

USER MANUAL FPX9102H

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About This User Guide

Thank you for choosing FPX9102H 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 FPX9102H 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 FPX9102H 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.FPX9102H 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 Troubleshooting Guide

About This User Guide

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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

CE certification

This device complies with the EU Directive 2014/35 / EU and the EMC Directive 2014/30 / EU.

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.

Operational safety requirements



Warnning

• Unloaded power outlets or damaged wires and plugs may cause electric shock or fire. Check the relevant power cable regularly. If its appearance has been damaged, replace it immediately.

• Please use the power adapter provided for you. Using other power adapters can damage the device or prevent the device from working properly.

• This product should be installed in a place with ventilation and no high temperature and no sunlight, in order to avoid overheating and failure of the product and related accessories.

• Communication equipment should be protected against moisture and moisture and prevent water ingress. Influent water will cause the equipment to work abnormally and it is more likely to cause other hazards due to short circuit.

 \cdot Do not place this product on an unstable support.

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:



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:

- FPX9102H
- LED Indicators and Interfaces
- Hardware Installation

FPX9102H

Port/Model	FPX9102H
Picture	
WAN port	1
LAN port	4
FXO port	2
Ethernet	5* RJ45 10/100/1000M
interface	
USB interface	Yes
Speed limit NAT	Yes
FAX	T.30, T.38 Fax
WiFi	2.4G 2T2R (300Mbps),5G 2T2R (867Mbps)
Voice code	G.711 (A-law/U-law), G.729A/B, G.723,G.726
Management	Voice menu, Web Management, Provision:TFTP/HTTP/HTTPS, TR069, SNMP
Vlan	support

LED Indicators and Interfaces

LED Indicators

FPX9102H



LED	Status	Description					
	Blinking(Green)	There is transmitting data or registering					
PHONE1/2	On(Green)	Register successfully but no transmitting data					
	Off	Register failure or don't register					
	Blinking(Green)	There is transmitting data					
5G	On(Green)	5G is work					
	Off	There is no 5G					
	On(Green)	2.4G is work					
2.4G	Blinking(Green)	There is transmitting data					
	Off	There is no 2.4G					
	On (Green)	The port is connected but no transmitting data					
LAN 1/2/3/4	Off	The port is disconnected.					
	Blinking(Green)	It will blink while transmitting data.					
	Blinking(Green)	The port is connected					
WAN	Off	The port is disconnected.					
	Blinking(Green)	It will blink while transmitting data.					

Interfaces

FPX9102H



Interface	Description
POWER	Connector for a power adapter
PHONE1/2	Connector for a analog phone
LAN(1/2/3/4)	Connectors for local networked devices
WAN	Connector for accessing the Internet
RST	Factory reset, press 5s to restore the factory settings

Hardware Installation

Installation preparation

Before installing the equipment, check whether the items are complete and the installation conditions are met. Open the packing box of the equipment and check the contents of the box against the item list. If you find that the contents of the box do not match the list, please contact us directly. The device can be placed on a table or on a wall.



Notes

- The installation site must have the equipment and external connection conditions (such as: power cord, network cable, PC, etc.). The AC power outlet should use a single-phase three-core power socket, and ensure that the ground wire is reliably grounded.
- The environment of the installation site must ensure adequate air flow to facilitate the heat dissipation of the equipment (appropriate operating temperature of the equipment is -10°C to 45°C).
- The installation site should be waterproof, moisture-proof, lightning-proof and other conditions (appropriate environmental humidity of the equipment is 10% to 95%).

Installation steps

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

Upstream Ethernet connection

- Use RJ-11 cable to connect the phone port to the fixed phone jack;
- Connect the device's port to the modem using an Ethernet cable;
- Connect the lan port of your computer and device through RJ-45 cable;
- One end of the power cord is connected to the power connector of the device, and the other end is connected to a power outlet;

- Start the router
- Check the power, wan, and lan LEDs to ensure network connectivity.



Warning

Do not attempt to use an unsupported power adapter, and do not unplug the power supply while configuring or changing the device.Using other power adapters may damage the device and will void the manufacturer's warranty.

Chapter 2 Basic configuration

This chapter covers:

- · Login web page
- · Network Configuration
- Wireless Configuration
- · FXO port

Login web page

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

(1) For administrator mode operation, please type "admin/admin" on Username/Password and click Login button to begin configuration, This level can configure all parameters of the operating device.

(2) For user mode operation, please type "user/user" on Username/Password and click Login button to begin configuration.Users at this level can browse and configure some of the phone parameters, some parameters in the SIP line that cannot be changed, such as server addresses and ports, which cannot be configured by users at this level.

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.

Open a web browser on your PC and type "http://192.168.1.1:8080". The following window appears that prompts for Username and Password.

VoIP	con	trol panel		
Us Pa	ername ssword	admin	Login	

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 and port of WAN>. The following login page will be opened to enter username and password.



About Password

There are two types of login levels for the device: administrator level and normal user level. Different standards have different passwords.

The default administrator level login password is admin/admin

The default normal user level login password is user/user

1.Change Password

Log into the device WEB page, switch to the Manage - Manage page, find the "Reset Password" tab, select the user type, then set a new user name and password, click "Save".

Administrator Settings		
Password Reset		
User Type	Admin User 🔻	
New User Name	admin	
New Password		(The maximum length is 25)
Confirm Password		

2.Forgot password

If the user changes the ATA page login password but forgets it, the user cannot enter the ATA configuration interface. At this time, press and hold the restore factory button for more than 5 seconds to restore the device to the factory settings and log in using the default password.

Note

If the following prompt appears:

After restoring factory default settings or uploading configuration files, click on REBOOT to ensure they are activated!

Please reboot the device to ensure that the changes take effect.

Network Configuration

Configuring an Internet Connection

From the Network > WAN page, WAN connections may be inserted or deleted. For more information on setting, Please refer to the following table.

Status Network IPP	X Wireless 2.4GHz Wireless 5GHz Security Application Storage
WAN LAN IPv6 Advance	d IPv6 WAN IPv6 LAN VPN Port Forward DMZ DDNS QoS
Advance L2TP	
INTERNET	
AN	
WAN IP Mode	DHCP V
DHCP Server	
MAC Address Clone	Disable 🔻
LAN Connection Mode	NAT 🔻
DNS Mode	Auto 🔻
Primary DNS	
Secondary DNS	
AN ID Mode	You can choose which mode to use
AN IP Mode	You can choose which mode to use
	DHCP: router can get IP from DHCP server
	STATIC: you need setting IP manually
	PPPoE: need username and password for your Internet service provide
HCP server	DHCP server IP
IAC Address Clone	If enable "MAC Address Clone" feature
AN Connection Mode	Choose LAN port connection mode:NAT,bridge
NS Mode	Choose DNS mode:Auto,Manual
	1. When the DNS mode is Auto, the device under the LAN port will
	automatically obtain Primary DNS and Secondary DNS
	2. When the DNS mode is Manual, the user should manually configure
	Primary DNS and Secondary DNS
rimary DNS	Preferred DNS for internet ports
econdary DNS	Secondary DNS for Internet ports

