



# User Manual FWR7302/FWR8302/FWR9302

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## **About This User Guide**

Thank you for choosing device 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/FWR8302/FWR9302 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/FWR8302/FWR9302 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/FWR8302/FWR9302 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.





This guide contains the following chapters:

- Chapter 1: Product description
- Chapter 2: Configuring Basic Settings
- Chapter 3: Web Interface Management
- Chapter 4: Managing device
- Chapter 5: Troubleshooting Guide

About this user guide

## **Contacting FlyingVoice**

Main website:	http://www.flyingvoice.com/		
Sales enquiries:	sales1@flyingvoice.com		
Support enquiries:	support@flyingvoice.com		
Hotline:	010-67886296 0755-26099365		
Address:	Room508-509, Bldg#1, Dianshi Business Park, No.49 BadachuRd,Shijingshan		
	District, Beijing, China		

### **Purpose**

The documents are intended to instruct and assist personnel in the operation, installation and maintenance of the FlyingVoice equipment and ancillary devices. It is recommended that all personnel engaged in such activities be properly trained. FlyingVoice disclaims all liability whatsoever, implied or express, for any risk of damage, loss or reduction in system performance arising directly or indirectly out of the failure of the customer, or anyone acting on the customer's behalf, to abide by the instructions, system parameters, or recommendations made in this document.

### **Cross references**

References to external publications are shown in italics. Other cross references, emphasized in blue text in electronic versions, are active links to the references.

This document is divided into numbered chapters that are divided into sections. Sections are not numbered, but are individually named at the top of each page, and are listed in the table of contents.

### Feedback

We appreciate feedback from the users of our documents. This includes feedback on the structure, content, accuracy, or completeness of our documents. Send feedback to support@flyingvoice.com.

## **Declaration of Conformity**

### 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.

### **Class B Digital Device or Peripheral**

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 can generate, use and radiate radio frequency energy. If not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. However, there is no guarantee that interference does not occur in a particular installation.



#### Note

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

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 interferences 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.

## Warnings and Notes

The following describes how warnings and notes are used in this document and in all documents of the FlyingVoice document set.

### Warnings

Warnings precede instructions that contain potentially hazardous situations. Warnings are used to alert the reader to possible hazards that could cause loss of life or physical injury. A warning has the following format:



Warning

Warning text and consequence for not following the instructions in the warning.

### Notes

A note means that there is a possibility of an undesirable situation or provides additional information to help the reader understand a topic or concept. A note has the following format:



Notes

Notes text and consequence for not following the instructions in the Notes.

## **Chapter 1: Product Description**

This chapter covers:

- FWR7302/FWR8302/FWR9302
- LED Indicators and Interfaces
- Hardware Installation
- Voice Prompt

#### Chapter 1: Product description

## FWR7302/FWR8302/FWR9302

#### Table 1 Features at-a-glance

Port/Model	FWR7302	FWR8302	FWR9302
picture			
WAN	1	1	1
LAN	4	4	4
FXS	2	2	2
USB	1	0	1
LTE	Yes	No	No
SFP	1	1	1
Speed limit NAT	Yes	Yes	yes
Ethernet	5* RJ45	5* RJ45	5* RJ45
interface	10/100M/1000M	10/100M/1000M	10/100M/1000M
Fax		T.30, T.38 Fax	
WiFi	2.4G 2T2R (300Mbps)	2.4G 2T2R(300Mbps)	2.4G 2T2R (300Mbps)
	5G 2T2R (867Mbps)		5G 2T2R (867Mbps)
Voice Code	G.711 (A-law, U-law), G.729A/B, G.723, G.722 (Wide band)		
Management	Voice menu, Web Management, Provision:TFTP/HTTP/HTTPS, TR069, SNMP		
VLAN	Support		

## **LED Indicators and Interfaces**

Table 2 LED Indicators

FXS(1-2)

**Blinking Green** 

off



LED	Status	Explanation
	on Green	System is powereded on
Power	off	System is powered off
	on Green	System run normally
System	Blinking Green	System trouble
	off	System is powered off
	on Green	SFP module is connected
SFP	off	SFP module has no connection.
	on Green	Network is connected (physical connection established)
		no data transmission
WAN	Blinking Green	There is data being transmitted
	off	System is powered off or the network port is not
		connected to the network device.
	on Green	Network is connected (physical connection established),
		no data transmission
LAN	<b>Blinking Green</b>	There is data being transmitted
	off	System is powered off or the network port is not
		connected to the network device.
	on Green	Wireless access point is ready.
2.4G	Blinking Green	2.4g is connected, and there is data transmitted
	off	2.4g wifi off or system is powered off
	on Green	Wireless access point is ready.
5G	Blinking Green	5g is connected, and there is data transmitted
	off	5g wifi off or system is powered off
	on Green	Registered successfully, but no data transfer

There is data being transmitted or fxs port is registering

Power is off or registered failed

#### FWR8302

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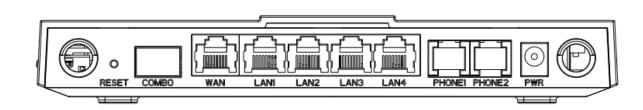
LED	Status	Explanation
	on Green	System is powereded on
Power	off	System is powered off
	on Green	System run normally
System	Blinking Green	System trouble
	off	System is powered off
	on Green	SFP module is connected
SFP	off	SFP module has no connection.
WAN	on Green	Network is connected (physical connection established), no data transmission
	Blinking Green	There is data being transmitted
	off	System is powered off or the network port is not connected to the network device.
LAN	on Green	Network is connected (physical connection established), no data transmission
	Blinking Green	There is data being transmitted
	off	System is powered off or the network port is not connected to the network device.
	on Green	Wireless access point is ready.
2.4G	Blinking Green	2.4g is connected, and there is data transmitted
	off	2.4g wifi off or system is powered off
FXS(1-2)	on Green	Registered successfully, but no data transfer
	Blinking Green	There is data being transmitted or fxs port is registering
	off	Power is off or registered failed

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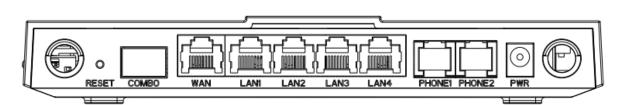
LED	Status	Explanation
_	on Green	System is powereded on
Power	off	System is powered off

	on Green	Successful registration of sim card, but no data transfer
LTE	Blinking Green	There is data being transmitted or sim card is registering
	off	There is no sim card or sim card registered failed
	on Green	SFP module is connected
SFP	off	SFP module has no connection.
WAN	on Green	Network is connected (physical connection established)
		no data transmission
	Blinking Green	There is data being transmitted
	off	System is powered off or the network port is not
		connected to the network device.
	on Green	Network is connected (physical connection established)
		no data transmission
LAN(1-4)	Blinking Green	There is data being transmitted
	off	System is powered off or the network port is not
		connected to the network device.
	on Green	Wireless access point is ready.
2.4G	Blinking Green	2.4g is connected, and there is data transmitted
	off	2.4g wifi off or system is powered off
	on Green	Wireless access point is ready.
5G	Blinking Green	5g is connected, and there is data transmitted
	off	5g wifi off or system is powered off
	on Green	Registered successfully, but no data transfer
FXS(1-2)	Blinking Green	There is data being transmitted or fxs port is registering
	off	Power is off or registered failed

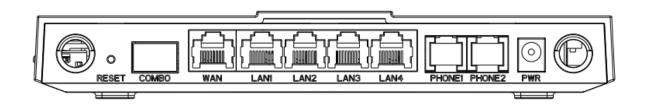
#### Table 3 Interfaces



Interface	Description
POWER	Connector for a power adapter
Phone1/2	ATA Analog phone connector
WAN	Connector for accessing the Internet
LAN 1/2/3/4	Connectors for local networked devices
СОМВО	Connect the optical module
RESET	Restore the factory settings button, press and hold the device after 5s to restore the
	factory settings



Interface	Description
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	factory settings

### **Hardware Installation**

Before configuring your router, please see the procedure below for instructions on connecting the device in your network.

#### **Procedure 1 Configuring the Router**

- 1. Connect analog phone to ATA Port with an RJ11 cable.
- 2. Connect the WAN port to the Interne your network' s modem/switch/router/ADSL
- 3. equipment using an Ethernet cable.
- 4. Connect one end of the power cord to the power port of the device. Connect the other end to the wall outlet.
- 5. Check the Power, WAN, and LAN LED to confirm network connectivity.



#### Warning

Please do not attempt to use unsupported power adapters and do not remove power during configuring or updating the device. Using other power adapters may damage

#### Warning

Changes or modifications not expressly approved by the party responsible for compliance can 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 cause harmful interference to radio communications. However, there is no energy and, if not installed and used in accordance with the instructions, may 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.

## **Voice Prompt**

The devices may be configured by navigating the unit's voice menu. By using your phone and dialing a sequence of commands, the device may be configured for operation. Each device configuration section may be accessed by entering a certain operation code, as shown below.

Table 4	Voice	Menu	Setting	Options
---------	-------	------	---------	---------

Operation code	Menu Navigation
	1. Pick up phone and press "****" to start IVR
	2. Choose "1", and The router reports the current WAN port connection type
	3. Prompt "Please enter password", user needs to input password and press
	"#" key, if user wants to configuration WAN port connection type.
	The password in IVR is same as web management interface login, the user may
	use phone keypad to enter password directly
	For example: WEB login password is "admin", so the password in IVR is
1(1)	"admin". The user may "23646" to access and then configure the WAN
WAN Port	connection port. The unit reports "Operation Successful" if the password is
Connection	correct.
Туре	4. Prompt "Please enter password", user needs to input password and press
	"#" key if user wants to configuration WAN port connection type.
	5. Choose the new WAN port connection type (1) DHCP or (2) Static
	The unit reports "Operation Successful" if the changes are successful. The
	router returns to the prompt "please enter your option $ \cdots $ "
	6. To quit, enter "*"

1. Pick up phone and press "****" to start IVR
2. Choose "2", and The router reports current WAN Port IP Address
<ol> <li>Use "*" to replace ".", for exampleuser can input 192*168*20*168 to set the new IP address 192.168.20.168</li> </ol>
5. Press # key to indicate that you have finished
6. Report "operation successful" if user operation is ok.
7. To quit, enter "**".
<ol> <li>Pick up phone and press "****" to start IVR</li> </ol>
2. Choose "3", and router reports current WAN port subnet mask
3. Input a new WAN port subnet mask and press # key:
4. Use "*" to replace ".", user can input 255*255*255*0 to set the new
WAN port subnet mask 255.255.255.0
5. Press "#" key to indicate that you have finished
6. Report "operation successful" if user operation is ok.
7. To quit, enter "**".
1. Pick up phone and press "****" to start IVR
2. Choose "4", and the router reports current gateway
3. Input the new gateway and press "#" key:
4. Use "*" to replace ".", user can input 192*168*20*1 to set the new
gateway 192.168.20.1.
5. Press "#" key to indicate that you have finished.
6. Report "operation successful" if user operation is ok.
7. To quit, press "**".

	1. Pick up phone and press "****" to start IVR
	2. Choose "5", and the router reports current DNS
(5)	3. Input the new DNS and press # key:
DNS	4. Use "*" to replace ".", user can input 192*168*20*1 to set the new
	gateway 192.168.20.1.
	5. Press "#" key to indicate that you have finished.
2	1. Pick up phone and press "****" to start IVR
phone port	2. Select "2", then the device will continue to broadcast prompts the user to select
configuration	current phone number; 2. registration server address; 3. registration port; 4. call
	forwarding configuration , 5. DNS configuration ;
	3. Continue pressing "1" and the unit will continue to broadcast the phone number
	of the current phone port. The device will then broadcast "1. Phone number" again.
	1. Pick up phone and press "****" to start IVR
	2. Choose "3", and the router reports "Factory Reset"
3	3. Prompt "Please enter password", the method of inputting password is the same
Factory Reset	as operation 1.
	4. If you want to quit, press "*".
	5. Prompt "operation successful" if password is right and then the router will be
	1. Pick up phone and press "****" to start IVR
	2. Choose "4", and the router reports "Reboot"
4	3. Prompt "Please enter password", the method of inputting password is same as
Reboot	operation 1.
	4. the router reboots if password is right and operation

	1. Pick up phone and press "****" to start IVR
5	2. Choose "5", and the router reports "WAN Port Login"
WAN Port Login	3. Prompt "Please enter password", the method of inputting password is same as operation 1.
	4. If user wants to quit, press "*".
	5. Pick up phone and press "****" to start IVR
6	6. Choose "6", and the router reports "WEB Access Port"
WEB Access Port	<ol> <li>Prompt "Please enter password", the method of inputting password is same as operation 1.</li> </ol>
	8. Report "operation successful" if user operation is ok.
	9. Report the current WEB Access Port
7	1. Pick up phone and press "****" to start IVR
Firmware Version	2. Choose "7" and the router reports the current Firmware version



#### Note

- 1. While using Voice menu, press \* (star) to return to main menu.
- 2. If any changes made in the IP assignment mode, the router must be rebooted in order for the settings to take effect.
- 3. While entering an IP address or subnet mask, use "\*" (star) to enter "." (Dot) and use "#" (hash) key to finish entering IP address or subnet mask:
- For example, to enter the IP address 192.168.20.159 by keypad, press these keys: 192\*168\*20\*159, use the #(hash) key to indicate that you have finished entering the IP address.
- 5. Use the # (hash) key to indicate that you have finish entering the IP address or subnet mask
- 6. While assigning an IP address in Static IP mode, setting the IP address, subnet mask and default gateway is required to complete the configuration. If in DHCP mode, please make sure that a DHCP server is available in your existing broadband connection to which WAN port of FWR8102 is connected.
- 7. The default LAN port IP address of router is 192.168.11.1 and this address should not be assigned to the WAN port IP address of router in the same network segment of LAN port.
- 8. The password can be entered using phone keypad, the mapping 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',

## **Chapter 2 Configuring Basic Settings**

This chapter covers:

- Two-Level Management
- Web Management Interface
- Configuring
- Making a Call

## **Two-Level Management**

This section explains how to setup a password for an administrator or user and how to adjust basic and advanced settings.

FWR7302 supports two-level management:

(1) administrator and user. For administrator mode operation, please type "admin/admin" on Username/Password and click Login button to begin configuration.

(2) user mode operation, please type "user/user" on Username/Password and click Login button to begin configuration.

### Web Management Interface

The devices feature a web browser-based interface that may be used to configure and manage the device. See below for information

### Logging in from the LAN port

Ensure your PC is connected to the router's LAN port correctly.



### Note

You may either set up your PC to get an IP dynamically from the router or set up the IP address of the PC to be the same subnet as the default IP address of router is 192.168.11.1. For detailed information, see Chapter 5: Troubleshooting Guide.

Open a web browser on your PC and type "http://192.168.11.1". The following window appears that prompts for Username and Password.

VoIP		ntrol panel			
	Username Password		Login		

For administrator mode operation, please type admin/admin on Username/Password and click Login to begin configuration. For user mode operation, please type user/user on Username/Password and click Login to begin configuration.



#### Note

If you are unable to access the web configuration, please see Chapter 5: Troubleshooting Guide for more information.

