

The FWR7102 High Speed Router User's Guide



V1.0

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1 Preface

Thank you for choosing FWR7102 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 FWR7102 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 FWR7102 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.

FWR7102 wireless router with VoIP is a stand-alone device, which requires no PC to make Internet calls. This product guarantees clear and reliable voice quality on Internet, which is fully compatible with SIP industry standard and able to interoperate with many other SIP devices and software on the market.



2 LED Indicators and Connectors

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

2.1 LED Indicators

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2.2 Hardware Installation

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

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

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

Step 3. Connect one port of 4 LAN ports to your computer with a RJ-45 cable. This device allows you to connect 4 PCs directly.

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

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



- ◆ When using Voice Menu, press * (star) to return the main menu.
- ◆ If any changes made in the IP assignment mode, please reboot the FWR7102 to take the setting into effect.
- ◆ When enter IP address or subnet mask, use "*" (Star) to replace "." (Dot).

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

- ◆ # (pound) key to indicate that you have finish entering the IP address or subnet mask
- ◆ When assigning IP address in Static IP mode, setting IP address, subnet mask and default gateway is a must. If in DHCP mode, please make sure that DHCP SERVER is available in your existing broadband connection to which WAN port of FWR7102 is connected.
- ◆ The default LAN port IP address of FWR7102 is 192.168.1.1 and do not set the WAN port IP address of FWR7102 in the same network segment of LAN port of FWR7102, otherwise it may lead to the FWR7102 fail to work properly.
- ◆ You can enter the password by phone keypad, the matching table between number and letters as follows:
 - To input: D, E, F, d, e, f -- press '3'
 - To input: G, H, I, g, h, i -- press '4'
 - To input: J, K, L, j, k, l -- press '5'
 - To input: M, N, O, m, n, o -- press '6'
 - To input: P, Q, R, S, p, q, r, s -- press '7'
 - To input: T, U, V, t, u, v -- press '8'
 - To input: W, X, Y, Z, w, x, y, z -- press '9'
 - To input all other characters in the administrator password-----press '0',
E.g. password is 'admin-admin', press '236460263'



4.4 Setting up the Time Zone

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

Time/Date Setting

NTP Settings

NTP Enable

Enable

Option 42

Disable

Current Time

2016 - 02 - 24 . 21 : 40 : 13

Sync with host

Sync with host

NTP Settings

(GMT+08:00) China Coast, Hong Kong

Primary NTP Server

clock.fmt.he.net

Secondary NTP Server

cn.pool.ntp.org

NTP synchronization(1 - 1440min)

60

4.5 Setting up the Internet Connection

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

VoIP

control panel

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

Status

Network

Wireless

SIP

FXS1

FXS2

Security

Application

Administration

WAN

LTE

LAN

VPN

Port Forward

DMZ

DDNS

QoS

MAC Clone

Port Setting

Routing

Advance

INTERNET

WAN

WAN IP Mode

DHCP

DHCP Server

LAN Connection Mode

NAT

DNS Mode

Auto

Primary DNS

Secondary DNS

Save

Cancel

Reboot

Help

WAN IP Mode:

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

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

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

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4.8 Make Call

4.8.1 Calling phone or extension numbers

To make a phone or extension number call:

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

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

4.8.2 Direct IP calls

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

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

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

4.8.3 Call Hold

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

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

4.8.4 Blind Transfer

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

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

Step 2. A can hang up.



4.8.5 Attended Transfer

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

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

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

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

4.8.6 Conference

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

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

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

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5.2 Status

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

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

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

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

The picture in the right side is the FWR7102's Status webpage.

5.3 Network&Security

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



WANLTELANVPNPort ForwardDMZDDNSQoSMAC ClonePort INTERNET WAN WAN IP Mode PPPoE LAN Connection Mode NAT DNS Mode Auto Primary DNS Secondary DNS PPPoE PPPoE Account 4346789738 PPPoE Password ***** Confirm Password ***** Service Name Leave empty to autodetect Operation Mode Keep Alive Keep Alive Redial Period(0-3600s) 5	PPPoE Account	Assign a specific valid user name provided by the ISP
	PPPoE Password	Assign a valid password provided by the ISP
	PPPoE Auto-Dial	If or not enable PPPoE Password.
	DNS Mode	Set the DNS Mode from Auto and Manual, If user choose manual, you should fill the primary DNS address and Secondary DNS address into Primary DNS Address and Secondary DNS Address.
	Primary DNS Server	Type in the primary IP address for the route
	Secondary DNS Server	Type in secondary IP address for necessity in the future

DDNS Setting

DDNS Settings DDNS Provider dyndns.org DDNS Account DDNS Password DDNS Name	DDNS Provider	Use the drop down list to select one DDNS Provider domain
	DDNS Account	Fill in the DDNS account.
	DDNS Password	Fill in the DDNS Password.
	DDNS Name	Fill in the DDNS name.



Primary DNS 192.168.11.1 Secondary DNS Client Lease Time (0-86400s) 86400 DNS Proxy Enable	DHCP Ending Address Enter a value of the IP address pool for the DHCP server to end with when issuing IP addresses. Primary/Secondary DNS Input the primary or secondary DNS IP address. You must specify a DNS server IP address here because your ISP should provide you with usually more than one DNS Server. If your ISP does not provide it, the router will automatically apply default DNS Server IP address: 202.96.134.33 to this field. You must specify a DNS server IP address here because your ISP should provide you with usually more than one DNS Server. If your ISP does not provide it, the router will automatically apply default DNS Server IP address: 202.96.128.86 to this field. 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	Secondary DNS It allows you to set the leased time for the specified PC.