Wireless Configuration

Status	Network	IPPBX	Wireless 2	.4GHz	Wireless 5G	Hz	Security	Application	Storage	Administration
Basic	Wireless Secu	rity WMM	1 WDS	WPS	Station Info	Ad	vanced			
Basic	Wireless Set	ttings								
Wireless Radio (Wireles Networ Multiple Multiple	Network Dn/Off ss Connection Mo rk Mode e SSID1 e SSID2	ode		Radi AP 11n 3 9102	0 On V 1 V 2 only(2.4G) 0D6CD0	▼ Ena	4 ble ♥ Hidde ble ■ Hidde	en Isolated	Max Client Max Client	16 16
broadc AP Isol MBSSID BSSID FLYING Freque	ast(SSID) lation D AP Isolation SVOICE WIPO ency (Channel)			 E E 00:3 E Auto 	nable Disabl nable Disabl nable Disabl 21:F2:0D:6C:D0 nable Disabl	e e e v				

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

- 1. Radio On/Off: please choose On, enable wireless network.
- 2. Wireless Connection Mode: default is AP.
- 3. Multipe SSID1:you can set the SSID(network name) of your wireless network here.
- 4. And please don't forgot "Enable" this SSID, or you will can't find the wireless

Status	Network	ІРРВХ	Wireless	Vireless 2.4GHz Wire		Wireless 5GHz Security		Storage	
Basic	Wireless Secur	ity WMM	WDS	WPS	Station Info	Advanced			
WIFI	Security Sett	ing							
Select SS	[D								
SSID d	noice				91020D6CD	0 - 5			
<mark>"</mark> 91020	D6CD0"								
Securit	y Mode				WPA-PSK	v 6			
WPA									
WPA A	gorithms				🖲 TKIP 🌘	AES TKIPAE	S 7		
Pass Ph	nrase				*****				
Key Re	enewal Interval 3600 sec (0 ~ 86400)								
Access	policy								
Policy					Disable 🔻				
Add a s	station MAC					(The ma	ximum rule <mark>coun</mark> t i	is 64)	

- 5. Need to choose which SSID you want to encrypt.
- 6. Choose encrypt mode.
- 7. Set the SSID's password, you need use this password to connect the SSID.
- 8. When you finished setting, must save and reboot router.
- 9. Wireless 5G setting:Please refer to the wireless 2.4G.

FXO Ports

To use the FXO ports, please perform the following steps:

1. Please connect FPX9102H like this picture:



2. There is simple PBX feature on FPX9102H, so you can use it to make some extension numbers in your office. There are 10 numbers by default, you can just use them, sip server ip is FPX9102H's WAN ip.

Status	Network	ІРРВХ	Wireless 2.4GHz	Wireless 5GHz	Security	Application	Storage	
Basic	Users							
								Ĩ

Registe	r Manager			
No.	Extension	PassWord	Full Name	Client MAC
	600	password600	600	
	601	password601	601	
	602	password602	602	
	60 <mark>3</mark>	password603	603	
	604	password604	604	
	605	password605	605	
	606	password606	606	
	607	password607	607	
	608	password608	608	
0	609	password609	609	

3. Or you can add other numbers, add steps:

Delete Selected	Add	Edit
Add or Edit a User:		
Extension		
PassWord		
Full Name		
Client MAC		
Apply Cancel]	

Extension:extension number

Password: extension number's registertion password.

Full Name: display name

Client MAC: if you want this number bind one phone, you can input the phone's MAC address in here.

Then click "Apply" and reboot FPX9102H.

After reboot, you can use the number you add normally.

And you can check these extension numbers status in FPX9102H's web page(status page)

Chapter 3 Web Interface

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

- ·Web Interface Structural
- ·Status page
- ·Network page
- ·IPPBX
- ·Wireless 2.4G
- ·Wireless 5G
- ·Security
- ·Application
- ·Administration

Web Interface Structural

Web interface

VoIP	contr	ol pane		1	
Status Network IPPBX	Wireless 2.4GHz	Wireless 5GHz	Security	Application	Storage
Basic LAN Host Syslog	2				
Product Information					
Product Information		3			
Product Name	FPX9102H				
Internet (WAN) MAC Address	00:21:F2:0D:6C:D1				
PC (LAN) MAC Address	00:21:F2:0D:6C:D0				
Hardware Version	V3.1				
Loader Version	V3.06(Nov 1 2016 17:	12:51)			
Firmware Version	V3.20(201709010452)				
Serial Number	FLY69167000116				

Field Name	Descript						
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						
5515 677997	parameters immediately take effect.						
	Any time changes are made click "Save" to confirm and save the changes.						
Save	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

Status page

Basic

The web page displays some current information about the device, including version information, network status, and wireless status.

Status	Network	IPPBX	Wireless 2.4GHz	Wireless 5GHz	Security	Application	Storage				
Basic	LAN Host	Syslog									
Produc	t Informati	on									
Product In	formation										
Product Name		FPX9102H	FPX9102H								
Internet((WAN) MAC Add	dress	00:21:F2:0D:6C:D1	00:21:F2:0D:6C:D1							
PC(LAN)	MAC Address		00:21:F2:0D:6C:D0	00:21:F2:0D:6C:D0							
Hardwar	e Version		V3.1	V3.1							
Loader V	'ersion		V3.06(Nov 1 2016 :	V3.06(Nov 1 2016 17:12:51)							
Firmware Version			V3.11(201611182233)								
Serial Nu	imber		FLY69167000116								

Line Status

Line Status		
SIP Trunk 1		
SIP Trunk 2		
SIP Trunk 3		
SIP Trunk 4		
SIP Trunk 5		
SIP Trunk 6		
SIP Trunk 7		
SIP Trunk 8		
Exten1	600,Unavailable	
Exten2	601,Unavailable	
2012 11022	1 AUGUST 1 AUGUST 1	

LAN host

Status	Network	ІРРВХ	Wireless 2.4GHz	Wireless 5GHz	Security	Application	Storage	Administration				
Basic	LAN Host	Syslog										
LAN Host Info												
	MAC Address IP Address				Address Source Expires			Host Name	Status			
IPv6 LA	N Host Info)										
MAC Address						ess		Expires				
	Description											

Here you can see some information about the host connected to the device LAN port