The web management interface automatically logs out the user after 5 minutes of inactivity.

### Logging in from the WAN port

Ensure your PC is connected to the router's WAN port correctly.

Obtain the IP addresses of WAN port using Voice prompt or by logging into the device web management interface via a LAN port and navigating to Network > WAN.

Open a web browser on your PC and type http://<IP address of WAN port>. The following login page will be opened to enter username and password.

VoIP	control panel
	sword Login

For administrator mode operation, type admin/admin on Username/Password and click Login to begin configuration. For user mode operation, type user/user on Username/Password and click Login to begin configuration.



The web management interface automatically logs out the user after 5 minutes of inactivity.

## Web Management Interface Details

INTERNET  N  Connect Name  I_INTERNET_R_VID  Delete Connect  Service  INTERNET  IP Protocol Version IPV4  3 WAN IP Mode DHCP  DHCP DHCP DHCP DHCP DHCP DHCP DHC	AN LTE LAN IPv6 Advanced	IPv6 WAN IPv6 LAN VPN	Port Forward DMZ VLAN DDN:
Connect Name 1_INTERNET_R_VID   Service INTERNET   IP Protocol Version IPv4 ▼   IP Protocol Version IPv4 ▼   WAN IP Mode DHCP ▼   DHCP ▼ Image: Second Sec	touting Advance		2
Connect Name 1_INTERNET_R_VID   Service INTERNET   IP Protocol Version IPv4 ▼   IP Protocol Version IPv4 ▼   WAN IP Mode DHCP ▼   DHCP Server Image: Secondary DNS   NATe Renew Image: Secondary DNS   DHCP Vendor (Option 60) FLYINGVOICE-FWR7302   Port Bind Image: Secondary DNS	INTERNET		
Service INTERNET ▼ IP Protocol Version IPv4 ▼	AN		
IP Protocol Version IPv4 ▼ 3   WAN IP Mode DHCP ▼   DHCP Server Image: state s	Connect Name	1_INTERNET_R_VID <	Delete Connect
WAN IP Mode DHCP ▼   DHCP Server	Service	INTERNET	
DHCP Server Disable ▼ MAC Address Clone Disable ▼ NAT Enable Enable ▼ VLAN Mode Disable ▼ VLAN ID 1 (1-4094) DNS Mode Auto ▼ Primary DNS Secondary DNS DHCP DHCP Renew Renew DHCP Vendor (Option 60) FLYINGVOICE-FWR7302 Port Bind ✔ Port_1 ✔ Port_2 Port_3 Port_4	IP Protocol Version	IPv4 ▼	3
MAC Address Clone Disable ▼ NAT Enable Enable ▼ VLAN Mode Disable ▼ VLAN ID 1 (1-4094) DNS Mode Auto ▼ Primary DNS Secondary DNS DHCP DHCP P DHCP Renew Renew DHCP Vendor (Option 60) FLYINGVOICE-FWR7302 Port Bind ✔ Port_1 ✔ Port_2 Port_3 Port_4	WAN IP Mode	DHCP V	
NAT Enable   VLAN Mode   Disable ▼   VLAN ID   1   (1-4094)   DNS Mode   Auto ▼   Primary DNS   Secondary DNS   DHCP   DHCP   DHCP Renew   DHCP Kenew   Prender (Option 60)   FLYINGVOICE-FWR7302   Port_1      Port_3	DHCP Server		
VLAN Mode Disable ▼ VLAN ID 1 (1-4094) DNS Mode Auto ▼ Primary DNS S Secondary DNS S DHCP DHCP Renew Renew DHCP Vendor (Option 60) FLYINGVOICE-FWR7302 Port Bind ✔ Port_1 ✔ Port_2 Port_3 Port_4	MAC Address Clone	Disable 🔻	
VLAN ID 1 (1-4094) DNS Mode Auto ▼ Primary DNS Secondary DNS S DHCP DHCP Renew Renew DHCP Vendor (Option 60) FLYINGVOICE-FWR7302 Port Bind ✔ Port_1 ✔ Port_2 Port_3 Port_4	NAT Enable	Enable 🔻	
DNS Mode Auto  Primary DNS Primary DNS Secondary DNS DHCP DHCP DHCP Renew Renew DHCP Vendor (Option 60) FLYINGVOICE-FWR7302 Port Bind Port_1  Port_2  Port_3  Port_4	VLAN Mode	Disable 🔻	
Primary DNS Secondary DNS DHCP DHCP Renew Renew DHCP Vendor (Option 60) FLYINGVOICE-FWR7302 Port Bind I Port_1 Port_2 Port_3 Port_4	VLAN ID	1 (1-4094)	
Secondary DNS DHCP DHCP Renew DHCP Renew DHCP Vendor (Option 60) FLYINGVOICE-FWR7302 Port Bind Port_1 Port_2 Port_3 Port_4	DNS Mode	Auto 🔻	
DHCP DHCP Renew Renew DHCP Vendor (Option 60) FLYINGVOICE-FWR7302 Port Bind Port_1 Port_2 Port_3 Port_4	Primary DNS		
DHCP Renew Renew DHCP Vendor (Option 60) FLYINGVOICE-FWR7302 Port Bind ✓ Port_1 ✓ Port_2 Port_3 Port_4	Secondary DNS		
DHCP Renew Renew DHCP Vendor (Option 60) FLYINGVOICE-FWR7302 Port Bind ✓ Port_1 ✓ Port_2 Port_3 Port_4			
DHCP Vendor (Option 60) FLYINGVOICE-FWR7302 Port Bind Port_1 Port_2 Port_3 Port_4		Renew	
Port Bind  Port_1 Port_2 Port_3 Port_4			
✓ Port_1  Port_2  Port_3  Port_4			
Wireless (SSID) Wireless (SSID1)			Port_4
C Wileless (351D2) C Wileless (351D1) C Wileless (351D2)	✓ Wireless (SSID) ✓ Wireless (SSID1)	<ul> <li>Wireless (SSID2)</li> </ul>	<ul> <li>Wireless (SSID3)</li> </ul>

 Table 5
 Web management interface

Field Name	Descripti
Top Navigation bar	Click an option in Top Navigation bar (area marked as "1"). Multiple options in the Sub-navigation bar are displayed
Sub-navigation bar	Click the Sub-navigation bar to choose a configuration page (area marked as "2")
Parameter configuration	This area displays the current parameters for configuration (e.g. area marked as "3")

Save & Apply	After changing the parameters need to click this button to save&apply, modify the parameters immediately take effect.
Save	Any time changes are made click "Save" to confirm and save the changes. On click of "Save" button, a red message will be displayed as shown below to notify a reboot.
Reboot	Reboot the device to ensure that the modification parameters take effect
Cancel	To cancel the changes.

### **Setting the Time Zone**

Table 6 Setting time zone Time/Date Setting NTP Settings NTP Enable Enable 🔻 Disable 🔻 Option 42 2017 - 10 - 10 . 13 : 56 : 14 Current Time Sync with host Sync with host Time Zone (GMT+08:00) China Coast, Hong Kong • Primary NTP Server pool.ntp.org Secondary NTP Server cn.pool.ntp.org NTP synchronization(1 - 1440min) 60 **Daylight Saving Time** Disable 🔻 Daylight Saving Time

Field Name	Description				
NTP Enable	Enable NTP (Network Time Protocol) to automatically retrieve time				
	and date settings for the device				
Current Time	When NTP Enable is set to "Disable", manually configure the time				
	and date via the Current Time parameter				
Sync with host	Press Sync with host button to synchronize the host PC date,				
	time and time zone				
Primary NTP Server	Primary and secondary NTP server address for clock synchronization. A				
Secondary NTP Server	valid NTP server must be reachable for full NTP functionality				
NTP Synchronization (1- 1440m)	The synchronization period with NTP (1-1440 minutes), default is 60				

## **Configuring an Internet Connection**

From the Network > WAN page, WAN connections may be inserted or deleted. For more information on Internet Connection setting, see Table 10below.

Table 7 Configuring an interne	et connection	
Status Network Wireless	2.4GHz Wireless 5GHz SIP	FXS1 FXS2 Security Application
WAN LTE LAN IPv6 Adv	anced IPv6 WAN IPv6 LAN V	/PN Port Forward DMZ VLAN DDNS
Routing Advance		
INTERNET		
WAN		
Connect Name	1_MANAGEMENT_VOICE_INTERM	NET_R_VID   Delete Connect
Service	MANAGEMENT_VOICE_INTERNE	T <b>V</b>
IP Protocol Version	IPv4 ▼	
WAN IP Mode	DHCP V	
DHCP Server		
MAC Address Clone	Disable 🔻	
NAT Enable	Enable 🔻	
VLAN Mode	Disable 🔻	
VLAN ID	1 (1-4094	4)
DNS Mode	Auto 🔻	
Primary DNS		
Secondary DNS		
DHCP		
DHCP Renew	Renew	
DHCP Vendor (Option 60)	FLYINGVOICE-FWR7302	
Dest Bigd		
Port Bind <ul> <li>Port_1</li> <li>Port_2</li> </ul>	Port_3	Port_4
Wireless (SSID) Wireless		
	bound to one WAN (Internet) connection at	
Field Name Desc	ription	
Connect Name Use k	eywords to indicate WAN port ser	vice model (the parameters are defined
in Ne	twork> multi-WAN page)	
Service Chose	e the service mode for the created	l connection
IP Protocol Version IPv4 a	and IPv6 are supported	
WAN IP Mode Choo	se Internet connection mode, DHC	CP, PPPoE, or Bridge
NAT Enable Enabl	e or disable NAT	

VLAN ID	Note Multiple WAN connections may be created with the same VLAN ID							
DNS Mode	Select DNS mode, options are Auto and Manual:							
	When DNS mode is Auto, the device under LAN port will automatically							
	obtains the preferred DNS and alternate DNS.							
	When DNS mode is Manual, the user should manually configure the							
	preferred DNS and alternate DNS							
Primary DNS	Enter the preferred DNS address							
Secondary DNS	Enter the secondary DNS address							
DHCP	(Displayed when WAN IP Mode is set to DHCP)							
DHCP Renew	Refresh the DHCP IP							
DHCP Vendor	Specify the DHCP Vendor field Display the vendor and product name							
(Option60)								

## **Setting up Wireless Connections**

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

### **Enable Wireless and Setting SSID**

Open Wireless > Basic webpage as shown below:

**Table 8**Wireless > Basic web page (user view)

Status	Network	Wireless 2.4GHz	Wireless	5GHz SI	P FXS1	FXS2	Security	Application	Storage	Admin
Basic	Wireless Securit	y WMM WDS	WPS	Station Info	Advanced					
Basic	Wireless Setti	ings								
Wireless	Network									
Networ Multiple Multiple Multiple broadc AP Isol	e SSID1 e SSID2 e SSID3 e SSID3 ast (SSID)	e	AP 11b/ Wirel © E © E © E	p On ▼ ▼ g/n mixed mo ess_AP0E6788 nable ● Dis nable ● Dis nable ● Dis nable ● Dis nable ● Dis	Enable Enable Enable Enable Enable able able able	Hidden 🗆 Hidden	Isolated Isolated Isolated Isolated	Max Client 16 Max Client 16 Max Client 16 Max Client 16		
Freque HT Phy Operat	ncy (Channel) vsical Mode ing Mode el BandWidth	Descrip	▲uto ● M ○ 20		• Green Field		_		_	
Radio Or	n/Off	Select "Rad Select "Rad	Select "Radio Off"to disable wireless operation Select "Radio on" to enable wireless operation Please note: "Save" required for this parameter change							
Network	Mode	Choose one	Choose one network mode from the drop down list.							
SSID		The logical characters)	The logical name of the wireless connection (text, numbers or various special characters)							
Multiple	SSID 1-4	Multiple SS	ID 1 - 4, c	onfigure	up to 4 un	ique SS	SIDs			
broadcas	st(SSID)	Enabled: Th SSID is not l				-	intervals	Disabled: Th	e device	
		disallowing	wi-fi clie	nts from a	automatica	ally conr	necting to	the FWR730	)2	

	Enabled: Devices connected to the router are isolated from one another on virtual
AP Isolation	networks
	Disabled: Devices connected to the router are visible on the network to each other
	Enabled: Devices connected to the router via one of the Multiple SSIDs are isolated
MBSSID AP Isolation	from one another on virtual networks
	Disabled: Devices connected to the router via one of the Multiple SSIDs are visible on
	the network to each other
BSSID	Basic Service Set Identifier – AP MAC Address Listing
Frquency (Channel)	Select the channel of operation for the device from the drop-down list
HT Physical Mode	
	Mixed Mode: Packet preamble (only) is transmitted in a format compatible with
Operating Mode	legacy 802.11a/g (for 802.11a/g receivers).
	Green Field: High throughput packet preambles do not contain legacy formatting
	(802.11n only network)
Channel Bandwidth	20: the device operates with a 20 MHz channel size 20/40: the device operates with
	a 40 MHz channel size

### Encryption

Open Wireless/Wireless Security webpage to configure custom security parameters.

Basic Wireless Security	WMM	WDS	WPS	Station Info	Advanced					
Wi-Fi Security Settin	gs									
Select SSID										
SSID choice		Wireless_AP0E6788 V								
"Wireless_AP0E6788"										
Security Mode		WPA-PSK T								
WPA										
WPA Algorithms					AES TKIPAES					
Pass Phrase				********						
Key Renewal Interval				3600	sec (0 ~ 86400)					
Access Policy										
Policy Add a station MAC				Disable 🔻	(The maximum rule count is 64.)					
Add a station MAC					( The maximum rule count is 64 )					
Field Name	Descript	tion								
SSID Choice	Choose t	he SSID f	from th	e drop-drown	list for which security will be configured					
	Select an appropriate encryption mode to improve the security and privacy of									
	your wireless data packets.									
Security Mode	Each encryption mode will launch an additional web page and ask you to offer									
Security Mode	additional configuration.									
	For high security, the device can be configured for Security Mode as WPA2-									
	PSK and WPA Algorithms as AES.									
	This para	meter is	used to	o select the er	ncryption of wireless home gateway					
WPA Algorithms	algorithm	ns; optio	ns are T	FKIP, AES and <sup>-</sup>	TKIPAES.					
Pass Phrase	Configure	e the WP	A-PSK s	security passv	vord.					
Key Renewal Interval	Set the ke	Set the key scheduled update cycle, default is 3600s.								
Access Policy										
	Disable: Access policy rules are not enforced									
Policy	Allow: Only allow the clients in the station MAC list to access Rejected:									
	Block the	Block the clients in the station MAC list from registering								
Add a Station MAC	Enter the MAC address of the clients which you want to allow or reject									

## **Configuring Session Initiation Protocol (SIP)**

### **SIP Accounts**

The device have 2 FXS ports to make SIP (Session Initiation Protocol) calls. Before registering, the device user should have a SIP account configured by the system administrator or provider. See the section below for more information.

