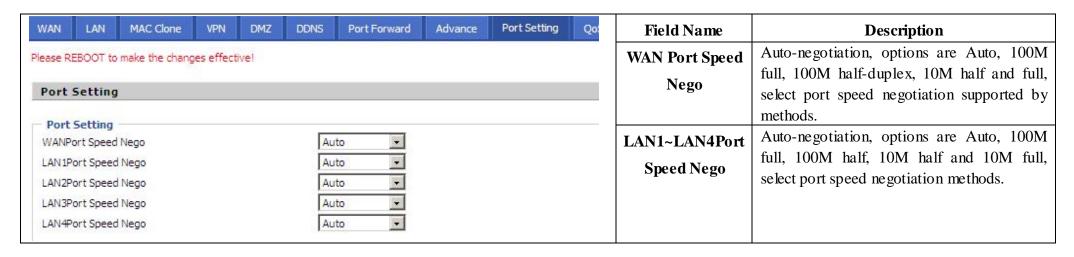




#### 4.3.8 Advance

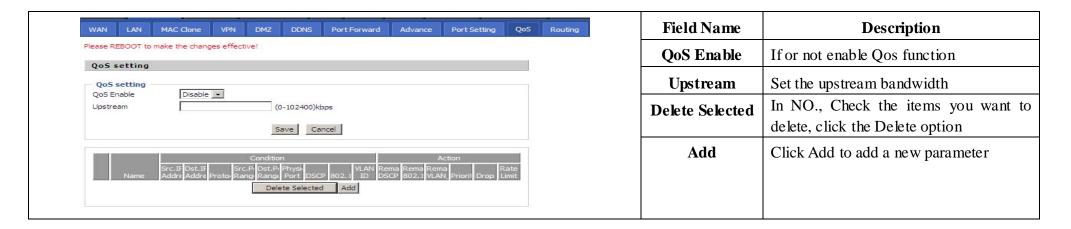


## 4.3.9 Port Setting

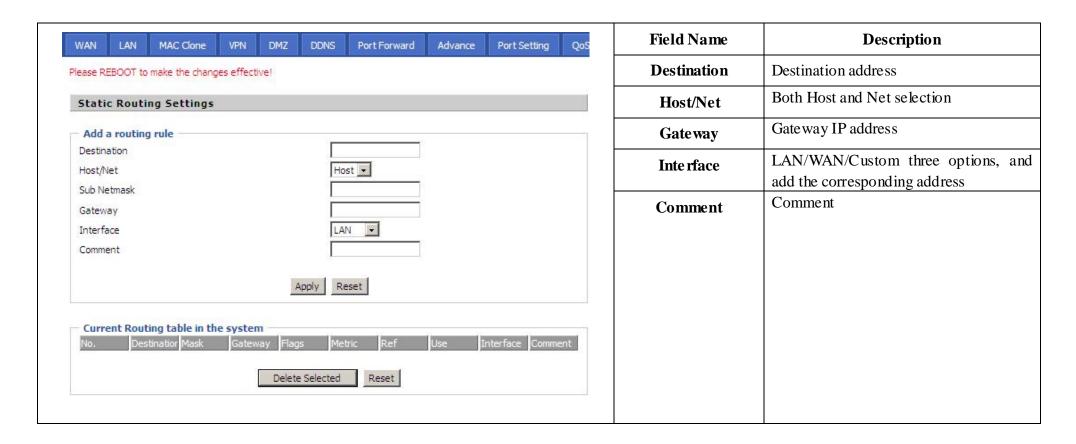




#### 4.3.10 QoS



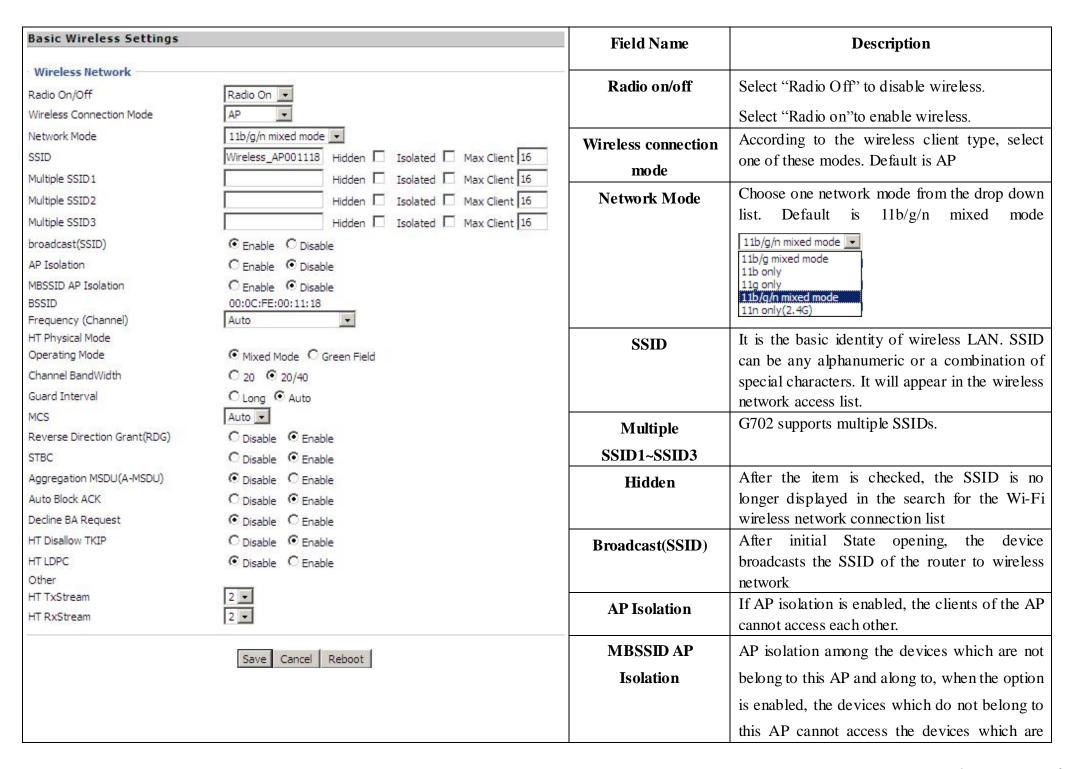
## **4.3.11 Routing**





#### 4.4 Wireless

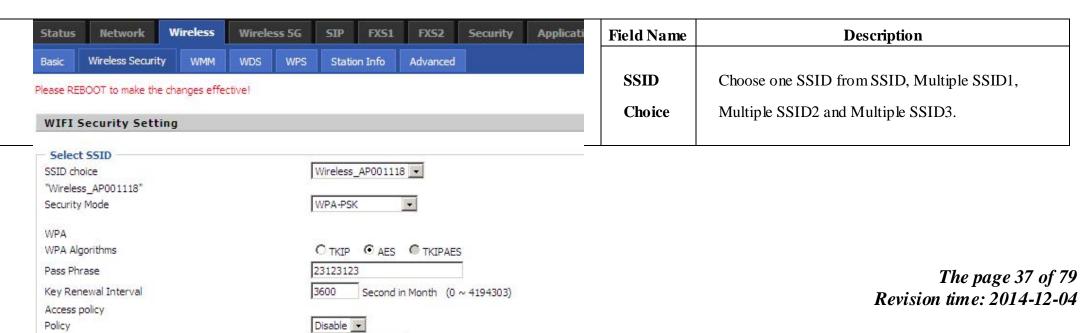
#### **4.4.1 Basic**



		<b>v</b>
		within the AP.
BS	SSID	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.
Frequenc	y (Channel)	You can select Auto Select and channel 1/2/3/4/5/6/7/8/9/10/11.
Ope M Channel	sical Mode rating Iode Bandwidth	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  2. Green Field: high throughput can be achieved, but it will affect backward compatibility, and security of the system  Select channel bandwidth, default is 20MHz and 20/40MHz.  The default is automatic, in order to achieve good BER performance, you must set the appropriate guard interval
N	ICS	Position control signal, options are 0 to 32, the default is automatic
	Direction	You can choose to enable or disable this privilege