Syslog

Status	Network	IPPBX	Wireless 2.4GHz	Wireless 5GHz	Security	Application	Storage	Administr
Basic	LAN Host	Syslog						
Refresh	Clear Save]						
Manufactu ProductCla	irer:FLYINGVOI ass:FPX9102H	CE						
SerialNum BuildTime	ber:FLY691670 :201709010452	00116						
IP:192.16 HWVer:V3	8.1.1:8080 .1							
<pre>SWVer:V3 <wed apr<="" pre=""></wed></pre>	.20 18 14:06:51 20	018> kernel:	Wireless: Send AUTH re	esponse (SUCCESS)				
<wed apr<br=""><wed apr<="" th=""><td>18 14:06:51 20 18 14:06:51 20</td><th>018> kernel: 018> kernel:</th><th>Wireless: Rcv ASSOC Fi Wireless: Send ASSOC</th><th>rom 00:21:t2:36:4t:27 response To 00:21:t2</th><th>:36:4f:27</th><td></td><td></td><td></td></wed></wed>	18 14:06:51 20 18 14:06:51 20	018> kernel: 018> kernel:	Wireless: Rcv ASSOC Fi Wireless: Send ASSOC	rom 00:21:t2:36:4t:27 response To 00:21:t2	:36:4f:27			
<wed apr<br=""><wed apr<="" th=""><td>18 14:06:57 20</td><th>018> kernel: 018> kernel:</th><th>Wireless: Rcv DeAuther Wireless: Rcv AUTH Fro</th><th>ntication From 00:21: pm 00:21:f2:36:4f:27</th><th>t2:36:4t:27</th><td></td><td></td><td></td></wed></wed>	18 14:06:57 20	018> kernel: 018> kernel:	Wireless: Rcv DeAuther Wireless: Rcv AUTH Fro	ntication From 00:21: pm 00:21:f2:36:4f:27	t2:36:4t:27			
<wed apr<br=""><wed apr<="" th=""><td>18 14:06:59 20 18 14:06:59 20</td><th>018> kernel: 018> kernel:</th><th>Wireless: Send AUTH re Wireless: Rcv ASSOC Fi</th><th>esponse (SUCCESS) rom 00:21:f2:36:4f:27</th><th></th><td></td><td></td><td></td></wed></wed>	18 14:06:59 20 18 14:06:59 20	018> kernel: 018> kernel:	Wireless: Send AUTH re Wireless: Rcv ASSOC Fi	esponse (SUCCESS) rom 00:21:f2:36:4f:27				
<wed apr<br=""><wed apr<="" th=""><td>18 14:06:59 20 18 14:06:59 20</td><th>018> kernel: 018> kernel:</th><th>Wireless: Send ASSOC Fill Wireless: Rcv ASSOC Fill</th><th>response To 00:21:f2 rom 00:21:f2:36:4f:27</th><th>:36:4f:27</th><td></td><td></td><td></td></wed></wed>	18 14:06:59 20 18 14:06:59 20	018> kernel: 018> kernel:	Wireless: Send ASSOC Fill Wireless: Rcv ASSOC Fill	response To 00:21:f2 rom 00:21:f2:36:4f:27	:36:4f:27			
<wed apr<br=""><wed apr<="" th=""><td>18 14:07:00 20 18 14:07:00 20</td><th>018> kernel: 018> kernel:</th><th>Wireless: Send ASSOC Wireless: Rcv ASSOC Fi</th><th>response To 00:21:f2 rom 00:21:f2:36:4f:27</th><th>:36:4f:27</th><td></td><td></td><td></td></wed></wed>	18 14:07:00 20 18 14:07:00 20	018> kernel: 018> kernel:	Wireless: Send ASSOC Wireless: Rcv ASSOC Fi	response To 00:21:f2 rom 00:21:f2:36:4f:27	:36:4f:27			
<wed apr<br=""><wed apr<="" th=""><td>18 14:07:00 20 18 14:07:01 20</td><th>018> kernel: 018> kernel:</th><th>Wireless: Send ASSOC Wireless: Rcv DeAuther</th><th>response To 00:21:f2 ntication From 00:21:</th><th>:36:4f:27 f2:36:4f:27</th><td></td><td></td><td></td></wed></wed>	18 14:07:00 20 18 14:07:01 20	018> kernel: 018> kernel:	Wireless: Send ASSOC Wireless: Rcv DeAuther	response To 00:21:f2 ntication From 00:21:	:36:4f:27 f2:36:4f:27			
<wed apr<br=""><wed apr<="" th=""><td>18 14:07:03 20 18 14:07:03 20</td><th>018> kernel: 018> kernel:</th><th>Wireless: Rcv AUTH Fro Wireless: Send AUTH re</th><th>om 00:21:f2:36:4f:27 esponse (SUCCESS)</th><th></th><td></td><td></td><td></td></wed></wed>	18 14:07:03 20 18 14:07:03 20	018> kernel: 018> kernel:	Wireless: Rcv AUTH Fro Wireless: Send AUTH re	om 00:21:f2:36:4f:27 esponse (SUCCESS)				

Description

On this page, users can refresh, clear and save relevant system information by clicking the corresponding button

Network page

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 section mainly introduces the WAN port network connection mode in the basic mode.

(1) Static IP

This configuration can be used when the user receives a fixed public IP address or public subnet, ie multiple public IP addresses, from the Internet provider. In most cases, the cable service provider will provide a fixed public IP, and the DSL service provider will provide a public subnet. If you have a public subnet, you can assign an IP address to the WAN interface.

Status	Netv	vork	ІРРВХ	Wireless 2	.4GHz	Wireless 5	GHz	Security	/ App	Application				
WAN	LAN	IPv6	Advanced	IPv6 WAN	IPv6 L4	N VPN	Por	t Forward	DMZ	DDNS	QoS			
Advance	L2T	P												
INTER	NET													
WAN														
WAN IP	Mode			Statio										
MAC Ad	dress Clo	one		Disat	Disable 🔻									
LAN Cor	nnection	Mode		NAT	NAT T									
Static														
IP Addr			192.1	68.10.247										
Subnet	Mask			255.2	55.255.0									
Default	Gateway	1		192.1	192.168.10.1									
DNS Mo	de			Manu	ial 🔻									
Primary	DNS			192.168.10.1										
Seconda	ary DNS			192.1	68.18.1									
Field N	lame]	Descr	iptio						
IP Addres	s		Tł	ne IP address	of Intern	et port								
Subnet M	ask		Tł	ne subnet ma	subnet mask of Internet port									
Default G	ateway		Tł	ne default gat	default gateway of Internet port									
DNS Mod	le		Se	Select DNS mode, options are Auto and Manual:										
				1. When	DNS mo	ode is Aut	o, the	device u	nder LA	AN port	will			
				automa	ically ob	otain the pre	ferred	DNS and	alternate	DNS.				
				2. When	DNS mo	ode is Ma	nual,	the user 1	manually	configu	res the			

Primary DNS Address	The primary DNS of Internet port
Secondary DNS Address	The secondary DNS of Internet port

(2) DHCP

The DHCP server assigns a private IP address to each local client.

The DHCP function allows the FPX9102H to automatically obtain an IP address from a DHCP server. In this case, there is no need to manually assign an IP address to the client.

Status Network IPPBX		Wireless 2.	4GHz V	/ireless 50	GHz	Security	Application		Storage				
WAN L	AN IPv6	Advanced	IPv6 WAN	IPv6 LAN	VPN	Port	Forward	DMZ	DDNS	QoS	Rat		
Advance	L2TP												
INTERN	ET												
WAN													
WAN IP M	ode		DHCF	•									
DHCP Ser	ver												
MAC Addr	ess Clone		Disab	le 🔻									
LAN Conn	ection Mode		NAT	NAT									
DNS Mode	•		Manu	Manual 🔻									
Primary D	NS												
Secondary	DNS												
Field Nar	ne		Descrij	otion									
WAN IP N	Mode		Choose	Choose DHCP mode, default is DHCP									
DHCP set	ver		DHCP	DHCP server IP									
MAC Add	lress Clone)	If enable	If enable "MAC Address Clone" feature									
LAN Con	nection Mo	ode	Choose	Choose LAN port connection mode:NAT,bridge									
DNS Mod	le		Choose	Choose DNS mode:Auto,Manual									
			1.Wher	the DNS r	node is A	uto, tł	he device	under the	e LAN po	rt will			
			automa	tically obta	in Primar	y DN	S and Seco	ondary I	DNS				
			2.Wher	2. When the DNS mode is Manual, the user should manually configure									
			Primary	y DNS and	Secondar	y DN	S						
Primary D	NS Addre	SS	The pri	mary DNS	of Interne	et port	t						
Secondary	DNS Add	ress	The sec	condary DN	S of Inter	rnet po	ort						

(3) PPPoE

PPPoE stands for Point-to-Point Protocol over Ethernet. It relies on two widely accepted standards: PPP and Ethernet. It connects users through an Ethernet to the Internet with a common broadband medium, such as a

single DSL line, wireless device or cable modem. All the users over the Ethernet can share a common connection. PPPoE is used for most of DSL modem users. All local users can share one PPPoE connection for accessing the Internet. Your service provider will provide you information about user name, password, and authentication mode.