### **Configuring SIP via the Web Management Interface**

 Table 10 Configuring SIP
 the Web
 Management
 Interface

Status Network	Wireless 2.4GHz	Wireless 5GHz	SIP	FXS1	FXS2	Security	Application
SIP Account Preferen	ces						
Basic							
Basic Setup							
Line Enable	Enable 🔻		Outgoin Registra	g Call with tion	out	Disable <b>•</b>	
Proxy and Registration							
Proxy Server			Proxy Po	rt		5060	
Outbound Server			Outboun	d Port		5060	
Backup Outbound Server	r l		Backup (	Outbound I	Port	5060	
Allow DHCP Option 120 t Override SIP Server	Disable 🔻						
Subscriber Information							
Display Name			Phone N	lumber			
Account			Passwor	d			

#### Procedure

1. Open the FXS1/SIP Account webpage, as illustrated above.

2. Fill the SIP Server address and SIP Server port number (from administrator or provider) into Proxy Server Name and into Proxy Port parameters.

3. Fill account details received from your administrator into Display Name, Phone Number and Account details.

4. Type the password received from your administrator into the Password parameter.

5. Press Save button in the bottom of the webpage to save changes.



#### Note

Upon the following dialogue: Please REBOOT to make the changes effective! Please press Reboot button to make changes effective.

## **Viewing the Registration Status**

Table 11 Registration status					
Status Network Wireless 2	2.4GHz Wireless 5GHz	SIP	FXS1 FXS2	Security	Application
Basic LAN Host Syslog					
Product Information					
Product Information					
Product Name	FWR7302				
Internet (WAN) MAC Address	00:21:F2:0E:67:89				
PC (LAN) MAC Address	00:21:F2:0E:67:88				
Hardware Version	V3.2				
Loader Version	V3.36(May 11 2017 15:15:0	6)			
Firmware Version	V3.20(201710271628)				
Serial Number	FLY79169000194				
LTE Status					
LTE Status					
SIM Status	No SIM				
IMEI Code					
Hardware Model					
Software Version					
Signal Strength					
Service Provider					
Procedure					

To view the SIP account status of device, open the Status webpage and view the value of registration status.

## Making a Call

### **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) must 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 a 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 #.

## **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:

- 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.
- 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 "#".

## **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.

## **Blind Transfer**

Assume that call party A and party B are in conversation. Party A wants to Blind Transfer B to C: 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. A can hang up.

## **Attended Transfer**

Assume that call party A and B are in a conversation. A wants to Attend Transfer B to C: Party A dials "\*77" to hold the party B, when hear the dial tone, A dials C's number, then party A and party C are in conversation.

Party A dials "\*78" to transfer to C, then B and C now in conversation.

If the transfer is not completed successfully, then A and B are in conversation again.

## Conference

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

Party A dials "\*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.

Party A dials "\*88" to add C, then A and B, for conference.

# **Chapter 3: Web Interface**

This chapter guides users to execute advanced (full) configuration through admin mode operation. This chapter covers:

- Login
- Status
- Network and Security
- Wireless
- SIP
- FXS1
- FXS2
- Security
- Application
- Administration
- Management
- System Log
- Logout
- Reboot

# Login

Table 12 Login details

		ntrol panel
	Username	admin
	Password	Login
		Procedure
1.	Connect the LAN port of the router to	
	Connect the LAN port of the router to Open a web browser on your PC and	o your PC an Ethernet cable
2.	•	o your PC an Ethernet cable type http://192.168.1.1.

# **Status**

Status Network Wireles	s 2.4GHz Wireless 5GHz	SIP	FXS1	FXS2	Security	Application
Basic LAN Host Syslog						
Product Information						
oduct Information						
Product Name	FWR7302					
Internet (WAN) MAC Address	00:21:F2:0E:67:89					
PC (LAN) MAC Address	00:21:F2:0E:67:88					
Hardware Version	V3.2					
Loader Version	V3.36(May 11 2017 15:15:	06)				
Firmware Version	V3.20(201710271628)					
Serial Number	FLY79169000194					

### LTE Status

LTE Status		
SIM Status	No SIM	
IMEI Code		
Hardware Model		
Software Version		
Signal Strength		
Service Provider		
Connection Status	Disconnected	
Frequency		
Earfcn		
Data Rate	Up 0 kbit/s Down 0 kbit/s	
Send/Received	0.000 KB / 0.000 KB	

#### SIP Account Status

5	SIP Account Status					
SIF Account Status						
	FXS 1 SIP Account Status	Registered 1100				
	Primary Server	192.168.10.88				
	Backup Server	192.168.10.88				
	FXS 2 SIP Account Status	Registered 1111				
	Primary Server	192.168.10.88				
	Backup Server	192.168.10.88				

#### **FXS** Port Status

F	XS Port Status	
	FXS 1 Hook State	On
	FXS 1 Port Status	Idle
	FXS 2 Hook State	On
	FXS 2 Port Status	Idle

### Network Status

ctive WAN Interface		
Connection Type	DHCP	
IP Address	192.168.10.124 Renew	
Link-local IPv6 Address		
Subnet Mask	255.255.255.0	
Default Gateway	192.168.10.1	
Primary DNS	192.168.10.1	
Secondary DNS	192.168.18.1	
IPv6 PD Prefix		
IPv6 Domain Name		
IPv6 Primary DNS		
IPv6 Secondary DNS		
WAN Port Status	100Mbps Full	
WAN Down Speed	212B/s	
WAN Up Speed	628B/s	

\_\_\_\_\_

#### 1 TR069\_VOICE\_INTERNET Vlan Status

Connection Type	DHCP
MAC Address	00:21:F2:0E:67:89
IP Address	192.168.10.124
Subnet Mask	255.255.255.0
Default Gateway	192.168.10.1
Primary DNS	192.168.10.1
Secondary DNS	192.168.18.1

#### VPN Status

VPN Type
Initial Service IP
Virtual IP Address

#### LAN Port Status

IP Address	192.168.1.1
Subnet Mask	255.255.255.0
LAN1	Link Down
LAN2	1000Mbps Full
LAN3	Link Down
LAN4	Link Down

Disable

#### Wireless Info

Wireless 2.4GHz		
Radio On/Off	On	
Network Mode	11b/g/n mixed mode	
Current Channel	4	
Channel Bandwidth	40MHz	
Wireless 5GHz		
Radio On/Off	On	
Network Mode	11vht AC/AN/A	
Current Channel	36	

#### Wireless\_AP0E6788 (2.4GHz)

BSSID	00:21:F2:0E:67:88	
Number of Device	0	

Wireless_5G0E6788 (5GHz)		
BSSID	00:21:F2:0E:67:8C	
Number of Device	0	
System Status		
System Status		
Current Time	2017-11-02 14:06:38	
Elapsed Time	4 Hours, 14 Mins	

#### Description

This webpage shows the status information about the Product, Network, and System including Product

Information, SIP Account Status, FXS Port Status, Network Status. Wireless Info and System Status

# **Network and Security**

You can configure the WAN port, LAN port, DDNS, Multi WAN, DMZ, Port Forward and other parameters in this section of the web management interface.

## 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**

Table 14 Internet

This configuration may be utilized when a user receives a fixed public IP address or a public subnet, namely multiple public IP addresses from the Internet 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 can assign an IP address to the WAN interface.

Static	
IP Address	192.168.10.173
Subnet Mask	255.255.255.0
Default Gateway	192.168.10.1
DNS Mode	Manual 🔻
Primary DNS	192.168.10.1
Secondary DNS	192.168.18.1

Field Name	Description		
IP Address	The IP address of Internet port		
Subnet Mask	The subnet mask of Internet port		
Default Gateway	The default gateway of Internet port		
DNS Mode	Select DNS mode, options are Auto and Manual:		
	1. When DNS mode is Auto, the device under LAN port will		
	automatically obtain the preferred DNS and alternate DNS.		
	2. When DNS mode is Manual, the user manually configures the		
	preferred DNS and alternate DNS information		
Primary DNS Address	The primary DNS of Internet port		
Secondary DNS Address	The secondary DNS of Internet port		

## DHCP

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

The DHCP feature allows to the router to obtain an IP address automatically from a DHCP server. In this case, it is not necessary to assign an IP address to the client manually.

NAN         Connect Name       1_MANAGEMENT_VOICE_INTERNET_R_V.         Service       MANAGEMENT_VOICE_INTERNET ▼         IP Protocol Version       IPv4 ▼         WAN IP Mode       DHCP ▼         DHCP Server	
Service       MANAGEMENT_VOICE_INTERNET ▼         IP Protocol Version       IPv4 ▼         WAN IP Mode       DHCP ▼         DHCP Server	
IP Protocol Version IPv4 ▼ WAN IP Mode DHCP ▼ DHCP Server MAC Address Clone Disable ▼ NAT Enable VLAN Mode Enable ▼ VLAN Mode Disable ▼ VLAN ID 1 (1-4094) DNS Mode Auto ▼ Primary DNS	Delete Connect
WAN IP Mode     DHCP ▼       DHCP Server	
DHCP Server       MAC Address Clone       Disable ▼       NAT Enable       Enable ▼       VLAN Mode       Disable ▼       VLAN ID       DNS Mode       Primary DNS	
MAC Address Clone     Disable ▼       NAT Enable     Enable ▼       VLAN Mode     Disable ▼       VLAN ID     1       DNS Mode     Auto ▼       Primary DNS	
NAT Enable     Enable ▼       VLAN Mode     Disable ▼       VLAN ID     1       DNS Mode     Auto ▼       Primary DNS	
VLAN Mode     Disable ▼       VLAN ID     1       DNS Mode     Auto ▼       Primary DNS	
VLAN ID 1 (1-4094) DNS Mode Auto  Primary DNS	
DNS Mode Auto  Primary DNS	
Primary DNS	
Consider DNC	
Secondary DNS	
21/22	
DHCP DHCP Renew Renew	
DHCP Kenew Renew DHCP Vendor (Option 60) FLYINGVOICE-FWR7302	

Field Name	Description
DNS Mode	Select DNS mode, options are Auto and Manual:
	When DNS mode is Auto, the device under LAN port will automatically obtain the preferred DNS and alternate DNS.
	When DNS mode is Manual, the user should manually configure the
	preferred DNS and alternate DNS
Primary DNS Address	Primary DNS of Internet port.
Secondary DNS Address	Secondary DNS of Internet port.
DHCP Renew	Refresh the DHCP IP address
DHCP Vendor (Option60)	Specify the DHCP Vendor field. Display the vendor and product name.

## ΡΡΡοΕ

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.

Table 16 PPPoE		
INTERNET		
WAN		
Connect Name	1_MANAGEMENT_VOICE_INTERNET_R_VID ▼	Delete Connect
Service	MANAGEMENT_VOICE_INTERNET ▼	
IP Protocol Version	IPv4 🔻	
WAN IP Mode	PPPoE V	
MAC Address Clone	Disable 🔻	
NAT Enable	Enable 🔻	
VLAN Mode	Disable 🔻	
VLAN ID	1 (1-4094)	
DNS Mode	Auto 🔻	
Primary DNS		
Secondary DNS		
222-5		
PPPoE PPPoE Account		
PPPoE Password		
Confirm Password	•••••	
Service Name		
	Leave empty to autodetect	
Operation Mode	Keep Alive 🔻	
Keep Alive Redial Period(0-3600s)	5	

Field Name	Description
PPPoE Account	Enter a valid user name provided by the ISP
PPPoE Password	Enter a valid password provided by the ISP. The password can contain special
	characters and allowed special characters are \$, +, *, #, @ and ! For example, the
	password can be entered as #net123@IT!\$+*.

Confirm Password	Enter your PPPoE password again			
Service Name	Enter a service name for PPPoE authentication.			
	If it is left emply, the service name is auto detected.			
Operation Mode	Select the mode of operation, options are Keep Alive, On Demand and Manual:			
	When the mode is Keep Alive, the user sets the 'keep alive redial period' values			
	range from 0 to 3600s, the default setting is 5 minutes;			
	When the mode is On Demand, the user sets the 'on demand idle time' value in the			
	range of 0-60 minutes, the default setting is 5 minutes;			
	Operation Mode On Demand 💌			
	On Demand Idle Time(0-60m) 5			
	When the mode is Manual, there are no additional settings to configure			
Keep Alive Redial Per	iod Set the interval to send Keep Alive messaging			

PPPoE Account Assign a valid user name provided by the ISP

## **Bridge Mode**

Bridge Mode under Multi WAN is different with traditional bridge setting. Bridge mode employs no IP addressing and the device operates as a bridge between the WAN port and the LAN port. Route Connection has to be built to give IP address to local service on device.

Tabl	e 17	Bridge	Mode
	C 1/	Dinage	1110ac

INTERNET		
WAN		
Connect Name		1_MANAGEMENT_VOICE_INTERNET_R_VID   Delete Connect
Service		MANAGEMENT_VOICE_INTERNET V
IP Protocol Version		IPv4 ▼
WAN IP Mode		Bridge 🔻
Bridge Type		IP Bridge 🔹
DHCP Service Type		Pass Through 🔻
VLAN Mode		Disable 🔻
VLAN ID		1 (1-4094)
Port Bind		
Port_1	Port_2	✓ Port_3
✓ Wireless(SSID)	✓ Wireless(SSID1)	✓ Wireless(SSID2)
		etween the binding port , and finally bound port WAN connections bind operation
will wash away before	e the other WAN conne	ction to the port binding operation !
Field Name		Description
Bridge Type		
IP Bridge	Allow all Eth	ernet packets to pass. PC can connect to upper network directly.
PPPoE Bridge	Only Allow P	PPoE packets pass. PC needs PPPoE dial-up software.
Hardware IP Bridge	Packets pass	through hardware switch with wired speed. Does not support
	wireless por	tbinding
DHCP Service Type		
Pass Through	DHCP packet	ts can be forwarded between WAN and LAN, DHCP server in gateway
	will not alloc	ate IP to clients of LAN port.
	M/han antow	
DHCP Snooping	when gatew	ay forwards DHCP packets form LAN to WAN it will add
DHCP Snooping	-	DHCP packet, and it will remove option82 when forwarding

	DHCP packet from the WAN interface to the LAN interface. Local DHCP service		
	will not allocate IP to clients of LAN port.		
Local Service	Gateway will not forward DHCP packets between LAN and WAN, it also blocks DHCP packets from the WAN port. Clients connected to the LAN port can get IP from DHCP server run in gateway.		
VLAN Mode			
Disable	The WAN interface is untagged. LAN is untagged.		
Enable	The WAN interface is tagged. LAN is untagged.		
Trunk	Only valid in bridge mode. All ports, including WAN and LAN, belong to th VLAN Id and all ports are tagged with this VLAN id. Tagged packets can pasthrough WAN and LAN.		
VLAN ID	Set the VLAN ID.		
	Note           Multiple WAN connections may be created with the same VLAN ID		
802.1p	Set the priority of VLAN, Options are 0~7.		

## LAN

### LAN Port

NAT translates the packets from public IP address to local IP address to forward packets to the proper

destination.