5.3.3 DMZ/Port Forward

DMZ

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

DMZ Enable	If or not enable DMZ.
-------------------	-----------------------



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

Port Forward

WANLTELANVPNPort ForwardDMZDDNSQoSMAC ClonePort SettingRoutingAdvance

Port Forwarding

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

Delete Selected

Add

Edit

Virtual Servers

No.	Comment	IP Address	Public Port	Private Port	Protocol
-----	---------	------------	-------------	--------------	----------

Delete Selected

Add

Edit

Virtual Servers

Comment

IP Address

Public Port

Private Port

Protocol

TCP&UDP

(The maximum rule count is 32)

Apply

Cancel

5.3.4 MAC Clone

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





5.5.2 FXS

StatusNetworkWirelessSIPFXS1FXS2SecurityApplicationAdministration

SIP AccountPreferencesDial PlanBlacklistCall Log

Help

Basic

Basic Setup

Line EnableEnable

Outgoing Call without RegistrationDisable

Proxy and Registration

Proxy Serverflyingvoicesz.ddns.net

Outbound Server

Backup Outbound Server

Proxy Port5060

Outbound Port5060

Backup Outbound Port5060

Subscriber Information

Display Name540

Account540

Phone Number540

Password

Audio Configuration

Codec Setup

Audio Codec Type 1G.711U

Audio Codec Type 2G.711A

Audio Codec Type 3G.729

Audio Codec Type 4G.722

Audio Codec Type 5G.723

Basic:

Set the basic
your VoIP Se
Phone Numb
SIP Proxy an

Audio Confi

Select the au
use.

Supplemen
Subscriptio

Call Waiting
your phone t
calls during t

Advanced:

The Advance
Administrato

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5.6.2 Dial Plan

StatusNetworkWirelessSIPFXS1FXS2SecurityApplicationAdministration

SIP AccountPreferencesDial PlanBlacklistCall Log

Dial Plan

General

Dial PlanEnable

Unmatched PolicyAccept

No.	FXS	Digit Map	Action	Move Up	Move Down	
1	FXS 1	100xx	Dial Out	⬆	⬇	☐
2	FXS 1	11[03459]	Dial Out	⬆	⬇	☐
3	FXS 1	111xx	Dial Out	⬆	⬇	☐
4	FXS 1	12[02]	Dial Out	⬆	⬇	☐
5	FXS 1	121xx	Dial Out	⬆	⬇	☐
6	FXS 1	123xx	Dial Out	⬆	⬇	☐
7	FXS 1	12530	Dial Out	⬆	⬇	☐

Help

Dial Plan:

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

1. '0 1 2 3 4 5 6 7 8 9 * #' : Legal characters.

2. 'x' : Lowercase letter x stands for one legal character.

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

4. 'x.' : Match to x, xx, xxx, xxxx, ... ; For example?01.'can match'0'? 01'?011'?0111111?.

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





5.7.2 DMZ

StatusNetworkWirelessSIP AccountPhoneAdministrationSecurity

Filtering SettingDMZMAC ClonePort ForwardContent Filtering

Please REBOOT to make the changes effective!

Demilitarized Zone (DMZ)

DMZ Setting

DMZ Enable

Enable

DMZ Host IP Address

5.7.3 MAC Clone

MAC Address Clone

MAC Address Clone

MAC Address Clone

Enable

MAC Address

Get Current PC MAC



5.7.5 Content Filtering

Webs URL Filter Settings

Current Webs URL Filters:

No.	URL
DeleteCancel	

Add a URL Filter:

URL:

AddCancel

Webs Host Filter Settings

Current Website Host Filters:

No.	Host(Keyword)
DeleteCancel	

Add a Host (keyword) Filter:

Keyword:

AddCancel



StatusNetworkWirelessSIPFXS1FXS2SecurityApplicationAdministration

ManagementFirmware UpgradeScheduled TasksCertificatesProvisionSNMPTR069DiagnosisOpen

Please REBOOT to make the changes effective!

Provision

Configuration Profile

Provision Enable

Disable ▾

Resync On Reset

Enable ▾

Resync Random Delay(sec)

40

Resync Periodic(sec)

3600

Resync Error Retry Delay(sec)

3600

Forced Resync Delay(sec)

14400

Resync After Upgrade

Enable ▾

Resync From SIP

Disable ▾

Option 66

Enable ▾

Option 67

Disable ▾

Config File Name

\$(MA)

User Agent

Profile Rule

Help

Provision:

Provision allows resync to a spec on a TFTP server which use HTTP

Firmware Upgrade



5.11 Reboot

Press the **Reboot** button to reboot FWR7102.



6.1 Can not connect to the configuration Website

Solution:

Check if the Ethernet cable is properly connected, then

Check if the URL is right wrote, the format of URL is: ***http:// the IP address: 8080***, 8080 must be added, then

Check if the version of IE is IE8, or use other browser such as Firefox or Mozilla, then

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

6.2 Forget the Password

If user changed the password and then forgot, you can not access to the configuration website.

Solution:

To factory default: press reset button 10s.



7 Statement

FCC Radiation Exposure Statement

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

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

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

FCC Radiation Exposure Statement

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled

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environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

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

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

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

CE Statement

Hereby, Flyingvoice Technology Co., Ltd.declares that this device is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC

Adapter Caution: Adapter shall be installed near the equipment and shall be easily accessible.

Do not store or use your phone in temperatures higher than 45°C.

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

C €2200

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