Status	Network	ІРРВХ	Wireless 2.	4GHz	Wireless 50	GHz Security		Application		Storage		
WAN	LAN IPv	6 Advanced	IPv6 WAN	IPv6 LAN	N VPN	Port	Forward	DMZ	DDNS	QoS	Rat	
Advance	L2TP											
INTER	NET											
WAN												
WAN TP	Mode		PPPo	T								
MAC Ad	dress Clone		Disab	le T								
LAN Cor	nnection Mode	6	NAT	•								
DNS Mo	de		Auto	•								
Primary	DNS											
Seconda	ary DNS											
PPPoE												
PPPoE A	Account											
PPPoE P	assword		•••••	••••								
Confirm	Password		•••••	••••••								
Service	Name											
			Leave	empty to a	utodetect							
Operatio	on Mode		Keep	Alive 🔻								
Keep Ali	ive Redial Peri	od (0-3600s)	5									
Field Na	ame		Descrip	otion								
WAN IP	Mode		Choose	Choose PPPoE mode								
MAC A	ddress Clone	e	If enabl	If enable "MAC Address Clone" feature								
LAN Co	onnection M	ode	Choose	Choose LAN port connection mode:NAT,bridge								
DNS Mo	ode		Choose	DNS mo	de:Auto,M	anual						
			1.When	1. When the DNS mode is Auto, the device under the LAN port will								
			automat	tically obt	tain Primar	y DN	S and Seco	ndary E	ONS			
			2.When	the DNS	mode is M	lanual	l, the user s	hould n	nanually c	configur	e	
			Primary	DNS and	d Secondar	y DN	S					
Primary	DNS Addre	SS	The prin	The primary DNS of Internet port								
Seconda	ry DNS Add	lress	The sec	The secondary DNS of Internet port								
PPPoE A	Account		Enter a	Enter a valid user name provided by the ISP								
PPPoE F	Password		Enter a	valid pas	ssword pro	vided	by the ISI	P. The p	assword	can con	Itain	

	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 Period	Set the interval to send Keep Alive messaging

LAN

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

Status Network	tatus Network IPPBX Wirel		/ireless 2.4GHz Wireless 5GHz				Application		Storage			
WAN LAN IPv6 A	dvanced	IPv6 WAN	IPv6 LAN	N VPN	Port	Forward	DMZ	DDNS	QoS	Ra		
Advance L2TP												
r												
PC Port(LAN)												
C Port(LAN)												
Local IP Address				192.168.1.	1							
Local Subnet Mask				255.255.25	5.0							
Local DHCP Server				Enable 🔻								
DHCP Start Address				192.168.1.	2							
DHCP End Address				192.168.1.254								
DNS Mode				Auto 🔻								
Primary DNS				192.168.1.1								
Secondary DNS				192.168.10.1								
Client Lease Time (0-864	00s)			86400								
TFTP Server IPAddr		192.168.1.1										
Boot File												
				DHCP Clie	nt <mark>L</mark> ist							
DHCP Static Allotment						- 63						
NO.		MAC				TP Addre	ss			10		

Field Name	Description
Local IP Address	Enter the IP address of the router on the local area network. All the IP addresses of
	the computers which are in the router's LAN must be in the same network
	segment with this address, and the default gateway of the computers must
	be this IP address. (The default is 192.168.1.1).
Local Subnet Mask	Enter the subnet mask to determine the size of the network (default is
	255.255.255.0/24).
Local DHCP Server	Enable/Disable Local DHCP Server.
DHCP Start Address	Enter a valid IP address as a starting IP address of the DHCP server, and if
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.

IPv6 Advance

To enable IPv6 functionality:

- 1.Navigate to Network > IPv6 Advanced page.
- 2.Select Enable from the IPv6 Enable drop-down list.

3.Click Save.



IPv6 WAN

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

Prefix Delegation

Status Network IPPB)	Wireless 2.4GHz	Wireless 5GHz	Security	Application	Storage			
WAN LAN IPv6 Advanced	IPv6 WAN IPv6 I	LAN VPN Port	t Forward	DMZ DDNS	QoS Rat			
Advance L2TP				2007 1110				
IPv6 WAN Setting								
IPv6 WAN Setting								
Connection Type		DHCPv6 T						
DHCPv6 Address Settings		Stateless 🔻						
Prefix Delegation		Disable 🔻						
Field Name	Description							
Connection Type	Select connection ty	pe:DHCPv6,STA	FIC IPv6,PP	РоЕ				
DHCPv6 Address Settings	Set it to statefull or	Stateless mode.						

Select enable or disable

IPv6 LAN

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:

Status	Network	IPPBX	Wireless 2	.4GHz V	Wireless 5	GHz	Security	Ар	plication	Storag	je
WAN	LAN IPv6	Advanced	IPv6 WAN	IPv6 LAN	VPN	Por	t Forward	DMZ	DDNS	QoS	
Advance	L2TP										
IPv6 L	AN Setting										
IPv6 LAN	Setting										_
IPv6 Ac	Idress			fec0::1							
IPv6 Pr	efix Lenath			64		(0-	128)				
DHCPv	6 Server										
DHCPve	6 Status			Disable 🔻							
DHCPv	6 Mode			Stateless 🔻							
Domain	Name										
Server	Preference			255			255)				
Primary	DNS Server										
Second	ary DNS Server					1					
Lease T	Time			86400		(0-	86400sec)				
IPv6 Ad	dress Pool					—i-			/		
Router	Advertisement								- r		
Router	Advertisement			Disable 🔻							
Advertise Interval				30 (10-1800sec)							
RA Managed Flag				Disable T							
RA Oth	er Flag	Enable 🔻									
Prefix											
Prefix L	ifetime			3600		(0-	3600sec)				

VPN

VPN is a technology that establishes a private network on a public network. The connection between any two nodes of the VPN network does not have the end-to-end physical link required by the traditional private network, but is structured on the network platform provided by the public network service provider, and the user data is transmitted on the logical link. Through VPN technology, users can establish private connections and transmit data between any two devices on the public network. The FPX9102H supports PPTP, L2TP, and Open VPN.

PPTP

Status	Net	work	IPPBX	Wireless 2.	.4GHz	Wireless 5GHz Security		rity Application		Storage			
WAN	LAN	IPv6	Advanced	IPv6 WAN	IPv6 L	AN	VPN	Port Forward		DMZ	DDNS	QoS	Rat
Advance	L21	IP											
VPN S	etting	s											

Parameters name	Description
VDNI En al la	Whether to enable VPN.
VPIN Enable	Select PPTP mode.
Initial Service IP	The IP address of the VPN server.
User Name	The user name required for authentication.
Password	The password required for authentication.
VPN As Default Route	Prohibited or open, the default is prohibited.
MPPE Stateful	Disable or enable MPPE Stateful.
Require MPPE	Disable or enable Require MPPE.