## **4.4.2 Wireless Security**

Add a station MAC



	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.
--	------------------	---

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		Field Name	Description
Select SSID  SSID choice "Wireless_AP001111 Security Mode	8"	Wireless_AP001118  OPENWEP	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.
Wire Equivalence Pr Default Key	rotection (WEP)	WEP Key 1	WEP Keys	Set the WEP key. A-64 key need 10 Hex characters or 5 ASCII
	WEP Key 1 WEP Key 2	Hex •		characters; choose A-128 key need 26 Hex characters or 13 ASCII characters.
WEP Keys	WEP Key 4	Hex •	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		Field Name	Description
Select SSID  SSID choice "Wireless_AP001118"  Security Mode	Wireless_AP001118  WPA-PSK	WPA Algorithms	This item is used to select the encryption of wireless dhome gateway algorithms, options are TKIP, AES and TKIPAES.
WPA		Pass Phrase	Setting up WPA-PSK security password.
WPA Algorithms Pass Phrase Key Renewal Interval	C TKIP	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:

will security setting		Field Name	Description
Select SSID			
SSID choice	Wireless_AP001118 💌		
"Wireless_AP001118"	W 95-30		The page 38 of 79
Security Mode	WPA2-PSK		Revision time: 2014-12-04
WPA			
WPA Algorithms	OTKIP @ AES OTKIPAES		



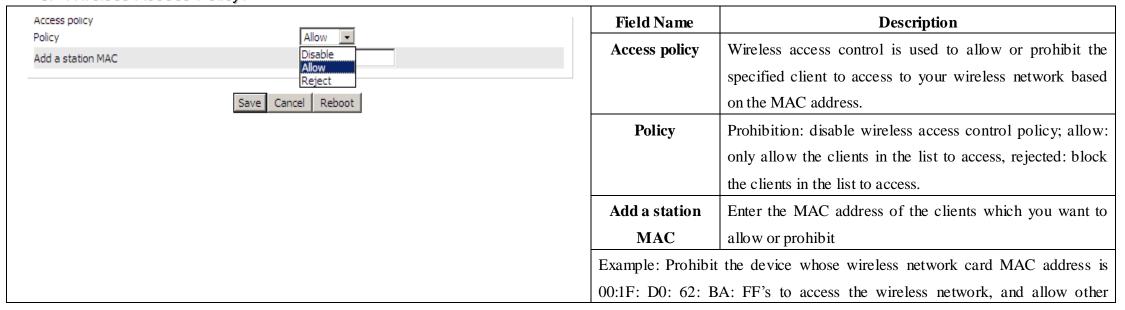
WPA Algorithms	This item is used to select the security algorithm for		
	encryption of wireless dhome gateway, options are		
	TKIP, AES, TKIPAES three		
Pass phrase	Setting up WPA2-PSK security password		
Key Renewal	Set the key scheduled update cycle, default is 3600s		

#### 4 WPAPSKWPA2PSK manner is consistent with WPA2PSK settings

WIFI Security Setting		Field Name	Description
Select SSID  SSID choice "Wireless_AP001118"  Security Mode	Wireless_AP001118  WPAPSKWPA2PSK	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.
WPA Algorithms	OTKIP • AES OTKIPAES	Pass Phrase	Set WPA-PSK/WPA2-PSK security code
Pass Phrase Kev Renewal Interval	23123123 3600 Second in Month (0 ~ 4194303)	Key Renewal Interval	Set the key scheduled update cycle, default is 3600s
		version, which is based o	WPA/WPA2 security type is actually a simplified in the WPA shared key mode, higher security setting e, suitable for ordinary home users and small

Interval

#### 5. Wireless Access Policy:





**V1.1** 

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.

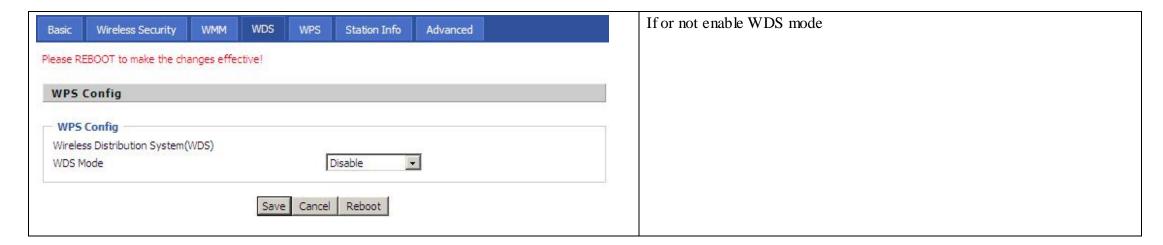
### 4.4.3 WMM



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



#### 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	Field Name	Description
WPS Config WPS Enable	WPS Setting	If or not enable WPS function
WPS Summary WPS Current Status Idle WPS Configured Yes	WPS Summary	Display the current status of WPS, including current state, SSSID name, authentication methods, encryption type and the PIN code of this AP.
WPS SSID         Wireless_AP001118           WPS Auth Mode         WPA-PSK	Generate	Generate a new PIN code
WPS Encryp Type         AES           WPS Default Key Index         2           WPS Key(ASCII)         23123123           AP PIN         00043762         Generate	Reset OOB	G702 uses default security policy to allow other non-WPS users to access and apply.
WPS Progress WPS Mode PIN Apply  WPS Status WSC:Idle  Caricel	WPS Mode	PIN: Enter the PIN code of the wireless device which accesses to this LAN in the following option, and press apply. Then G702 begins to send signals, turn on the PIN accessing method on the clients, and then it can access the wireless AP automatically.  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: WSC: Idle WSC: Start WSC Process(begin to send messages) WSC: Success; this means clients have accessed the AP successfully, WPS connects well.



### 4.4.6 Station Info



### 4.4.7 Advanced

Advanced Wireless		Field Name	Description
Advanced Wireless BG Protection Mode	Auto 🔻	BG Protection Mode	Select G protection mode, options are on, off and automatic.
Beacon Interval  Data Beacon Rate (DTIM)  Fragment Threshold	ms ms (range 20 - 999, default 100)  ms (range 1 - 255, default 3)  2346 (range 256 - 2346, default 2346)	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.
RTS Threshold  TX Power  Short Preamble  Short Slot  Tx Burst  Pkt_Aggregate  IEEE 802.11H Support	2346 (range 256 - 2346, default 2346)  2347 (range 1 - 2347, default 2347)  100 (range 1 - 100, default 100)  © Enable © Disable	Data Beacon Rate(DTIM)  Fragment Threshold	length of the packet exceeds this value, the packet will be divided into multiple packets.
Country Code Support Channel Wi-Fi Multimedia WMM Capable APSD Capable	US (United States)  Ch1~11  Ch1~11  Chable  Chable  Chable  Chable  Chable  Chable  Chable	RTS Threshold  TX Power	Specify the packet RTS threshold, when the packet exceeds this value, the router will send RTS to the destination site consultation  Define the transmission power of the current AP, the
WMM Parameters Multicast-to-Unicast Converter Multicast-to-Unicast	C Enable C Disable	Short Preamble	greater it is, the stronger the signal is.  Default is enable, G702 system is not compatible with traditional IEEE702.11, the operation rate can be 1,2Mpbs