Table 18 LAN port

Status Network Wireless 2.4	IGHz Wireless 5GHz	SIP FXS1	FXS2 S	ecurity Ap	plication
WAN LAN IPv6 Advanced I	Pv6 WAN IPv6 LAN V	PN Port Forward	I DMZ	VLAN QoS	Rate
Advance					
,					
PC Port(LAN)					
C Port(LAN)					
Local IP Address	192.1	68.1.1	]		
Local Subnet Mask	255.2	55.255.0			
Local DHCP Server	Enab	le 🔻	-		
DHCP Start Address	192.10	58.1.2			
DHCP End Address	192.1	58.1.254			
DNS Mode	Auto	Ŧ	_		
Primary DNS	192.1	68.1.1			
Secondary DNS	192.1	68.10.1			
Client Lease Time (0-86400s)	86400	)			
	DHC	P Client List			
DHCP Static Allotment	MAC	10.4	11		_
NO. Delete Selected Add Edit	MAC	IP Ac	ddress		
Delete Selected Add Edit					
DNS Proxy	Enab	le 🔻			
	Save & Apply Save Ca	ncel Reboot			

Field Name	Description
IP Address	Enter the IP address of the router on the local area network. All the IP addresses
	of the computers which are in the router's LAN must be in the same network
	segment with this address, and the default gateway of the computers must be
	this IP address. (The default is 192.168.11.1).
Local Subnet Mask	Enter the subnet mask to determine the size of the network (default is
	255.255.255.0/24).
Local DHCP Server	Enable/Disable Local DHCP Server.

DHCP Start Address	Enter a valid IP address as a starting IP address of the DHCP server, and if the
	router's LAN IP address is 192.168.11.1, starting IP address can be 192.168.11.2
	or greater, but should be less than the ending IP address.
DHCP End Address	Enter a valid IP address as an end IP address of the DHCP server.
DNS Mode	Select DNS mode, options are Auto and Manual:
	When DNS mode is Auto, the device under LAN port will automatically obtains the
	preferred DNS and alternate DNS.
	When DNS mode is Manual, the user should manually configure the preferred
	DNS and alternate DNS.
Primary DNS	Enter the preferred DNS address.
Secondary DNS	Enter the secondary DNS address.
Client Lease Time	This option defines how long the address will be assigned to the computer within
	the network. In that period, the server does not assign the IP address to the other
	computer.
DNS Proxy	Enable or disable; If enabled, the device will forward the DNS request of LAN-side
	network to the WAN side network.

## **DHCP Server**

The router has a built-in DHCP server that assigns private IP address to each local client.

DHCP stands for Dynamic Host Configuration Protocol. The router, by factory default acts a DHCP server for your network so it automatically dispatches 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.

#### Table 19 DHCP server settings

PC Port(LAN)	
C Port(LAN)	
Local IP Address	192.168.11.1
Local Subnet Mask	255.255.255.0
Local DHCP Server	Enable 🔻
DHCP Start Address	192.168.11.2
DHCP End Address	192.168.11. 254
DNS Mode	Auto 🔻

Field Name	Description
Local DHCP Server	Enable/Disable DHCP server.
DHCP Start Address	Enter a value of the IP address pool for the DHCP server to start with when
	issuing IP addresses.
DHCP End Address	Enter a value of the IP address pool for the DHCP server to end with when issuing
	IP addresses.
DNS Mode	If DNS information is to be received from a network server, set this parameter to
	Auto. If DNS information is to be configured manually, set this parameter to
	Manual.

#### Table 20 DHCP server, DNS and Client Lease Time

Primary DNS
Secondary DNS
Client Lease Time(0-86400s)

192.168.11.1
8.8.8.8
86400
DHCP Client List

Field Name	Description
	Specify the Primary DNS address provided by your ISP. If your ISP does not provide
Primary DNS	it, the router will automatically apply default DNS Server IP address: 202.96.134.33
	to this field.
	Specify the Secondary DNS address provided by your ISP. If your ISP does not
	provide this address, the router will automatically apply default Secondary DNS
Secondary DNS	Server IP of 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 server and maintain a
	DNS cache.
Client Lease Time	It allows you to set the leased time for the specified PC.

## LTE

#### Table 21 LTE

Status Network	Wireless SIP F	KS1 FXS2	Security	Application	Administr	ation	
WAN LTE LAN	VPN Port Forward	DMZ DDNS	QoS	MAC Clone	Port Setting	Routing	Advance
Eoip Tunnel							
LTE Setting						Help	
Basic Setting						Lock Cell	:
LTE Modem Enable	Enable 🔻					Binding n	nachine card:
GSM Call Enable	Disable 🔻						
4G Connection Type	Auto 🔻					Auto Lock	k PIN:
APN	CMNET						
Dial Number	*99*1#						
Username	admin						
Password	•••••						
Internet Setting							
Internet connection	Auto 🔻	]					
Lock status	Cell Unlock	-					
Targeted Scell ID							
Lock Cell	Disable 🔻						
Binding Set							
Current Status	PIN Disable						
SIM Bind			Binding				
The remaining number of	unlock						

Field Name	Description
Basic Setting	
LTE Modem Enable	Enable the LTE Modem
GSM Call Enable	Enable the GSM Cal
4G Connection Type	Choose the 4G connection method,Auto or Manual
APN	The APN default to CMNET
Dail Number	
Username	Enter the username
Password	Enter the Password
Internet Setting	
Internet connection	Choose the internet connection in Auto/4G only/3G only/
Lock status	Check the lock status of the cell
Targeted Sell ID	Here is Targeted Sell ID
Lock Cell	Enable or Disable lock cell
Binding Set	
Current Status	Check the status of the current PIN here
SIM Bind	Fill in the phone number and Bind the SIM Card

## VPN

The router supports VPN connections with PPTP-based VPN servers.

#### Table 22 VPN

Status	Netwo	ork	Wireless 2.4GHz		Wireless 5GHz		lz SI	SIP FXS1		FXS2	Security	Applicatio	
WAN	LAN	IPv6 Advanced IF		IPv6 WAN	I IP	v6 Lan	VPN	Por	t Forward	d DMZ	VLAN	QoS	Rate
Advance													
VPN Se	ttings												
Administra	ition –												
VPN Enal	ble			Disable									
				Disable PPTP	9								
				L2TP OpenV Save	PN & Apply	y Save	Cancel	Reb	oot				

Field Name	Description
VPN Enable	Enable/Disable VPN. If the VPN is enabled, user can select PPTP and L2TP mode
	VPN.
Initial Service IP	Enter VPN server IP address.
User Name	Enter authentication username.
Password	Enter authentication password.

## **Port Forward**

#### Table 22 Port Forward

WAN	LTE	LAN	IPv6 Advanced	IPv6 WAN	IPv6 LAN	VPN	Port Forward	DMZ	VLAN	DDNS	QoS	Port Settir
Routing	Adv	ance										
	Port Forwarding											
	No. Comment IP Address Port Range Protocol											
	1101		Com	mene	1	Address		TOREN	ige		THOLOCI	<i>,</i>
Delete	Delete Selected Add Edit											
Port For	warding											
Commer	nt											
IP Addre	ess											
Port Ran												
Protocol						TCP&	JDP V					
( The ma	iximum ru	ule count	is 32)									
Apply	Cance	I										
Virtual S	ervers											
	No.		Comment	If	P Address		Public Port	f	Private Port		Prot	ocol
Delete	Selected	Add	Edit									
Virtual S	ervers											
Commer												
IP Addre	ess											
Public Po	ort											
Private F	Port											
Protocol						TCP&	JDP 🔻					
( The ma	iximum ru	ule count	is 32 )									
Apply	Cance	l										

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

## VLAN

#### Table 23 VLAN

WAN LTE LAN	IPv6 Advanced IPv6 W	/AN IPv6 LAN	VPN Port Fo	orward DMZ	VLAN	DDNS	QoS	Port Setting	
Routing Advance	Louting Advance								
	VLAN Model Configuration								
VLAN Divide Model									
			D Configuration		_	_			
WAN	LAN1		AN2	LAN	3		LAN4		
1	2	2		2			2		
	VLAN Configuration								
	VLAN Configuration Port								
VLAN ID	WAN	LAN1	LAN2		LAN3		LA	NA	
	Untag 🔻	Unset V	Unset		Unset V			Unset V	
- 1									
2	Unset 🔻	Untag 🔻	Untag	•	Untag 🔻			ag ▼	
	Unset 💌	Unset 🔻	Unset	•	Unset V		Unse	et 🔻	
	Unset 🔻	Unset V	Unset	Ŧ	Unset 🔻		Unse	et 🔻	
Field Name	Descript	Description							
VLAN Divide Mode	Select the	desired mode							
VLAN Configuratio	ns Select the	desired configu	uration, divid	ded into uns	et / Tag	ged / ur	Tagge	d	

## DMZ

Table 24 DMZ

Status Net	work Wireles	ss 2.4GHz	Wireless 5GHz	SIP	FXS1	FXS2	Security	Appl	ication
WAN LAN	IPv6 Advanced	IPv6 WAN	IPv6 LAN	VPN	Port Forward	DMZ	VLAN	QoS	Rate
Advance									
Demilitarized	d Zone (DMZ)								
DMZ Setting									
DMZ Enable	1Z Enable Enable								
DMZ Host IP Ad	dress	Get Current PC IP							
		Save &	Apply Save	Cancel	Reboot				
Field Name	Des	cription							
DMZ Enable	Ena	ble/Disable [	OMZ.						
DMZ Host IP Addro	ess Ente	er the private	e IP address o	of the D	MZ host.				

## DDNS

Ι

Table 25 DDNS								
WAN LTE LAN	IPv6 Advanced	IPv6 WAN	IPv6 LAN	VPN	Port Forward	DMZ	VLAN	DDNS
Routing Advance								
DDNS Setting								
DDNS Setting								
Dynamic DNS Provider			NONE	•	]			
Account			admin					
Password			•••••					
DDNS URL								
Status			NONE					
	S	ave & Apply	Save Cancel	Reboot	:			

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Field Name	Description					
Dynamic DNS	Enable DDNS and select the DDNS service provider					
Account	Fill in the DDNS service account					
Password	Fill in the DDNS service account password					
DDNS URL	Fill in the DDNS domain name or IP address					
Status	Check if DDNS is successfully upgraded					

## QoS

#### Table 26 QoS

WAN LTE LAN	I IPv6 Advanced	IPv6 WAN	IPv6 LAN	VPN	Port Forward	DMZ	VLAN	DDNS	QoS	Port Setting
Routing Advance										
QoS setting										
S setting										
Enable QoS					Disable 🔻					
Upstream							(0-102400	)kbit/s		
Downstream							(0-102400	)kbit/s		
Algorithm					WFQ <b>*</b>					
				Save	Cancel					
		Cond	ition						Action	
Src.IP Name Address	Dst.IP Address Protocol	Src.Port Dst.F Range Ran		DSCP	802.1p VLA			mark Rem 2.1p VLAM		iority Drop Limi
Hame Address	Hudress- Protocor	Range Ran		BUCH			00.			

Field Name	Description
QoS Enable	Enable/Disable QoS function
Upstream	Set the upstream bandwidth
Downstream	Set the downstream bandwidth
Delete Selected	In NO., Check the items you want to delete, click the Delete option
Add	Click Add to add a new parameter



#### Note

From system release 4.2 or later, the QoS bandwidth can be configured for Upstream and Downstream

## **Port Setting**

#### Table 27 Port setting

WAN LAN IPv6 Advanced IP	V6 WAN IPV6 LAN VP	N Port Forward	DMZ	VLAN	QoS	Rate Limit	Port Setting	Routing
Advance			Unit	(LAI)	205			Rodding
Port Setting						Hel	p	
ort Setting								
WAN Port Speed Nego	Auto	•						
LAN1 Port Speed Nego	Auto	•						
LAN2 Port Speed Nego	Auto	T						
LAN3 Port Speed Nego	Auto	•						
LAN4 Port Speed Nego	Auto	v						
	Save & Apply Save Can	cel Reboot						
Field Name	Description							
WAN Port speed Nego	Auto-negotiatio	on, options a	re Auto	, 100N	1 full,	100M hal	f-duplex, 1	0M half
	and full.							
				4001	4.6.11	100NA h al	6 4004 1 10	
LAN1~LAN3 Port Speed	Auto-negotiatio	on, options a	re Auto	, 100N	'i tuil,	TOOIN Nal	t, luivi nalt	and 10M
Nego	full.							

## Routing

### Table 28 Routing

vance											
							_				
tatic Ro	uting Settings								Hel	p	
a routing	rule									remove Internet	t routing rules
estination									here.		
lost/Net				Host V							
ateway											
nterface											
omment											
			Apply	Reset							
ent Routi	ng Table in the sy	stem									
0.			ateway	Flags	Metric	Interfac		Comment			
ι <b>υ.</b>	Destination		atemay	nays	Methe	Interiac	e (	omment			
			Delete Selec	ted Rese							

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

Comment Comment

## Advance

Table 29 Advance

WAN	LAN	IPv6 Advanced	IPv6 WAN	IPv6 LAN	VPN	Port Forward	DMZ	VLAN	QoS	Rate
Advanc	e									

Most Nat connections (512-8192)	4096
MSS Mode	Manual Auto
MSS Value (1260-1460)	1440
Anti-DoS-P	Enable      Disable
IP Conflict Detection	Enable      Disable
IP Conflict Detecting Interval(0-3600s)	600

Field Name	Description
Most Nat connections	The largest value which the FWR7302 can provide
Mss Mode	Choose Mss Mode from Manual and Auto
Mss Value	Set the value of TCP
AntiDos-p	You can choose to enable or prohibit
IP conflict detection	Select enable if enabled, phone IP conflict will have tips or prohibit
IP conflict Detecting Interval	Detect IP address conflicts of the time interval