L2TP
Status Network II	PBX Wireless 2.	4GHz W	ireless 5GI	Hz Security	Арр	lication	Storag	ge			
WAN LAN IPv6 Adva Advance L2TP	nced IPv6 WAN	IPv6 LAN	VPN	Port Forward	DMZ	DDNS	QoS	Ra			
VPN Settings											
Administration											
VPN Enable	L2TP	•									
Initial Service IP											
User Name											
Password	••••••	:									
L2TP Tunnel Name											
L2TP Tunnel Password	••••••										
VPN As Default Route	Disable •]									
Parameters name			Des	scription							
	Whether to enab	le VPN.									
VPN Enable	Select PPTP mo	de.									
Initial Service IP	The IP address of	of the VPN s	server.								
User Name	The user name r	equired for	authentica	tion.							
Password	The password required for authentication.										
L2TP Tunnel Name	L2TP Tunnel Na	L2TP Tunnel Name									
L2TP Tunnel Password	L2TP Tunnel Pa	ssword									

OpenVPN:

VPN As Default Route

Status Network	IPPBX	Wireless 2.	4GHz W	ireless 50	GHz	Security	Арр	lication	Stora	ige
WAN LAN IPv6 A Advance L2TP	dvanced	IPv6 WAN	IPv6 LAN	VPN	Port Fo	orward	DMZ	DDNS	QoS	F
VPN Settings										
Administration VPN Enable OpenVPN TLS Auth VPN As Default Route		OpenVPN Disable V Disable V	▼]]							
Parameters name				Des	criptio	n				
VPN Enable	Whe Sele	ether to enabl ect OpenVPN	le VPN. mode.							

Prohibited or open, the default is prohibited.

_

OpenVPN TLS Auth	Whether OpenVPN TLS authentication is enabled
VPN As Default Route	Prohibited or open, the default is prohibited.

Port Forward

Status	Netwo	IPPBX	Wireless 2.	4GHz	Wireless 5	GHz	Security	Ар	plication	Storag	ge Admin	istration
WAN	LAN	IPv6 Advanced	IPv6 WAN	IPv6 LAN	VPN	Port	Forward	DMZ	DDNS	QoS	Rate Limit	Port Se
Advance	L2TP											4940
					Port	Forward	tina					
	No.		Comment		IP	Addres	s		Port Range	9	Р	rotocol
Delete S	Selected	Add Edit										
Port Forw	arding											
Comment	t											
IP Addres	35											
Port Rang	<u>je</u>											
Protocol						TC	P&UDP V					
(The max	dimum rule	count is 32)										
Apply	Cancel											
Virtual Se	No.	Co Add Edit	mment	IP A	ddress		Public Po	rt	Pri	vate Port		Protocol
Virtual Se	ervers											
Comment	t											
IP Addres	85											
Public Por	rt											
Private Po	ort					(
Protocol						TC	P&UDP V					
(The max	a <mark>mu</mark> m rule	count is 32)										
Apply	Cancel											
Field	Nomo	Doco	rintion									

rielu Ivallie	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;
	dish Concelta if and and another make the schemes
	click Cancel to 11 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

DMZ

The DMZ (Demilitarized zone) is a buffer established between a non-security system and a security system to solve the problem that an external network access user cannot access an internal network server after installing a firewall. This buffer is located in the small network area between the internal network of the enterprise and the external network. In this small network area can be placed some must be open server facilities, such as corporate Web servers, FTP servers and forums. On the other hand, through such a DMZ area, the internal network is more effectively protected. Because this kind of network deployment, compared to the general firewall scheme, an additional level is added to the attacker from the external network. After the DMZ host is set in the LAN, the host will be completely exposed to the wide area network, and bidirectional unrestricted communication can be realized. Adding a client to the DMZ may bring insecurity to the local network, so do not use this item easily.

Status	Net	work	ІРРВХ	Wireless 2	.4GHz	Wi	reless 50	GHz	Security	App	lication	Storag	ge
WAN	LAN	IPv6	Advanced	IPv6 WAN	IPv6 L	AN	VPN	Port	Forward	DMZ	DDNS	QoS	Rate
Demili DMZ Setti DMZ Er DMZ Ho	itarized ing nable ost IP Ad	d Zone	(DMZ)			 [E	Enable ▼]					
Field N	ame		De	scription									
DMZ E	nable		Ena	able/Disable	DMZ.								
DMZ H	lost IP A	Addres	s Ent	ter the privat	e IP add	lress	of the D	MZ l	nost.				

QOS

Status	Net	work	IPPBX	Wire	eless 2.40	GHz V	Vireless 5	GHz	Security	Appl	ication	Storage	e Admin	istration		
WAN	LAN	IPv6	Advanced	IPv6	WAN	IPv6 LAN	VPN	Port F	Forward	DMZ	DDNS	QoS	Rate Limit	Port Set	ting	Routing
Advance	L2T	P														
QoS setti	ing															
oS setting																
Enable QoS	5								Disable 1							
Upstream											(0-	102400)kb	pit/s			
Downstream	n										(0-	102400)kb	oit/s			
Algorithm									WFQ *							
								Save	Cancel							
						Condition	1						Act	tion		
Name	e Ade	rc.IP dress	Dst.IP Address	Protocol	Src.Port Range	Dst.Port Range	Physical Port	DSCP	802.1p	VLAN I	Remark	Remar 802.1	k Remark VLAN_ID	Priority	Drop	Rate Limit

	-
Doloto Soloctor	Add
Delete Selecteu	AUU

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

Rate Limit

	Network	IPPBX	Wireless 2	.4GHz	Wireless 5	GHz	Security	Ар	plication	Storag	je Admir	nist
WAN	LAN IPv6 A	dvanced	IPv6 WAN	IPv6 LA	N VPN	Port	Forward	DMZ	DDNS	QoS	Rate Limit	
Advance	L2TP											
Rate Lin	nit Setting										Hel	lp
Enable Rate	e Limit —											
Enabl	e Rate Limit		Enat	ole 🔻								
Port		Ingress Rate	5			Egres	is Rate					
	WAN	1	100000 (1	-100000)kbi	it/s		1000	00 (1-	100000)kbit	/s		
	LAN1	1	100000 (1	-100000)kbi	it/s		1000	00 (1-	100000)kbit	/s		
	LAN2	1	100000 (1	-100000)kbi	it/s		1000	00 (1-	100000)kbit	/s		
	LAN3	1	100000 (1	-100000)kbi	it/s		1000	00 (1-	100000)kbit	/s		
	LAN4	1	100000 (1	-100000)kbi	it/s		1000	00 (1-	100000)kbit	/s		
Port		Broadcast S	torm Rate									
	WAN	255	5 (0-2	55)*64 pack	æts/s							
	LAN1	255	5 (0-2	55)*64 pack	ets/s							
	LAN2	255	5 (0-2	55)*64 pack	ets/s							
	LAN3	25	5 (0-2	55)*64 pack	æts/s							
		0.5	- 100	FF1%C4								