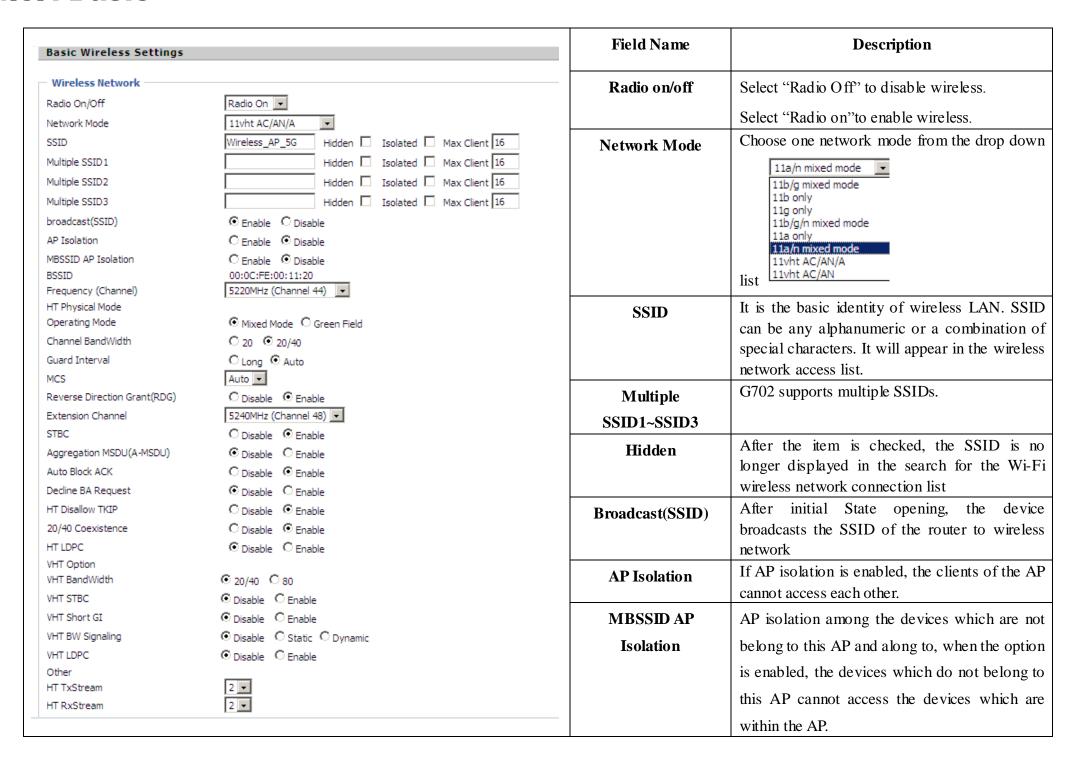
Short Slot	If or not enable short slot, default is enable, it is helpful
	in improving the transmission rate of wireless
	communication.
Tx Burst	One of the features of MAC layer, it is used to improve
	the fairness for transmitting TCP.
Pkt_Aggregate	It is a mechanism that is used to enhance the LAN, in
	order to ensure that the dhome gateway packets are sent
	to the destination correctly.
IEEE702.11H	If or not enable IEEE702.11H Support, default is
support	disable.
Country Code	Select country code, options are CN, US, JP, FR, TW,
	IE, HK and NONE.
Wi-Fi	
Multime dia(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.

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### 4.5 Wireless 5G

#### 4.5.1 Basic

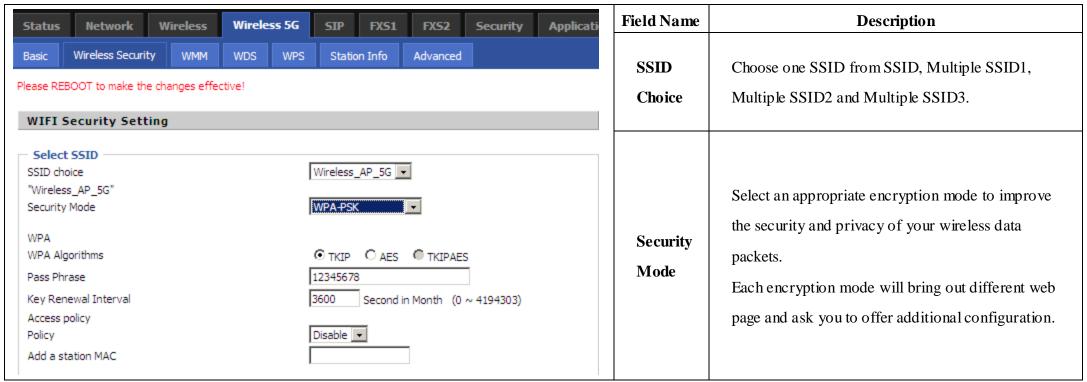


BSSID	A group of wireless stations and a WLAN access point (AP) consists of a basic access
	device (BSS), each computer in the BSS must be configured with the same BSSID, that is, the wireless AP logo.
Frequency (Channel)	You can select Auto Select and channel 1/2/3/4/5/6/7/8/9/10/11.
HT Physical Mode Ope rating 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  2. Green Field: high throughput can be achieved, but it will affect backward
Channel Bandwidth	compatibility, and security of the system  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	

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### 4.5.2 Wireless Security



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.

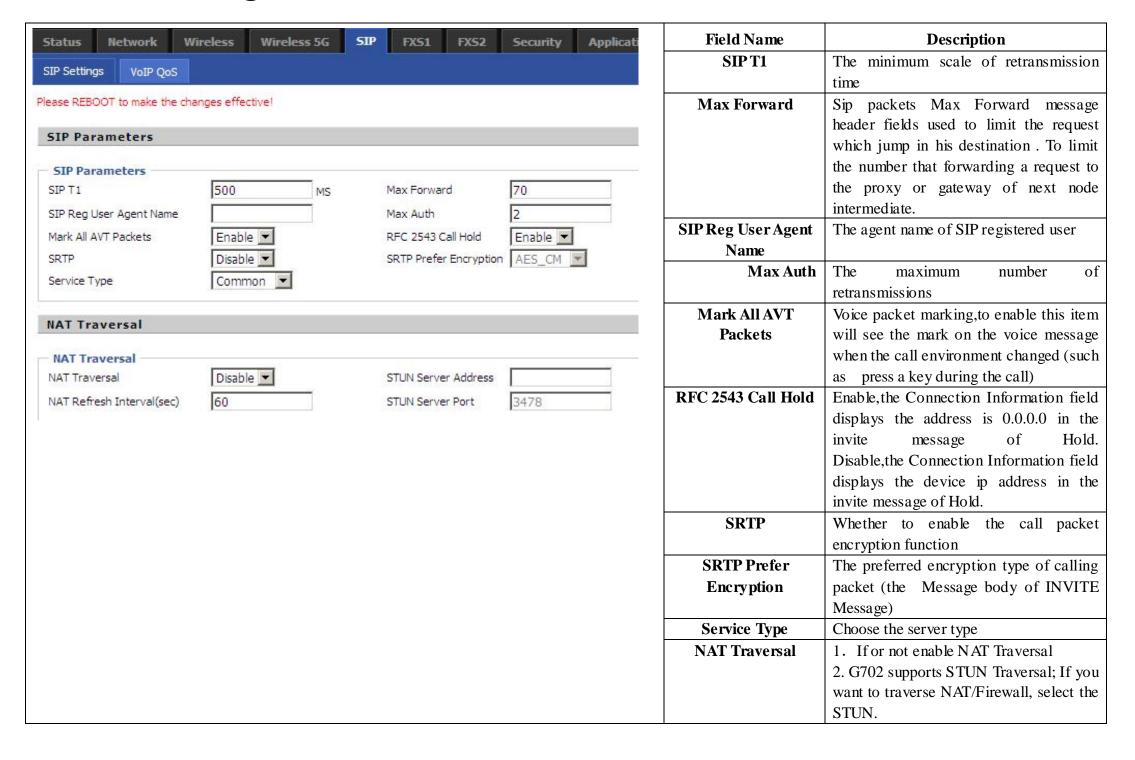
### 4.5.7 Advanced

Please refer to 4.4.7 section.



### 4.6 SIP

### 4.6.1 SIP Settings





<b>5</b> 7	1		1
v	1	•	1

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

### **4.6.2 VoIP Qos**

Field Name Descri	iption
SIP/RTPQoS The default v	alue is 0, you
can set a rang	ge of values is

## 4.7 FXS1

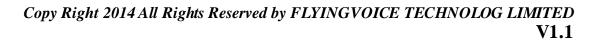
### 4.7.1 SIP Account

#### 1. Basic

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



Basic				Field Name	Description
- Basic Setup	V <u>II</u>			Line Enable	If or not enable the line.
Line Enable	Enable 💌	Peer To Peer	Disable 💌		If or not enable PEER to PEER.
Proxy and Registration Proxy Server Outbound Server Backup Outbound Server  Subscriber Information Display Name Account	xy Server 192.168.10.208 Proxy Port 5060 tbound Server Outbound Port 5060 kup Outbound Server Backup Outbound Port 5060  blackup Outbound Port 5060  blackup Outbound Port 11	Peer To Peer  Proxy Server  Outbound Server	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.  The IP address or the domain of SIP 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	3.			Field Name	Description
	•			Audio Codec Type1	Choose the audio codec type from G711U, G711A
Codec Setup	[C 71111 ]	Killia Aldri Fillia	C 7114	_	G722, G729, G723
Audio Codec Type 1 Audio Codec Type 3	G.711U ▼ G.729 ▼	Audio Codec Type 2 Audio Codec Type 4	G.711A ▼	Audio Codec Type2	Choose the audio codec type from G711U, G711A
Audio Codec Type 5	G.723 ▼	G.723 Coding Speed	5.3k bps 🔻		G722, G729, G723
Packet Cycle(ms)	20ms ▼	Silence Supp	Disable 🔻	Audio Codec Type3	, ,
Echo Cancel	Enable 🔻	Auto Gain Control	Disable 🔻	Audio Couec Types	Choose the audio codec type from G711U, G711A
T.38 Enable	Enable 💌	T.38 Redundancy	Disable 💌		G722, G729, G723
7,38 CNG Detect Enable	Disable 🔻	T.38 CED Detect Enable	Enable 💌	Audio Codec Type4	Choose the audio codec type from G711U, G711A
gpmd attribute Enable	Disable 💌		8 <del>7</del>		G722, G729, G723
				Audio Codec Type5	Choose the audio codec type from G711U, G711A
					G722, G729, G723
				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	If or not enable T.38 CNG Detect
				Enable	
				gmd attribute	If or not enable gmd attribute.
				_	