# Wireless 2.4G

### Basic

Table 30 Basic Wireless 2.4GHz Wireless 5GHz SIP Application WMM Basic Wireless Security WDS WPS Station Info Advanced **Basic Wireless Settings** Wireless Network Radio On/Off Radio On 🔻 Wireless Connection Mode AP ۳ Network Mode 11b/g/n mixed mode 🔻 Multiple SSID Wireless AP0E6788 Enable 🗹 Hidden 🗆 Isolated 🔍 Max Client 16 Multiple SSID1 Enable 🔲 Hidden 🔲 Isolated 🔲 Max Client 16 Enable 🔲 Hidden 🔲 Isolated 🔲 Multiple SSID2 Max Client 16 Enable Hidden Isolated Max Client 16 Multiple SSID3 broadcast (SSID) Enable Disable AP Isolation Enable Disable MBSSID AP Isolation Enable Isable BSSID 00:21:F2:0E:67:88 Frequency (Channel) ۲ Auto HT Physical Mode Operating Mode Mixed Mode Green Field Channel BandWidth 20 
 20/40 
 Auto Guard Interval ○ Long ● Short Reverse Direction Grant (RDG) Disable Inable STBC Disable Inable Aggregation MSDU (A-MSDU) Disable Disable Auto Block ACK Disable Inable Decline BA Request Disable Disable HT Disallow TKIP Disable Inable 20/40 Coexistence Disable Disable HT LDPC Disable Enable **Field Name** Description Radio on/off Select "Radio off" to disable wireless. Select "Radio on" to enable wireless. Wireless connection mode According to the wireless client type, select one of these modes. Default is AP

mode

Network Mode

Choose one network mode from the drop down list. Default is 11b/g/n mixed

	11b/g/n mixed mode       11b/g mixed mode       11b only       11g only       11b/g/n mixed mode       11n only(2.4G)
SSID	It is the basic identity of wireless LAN. SSID can be any alphanumeric or a
	combination of special characters. It will appear in the wireless network access
	list.
Multiple SSID1~SSID3	The device supports 4 SSIDs.
Hidden	After the item is checked, the SSID is no longer displayed in the search for the
	Wi-Fi wireless network connection list
Broadcast(SSID)	After initial State opening, the device broadcasts the SSID of the router to
	wireless network
AP Isolation	If AP isolation is enabled, the clients of the AP cannot access each other.
MBSSID AP Isolation	AP isolation among the devices which are not belong to this AP and along to,
	when the option is enabled, the devices which do not belong to this AP cannot
	access the devices which are within the AP
BSSID	A group of wireless stations and a WLAN access point (AP) consists of a basic
	access device (BSS), each computer in the BSS must be configured with the
	same BSSID, that is, the wireless AP logo
Frequency (Channel)	You can select Auto Select and channel 1/2/3/4/5/6/7/8/9/10/11.
HT Physical Mode	Mixed Mode: In this mode, the previous wireless card can recognize and
Operating	connect to the Pre-N AP, but the throughput will be affected
Mode	Green Field: high throughput can be achieved, but it will affect backward
	compatibility, and security of the system
Channel Bandwidth	Select channel bandwidth, default is 20 MHz and 20/40 MHz.
Guard Interval	The default is automatic, in order to achieve good BER performance, you must
	set the appropriate guard interval
	Enabled: Devices on the WLAN are able to transmit to each other without
Reverse Dirction Grant	requiring an additional contention-based request to transfer (i.e. devices are
(RDG)	able to transmit to another device on the network during TXOP)
v - /	Disabled: Devices on the WLAN must make a request for transmit when
	communicating with another device on the network
STBC	Space-time Block Code

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	Enabled: Multiple copies of signals are transmitted to increase the chance of
	successful delivery
Aggregation MSDU (A-	Enabled: Allows the device to aggregate multiple Ethernet frames into a single
MSDU)	802.11n, thereby improving the ratio of frame data to frame overhead
	Disabled: No frame aggregation is employed at the router
	Enabled: Multiple frames are acknowledged together using a single Block
Auto Block Ack	Acknowledgement frame.
	Disabled: Auto block acknowledgement is not used by the device $-$ use this
	configuration when low throughput/connectivity issues are experienced by
	mobile devices
Decline BA Request	Enabled: Disallow block acknowledgement requests from devices Disabled:
	Allow block acknowledgement requests from devices
	Enabled: Disallow the use of Temporal Key Integrity Protocol for connected
HT Disallow TKIP	devices
	Disabled: Allow the use of Temporal Key Integrity Protocol for connected
	devices
HT LDPC	Enabled: Enable Low-Density Parity Check mechanism for increasing chance of
	successful delivery in challenging wireless environments
	Disabled: Disable Low-Density Parity Check mechanism

## Wireless Security

Table 31 Wireless security

Status	Network	Wireless 2.4	IGHz	Wireless	s 5GHz	SIP	FXS1	FXS2	Security	Application
Basic	Wireless Security	WMM	WDS	WPS	Station	1 Info	Advanced			
Wi-Fi	Security Settin	gs								
Select SS	ID									
SSID c	hoice				Wire	eless_AP(	0E6788 🔻			
"Wirele	ss_AP0E6788"									
Securit	y Mode				WP/	A-PSK	¥			
WPA										
WPA A	lgorithms				$\bigcirc$	гкір 🧕	AES 🛛	TKIPAES		
Pass Pl	nrase				****	*****				
Key Re	newal Interval				3600	) 56	ec (0 ~ 864	00)		
Acces	s Policy									
Policy	····,				Disa	ble 🔻				
Add a s	station MAC						( Th	ne maximu	m rule count is	s 64 )

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

User can configure the corresponding parameters. Here are some common encryption methods:

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

asic Wireless S	ecurity	WMM	WDS	WPS	Station Info	Advanced		
Vi-Fi Security	Settings	;						
ect SSID								
SSID choice					Wireless_Al	P0E6788 V		
Wireless_AP0E678	8"							
Security Mode					OPENWEP	•		
Wire Equivalence P	rotection (	WEP)						
Default Key					WEP Key 1	•		
		WEP Key	y 1		*******	k.	Hex 🔻	64bit 🔻
NED Keye		WEP Key	y 2		********	e .	Hex 🔻	64bit ▼
WEP Keys		WEP Key	y 3		********	¢	Hex 🔻	64bit ▼
		WEP Key	y 4		*******	k	Hex 🔻	64bit 🔻
Access Policy								
Policy					Disable 🔻			
Add a station MAC						( The n	naximum rule	e count is 64 )

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

 $\ensuremath{\textbf{WPA-PSK}}$  , the router will use WPA way which is based on the shared key-based .

Table 33 WPA-PSK		
Wi-Fi Security Settin	gs	
Select SSID		
SSID choice		Wireless_AP0E6788 V
"Wireless_AP0E6788"		
Security Mode		WPA-PSK 🔻
WPA		
WPA Algorithms		🔍 TKIP 💿 AES 🔍 TKIPAES
Pass Phrase		****
Key Renewal Interval		3600 sec (0 ~ 86400)
Access Policy		
Policy		Disable 🔻
Field Name	Description	
WPA Algorithms	This item is used to se	lect the encryption of wireless home gateway algorithms,
0	options are TKIP, AES	
Pass Phrase	Setting up WPA-PSK se	ecurity password.

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

Wi-Fi Security Setting	js	
Select SSID		
SSID choice		Wireless_AP0E6788 V
"Wireless_AP0E6788"		
Security Mode		WPAPSKWPA2PSK 🔻
WPA		
WPA Algorithms		TKIP • AES TKIPAES
Pass Phrase		*****
Key Renewal Interval		3600 sec (0 ~ 86400)
Field Name	Description	
WPA Algorithms	The home gateway is us	sed to select the wireless security encryption algorithm
	options are TKIP, AES, T	KIP / AES. 11N mode does not support TKIP algorithms.
Pass Phrase	Set WPA-PSK/WPA2-PS	K security code
Key Renewal Interval	Set the key scheduled u	update cycle, default is 3600s

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

#### Wireless Access Policy:

able 35 Wireless Access Policy		
Access Policy		
Policy	Disable 🔻	
Add a station MAC	Disable	( The maximum rule count is 64 )
	Allow	
	Reject	
	Save Cancel Reboo	+
	Save Cancer Reboo	

Field Name	Description				
Access policy	Wireless access control is used to allow or prohibit the specified client to access to				
	your wireless network based on the MAC address.				
Policy	Disable : Prohibition: wireless access control policy. Allow: only allow the clients in				
	the list to access.				
	Rejected: block the clients in the list to access.				
Add a station MAC	Enter the MAC address of the clients which you want to allow or prohibit				
Example: Prohibit the device whose wireless network card MAC address is 00:1F: D0: 62: BA:FF's to access					
the wireless network, and allow other computers to access the network. Implementation: As shown, the					
Policy is Reject, add 00:1F: D0: 62: BA: FF to the MAC, click Save and reboot the device settings to take					
effect.					

### WMM

Table 36 WMM

Status	Networ	'k Wi	reless 2.	4GHz	Wireless 5GHz		SIP	FXS1	FXS2	Security	Application
Basic	Wireless S	ecurity	WMM	WDS	WPS	Station	Info	Advanced			
	WMM Parameters of Access Point										
		AIFSN		CWMin	CWMin			TXOP		CM	AckPolicy
AC	BE	3		15 🔻		63 🔻		0	(		
AC	BK	7		15 🔻		1023 🔻		0	(		
AC	VI	1		7 🔻		15 🔻		94	(		
AC_	vo	1		3 🔻		7 🔻		47	(		

Save & Apply Apply Cancel

#### Description

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

## WDS

Table 37 WDS

Status N	letwork	Wireless 2.4GHz		Wireless 5GHz		SIP	FXS1	FXS2	Security	Application
Basic Wir	eless Security	WMM	WDS	WPS	Station	Info	Advanced			
WDS Setti	ing									
WDS Config										
WDS Mode					Disa		•			
					Lazy	Mode ge Mode				
			Save	& Apply		eater Mo				

#### Description

WDS stands for Wireless Distribution System, enabling WDS access points to be interconnected to expand a wireless network.

## WPS

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

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

#### Table 38 WPS

Chatura Natarad							
Status Network	Wireless 2.4GHz Wireless 5GHz SIP FXS1 FXS2 Security Application						
Basic Wireless Se	curity WMM WDS WPS Station Info Advanced						
WPS Setting							
WPS Config							
WPS Enable 🔻							
Apply							
WPS Summary							
WPS Current Status	Idle						
WPS Configured	Yes						
WPS SSID	FWR9502-0000C8						
WPS Progress							
WPS Mode	○ PIN ● PBC						
	PIN  PBC						
Apply							
WPS Status							
WSC:Idle							
	Cancel						
Field Name	Description						
WPS Config							
WPS	Enable/Disable WPS function						
WPS Summary							
WPS Current Status	Display the current status of WPS						
WPS Configured	Display the configure the status information of WPS						
WPS SSID	Display WPS SSID						
WPS Progress							
WPS Mode	PIN: Enter the PIN code of the wireless device which accesses to this LAN in the						
	following option, and press apply. Then router 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 PBC mode, user can press the PBC button directly on						
	the device, or select PBC mode on the software and apply. Users can activate WPS						
	connection in WPS mode through these two methods, only when the clients choose						
	PBC access, the clients can connect the AP automatically.						

WPS StatusWPS shows status in three ways:WSC: IdleWSC: Start WSC process (begin to send messages)WSC: Success; this means clients have accessed the AP successfully

### **Station Info**

Table 39 Station info

Status Netwo	ork W	ireless 2.4	GHz	Wireless	5GHz	SIP	FXS1	FXS2	Security	Applicatio
Basic Wireless	Security	WMM	WDS	WPS	Station	Info	Advanced			
Wireless Statu	IS									
Wireless Status										
Current Channel			Channel	1						
FWR9502-0000C8			00:21:F2	2:00:00:10						
Wireless Netw	ork									
Wireless Network										
MAC Address	Aid	PSM	MIMO PS	TX Rat	e TxBF	RSS	Strea SI SNR	m Snd SNR		Connect Time
Description										

This page displays information about the current registered clients' connections including operating MAC

address and operating statistics.

## Advanced

#### Table 40 Advanced

Basic	Wireless Secur	ity WMM	WDS	WPS	Station Info Advanced
Advand	ced Wireless	i			
Advanced	Wireless —				
BG Prote	ection Mode				Auto 🔻
Beacon I	Interval				100 ms (range 20 - 999, default 100)
Data Bei	acon Rate (DTI)	M)			3 (range 1 - 255, default 3)
Fragmer	nt Threshold				2346 (range 256 - 2346, default 2346)
RTS Thr	reshold				2347 (range 1 - 2347, default 2347)
TX Powe	er				100 % (range 1 - 100, default 100)
Short Pr	reamble				Enable      Disable
Short Slo	ot				Enable Oisable
TX Burst	t				Enable Disable
Pkt_Agg					Enable     Disable
Country					NONE V
	Channel				Ch1~14 V
Tx Beam	nforming				Disable <b>v</b>
WMM Ca					
Multiple					
Multiple Multiple					
Multiple					
APSD Ca					Enable   Disable
	t-to-Unicast Cor	verter			
	t-to-Unicast				Enable     Isable
- ield Nan	ne	Descrip	tion		
3G Protect	tion Mode	Select G pro	otection	mode, c	ptions are on, off and automatic.
Beacon Int	terval				reless beacon frame, within this range, it will send a
_				-	
beacon frame for the information of the surrounding radio network.					
Data Beacon Specify the interval of transm			interval	mitting the indication message, it is a kind of cut dow	
Rate(DTIM) operation, and it is used for in				informing the next client which is going to receive	
broadcast multi-cast.					
	Fragment Threshold Specify the fragment threshold for the packet, when the length of the packet				
<sup>:</sup> ragment	Threshold	Specify the	fragmer	nt thresh	old for the packet, when the length of the packet

RTS Threshold	Specify the packet RTS threshold, when the packet exceeds this value, the router
	will send RTS to the destination site consultation
TX Power	Define the transmission power of the current AP, the greater it is, the stronger the
	signal is
Short Preamble	Choose enable or disable
Short Slot	Enable/Disable short slot. By default it is enabled, 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
	ТСР
Pkt_Aggregate	It is a mechanism that is used to enhance the LAN, in order to ensure that the
	home gateway packets are sent to the destination correctly
Support Channel	Choose appropriate channel
Wi-Fi Multimedia	(WMM)
WMM Capable	Enable/Disable WMM.
APSD Capable	Enable/Disable APSD. Once it is enabled, 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-	Enable/Disable Multicast-to-Unicast. By default, it is Disabled
Unicast Converter	



Please refer to the wireless 2.4G.