Set the port speed limit for WAN port and LAN port, select enable or disable

Port Setting

Status	Net	work	IPPBX	Wireless 2.	4GHz W	/ireless 50	GHz	Security	App	lication	Stora	ge	Admini	stration
WAN	LAN	IPv6 /	Advanced	IPv6 WAN	IPv6 LAN	VPN Port		Forward	DMZ	DDNS	QoS	Rate	Limit	Port Setting
Advance	L2T	Р												
Port S	etting												Help	Î
Port Settin	ng —													
WAN Po	ort Speed	d Nego			[Auto	•							
LAN1 Po	ort Spee	d Nego			[Auto	۲							
LAN2 Po	ort Spee	d Nego				Auto								
LAN3 Po	ort Spee	d Nego			[Auto	•							
LAN4 Po	ort Spee	d Nego				Auto	۲							
D:.1.1)	NT			Dere										
Field	Name			Desc	ription									
WAN	Port s	peed 1	Nego	Auto-	negotiatio	on, opti	ons a	re Auto	o, 1000	OMbps :	full, 10	00Mb	ops Fu	ill, 100Mbps
				Half,	10Mbps 1	Full, 10	Mbps	Half.						

LAN1~LAN3PortSpeedAuto-negotiation, options are Auto, 1000Mbps full, 100Mbps Full, 100MbpsNegoHalf, 10Mbps Full, 10Mbps Half.

Routing

Status	Netv	vork	IPPBX	Wireless 2.	4GHz V	Vireless 5G	iHz Security	Ар	plication	Storag	je Admin	istration	
WAN	LAN	IPv6	Advanced	IPv6 WAN	IPv6 LAN	VPN	Port Forward	DMZ	DDNS	QoS	Rate Limit	Port Setting	Routing
Advance	L2T	Р											
Static	Routin	ng Set	tings								Hel	p	
Add a rou	ting rule	e —									Add or here.	remove Internet	t <mark>rout</mark> ing rules
Destina Host/N	ation et					Host ▼							
Gatewa	ау					HOL							
Interfac	ce					LAN	•						
Comme	ent												
					Apply	Reset							
Current R	outing T	Table in	the system	n									
No.	louding 1	Destina	tion Mas	k Ga	tewav	Flaos	Metric	Inter	face C	omment			
autorical.									Conference and the		_		
					Delete Select	ed Rese	t						
Field	Name	e	De	scription									
Destir	nation		Destir	nation add	ress								
	iution		Destil	iution udd	1055								
Host/N	Net		Both I	Host and 1	Net seled	ction							
Gatew	vav		Gatew	vav IP add	ress								
				,									
Interfa	ace		LAN/	INTERNI	ET/VOI	CE/TR0	69/VPN op	tions					
Comm	nent		Comn	nent									

Advance

Status	Net	work	IPPBX	Wireless 2.	.4GHz	Wi	ireless 5	GHz	Security	Арр	lication	Stora	ge
WAN	LAN	IPv6	Advanced	IPv6 WAN	IPv6 L	AN	VPN	Port	Forward	DMZ	DDNS	QoS	Rate
Advance	e L2	TP											

Most Nat connections (512-8192)	4096					
MSS Mode	Manual O 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 FWR9502 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

IPPBX

Click to enter the IPPBX configuration page, in this page you can configuring the FWR9502 PBX features.

Basic

The figure shows the basic configuration information related to PBX configuration :

Status	Network	IPPBX	Wireless 2.4GHz	Wireless 5GHz	Security	Application	Storage	
Basic								
Asteris	k Configura	ation Inte	rface					
Asterisk-G	UI							
Use Aste	eris <mark>k-</mark> GUI Confi <u>c</u>	guration PBX	Click he	ere to configure the Pl	BX			
Asteris	k Config Fil	le						
Config File	Upload & Do	wnload						
Local File		洗择文件 井	+洗择仟何文件					
Upload	Download	2421						
Welcon	Welcome IVR File							
Welcome I	VR Upload &	Download						
File		IVR1 V						
Local File		选择文件 🛪	k选择任何文件	(Support only *.w	av)			
Upload	Download							
Access	ible IP List							
Accessible	IP Setting	2						
	No.		IP Address	No.		IP Address		
Delete	Selected Ad	dd						
Add an /	Accessible IP or	Network Se	gment or Domain Name					
Accessib	le IP / Network	Segment / [Domain Name					
Apply	Cancel							

Parameters name	Description
Asterisk Configuration Interface	
Use Asterisk-GUI Configuration PB2	click Click here to configure the PBX button,
	will enter the PBX configuration interface
Asterisk Cofig File	
Config File Upload & Download	can upload or download config file
Welcome IVR File	
File	You can select a file in IVR1~IVR5.
	Or click on the local file to upload or download IVR, note that only upload *.wav format is supported

Wireless 2.4G

Basic

Status	Network	IPPBX	Wireless 2	2.4GHz	Wireless 5G	Hz Sec	urity /	Application	Storage	Admi
Basic	Wireless Secur	ity WMM	WDS	WPS	Station Info	Advance	1			
Basic V	Wireless Set	tings								
Wireless N	letwork									
Radio O	n/Off			Radi	o On 🔻					
Wireless	s Connection Mo	de		AP	¥					
Network	K Mode			11b/	g/n mixed mode	•				
Multiple	SSID			FLY2	.4B 0D6CD0	Enable 🗹	Hidden	Isolated	Max Client	16
Multiple	SSID1					Enable	Hidden 🗐	Isolated	Max Client	16
Multiple	SSID2					Enable	Hidden 🗐	Isolated	Max Client	16
Multiple	SSID3			8		Enable	Hidden 🗐	Isolated	Max Client	16
broadca	st (SSID)			() F	nable 🔘 Disabl	e				
AP Isola	ation			© E	nable	e				
MBSSID	AP Isolation			©Е	nable 💿 Disabl	e				
BSSID				00:2	21:F2:0D:6C:D0					
Frequen	ncy (Channel)			Auto		•				
AutoCh	Sel CH Range			1	2 3 4	5 6	7 8	9 10	11 12 12	13
AutoCh	Sel Interval(sec)									
HT Phys	sical Mode									
Operatir	ng Mode			• M	ixed Mode 🔘 G	reen Field				
Channel	l BandWidth			O 20	0 🖲 20/40 🔘	Auto				
Guard I	nterval			O La	ong 💿 Short					
Reverse	Direction Grant	(RDG)		© D	isable 💿 Enable	e				
STBC				0 D	isable 💿 Enable	e				
Aggrega	ation MSDU (A-M	ISDU)		🖲 D	isable 🔍 Enable	Ð				
Auto Blo	ock ACK			0 D	isable 💿 Enabl	e				
Decline	BA Request			🖲 D	isable 🔍 Enable	Э				
HT Disa	llow TKIP			O D	isable 💿 Enable	е				
20/40 C	oexistence			🖲 D	isable 🔍 Enable	e				
HT LDP	с			⊛ D	isable 🔘 Enable	Ð				
Field Na	ame	D	escription							
D 1'	/	S	elect "Rad	io off" t	o disable w	ireless				
Kadio of	n/off	5								
		S	elect "Rad	io on" to	enable with	reless.				