Enable



#### 3. Supplementary Service Subscription

Supplementary Ser	vice Subscription			Field Name	Description
Supplementary Servi	ices		205	Call Waiting	If or not enable Call Waiting
Call Waiting	Enable 💌	Hot Line		Hot Line	Fill in the hotline number.
MWI Enable	Enable 💌	Voice Mailbox Numbers			Pickup handset or press handsfree/headse
MWI Subscribe Enable	Disable 💌	VMWI Serv	Enable 💌		button, the device will dial out the hotline
DND	Disable 💌				number automatically.
Speed Dial				MWI Enable	If or not enable MWI (message waiting
Speed Dial 2		Speed Dial 3			indicate). If the user needs to user voice mail
Speed Dial 4		Speed Dial 5			please enable this feature.
Speed Dial 6		Speed Dial 7		MWI Subscribe Enable	If or not enable MWI Subscribe
Speed Dial 8		Speed Dial 9		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).
					If enable, any phone call cannot arrive at the
					device; default is disable.
					Enter the speed dial phone numbers.
				Speed Dial	Dial *74 to active speed dial function.
					Then press the speed dial numbers, for
					example, press 2, phone will dia
					075526099365 directly.



#### 4. Advanced

Advanced			
Advanced Setup	1,500		90
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 (=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.
RTPPort	Set the port to send RTP.
	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	Test interval of the primary server, the default
Inte rval	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



	V1.1
	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	If or not enable the only receive request from
server	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

Preferences			Field Name	Description	
Volume Settings				Handset Input Gain	Adjust the handset input gain from 0 to 7.
Handset Input Gain	5 🕶	Handset Volume	5 🕶	Handset Volume	Adjust the output gain from 0 to 7.
nanuset Input Gain	2 🕶	nariuset volume	5	Handset volune	rajust the output gain nom o to 7.



2. Regional

Regional				Field Name	Description
Tone Type	USA ▼			Tone Type	Choose tone type form China, US, Hong Kong
Dial Tone					and so on.
Busy Tone Off Hook Warning Tone				Dial Tone	Dial Tone
Ring Back Tone				Busy Tone	Busy Tone
Call Waiting Tone					•
Min Jitter Delay(ms)		Max Jitter Delay(ms)	80	Off Hook Warning Tone	Off Hook warning tone
Ringing Time(sec)	60	Max sitter Delay(IIIs)	180	Ring Back Tone	Ring back tone
Ring Waveform	Sinusoid 🔻	Ring Voltage(40-63 Vrms)	45	Call Waiting Tone	Call waiting tone
Ring Frequency	25	VMWI Ring Splash Len(sec)	0.5	Min Jitter Delay	The Min value of home gateway's jitter delay,
Flash Time Max(sec)	0.9	Flash Time Min(sec)	0.1		home gateway is an adaptive jitter mechanism.
				Max Jitter Delay	The Max value of home gateway's jitter delay,
					home gateway is an adaptive jitter mechanism.
				Ringing Time	How long G702 will ring when there is an
					incoming call.
				Ring Waveform	Select regional ring waveform, options are
					Sinusoid and Trapezoid, the default Sinusoid.
				Ring Voltage	Set ringing voltage, the default value is 70
				Ring Frequency	Set ring frequency, the default value is 25
				VMWI Ring Splash	Set the VMWI ring splash length, default is 0.5s.
				Len(sec)	
				Flash Time Max(sec)	Set the Max value of the device's flash time, the
					default value is 0.9
				Flash Time Min(sec)	Set the Min value of the device's flash time, the
					default value is 0.1



#### 3. Features and Call Forward

				Fi	eld Name	Description
- Features					All Forward	If or not enable forward all calls
All Forward	Disable 💌	Busy Forward	Disable 💌	Features	Busy Forward	If or not enable busy forward.
No Answer Forward	Disable 💌				No Answer	If or not enable no answer forward.
					Forward	
Call Forward					All Forward	Set the target phone number for all forward.
All Forward		Busy Forward		Call		The device will forward all calls to the phone
No Answer Forward		No Answer Timeout	20	Forward		number immediately when there is an incoming call.
Feature Code					Busy Forward	The phone number which the calls will be
Hold Key Code	*77	Conference Key Code	*88			forwarded to when line is busy.
Transfer Key Code	*98	IVR Key Code	***		No Answer	The phone number which the call will be
R Key Enable	Disable 🔻	R Key Cancel Code	R1 💌		Forward	forwarded to when there's no answer.
R Key Hold Code	R2 🔻	R Key Transfer Code	R4 💌		No Answer	The seconds to delay forwarding calls, if
R Key Conference Code	R3 🕶	Speed Dial Code	*74		Timeout	there is no answer at your phone.
				_	Hold key code	Call hold signatures, default is *77.
				Feature	Conference key	Signature of the tripartite session, default is
				Code	code	*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	Set the R key cancel code, option are ranged
					code	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	Set the R key transfer code, options are
					code	ranged from R1 to R9, default value is R4.
					R key conference	Set the R key conference code, options are
					code	ranged from R1 to R9, default value is R3.
					Speed Dial Code	Speed dial code, default is *74.



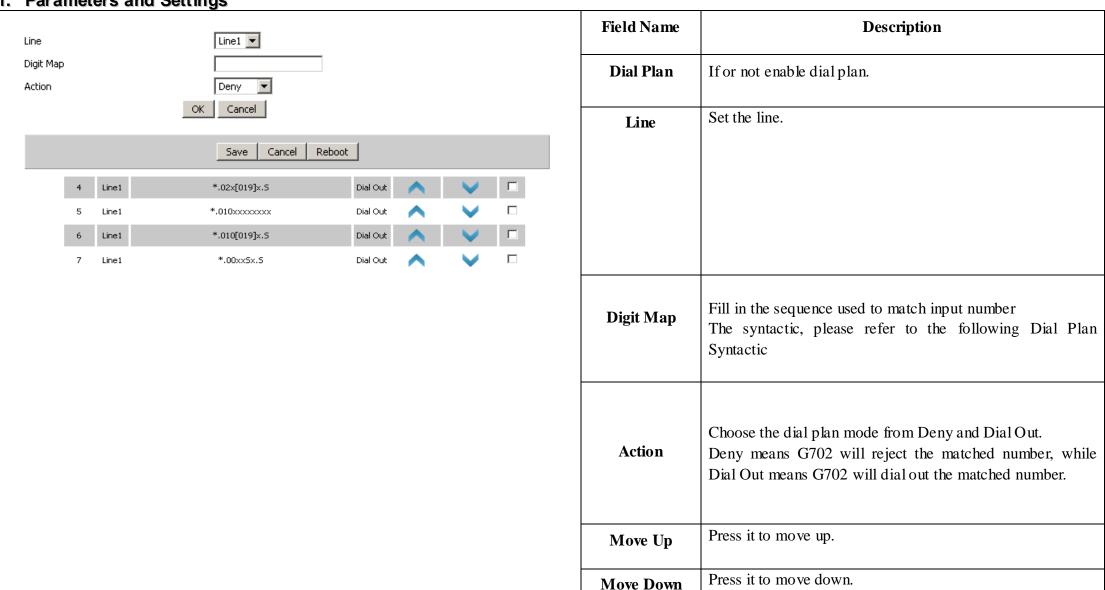
#### 4. Miscellaneous

				Field Name	Description
Miscellaneous     Codec Loop Current	26	Impedance Maching	US PBX,Korea, T	Codec Loop Current	Set off-hook loop current, default is 26
CID Service Caller ID Method	Enable • Bellcore	CWCID Service	Disable 🔻	Impedance Maching	Set impedance matching, default is US PBX,Korea, Taiwan(600).
Dial Time Out(IDT)  ICMP Ping	5 Disable 🔻	Call Immediately Key Escaped char enable	# V	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 G702 will sound dial out tone when G702 dials a number.
				Call Immediately Key	Choose call immediately key form * or #.
				ICMP Ping	If or not enable ICMP Ping.  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