# SIP

### SIP Settings

### Table 41 SIP settings

Status	Network	Wireless 2.4GHz	Wireless 5GHz	SIP	FXS1	FXS2	Security	Application
SIP Setti	ngs VoIP Qo	S Dial Rule Bl	acklist Call Log					
SIP Pa	rameters							
SIP Param	eters							
SIP T1		500	ms	Max	Forward		70	
SIP Use	r Agent Name			Max	Auth		2	
Reg Ret	ry Intvl	30	sec	Reg	Retry Long	Intvl	60	sec
Mark All	AVT Packets	Enable 🔻	]	RFC	2543 Call I	Hold	Enable 🔻	-
SRTP		Disable 🔻	]		P Prefer En		AES_CM V	]
Service	Туре	Common	•	DNS	Refresh Ti	mer	0	sec
Retry Re NAT Tr NAT Trave NAT Tra NAT Ref	r <b>aversal</b> rsal iversal fresh Interval (se	Disable V c) 60			N Server A N Server P			
Field Na	me	Descrip	otion					
SIP T1 The minimum scale of retransmission time								
Max Forv	vard	SIP contain	s Max Forward n	nessage l	header fi	elds used	d to limit the	e requests
		for forward	ls					
SIP Reg U	ser Agent Na	me The agent i	name of SIP regis	stered us	ser			
Max Auth		The maxim	The maximum number of retransmissions					

Mark All AVT	Voice packet marking to enable this item will see the mark on the voice message
Packets	when the call environment changed (such as press a key during the call)
RFC 2543 Call	Enable the Connection Information field displays the address is 0.0.0.0 in the invite
Hold	message of Hold.Disable the Connection Information field displays the device IP
	address in the invite message of Hold
SRTP	Whether to enable the call packet encryption function
SRTP Prefer	The preferred encryption type of calling packet (the Message body of INVITE
Encryption	Message)
Service Type	Choose the server type
NAT Traversal	Enable/Disable NAT Traversal
	FWR9502 supports STUN Traversal; if user wants to traverse NAT/Firewall, select
	the STUN
STUN Server Address	Add the correct STUN service provider IP address
NAT Refresh	Set NAT Refresh Interval, default is 60s
Interval	
STUN Server Port	Set STUN Server Port, default is 5060

## VoIP QoS

Table 42 VoIP QoS

Status Network	Wireless 2.4GHz	Wireless 5GHz	SIP	FXS1	FXS2	Security	Application
SIP Settings VoIP QoS	Dial Rule Bl	acklist Call Log					
QoS Settings							
Layer 3 QoS							
SIP QoS(0-63)	46						
RTP QoS(0-63)	46						
		Save Cancel	Reboot				
Field Name	Description						

SIP /RTP QoS The default value is 0, you can set a range of values is 0~63

Chapter 3 Web Interface

## **Dial Plan**

### **Parameters and Settings**

### Table 43 Parameters and settings

Status	Network	Wireless 2.4GH	z Wire	less 5GHz	SIP	FXS1	FXS2	Security	Applicatio
SIP Settir	ngs VoIP Qo	S Dial Rule	Blacklist	Call Log					
Dial R	ıle								
General									
Dial Rul		Disable 🔻							
Unmatc	hed Policy	Accept ▼							
Me	EV.C	D:				A abia a	Maural	In Maur Da	wn
No.	FXS	Dig	jit Map			Action	Move L	Jp Move Do	wn
1	FXS 1		vb			Deny		$\mathbf{\vee}$	
2	FXS 1		rgg			Deny		<b>~</b>	
FXS		FX	S 1 🔻						
Digit Map									
Action		De	eny 🔻						
		OK Cano	el						
			Save	e Cancel I	Reboot	]			

Field Name	Description
Dial Plan	Enable/Disable dial plan
Line	Set the line
Digit Map	Enter the sequence used to match input number
	The syntactic, please refer to the following Dial Plan Syntactic
Action	Choose the dial plan mode from Deny and Dial Out.
	Deny means router will reject the matched number, while Dial Out means router will
	dial out the matched number
Move Up	Move the dial plan up the list
Move Down	Move the dial plan down the list

Chapter 3 Web Interface

## Adding one Dial Plan

Table 44 Ac	ding one	dial	plar
-------------	----------	------	------

Dial Plan					
General	Disable ▼ ▼				
No. FXS	Dig	git Map	Action	Move Up	Move Down
FXS	F	XS1 V			
Digit Map					
Action	[	Deny 🔻			
	ОК	Cancel			
Description					
Step 1. Enable Dial Plan					
Step 2. Click Add button	, and the configu	uration table			
Step 3. Fill in the value of	of parameters				
Step 4. Press OK button	to end configura	ation			

### **Dial Plan Syntactic**

Table 45 Dial Plan

No.	String	Description
1	0123456789*#	Allowed characters
2	x	Lowercase letter "x" stands for one legal character
		To match one character form sequence. For example:
	[sequence]	[0-9]: match one digit form 0 to 9
3		[23-5*]: match one character from 2 or 3 or 4 or 5 or *
4		Match to x, xx, xxx, xxxx and so on.
	х.	For example:
		"01" can be match to "0","01","011""011111" and so on
5		Replace dialed with substituted.
	<dialed:substituted></dialed:substituted>	For example:
		<8:1650>123456: input is "85551212", output is "16505551212"
		Make outside dial tone after dialing "x", stop until dialing character "y"
		For example:
6	х,у	"9,1xxxxxxxxx" :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"
		Set the delayed time. For example:
7	Т	"<9:111>T2": The device will dial out the matched number "111" after 2 seconds.

### Blacklist

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

#### Table 46 Blacklist

1	Blacklist Upload && Download						
B	Blacklist Upload && Download						
	Local File Choose File No file chosen						
	Upload CSV Download CSV						

1 Rol		Number 12345 123456	
	-		
2 Her	enry	123456	
	Edit Add Delete	Move to phonebook	
Description	n		
Click 选择文	to select the blacklist file an	d upload CSV to upload it to dev	vice; Click download CSV
to save the b	blacklist file to your local comput	ter.	
Select one co	ontact and click edit to change t	he information, click delete to dele	ete the contact, click Mov
to phoneboo	ok to move the contact to phone	book.	
Click Add to :	add one blacklist enter the nam	ne and phone number, click OK to c	confirm and click cancel t
cancel.			

## Call Log

To view the call log information such as redial list , answered call and missed call

Tab	le 47	Call	log

Redia	l 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	
	400	100001000		— <b>—</b>

#### **Redial List**

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

#### Answered Calls

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

# FXS1

### **SIP Account**

### Basic

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

 Table 48
 SIP Account - Basic

Status Network W	/ireless 2.4GHz	Wireless 5GHz	SIP	FXS1	FXS2	Security	Application
SIP Account Preferences							
Basic							
Basic Setup							
Line Enable	Enable 🔻		Outgoing Registrat	g Call witho tion	out	Disable 🔻	
Proxy and Registration							
Proxy Server			Proxy Po	rt		5060	
Outbound Server			Outboun	d Port		5060	
Backup Outbound Server			Backup C	Outbound P	ort	5060	
Allow DHCP Option 120 to Override SIP Server	Disable 🔻						
Subscriber Information							
Display Name			Phone N	umber			
Account			Passwor	d			
Field Name	Description						
Line Enable	Enable/Disable	the line.					
	Enable/Disable	PEER to PEER.					
Peer To Peer	If enabled, SIP-:	L will not send re	egister re	quest to	SIP serv	er; but in Sta	itus/ SIP
	Account Status	webpage, Status	s is Regist	tered; lin	es 1 can	dial out, b	ut the
	external line nu	mber cannot dia	led line1				
Proxy Server	The IP address	or the domain of	f SIP Ser	ver			
Outbound Server	The IP address	or the domain of	fOutbou	nd Serve	er		
Backup Outbound Server	The IP address	or the domain of	f Backup	Outbour	nd Serve	r	
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

\_\_\_\_\_

### Audio Configuration

#### Table 49 Audio configuration

Audio Configurat	tion		
Codec Setup			
Audio Codec Type 1	G.711U 🔻	Audio Codec Type 2	G.711A 🔻
Audio Codec Type 3	G.729 <b>*</b>	Audio Codec Type 4	G.722 <b>•</b>
Audio Codec Type 5	G.723 <b>*</b>	G.723 Coding Speed	5.3k bps 🔻
Packet Cycle(ms)	20ms 🔻	Silence Supp	Disable 🔻
Echo Cancel	Enable <	Auto Gain Control	Disable 🔻
FAX Configuration			
FAX Mode	T.38 V	ByPass Attribute Value	fax 🔻
T.38 CNG Detect	Disable 🔻	T.38 CED Detect Enable	Enable 🔻
Enable gpmd attribute Enable	Disable V	T.38 Redundancy	Disable V
Audio Codec Type1	Choose the audio co	odec type from G.711U, G.711A, G.7	722, G.729, G.723
Audio Codec Type2	Choose the audio co	odec type from G.711U, G.711A, G.7	722, G.729, G.723
Audio Codec Type3	Choose the audio co	odec type from G.711U, G.711A, G.7	722, G.729, G.723
Audio Codec Type4	Choose the audio co	odec type from G.711U, G.711A, G.7	722, G.729, G.723
Audio Codec Type5	Choose the audio co	odec type from G.711U, G.711A, G.7	722, G.729, G.723

Choose the speed of G.723 from 5.3kbps and 6.3kbps
The RTP packet cycle time, default is 20ms
Enable/Disable silence support
Enable/Disable echo cancel. By default, it is enabled
Enable/Disable auto gain
Enable/Disable T.38
Enable/Disable T.38 Redundancy
Enable/Disable T.38 CNG Detect
Enable/Disable gpmd attribute.

### Supplementary Service Subscription

#### Table 50 Supplementary service

\_

Supplementary Se	ervice Subscription		
Supplementary Service	25		
Call Waiting MWI Enable MWI Subscribe Enable DND	Enable ▼ Enable ▼ Disable ▼ Disable ▼	Hot Line Voice Mailbox Numbers VMWI Serv	Enable T
Speed Dial			
Speed Dial 2		Speed Dial 3	
Speed Dial 4		Speed Dial 5	
Speed Dial 6		Speed Dial 7	
Speed Dial 8		Speed Dial 9	
Field Name	Description		
Call Waiting	Enable/Disable Call	Waiting	
Hot Line	Fill in the hotline nu	mber, Pickup handset or press hand	s-free or headset button,

Hot Line	Fill in the hotline number,Pickup handset or press hands-free or headset button,
	the device will dial out the hotline number automatically
MWI Enable	Enable/Disable MWI (message waiting indicate). If the user needs to user voice
	mail, please enable this feature
MWI Subscribe Enable	Enable/Disable MWI Subscribe

Voice Mailbox	Fill in the voice mailbox phone number, Asterisk platform, for example, its default voice
Numbers	mail is *97
VMWI Serv	Enable/Disable VMWI service
DND	Enable/Disable DND (do not disturb)
	If enable, any phone call cannot arrive at the device; default is disable
	Enter the speed dial phone numbers. Dial *74 to active speed dial function.
Speed Dial	

### Advanced

#### Table 51 Advanced

vanced Setup			
Domain Name Type	Enable 🔻	Carry Port Information	Disable 🔻
Signal Port	5060	DTMF Type	RFC2833 <b>*</b>
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	А Туре 🔻
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	Enable 🔻	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.
RFC2833Payload(>=96)	User can use the default setting.
Register Refresh Interval	The interval between two normal Register messages. You can use the default
	setting.
RTP Port	Set the port to send RTP.
	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	Enable/Disable 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 value is 0, it represents disable.
Max Detect Fail Count	Interval of detection of the primary server fail; the default value is 3, it
	means that if detect 3 times fail; the device will no longer detect the primary
	server.
Keep-alive Interval(10-60s)	The interval that the device will send an empty packet to proxy.
Anonymous Call	Enable/Disable anonymous call.
Anonymous Call Block	Enable/Disable 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	Il 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	Enable/Disable the user request URI check.	
Only Recv request from	Enable/Disable the only receive request from server.	
server		
Server Address	The IP address of SIP server.	
SIP Received Detection	Enable/Disable SIP Received Detection, if enable, use it to confirm the public	
	network address of the device.	

## Preferences

### **Volume Settings**

#### Table 52 Volume settings

Preferences			
Volume Settings Handset Input Gain	5 • Handset	Volume	5 🔻
Field Name	Description		
Handset Input Gain	Adjust the handset input gain from 0 to 7		
Handset Volume	Adjust the output gain from 0 to 7		

### Regional

#### Table 53 Regional

Regional			
Tone Type	China 🔻		
Dial Tone			
Busy Tone			
Off Hook Warning Tone			
Ring Back Tone			
Call Waiting Tone			
Min Jitter Delay(0-600ms)	20 Max Jitter Delay(20-1000ms) 160		
Ringing Time(10-300sec)	60		
Ring Waveform	Sinusoid   Ring Voltage(40-63 Vrms)  45		
Ring Frequency(15-30Hz)	25 VMWI Ring Splash Len(0.1- 10sec) 0.5		
Flash Time Max(0.2-1sec)	0.9 Flash Time Min(0.1-0.5sec) 0.1		
Field Name	Description		
Tone Type	Choose tone type form China, US, Hong Kong and so on		
Dial Tone	Dial Tone		
Busy Tone	Busy Tone		
Off Hook Warning Tone	Off Hook warning tone		
Ring Back Tone	Ring back tone		
Call Waiting Tone	Call waiting tone		
Min Jitter Delay	The Min value of home gateway's jitter delay, 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 the device 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		

### Features and Call Forward

#### Table 54 Features and call forward

Features			
All Forward No Answer Forward	Disable <b>v</b> Disable <b>v</b>	Busy Forward	Disable •
Call Forward			
All Forward		Busy Forward	
No Answer Forward		No Answer Timeout	20
Feature Code			
Hold Key Code	*77	Conference Key Code	*88
Transfer Key Code	*98	IVR Key Code	****
R Key Enable	Disable 🔻	R Key Cancel Code	R1 •
R Key Hold Code	R2 🔻	R Key Transfer Code	R4 🔻
R Key Conference Code	R3 •	Speed Dial Code	*74

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Field		
Name		Description
	All Forward	Enable/Disable forward all calls
Features	Busy Forward	Enable/Disable busy forward.
	No Answer Forward	Enable/Disable no answer forward.
	All Forward	Set the target phone number for all forward.
		The device will forward all calls to the phone number immediately
		when there is an incoming call.
	Busy Forward	The phone number which the calls will be forwarded to when line is
Call		busy.
Forward	No Answer Forward	The phone number which the call will be forwarded to when there's
		no answer.
	No Answer Timeout	The seconds to delay forwarding calls, if there is no answer at your
		phone.
Feature	Hold key code	Call hold signatures, default is *77.
Code	Conference key	Signature of the tripartite session, default is *88.

	Transfer key code	Call forwarding signatures, default is *98.
	IVR key code	Signatures of the voice menu, default is ****.
-	R key enable	Enable/Disable R key way call features.
	R key cancel code	Set the R key cancel code, option are ranged from R1 to R9, default
-		value is R1.
	R key hold code	Set the R key hold code, options are ranged from R1 to R9, default
-		value is R2.
	R key transfer code	Set the R key transfer code, options are ranged from R1 to R9, default
		value is R4.
	R key conference code	Set the R key conference code, options are ranged from R1 to R9,
-		default value is R3.
	Speed Dial Code	Speed dial code, default is *74.

### Miscellaneous

м	Miscellaneous		
M	Codec Loop Current CID Service Caller ID Method Dial Time Out(IDT) ICMP Ping Bellcore Style 3- Way Conference	Bello 5 Disa	Impedance Maching       US PBX,Korea,Taiwan(600)       ▼         Dle ▼       CWCID Service       Disable ▼         core       Polarity Reversal       Disable ▼         Call Immediately Key       #       ▼         ble ▼       Escaped char enable       Disable ▼
Fi	eld Name		Description
Сс	odec Loop Currer	nt	Set off-hook loop current, default is 26.
In	npedance Machi	ng	Set impedance matching, default is US PBX,Korea,Taiwan(600).
CI	D service		Enable/Disable displaying caller ID; If enable, caller ID is displayed when there is an
			incoming call or it won't be displayed. Default is enable.
C١	WCID Service		Enable/Disable CWCID. If enable, the device will display the waiting call's caller ID,
			or it won't display. Default is disable.
Di	al Time Out		How long device will sound dial out tone when device dials a number.
Ca	all Immediately K	Key	Choose call immediately key form * or #.
IC	MP Ping		Enable/Disable 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.
Es	caped char enab	ole	Open special character translation function; if enable, when you press the # key, it
			will be translated to 23%, when disable, it is just #.

# FXS2

The settings of FXS2 are the same as FXS1. See FXS1 on page 74.