Wireless connection mode According to the wireless client type, select one of these modes. Default is AP

Network Mode

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



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
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 Operating Mode	Mixed Mode: In this mode, the previous wireless card can recognize and connect to the Pre-N AP, but the throughput will be affected 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

Reverse Dirction Grant requiring an additional contention-based request to transfer (i.e. devices are to transmit to another device on the network during TXOP) (RDG) Disabled: Devices on the WLAN must make a request for transmit we communicating with another device on the network STBC Space-time Block Code Enabled: Multiple copies of signals are transmitted to increase the chance successful delivery Aggregation MSDU MSDU) 802.11n, thereby improving the ratio of frame data to frame overhead Disabled: No frame aggregation is employed at the router	Dirction Grant ^r	requiring an additional contention-based request to transfer (i.e. devices are able							
(RDG) to transmit to another device on the network during TXOP) Disabled: Devices on the WLAN must make a request for transmit we communicating with another device on the network STBC Space-time Block Code Enabled: Multiple copies of signals are transmitted to increase the chance successful delivery Aggregation MSDU (A- Enabled: Allows the device to aggregate multiple Ethernet frames into a site MSDU) BOL: No frame aggregation is employed at the router	ti								
Disabled: Devices on the WLAN must make a request for transmit w communicating with another device on the network STBC Space-time Block Code Enabled: Multiple copies of signals are transmitted to increase the chance successful delivery Aggregation MSDU (A- Enabled: Allows the device to aggregate multiple Ethernet frames into a sin MSDU) MSDU) 802.11n, thereby improving the ratio of frame data to frame overhead Disabled: No frame aggregation is employed at the router	ť.	to transmit to another device on the network during TXOP)							
communicating with another device on the network STBC Space-time Block Code Enabled: Multiple copies of signals are transmitted to increase the chance successful delivery Aggregation MSDU MSDU) Enabled: Allows the device to aggregate multiple Ethernet frames into a sin 802.11n, thereby improving the ratio of frame data to frame overhead Disabled: No frame aggregation is employed at the router	Ι	Disabled: Devices on the WLAN must make a request for transmit when							
STBC Space-time Block Code Enabled: Multiple copies of signals are transmitted to increase the chance successful delivery Aggregation MSDU MSDU) (A- Enabled: Allows the device to aggregate multiple Ethernet frames into a sin 802.11n, thereby improving the ratio of frame data to frame overhead Disabled: No frame aggregation is employed at the router	с	communicating with another device on the network							
Enabled: Multiple copies of signals are transmitted to increase the chance successful delivery Aggregation MSDU (A- Enabled: Allows the device to aggregate multiple Ethernet frames into a sin MSDU) 802.11n, thereby improving the ratio of frame data to frame overhead Disabled: No frame aggregation is employed at the router	S	Space-time Block Code							
Aggregation MSDU (A- Enabled: Allows the device to aggregate multiple Ethernet frames into a size MSDU) 802.11n, thereby improving the ratio of frame data to frame overhead Disabled: No frame aggregation is employed at the router	E	Enabled: Multiple copies of signals are transmitted to increase the chance of							
Aggregation MSDU (A- Enabled: Allows the device to aggregate multiple Ethernet frames into a sin MSDU) MSDU) 802.11n, thereby improving the ratio of frame data to frame overhead Disabled: No frame aggregation is employed at the router	S	successful delivery							
MSDU) 802.11n, thereby improving the ratio of frame data to frame overhead Disabled: No frame aggregation is employed at the router	ation MSDU (A- H	Enabled: Allows the device to aggregate multiple Ethernet frames into a single							
Disabled: No frame aggregation is employed at the router	8	802.11n, thereby improving the ratio of frame data to frame overhead							
	Ι	Disabled: No frame aggregation is employed at the router							
Enabled: Multiple frames are acknowledged together using a single B	Ε	Enabled: Multiple frames are acknowledged together using a single Block							
Auto Block Ack Acknowledgement frame.	ock Ack	Acknowledgement frame.							
Disabled: Auto block acknowledgement is not used by the device - use	Ι	Disabled: Auto block acknowledgement is not used by the device - use this							
configuration when low throughput/connectivity issues are experienced	с	configuration when low throughput/connectivity issues are experienced by							
mobile devices	n	nobile devices							
Decline BA Request Enabled: Disallow block acknowledgement requests from devices Disab	BA Request F	Enabled: Disallow block acknowledgement requests from devices Disabled:							
Allow block acknowledgement requests from devices	I	Allow block acknowledgement requests from devices							
Enabled: Disallow the use of Temporal Key Integrity Protocol for conne	I	Enabled: Disallow the use of Temporal Key Integrity Protocol for connected							
HT Disallow TKIP devices	allow TKIP d	devices							
Disabled: Allow the use of Temporal Key Integrity Protocol for conne	Ι	Disabled: Allow the use of Temporal Key Integrity Protocol for connected							
devices	d	devices							
HT LDPC Enabled: Enable Low-Density Parity Check mechanism for increasing chanc		Enabled: Enable Low-Density Parity Check mechanism for increasing chance of							
successful delivery in challenging wireless environments	i I								
Disabled: Disable Low-Density Parity Check mechanism	s s	successful delivery in challenging wireless environments							

Wireless Security

Status	Network I	РРВХ	Wireless	2.4GHz	Wireless 5G	Iz Security	Application	Storage
Basic	Wireless Security	WMM	WDS	WPS	Station Info	Advanced		
Wi-Fi	Security Settin	gs						
Select SS	ID							
SSID o	hoice				FLY2.4B_0D	6CD0 ▼		
"FLY2.	4B_0D6CD0"							
Securit	ty Mode				WPA-PSK	¥		
WPA								
WPA A	Igorithms				O TKIP	🖲 AES ု 🔍 TKIPA	ES	
Pass P	hrase				*******	č.		
Key Re	enewal Interval				3600 s	ec (0 ~ 86400)		
Acces	s Policy							
Policy					Disable 🔻			
Add a	station MAC					(The ma	aximum r <mark>u</mark> le count	is 64)
Field N	ame	Descri	ption					
SSID Ch	oice C	hoose or	e SSID fr	om SSIE	D, Multiple SSI	D1, Multiple S	SID2 and Multi	ple SSID3.
	S	elect an	appropria	te encry	ption mode to	improve the s	security and pri	vacy of your
Security	Mode w	ireless d	ata packet	ts.Each e	encryption mod	le will bring ou	it different web	page and ask
	yo	ou to offe	er additior	nal config	guration.			

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

Status	Network	IPPBX	Wireless	2.4GHz	Wireless 5GHz Security		ity App	lication	Storage
Basic	Wireless Securit	y WMM	WDS	WPS	Station Info	Advanced			
Wi-Fi	Security Setti	ngs							
Select SS	ID								
SSID d	hoice				FLY2.4B_0D	6CD0 V			
"FLY2.4	4B_0D6CD0"								
Securit	y Mode				OPENWEP	•			
Wire Ed	quivalence Protecti	on (WEP)							
Default	: Key				WEP Key 1	7			
		WEP	Key 1		*******		Hex	▼ 64bit	T
WER K		WEP Key 2			*******	Hex	▼ 64bit	T	
WEP K	eys	WEP	Key 3		*******	******			•
		WEP	Key 4		******		Hex	▼ 64bit	•
Access	5 Policy								
Policy	100111				Disable v				
Add a s	station MAC					(The	e <mark>maximum</mark> i	rule count is	5 64)
Field Na	ame	Descr	iption						
Security	v Mode	This is us	ed to sele	ct one of	f the 4 WEP ke	ys, key sett	ings on th	e clients	should be the
5		•.•				<i>, , ,</i>	0		
		same with	this when	n connec	ting.				
WEP Ke	eys	Set the W	/EP key.	A-64 ke	y need 10 Hex	characters	s or 5 AS	CII chara	cters; choose
		A-128 key	y need 26	Hex cha	racters or 13 A	SCII charac	eters.		
WEP rep	presents Wired	Equivaler	nt Privacy,	, which is	s a basic encry	otion meth	nod.		