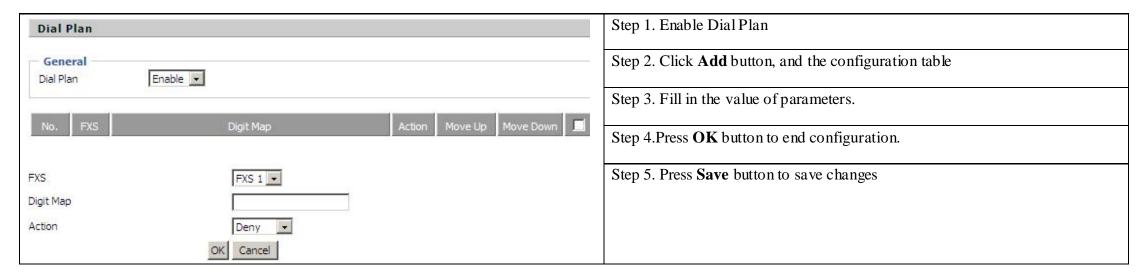
1. Parameters and Settings







#### 2. Adding one dial plan:



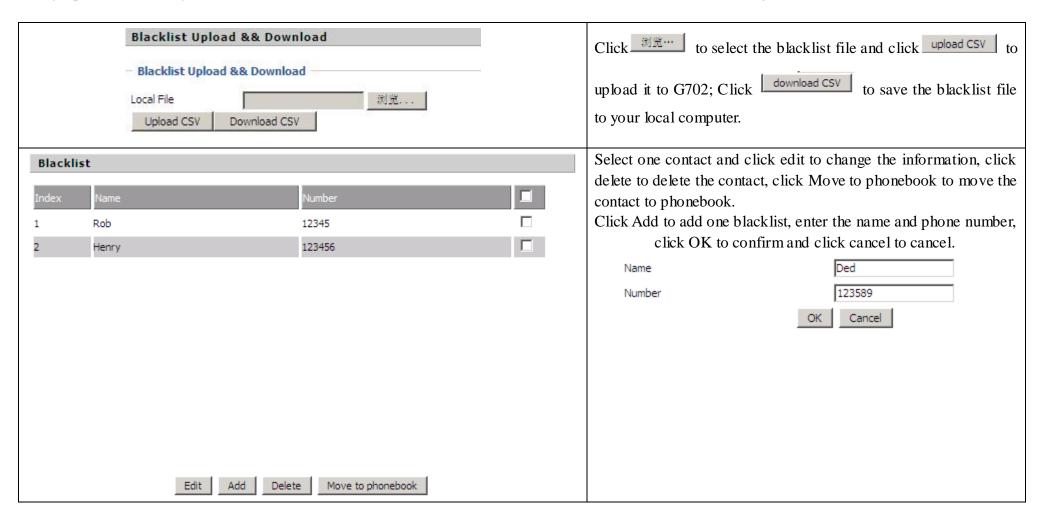
#### 3. Dial Plan Syntactic

No.	String	Description			
1	0123456789*#	Legal characters			
2	X	Lowercase letter x stands for one legal character			
3	[sequence]	To match one character form sequence. For example: 6. [0-9]: match one digit form 0 to 9 7. [23-5*]: match one character from 2 or 3 or 4 or 5 or *			
4	X.	Match to $x^0, x^1, x^2, x^3, \dots x^n$			
		For example: "01.":can match "0", "01", "011", "0111", "01111"			
5	<dialed:substituted></dialed:substituted>	Replace dialed with substituted.			
		For example: <8:1650>123456: input is "85551212", output is "16505551212"			
6	x,y	Make outside dial tone after dialing "x", stop until dialing character "y" For example: "9,1xxxxxxxxxxx":the device reports dial tone after inputting "9", stops tone until inputting "1" "9,8,010x": make outside dial tone after inputting "9", stop tone until inputting "0"			
7	Т	Set the delayed time. For example: "<9:111>T2": The device will dial out the matched number "111" after 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.



### **4.7.5 Call Log**

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



Redia	l List				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		
	*^^	10100 15 07	^^ ^^ ^*	_	
Answe	ered Calls				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		
	•	10/05/14/15	00 00 00	_	
					Missad Call
Missed	l Calls				Missed Call
Index	NUMBER	Start Time	Duration		
l	110	10/21 09:50	00:00:03		
2	555	10/22 12:04	00:00:03		

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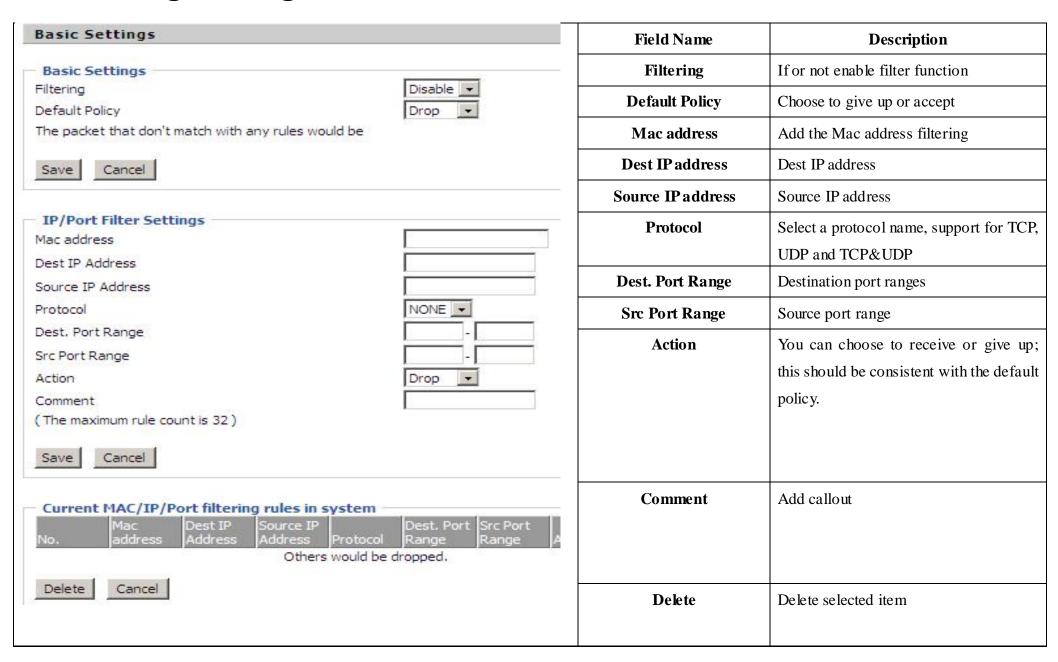


### 4.8 FXS2

The settings of FXS2 are the same as FXS1.