# Security

## **Filtering Setting**

Table 56         Filtering setting		
Basic Settings		
Basic Settings		
Filtering Default Policy	Disable	
The packet that don't match with		
Save Cancel		
IP/Port Filter Settings		
Interface	LAN 🔻	
Mac address		
Dest IP Address		
Source IP Address		
Protocol	NONE V	
Dest. Port Range	-	
Src Port Range	-	
Action	Accept 🔻	
Comment		
( The maximum rule count is 32 )		
Save Cancel		
Field Name	Description	

Field Name	Description
Filtering	Enable/Disable filter function
Default Policy	Choose to drop or accept filtered MAC addresses
Mac address	Add the Mac address filtering
Dest IP address	Destination IP address
Source IP address	Source IP address
Protocol	Select a protocol name, support for TCP, UDP and TCP/UDP
Dest. Port Range	Destination port ranges
Src Port Range	Source port range
Action	You can choose to receive or give up; this should be consistent with the default
	policy
Comment	Add callout
Delete	Delete selected item

## **Content Filtering**

### Table 57 Content filtering

Filtering Setting Content Filtering	
Basic Settings	
Basic Settings	
Filtering	Disable
Default Policy	Accept 🔻
Save Cancel	
Filter List Upload & Download	
Local File 选择文件 未选择任何文件	
Upload Download	
Web URL Filter Settings	
Current Web URL Filters	
No.	URL
	Delete Cancel
Add a URL Filter	
URL	
( The maximum rule count is 16 )	
	Add Cancel
Web Host Filter Settings	
Current Website Host Filters	
No.	Keyword
	Delete Cancel
Add a Host (keyword) Filter	
Keyword	
( The maximum rule count is 16 )	
	Add Cancel

Field Name	Description
Filtering	Enable/Disable content Filtering
Default Policy	The default policy is to accept or to prohibit filtering rules
Current Webs URL Filters	List the URL filtering rules that already existed (blacklist)
Delete/Cancel	You can choose to delete or cancel the existing filter rules
Add a URL Filter	Add URL filtering rules
Add/Cancel	Click adds to add one rule or click cancel
Current Website Host	List the keywords that already exist (blacklist)
Filters	
Delete/Cancel	You can choose to delete or cancel the existing filter rules the existing keywords
Add a Host Filter	Add keywords
Add/Cancel	Click the Add or cancel

# Application

### **Advance NAT**

Table58 advance NAT

Advance Nat	UPnP IGMP			
ALG				
ALG Setting				
FTP	Enable 🔻			
SIP	Disable 🔻			
H323	Disable 🔻			
PPTP	Disable 🔻			
L2TP	Disable 🔻			
IPSec	Disable 🔻			
	Save 8	& Apply Save Cancel Re	boot	

Enable/Disable these function(FTP/SIP/H323/PPTP/L2TP/IPSec).

### UPnP

UPnP (Universal Plug and Play) supports zero-configuration networking, and can automatically discover a variety of networked devices. When UPnP is enabled, the connected device is allowed to access the network, obtain an IP address, and convey performance information. If the network has a DHCP and DNS server, the connected device can automatically obtain DHCP and DNS services.

UPnP devices can be automatically added to the network without affecting previously-connected devices.

Table 59 UPnP	
UPnP	
UPnP Setting	
Enable UPnP	Enable  Cisable Enable Enable
	Save & Apply Save Cancel Reboot
Field Name	Description
UPnP enable	Enable/Disable UPnP function.

### 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.

#### Table 60 IGMP

Status	Network	Wireless	SIP	FXS1	FXS2	Security	Application	Administration	
Advance	Nat UPnP	IGMP							
IGMP									
IGMP Sett	ing								
IGMP P	roxy enable	Enable 🔻							
IGMP S	nooping enable	Enable 🔻							
			Save	e & Apply	Save Ca	ncel Reboot	]		
Field Na	ne		Descri	ption					
IGMP Pro	xy enable	Eı	nable/D	isable IGI	MP Proxy	function.			
IGMP Sno	oping enable	enable Ei	nable/D	isable IGI	MP Snoo	ping functio	٦.		

# Storage

## **Disk Management**

This page is used to manage the USB storage device.

Table 61 Disk Management	
Status         Network         Wireless 2.4GHz         Wireless 5GHz         SIP         FXS1         FXS2         Security         Application	plication Storage
Disk Management FTP Setting SMB Setting	
Disk Management	Неір
Folder List	
Directory Path Partition	
Add Delete Remove Disk	
Partition Status	
Partition Path	
Format Reallocate	

Field Name	Description
Add	Adding files to the USB storage device
Delete	Remove the USB storage device file
Remove Disk	Transfer files within a USB storage device
Format	Format the USB storage device
Re-allocate	Reset the USB storage device

## **FTP Setting**

### Table 62 FTP Setting

Status Network Wireless 2.40	Hz Wireless 5GHz	SIP FXS1	FXS2 Secur	rity Application	Storage
Disk Management FTP Setting SN	B Setting				
FTP Setting					Help
FTP Server Setup					
FTP Server	0	Enable 💿 Disable			
FTP Server Name	FTP				
Anonymous Login		Enable 💿 Disable			
FTP Port	21				
Max. Sessions	10				
Create Directory	۲	Enable 🔍 Disable			
Rename File/Directory	۲	Enable 🔍 Disable			
Remove File/Directory	۲	Enable 🔍 Disable			
Read File	۲	Enable 🔍 Disable			
Write File	۲	Enable 🔍 Disable			
Download Capability	۲	Enable 🔍 Disable			
Upload Capability	۲	Enable 🔍 Disable			

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

## **Smb Setting**

#### Table 63 Smb setting

Table 05 Shib Setti	-0						
Status Network Disk Management F	Wireless 2.4GHz	Wireless 5GHz	SIP FXS1	FXS2	Security	Application	Storage
SMB Setting							Help
SAMBA Server Setup							
SAMBA Server			Enable 💿 Disable				
Workgroup		FWE	R9502				
NetBIOS Name		File	Share				
Anonymous Login			Enable 💿 Disable				
Sharing Directory List							
Directory Name	Directory Path	Allo	wed Users				
Directory Name		Add Edit	Delete				
	L		Delete				
		Apply Can	icel				
Field Name	Descrip	tion					
SAMBA Server	Enable/Disable	e SAMBA serv	ver				
Workgroup Enter the working group							
NetBIOS Name	Network basi	: input/outpu	t system nam	e			
Add	Add a shared f	ile					
		lic					
Edit	Edit a shared f						
		ile					
Del	Edit a shared f	ile d file					
Edit Del Add Edit	Edit a shared f Delete a share	ile d file ile					

# **Administration**

The user can manage the device in these webpages; you can configure the Time/Date, password, web access, system log and associated configuration TR069.

## Management

## Save config file

Table 64 Save Config F	File
------------------------	------

圣任何文件		
3	择任何文件	择任何文件

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

## Administrator settings

#### Table 65 Administrator settings

Administrator Settin	gs	
Password Reset		
User Type	4	Admin User 🔻
New User Name	a	idmin
New Password		(The maximum length is 25)
Confirm Password		
Language		
Language	E	English 🔻
VPN Access		
Management Using VPN		Disable 🔻
Web Access		
Remote Web Login	E	Enable 🔻
Local Web Port	8	0
Web Port	8	0
Web Idle Timeout (0 - 60r	nin) 5	j
Allowed Remote IP (IP1;I	02;)	.0.0.0
Telnet Access		
Remote Telnet	[	Disable 🔻
Telnet Port	2	3
Allowed Remote IP (IP1;I	2;)	.0.0.0
HostName	F	WR7302
Field Name	Description	
User type	Choose the user type from	admin user and normal user and basic user
New User Name	You can modify the user name, set up a new user name	
New Password	Input the new password	
Confirm Password	Input the new password again	
Language	anguage Select the language for the web, the device support Chinese, English,	
	and so on	
Remote Web Login	Enable/Disable remote Web login	
Web Port Set the port value which is us		s used to login from Internet port and PC port, defau
	80	

Web Idle timeout	Set the Web Idle timeout time. The webpage can be logged out after Web
	Idle Timeout without any operation.
Allowed Remote IP(IP1,IP2,)	Set the IP from which a user can login the device remotely.
Telnet Port	Set the port value which is used to telnet to the device.

## **NTP** settings

Time/Date Setting	
P Settings	
NTP Enable	Enable 🔻
Option 42	Disable 🔻
Current Time	2016 - 01 - 19 . 05 : 55 : 06
Sync with host	Sync with host
NTP Settings	(GMT-06:00) Central Time
Primary NTP Server	pool.ntp.org
Secondary NTP Server	
NTP synchronization(1 - 1440min)	60

#### Daylight Saving Time

Daylight Saving Time	
----------------------	--

Disable	•
---------	---

Field Name	Description
NTP Enable	Enable/Disable NTP
Option 42	Enable/Disable DHCP option 42. This option specifies a list of the NTP servers
	available to the client by IP address
Current Time	Display current time
NTP Settings	Setting the Time Zone
Primary NTP Server	Primary NTP server's IP address or domain name

Secondary NTP Server	Options for NTP server's IP address or domain name	
NTP synchronization	NTP synchronization cycle, cycle time can be 1 to 1440 minutes in any one, the	
	default setting is 60 minutes	

### **Daylight Saving Time**

#### Table 67 Daylight Saving Time

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

#### Procedure

Step 1. Enable Daylight Savings Time.

Step 2. Set value of offset for Daylight Savings Time

Step 3: Set starting Month/Week/Day/Hour in Start Month/Start Day of Week Last in Month/Start Day of

Week/Start Hour of Day, analogously set stopping Month/Week/Day/Hour in Stop Month/Stop Day of Week

Last in Month/Stop Day of Week/Stop Hour of Day.

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

# System Log Setting

#### Table 68 System log Setting

System Log Setting	
Syslog Setting	
Syslog Enable	Enable 🔻
Syslog Level	INFO 🔻
Login Syslog Enable	Enable 🔻
Call Syslog Enable	Enable 🔻
Net Syslog Enable	Enable 🔻
Device Management Syslog Enable	Enable 🔻
Device Alarm Syslog Enable	Enable 🔻
Kernel Syslog Enable	Enable 🔻
Remote Syslog Enable	Disable 🔻
Remote Syslog Server	

Description
Enable/Disable syslog function
Select the system log, there is INFO and Debug two grades, the Debug INFO can
provide more information
Enable/Disable remote syslog function
Add a remote server IP address.
Enable/Disable syslog function

## **Factory Defaults Setting**

#### Table 69 Factory Defaults Setting

	Factory Defaults Setting		
F	actory Defaults Setting		
	Factory Defaults Lock	Disable 🔻	

#### Description

-

When enabled, the device may not be reset to factory defaults until this parameter is reset to Disable.

## **Factory Defaults**

# Table 70 Factory Defaults Factory Defaults Reset to Factory Defaults Description

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

# Firmware Upgrade

Table 71 Firmware upgrade

	Status Ne	twork	Wireless 2	.4GHz	Wire	less 5GHz	SIP	FXS1	FXS2 S	Security	Application
	Management	Firmwa	are Upgrade	LTE Up	ograde	Scheduled	l Tasks	Certificate	s Provisio	on SNMP	TR-069
	Firmware M	lanagei	nent								
Fir	rmware Upgra	de —									
	Local Upgrade		选择文件 未送	选择任何文	乙件						
						Upgrade	]				
De	escription										
	•										
1.	Choose up	grade f	le type from	n Image	File an	d Dial Rule	9				
2.	Press "Br	owse'	' button to	browse	r file						
3.	Press Up	grade	to start up	grading							

# LTE Upgrade

#### Table 72 LTE upgrade

Management	Firmware Upgr	ade LTE Upgra	de Scheduled Task	ks Provision	SNMP	TR-069	Diagnosis
LTE Manage LTE Upgrade Download URI							
			Upgrade				
Description							
You can fill in LT	E download U	RL, upgrade LTE					

# **Scheduled Tasks**

Table 73 Scheduled Tasks

Management	Firmware Upgrade	LTE Upgrade	Scheduled Tasks	Provision	SNMP	TR-069	Diagnosis
Scheduled 1	Fasks						
Scheduled Wi-Fi	i ———						
No.	Enable	SSID	Week Selec	t Open	Time	Close T	ïme
Delete Select	ted Add Edit						
Enable	Dis	able 🔻					
SSID	FW	R7302 🔻					
Scheduled Mod	le Eve	ery Day 🔻					
Wi-Fi Work Tin	ne 00	▼ : 00 ▼ 00	▼ : 00 ▼				
Apply Ca	ncel						
Scheduled Rebo	ot						
Scheduled Reb	Dis	able 🔻					
Scheduled Mod	de Ev	ery Day 🔻					
Time	00	▼ : 00 ▼					
Scheduled PPPo	E						
Scheduled PPP	Dis Dis	able 🔻					
Scheduled Mod	de Ev	ery Day 🔻					
Time	00	▼ : 00 ▼					

Field Name	Description
Scheduled Wi-Fi	
Enable	Enable / Disable Timed WIFI
SSID	This is not optional
Scheduled Mode	Choose work mode, weekly / days
Wi-Fi work time	Set the WIFI duty cycle
Apply and Cancel	After modifying the parameters, select Apply, or Cancel
Scheduled Reboot	
Scheduled Reboot	Enable / disable scheduled reboot
Scheduled Mode	Choose work mode every day / week
Time	Set the time for scheduled reboot
Scheduled PPPoE	
Scheduled PPPoE	Enable / disable restart PPPoE
Scheduled Mode	Choose work mode every day / week
Time	Set the time for scheduled PPPoE

# **Provision**

Provisioning allows the router to auto-upgrade and auto-configure devices which support TFTP, HTTP and HTTPs .

- Before testing or using TFTP, user should have tftp server and upgrading file and configuring file.
- Before testing or using HTTP, user should have http server and upgrading file and configuring file.
- 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

User can upload a CA Certificate file and Client Certificate file and Private Key file in the Security page.

#### Table 74 Provision

Management Firmware Upgrade LTE Upg	rade Scheduled Tasks	Certificates	Provision	SNMP T
Provision				
nfiguration 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	Enable 🔻			
Config File Name	\$(MA)			
User Agent				
Profile Rule	http://prv1.fly	yingvoice.net:69/	config/\$(MA)?	mac=\$(MA)&

Field Name	Description		
Provision Enable	Enable provision or not.		
Resync on Reset	Enable resync after restart or not		
Resync Random	Set the maximum delay for the request of synchronization file. The default is		
Delay(sec)	40.		
Resync Periodic(sec)	If the last resync was failure, The router will retry resync after the "Resync		
	Error Retry Delay " time, default is 3600s.		
Resync Error Retry	Set the periodic time for resync, default is 3600s.		
Forced Resync	If it's time to resync, but the device is busy now, in this case,the router will		
Delay(sec)	wait for a period time, the longest is "Forced Resync Delay", default is		
	14400s, when the time over, the router will forced to resync.		
Resync After Upgrade	Enable firmware upgrade after resync or not. The default is Enabled.		
Resync From SIP	Enable/Disable resync from SIP.		
Option 66	It is used for In-house provision mode only. When use TFTP with option 66 to		
	realize provisioning, user must input right configuration file name in the		
	webpage. When disable Option 66, this parameter has no effect.		

Config File Name	It is used for In-house provision mode only. When use TFTP with option
	66 to realize provisioning, user must input right configuration file name
_	in the webpage. When disable Option 66, this parameter has no effect.
Profile Rule	URL of profile provision file
	Note that the specified file path is relative to the TFTP server's virtual
	root directory.