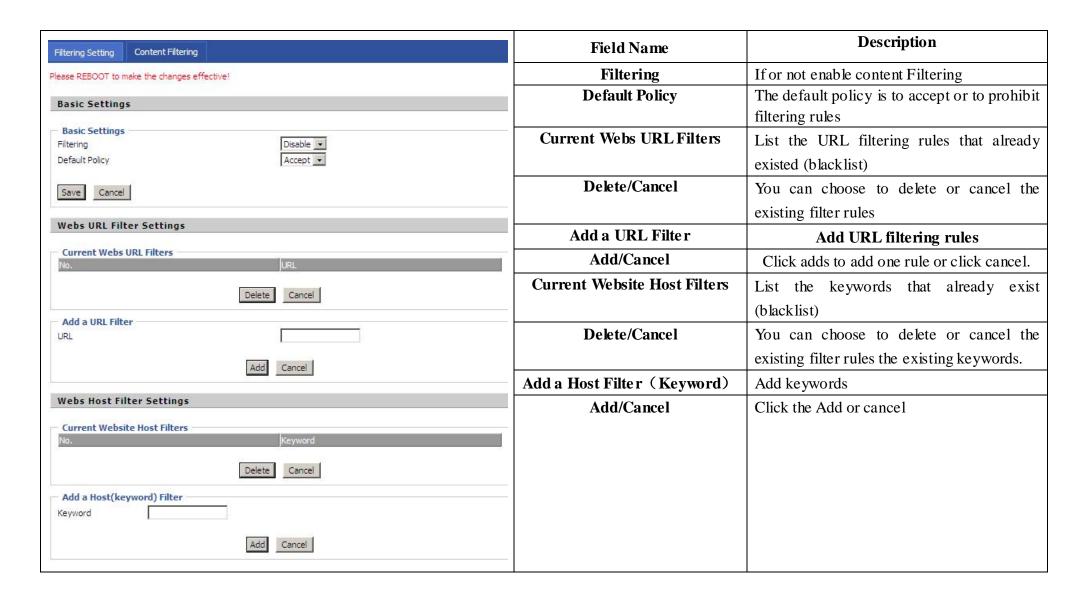
# 4.9 Security

### 4.9.1 Filtering Setting





### **4.9.2 Content Filtering**



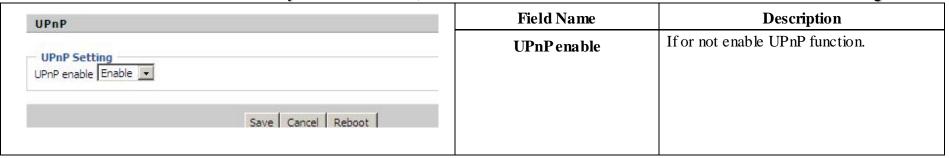


# 4.10 Application

#### 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.

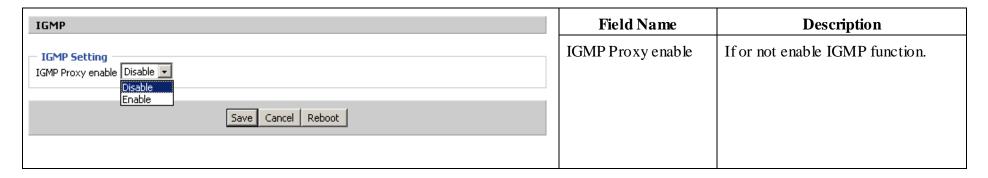
Supports UPnP devices can be automatically off the network, the device or other devices on the network without affecting.



#### 4.10.2 IGMP

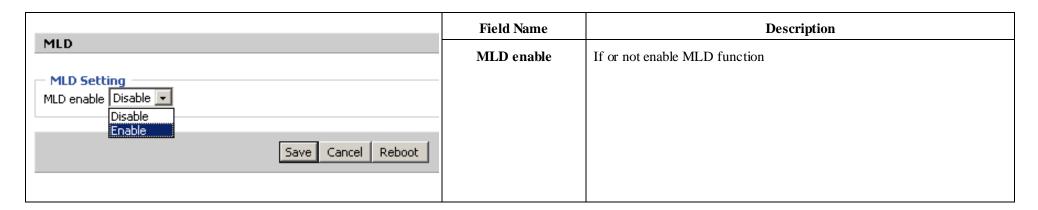
Multicast has the ability to send the same data to multiple devices.

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.





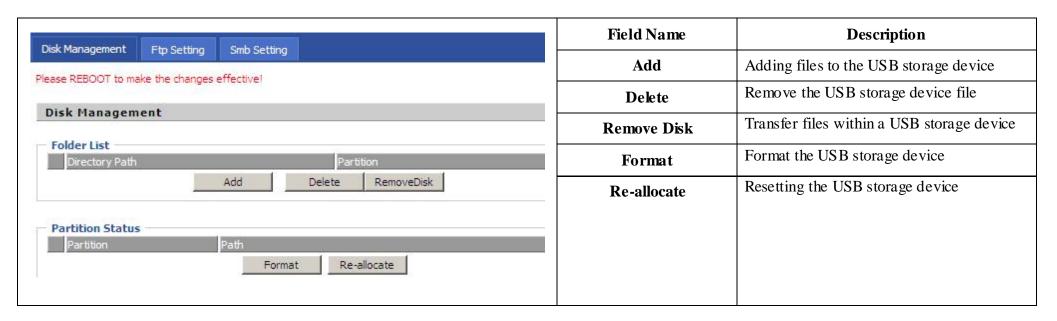
#### 4.10.3 MLD



# 4.11 Storage

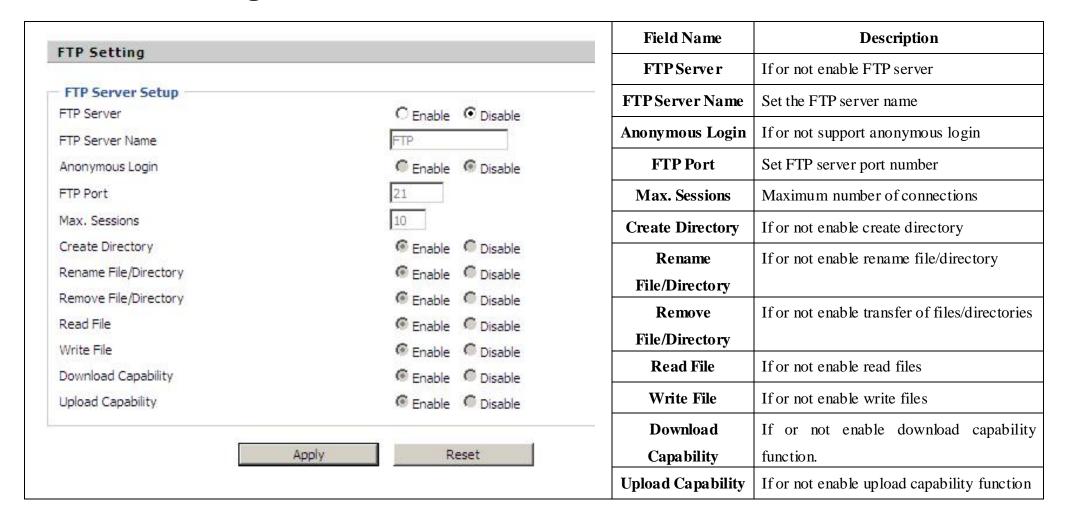
### 4.11.1 Disk Management

This page is used to manage the USB storage device.

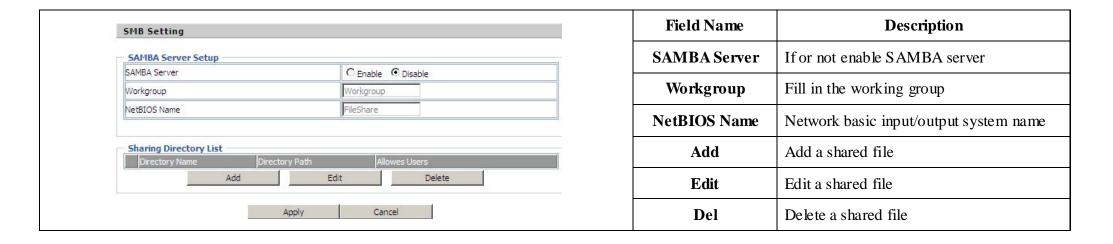




### 4.11.2 FTP Setting



### 4.11.3 Smb Setting





## **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

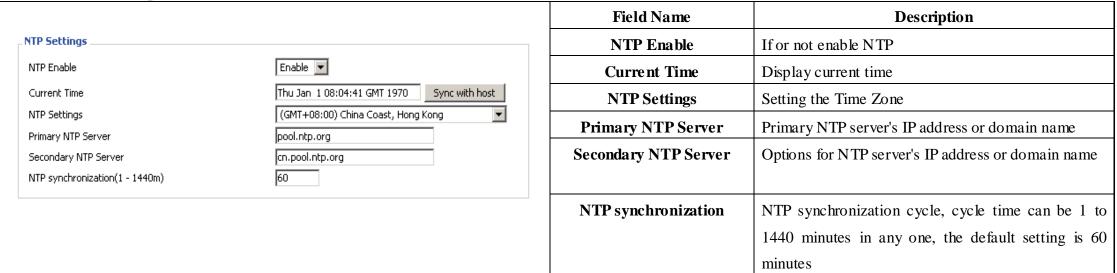
Save Config File	Field Name	Description
Config File Upload && Download	Config file	Upload: click on browse, select file in the local, press the upload button to begin
Local File 浏览…	upload and	uploading files
Upload Download	download	Download: click to download, and then select contains the path to download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

#### 2. Administrator settings

Administrator Settings	Field Name	Description
Password Reset	User type	Choose the user type from admin user and normal user and
User Type Admin User 🔻		basic user.
New User Name  New Password	New User Name	You can modify the user name, set up a new user name
Confirm Password	New Password	Input the new password
	Confirm Password	Input the new password again
Language Language English	Language	Select the language for the web, the device support Chinese,
		English, and Spanish and so on.
Web Access  Remote Web Login  Enable ▼	Remote Web Login	If or not enable remote Web login
Web Port 80	Web Port	Set the port value which is used to login from Internet port
Web Idle Timeout(0 - 60m)		and PC port, default is 80.
Allowed Remote IP(IP1;IP2;)	Web Idle timeout	Set the Web Idle timeout time. The webpage can be logged
Telnet Access		out after Web Idle Timeout without any operation.
Remote Telnet Enable 🔻	Allowed Remote	Set the IP which can login the device remotely.
Telnet Port 23  Allowed Remote IP(IP1;IP2;)	IP(IP1,IP2,)	See that 12 white the deal to give the decision to the
	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



4. Daylight Saving Time

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

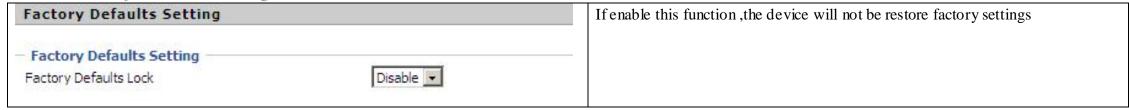
5. System Log Setting

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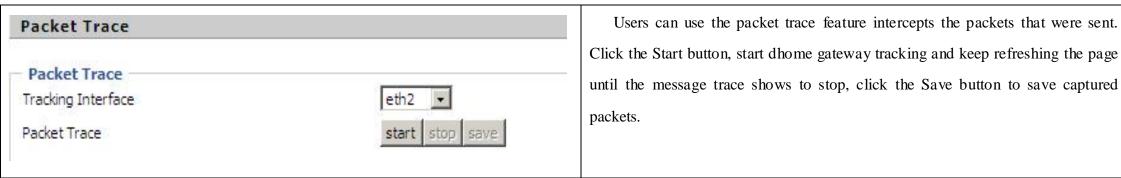


#### Field Name **Description Syslog Setting** Syslog Enable If or not enable syslog function Enable 🔻 Syslog Enable **Syslog Level** Select the system log, there is INFO and Debug two INFO 🔻 Syslog Level grades, the Debug INFO can provide more information. Remote Syslog Enable Enable 💌 192.168.10.101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

6. Factory Defaults Setting



#### 7. Packet Trace



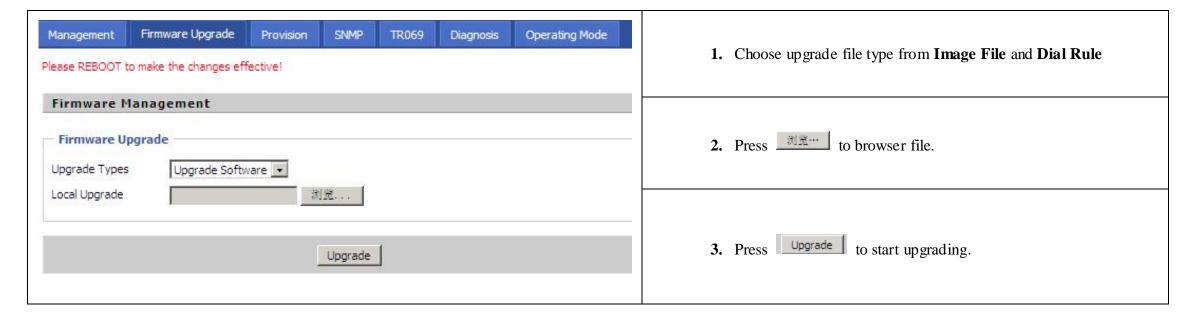
8. Factory Defaults

Factory Defaults		Click Factory Default to restore the residential gateway to factory settings.
Reset to Factory Defaults	Factory Default	

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### 4.12.2 Firmware Upgrade

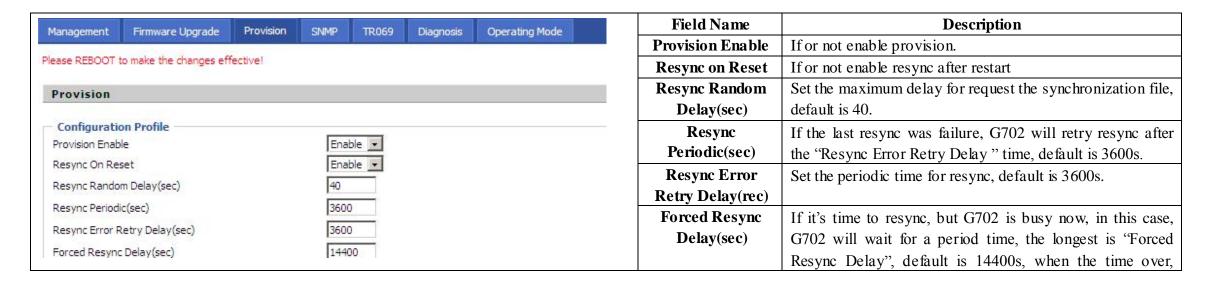


#### 4.12.3 Provision

Provisioning allows G702 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)

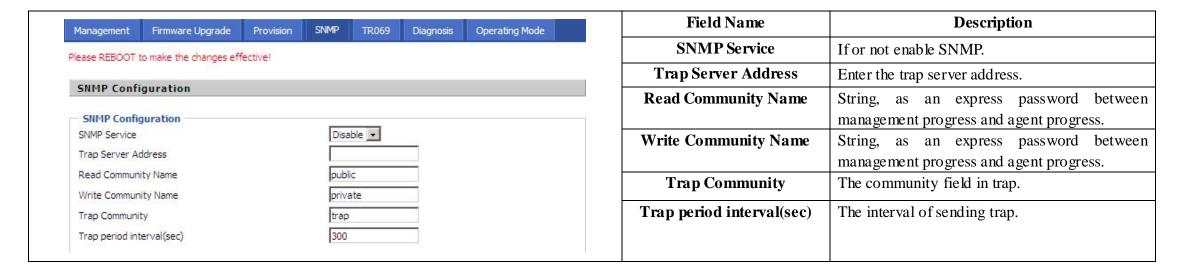
User can uploading CA Certificate file and Client Certificate file and Private Key file in Security page.





			G702 will forced to resync.
Resync After Upgrade	Enable 💌	Resync After	If or not enable firmware upgrade after resync, by default it
Resync From SIP	Disable 🔻	Upgrade	is enabled.
Option 66	Enable 💌	Resync From SIP	If or not enable resync from SIP.
Config File Name	\$(MA)	Option 66	It is used for In-house provision mode only. When use
User Agent			TFTP with option 66 to realize provisioning, user must
Profile Rule			input right configuration file name in IP542N's webpage.
			When disable <b>Option 66</b> , 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 <b>Option 66</b> , this parameter has no effect.
		Profile Rule	URL of profile provision file
			Note that the specified file path is relative to the TFTP
			server's virtual root directory.
_ Firmware Upgrade		Field Name	Description
Upgrade Enable	Enable 🔻	Upgrade Enable	If or not enable firmware upgrade via provision.
Upgrade Error Retry Delay(sec)	3600	Upgrade Error	If the last upgrade fails, G702 will try upgrading again after
Upgrade Rule		Retry Delay(sec)	"Upgrade Error Retry Delay" period, default is 3600s.
		Upgrade Rule	URL of upgrade file