#### Table 75 Firmware Upgrade

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

Field Name	Description
Upgrade Enable	Enable firmware upgrade via provision or not
Upgrade Error Retry	If the last upgrade fails, the router will try upgrading
Delay(sec)	again after "Upgrade Error Retry Delay" period, default is 3600s
Upgrade Rule	URL of upgrade file

# **SNMP**

#### Table 76 SNMP

Management Firmware Upgrade	LTE Upgrade	Scheduled Tasks	Certificates	Provision	SNMP	TR-069			
SNMP Configuration									
NMP Configuration									
SNMP Service		Enable 🔻							
Trap Server Address		183.234.48.1	55						
Read Community Name		public							
Write Community Name		private	private						
Trap Community		trap	trap						
Trap Period Interval (sec)		300							

Save & Apply Save Cancel Reboot

Field Name	Description
SNMP Service	Enable or Disable the SNMP service
Trap Server Address	Enter the trap server address for sending SNMP traps
Read Community Name	String value that is used as a password to request information via SNMP
	from the device
Write Community Name	String value that is used as a password to write configuration values to the
	device via SNMP
Trap Community	String value used as a password for retrieving traps from the device
Trap period interval(sec)	The interval for which traps are sent from the device

## TR-069

TR-069 provides the possibility of auto configuration of internet access devices and reduces the cost of management. TR-069 (short for Technical Report 069) is a DSL Forum technical specification entitled CPE WAN Management Protocol (CWMP). It defines an application layer protocol for remote management of end-user devices. Using TR-069, the terminals establish connection with the Auto Configuration Servers (ACS) and get configured automatically.

### **Device Configuration using TR-069**

The TR-069 configuration page is available under Administration menu.

T	able 77 TR069					-			
	Management Firm	ware Upgrade	LTE Upgrade	Scheduled Tasks	Provision	SNMP	TR-069	Diagnosis	
	TR-069 Configura	ation							
P	ACS								Т
	TR-069 Enable	Enab	le 🔻						A ti
	CWMP	Enab	le 🔻						Ŭ
	ACS URL	http:/	//acs1.flyingvoice	e.net:8080/tr069					
	User Name	FLY79	9169000194						
	Password	•••••	••••						
	Enable Periodic Inform	m Enab	le 🔻						
	Periodic Inform Interval 1800								
c	Connect Request								
	User Name	FWR	7302						
	Password		•••••						
			Save & Apply	Save Cancel F	Reboot				
F	ield Name	Des	cription						
A	CS parameters								
Т	R069 Enable	Enable or I	Disable TR069						
С	WMP	Enable or I	Disable CWMP						
A	CS URL	ACS URL ad	ddress						
U	ser Name	ACS userna	ame						
Ρ	assword	ACS passw	ord						—

#### 11

Periodic Inform Enable Enable the function of periodic inform or not. By default it is Enabled							
Periodic Inform Interval	Periodic notification interval with the unit in seconds. The default value is						
	3600s						
Connect Request parameters							
Connect Request para	neters						
Connect Request para	neters The username used to connect the TR069 server to the DUT						

# Diagnosis

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

Table	e 78	Diagn	osis
-------	------	-------	------

Management Firmware Upgrade	LTE Upgrade	Scheduled Tasks	Certificates	Provision	SNMP	TR-069	Diagnosis
Packet Trace							Help
Packet Trace							
Tracking Interface	WAN	. ▼					
Packet Trace	star	t stop save					
Ping Test							
Ping Test							
Dest IP/Host Name							
WAN Interface	1_M	ANAGEMENT_VOICE_	INTERNET_R_VI	D_ ▼			
				//			
Apply Cancel							

#### Traceroute Test

Fraceroute Test	
Dest IP/Host Name	
WAN Interface	1_MANAGEMENT_VOICE_INTERNET_R_VID_ ▼
	1
Apply Cancel	

#### Description

#### 1. Packet Trace

Users can use the packet trace feature to intercept packets which traverse the device. Click the Start button to start home gateway tracking and keep refreshing the page until the message trace shows to stop, click the Save button to save captured packets.

#### 2. Ping Test

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

Ping Test		
Dest IP/Host Name		
WAN Interface	1_TR069_VOICE_INTERNET_R_VID_	
	com (115.239.210.26): 56 data bytes .239.210.26: seq=0 ttl=54 time=43.979 ms	_
64 bytes from 115	.239.210.26: seq=1 ttl=54 time=53.875 ms	
	.239.210.26: seq=2 ttl=54 time=45.226 ms .239.210.26: seq=3 ttl=54 time=49.534 ms	
	.239.210.26: seq=4 ttl=54 time=49.045 ms	
	n ning statistics	
www.baidu.con	IT pling scauscies	

#### 3. Traceroute Test

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

iceroute Test		
Dest IP/Host Name	www.google.com	
WAN Interface	1_MANAGEMENT_VOICE_INTERNET_R_VID	
	com (216.58.208.68), 30 hops max, 38 byte packets	
I STATE TO A STATE TO A STATE AND A	.134.254) 1.017 ms 9.507 ms 1.419 ms	
2 * * *		
3 * * *		Ξ
4 * * *		
5 * * *		
6 * * *		
7 * * *		
8 * * *		
9 * * *		-
10 * * *		
10		

# **Operating Mode**

#### Table 79 Operating mode

Management	Firmware Upgrade	LTE Upgrade	Scheduled Tasks	Provision	SNMP	TR-069	Diagnosis	Operating Mode			
Operating Mode Settings											
Operating Mode	e Settings										
Operating Mo	Operating Mode Advanced Mode 🔻										
	Basic Mode										
	Advanced Mode       Save & Apply     Cancel       Reboot										
Description											
Choose the	Choose the Operation Mode as Basic Mode or Advanced Mode.										

# System Log

#### Table 80 System log

Status	Network	Wireless 2.4GHz	Wireless 5GHz	SIP	FXS1	FXS2	Security	Application	Storage
Basic	LAN Host	Syslog							
Refresh	Clear Save								
ProductCl SerialNum BuildTime IP:192.166 HWVer:V4 SWVer:V3 <wed set<br=""><wed set<="" td=""><th>4.4 3.20 p 6 10:40:39 20 p 6 10:40:39 20</th><td>00007 , 017&gt; ipphone[15931]: Ir 017&gt; ipphone[15800]: N</td><th>ew Call from:[][]</th><th>ee</th><th></th><th></th><th></th><td></td><td>-</td></wed></wed>	4.4 3.20 p 6 10:40:39 20 p 6 10:40:39 20	00007 , 017> ipphone[15931]: Ir 017> ipphone[15800]: N	ew Call from:[][]	ee					-
-Wed Se		017> LinkStatus: LAN1 L	ink Up						

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

## Logout

#### Table 81 Logout

<i>VoIP</i> control panel									Firmware Version V3 ime 2017-10-26 09:11:: [Logout] [Reboot	
Status	Network	Wireless 2.4GHz	Wireless 5GHz	SIP	FXS1	FXS2	Security	Application	Storage	Administration
SIP Acco	SIP Account Preferences									
Rasic										
Description										

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

# Reboot

Press the Reboot button to reboot the device.

# **Chapter 4** IPv6 address configuration

The router devices support IPv6 addressing. This chapter covers:

- Introduction
- IPv6 Advance
- Configuring IPv6
- Viewing WAN port status
- IPv6 DHCP configuration for LAN/WLAN clients
- LAN DHCPv6

## Introduction

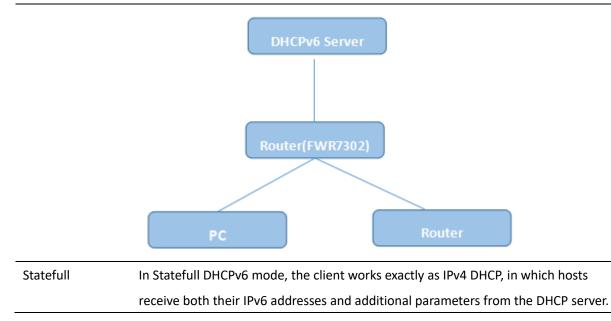
DHCPv6 protocol is used to automatically provision/configure IPv6 capable end points in a local network. In addition to acquiring an IPv6 IP address for the WAN interface and its associated LAN/WLAN clients, the devices are also capable of prefix delegation.

The Routers devices support the following types of modes of IPv6 addresses:

- Stateless DHCPv6
- Statefull DHCPv6

#### Table 82 IPv6 Modes

Mode	Description
Stateless	In Stateless DHCPv6 mode, the Routers devices listen for ICMPv6 Router
	Advertisements messages which are periodically sent out by the routers on the
	local link or requested by the node using a Router Advertisements solicitation
	message. The device derives a unique IPv6 address using prefix receives from the
	router and its own MAC address.



# **IPv6 Advance**

To enable IPv6 functionality:

Navigate to Network > IPv6 Advanced page.

Select Enable from the IPv6 Enable drop-down list.

Click Save.

#### Table 83 Enabling IPv6

Status	Net	work	Wireless	2.4GHz	Wireless 5GH	z	SIP	FXS1	FXS2	Security	Appl	ication
WAN	LAN	IPv6	Advanced	IPv6 WAN	I IPv6 LAN	V	PN	Port Forwar	d DM	Z VLAN	QoS	Rate
Advance	2											
IPv6	Advanc	ed Set	ttings									
IPv6 Ena	ble –											
IPv6 E	nable				E	Enab	le 🔻					
				Save	& Apply Save	Ca	incel	Reboot				

# **Configuring IPv6**

# **Configuring Statefull IPv6**

1. Navigate to Network > IPv6WAN page. The following window is displayed:

#### Table 84 Configuring Statefull IPv6

WAN LAN IPv6 Advanced Advance	IPv6 WAN	IPv6 Lan	VPN	Port Forward	DMZ	VLAN	QoS	Rat
IPv6 WAN Setting								
IPv6 WAN Setting								
Connection Type		C	DHCPv6	•				
DHCPv6 Address Settings		5	Statefull 🕚					
Prefix Delegation		E	Enable 🔻					
	Sa	ave Cancel	l Reboot	:				
Field Name	Description	า						
Connection Type	Select connection	on type						
DHCPv6 Address Settings	Set it to stateful	l mode.						
Prefix Delegation	Select Enable.							

Chapter 4 IPv6 address configuration

# **Configuring Stateless IPv6**

#### Table 85 Configuring Stateless IPv6

WAN LAN IPv6 Advanc	ed IPv6 WAN IPv6 LAN VPN Port Forward DMZ VLAN QoS I	Rate
Advance		
IPv6 WAN Setting		
IPv6 WAN Setting		
Connection Type	DHCPv6 T	
DHCPv6 Address Settings	Stateless 🔻	
Prefix Delegation	Enable 🔻	
	Save Cancel Reboot	
		_
Field Name	Description	
Connection Type	Select connection type	
DHCPv6 Address Settings	Set it to stateless mode	
Prefix Delegation	Select Enable	

# **Viewing WAN port status**

To view the status of WAN port: Navigate to Status page.

Network Status		
ctive WAN Interface		
Connection Type	DHCP	
IP Address	192.168.10.174 R	Renew
Link-Local IPv6 Address		
Subnet Mask	255.255.255.0	
Default Gateway	192.168.10.1	
Primary DNS	192.168.10.1	
Secondary DNS	192.168.18.1	
pv6 PD Prefix		٦.
pv6 Domain Name		
pv6 Primary DNS		
pv6 Secondary DNS		
WAN Port Status	100Mbps Full	

# IPv6 DHCP configuration for LAN/WLAN clients

Wired and wireless clients connected to the Routers can obtain their IPv6 addresses based on how the LAN s ide DHCPv6 parameters are configured. The Routers can be either configured as a DHCPv6 server in which the LAN/WLAN clients get IPv6 addresses from the configured pool. If DHCP server is disabled on the Routers, the clients will get IPv6 addresses from the external DHCPv6 server configured in the network.

# LAN DHCPv6

When IPv6 is enabled, the LAN/WLAN clients of Routers can be configured to receive IPv6 addresses from locally configured IPv6 pool or from an external DHCPv6 server.

To enable LAN DHCPv6 service:

WAN LAN	IPv6 Advanced	IPv6 WAN	IPv6 LAN	VPN	Port Forward	DMZ	VLAN	QoS	Rate L
Advance									
IPv6 LAN S	etting								
IPv6 LAN Settin	g								
IPv6 Address			fec0::1						
IPv6 Prefix Ler	ngth		64		(0-128)				
DHCPv6 Serve	r								
DHCPv6 Status	5		Disable 🔻						
DHCPv6 Mode			Stateless 🔻						
Domain Name									
Server Prefere	nce		255		(0-255)				
Primary DNS S	Server								
Secondary DN	S Server								
Lease Time			86400		(0-86400sec)				
IPv6 Address F	Pool				-		/		
Router Adverti	sement								
Router Adverti	sement		Disable 🔻						
Advertise Inter	rval		30		(10-1800sec)				
RA Managed F	lag		Disable 🔻						
RA Other Flag			Enable 🔻						
Prefix									
Prefix Lifetime			3600		(0-3600sec)				
		Save &	Apply Save	Cancel	Reboot				

# Chapter 5 Troubleshooting Guide

This chapter covers:

- Configuring PC to get IP Address automatically
- Cannot connect to the Web GUI
- Forgotten Password

# **Configuring PC to get IP Address automatically**

Follow the below process to set your PC to get an IP address automatically:

Step 1 : Click the "Start" button

Step 2 : Select "control panel", then double click "network connections" in the "control panel" Step 3 : Right click the "network connection" that your PC uses, select "attribute" and you can see the interface as shown in Figure 3.

Step 4.: Select "Internet Protocol (TCP/IP)", click "attribute" button, then click the "Get IP address automatically".

etworking Sharing	General Alternate Configuration				
Connect using: Microsoft Virtual WiFi Miniport Adapter #2	You can get IP settings assigned au this capability. Otherwise, you need for the appropriate IP settings.	itomatically if your network supports d to ask your network administrator			
Configure	Obtain an IP address automat	ically			
This connection uses the following items:	Use the following IP address:				
Client for Microsoft Networks	IP address:	(e			
<ul> <li>✓ ■ QoS Packet Scheduler</li> <li>✓ ■ File and Printer Sharing for Microsoft Networks</li> </ul>	Subnet mask:	· · ·			
Internet Protocol Version 6 (TCP/IPv6)	Default gateway;	(e) (e)			
A Internet Protocol Version 4 (TCP/IPv4)      A Link-Layer Topology Discovery Mapper I/O Driver      A Link-Layer Topology Discovery Responder	<ul> <li>Obtain DNS server address au</li> <li>Use the following DNS server a</li> </ul>				
Install Uninstall Properties	Preferred DNS server:				
Description	Alternate DNS server:	a. a. a.			
Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.	Validate settings upon exit	Advanced			

# **Cannot connect to the Web**

Solution:

- Check if the Ethernet cable is properly connected
- Check if the URL is correct. The format of URL is: http:// the IP address
- Check on any other browser apart from Internet explorer such Google
- Contact your administrator, supplier or ITSP for more information or assistance.

# **Forgotten Password**

If you have forgotten the management password, you cannot access the configuration web GUI. Solution:

To factory default: press and hold reset button for 10 seconds.