### 4.12.4 SNMP



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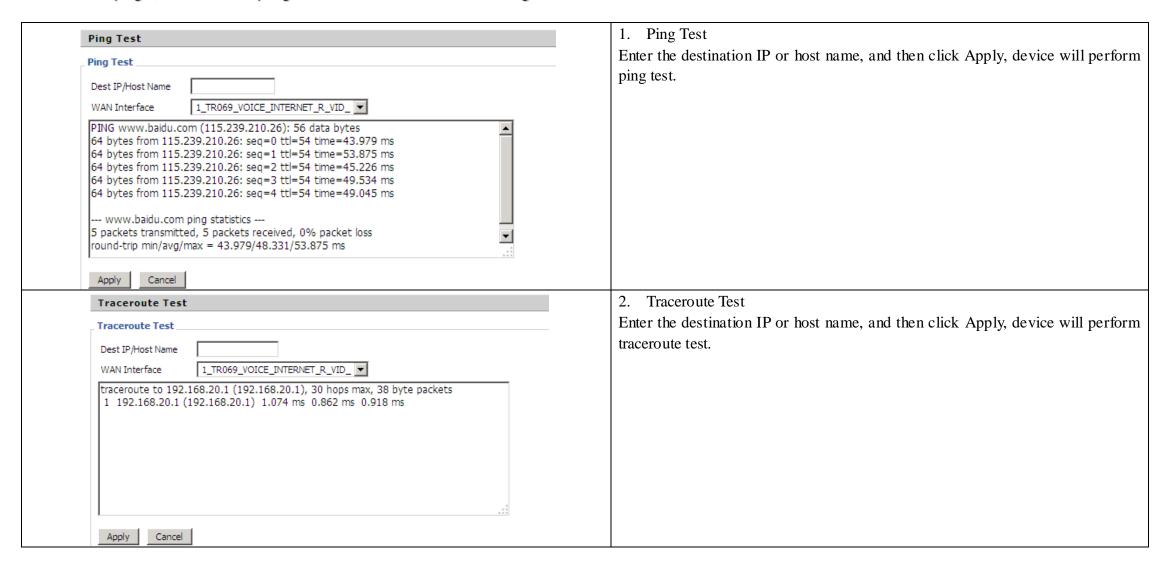
## 4.12.5 TR069

Management	Firmware Upgrad	e Provision	SNMP	TR069	Diagnosis	Operating Mode	Field Name	Description
Please REBOOT	to make the change	effective!					TR069 Enable	If or not enable TR069
TR069 Con	figuration						CWMP	If or not enable CWMP
1011	riguration						ACS URL	ACS URL address
TR069 Enable	Dis	ble 🔻					User Name	ACS username
CWMP	En	ble 🔻			-		Password	ACS password
ACS URL User Name					-		Periodic Inform Enable	If or not enable the function of periodic inform,
Password					1			default is enable
Periodic Inform	n Enable Ena	ble 🔻			4.		Periodic Inform	Periodic notification interval, the unit is
Periodic Inform	n Interval 30	(A)					Inte rval	seconds, default is 43200s
							User Name	The username used to connect the TR069
Connect Re	quest				ş			server to the DUT.
User Name							Password	The password used to connect the TR069
Password								server to the DUT.

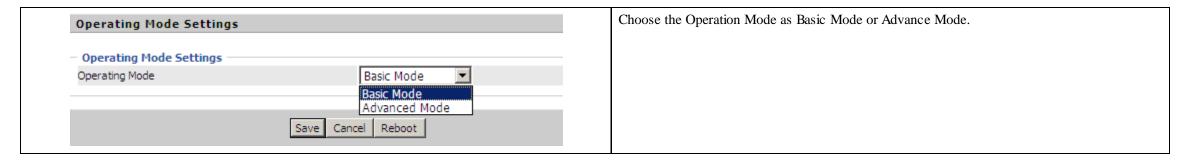


### 4.12.6 Diagnoisis

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

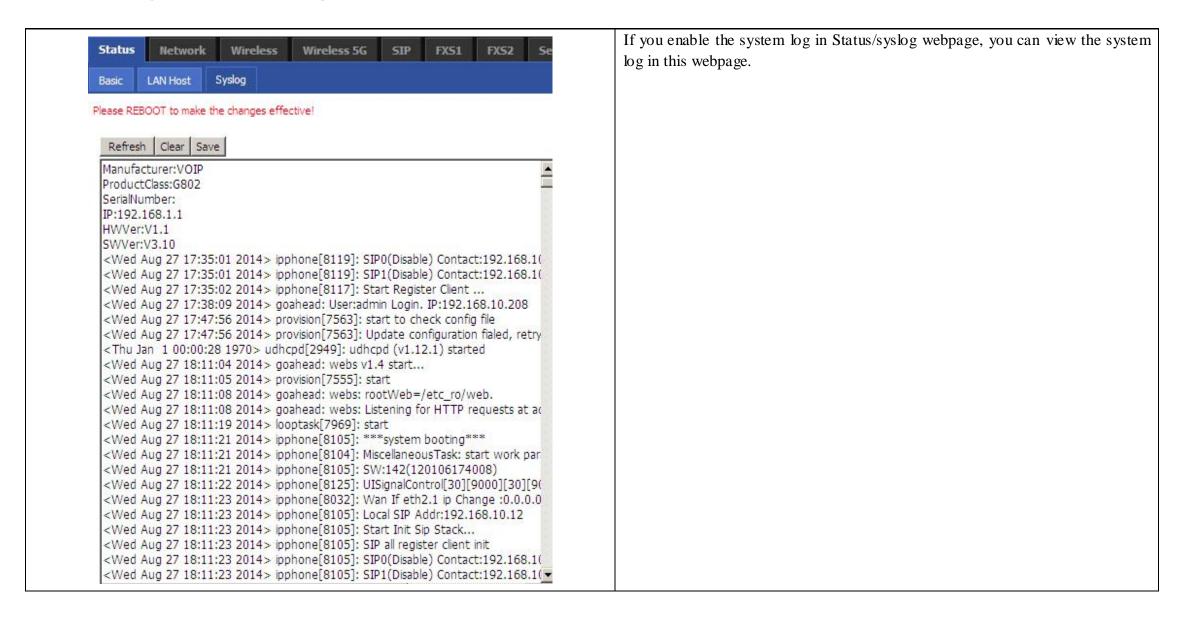


### **4.12.7 Operation Mode**





# 4.13 System Log



# 4.14 Logout

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





# 4.15 Reboot

Press the Reboot button to reboot G702.

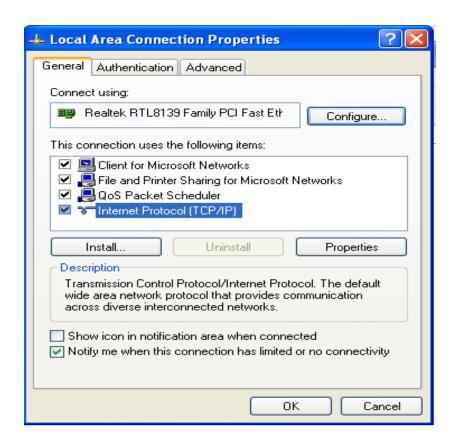


# 5Trouble shooting of the guide

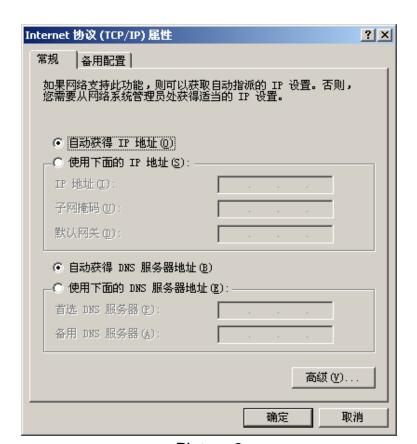
# 5.1 Setting your PC gets IP automatically

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".







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

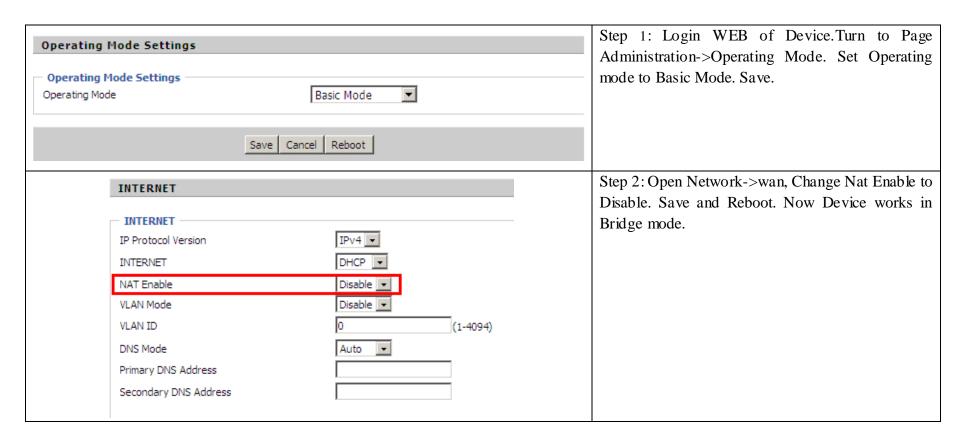
Contact your administrator, supplier, or ITSP for more information or assistance.

## **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**



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TRACO VOICE INTERNET	Non-Chabus	Step 3: Please Login from WAN port. Under i
TR069_VOICE_INTERNET  Connection Type	DHCP	example of Page Status->Basic.
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	