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

Status	Network	ІРРВХ	Wireless	2.4GHz	Wireless 5GI	Iz Security	Application	Storage
Basic	Wireless Securi	ty WMM	WDS	WPS	Station Info	Advanced		
Wi-Fi	Security Sett	ings						
Select SS	ID ———							
SSID c	hoice				FLY2.4B_0D	6CD0 🔻		
"FLY2.4	4B_0D6CD0"							
Securit	y <mark>Mo</mark> de				WPA-PSK	•		
WPA								
WPA A	Igorithms						AES	
Pass P	hrase				******			
Key Re	enewal Interval				3600 s	ec (0 ~ 86400)		
Acces	s Policy							
Policy					Disable •			
Add a s	station MAC					(The r	naximum rule count	is 64)
Field N	ame	De	scription					
WPA A	lgorithms	This	item is us	sed to se	lect the encryr	tion of wirel	ess home gatewa	v algorithms
	Bolluning	optio	ons are T	KIP, AE	S and TKIP	AES.		y urgoritinis,
Pass Ph	rase	Setti	ng up WP.	A-PSK s	ecurity pass	sword.		
Key R	enewal Interv	val Set	the key s	chedule	d update cyc	le, default i	s 3600s.	

WPAPSKWPA2PSK manner is consistent with WPA2PSK settings:

Status Network IP	ррвх	Wireless	2.4GHz	Wireless 5GI	Iz Security	Application	Storage
Basic Wireless Security	WMM	WDS	WPS.	Station Info	Advanced		
Wi-Fi Security Setting	S						
Select SSID							
SSID choice				FLY2.4B_0D	6CD0 ¥		
"FLY2.4B_0D6CD0"							
Security Mode				WPAPSKWP	A2PSK ▼		
WPA							
WPA Algorithms				O TKIP	AES TKIP	AES	
Pass Phrase				*****			
Key Renewal Interval				3600 s	ec (0 ~ 86400)		
Access Policy							
Policy				Disable 🔻			
Add a station MAC					(The m	naximum rule count	is 64)
Field Name	D	escriptio	n				
WPA Algorithms	The	home gat	teway is	used to select	the wireless	security encrypt	ion algorithm
-	opti	ons are	TKIP, A	ES, TKIP / A	AES. 11N m	ode does not s	support TKIP
Pass Phrase	Set	WPA-PSK	C/WPA2-	PSK security c	ode		
Key Renewal Interval	Set	the key sc	heduled	update cycle, d	efault is 3600s	3	



Note: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

• • • • • •	Description		
	S	ave Cancel Reboot	
Add a station MAC		Allow Reject	(The maximum rule count is 64)
rollcy		Disable V	
Nalitary.			

Access policy	whereas access control is used to allow of promote the specified cheft 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.						

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

Enter the MAC address of the clients which you want to allow or prohibit

WMM

Add a station MAC

Status	Networ	k IPP	вх	Wireless 2	.4GHz	Wireless 5G	Hz Security	/ Application	1 Storage	Administration
Basic	Wireless S	ecurity	WMM	WDS	WPS	Station Info	Advanced			
				WMM	l Parame	eters of Access	Point			Help
		AIFSN		CWMin		CWMax	TXOP	ACM	AckPolicy	
AC_	_BE	3		15 🔻		63 v	0			
AC_	BK	7		15 🔻		1023 🔻	0			
AC_	VI	1		7 🔻		15 🔻	94			
AC	VO	1		3 🔻		7 🔻	47			

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

WDS

Status	Network	IPPBX	Wireless	2.4GHz	Wireless 5G	łz	Security	Application	Storage	
Basic	Wireless Securi	ity WMM	WDS	WPS	Station Info	Adv	vanced			
WDS S	etting									
VDS Conf	ìg ———									1
WDS M	ode				Disable	•	1			
					Disable					
					Lazy Mode					
			Save 8	k Apply	Repeater Mode		:]			

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.

Status Network	IPPBX	Wireless	2.4GHz	Wireless 50	iHz	Security	Application	Storage
Basic Wireless Secu	irity WMM	WDS	WPS	Station Info	Ad	vanced	11	
WPS Setting								
WPS Config WPS Enable V Apply								
WPS Summary WPS Current Status WPS Configured WPS SSID				Idle Yes FLY2.4B_0D	6CD0	40 m		
WPS Progress WPS Mode Apply				O PIN @	PBC			
WPS Status								
WSC:Idle				1		Can	cel	
Field Name	Descript	ion						
WPS Config								
WPS	Enable/D	isable WP	S function	on				
WPS Summary								
WPS Current Status	Display the	e current st	tatus of V	WPS				
WPS Configured	Display the	configure	e the stat	us information	n of V	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 Status	WPS shows status in three ways:							
	WSC: Idle							
	WSC: Start WSC process (begin to send messages)							
	WSC: Success; this means clients have accessed the AP successfully							

Station Info

Status	Network 1	ГРРВХ	Wireless 2	.4GHz	Wireless 5G	Hz Securit	y Application	Storage
Basic	Wireless Security	WMM	WDS	WPS	Station Info	Advanced		
Wirele	ess Status							
Wireless \$	Status							
Current	Channel		Channel 12	2				
FLY2.4B	_0D6CD0		00:21:F2:0	0D:6C:D0				
91020D	6CD0							
Wirele	ess Network							
Wireless I	Network							
MAC A	ddress	Aid	PSM	Mimo	PS MCS	BW	SGI	STBC
			1.5	345 - A				
Descrip	tion							

This page displays information about the current registered clients' connections including operating MAC address and operating statistics.

Advanced

Status	Network	IPPBX	IPPBX Wireless 2.4GHz		Wireless 5GHz	z Security	Application	Storage
Basic	Wireless Security	/ WMM	WDS	WPS	Station Info	Advanced		
Advan	ced Wireless						_	
Advanced	Wiroloss							
Auvanceu	Wireless							
BG Prot	tection Mode				Auto V	rango 30 000 d	ofoult 100)	
Data D	Interval					range zo - 999, o		
Data Be	eacon Rate (DTIM)				3 (1418)	ge 1 - 255, deiadi	(3) (5)	
Fragme	ent inresnoid				2340 (ran	ige 256 - 2346, de	eraure 2346)	
TY Day	resnoid				234/ (Idl	ige I - 2347, ueia	uit 2347)	
TX POW	ver vraambla					ange 1 - 100, den	auit 100)	
Short S	lot				Enable	Disable		
TY Burs	st				Enable	Disable		
Pkt An	areaate				Enable	Disable		
Country	/ Code				CN (China)	▼ Disable		
Suppor	t Channel				Ch1~13 •			
Carrier	Detect				Enable (Disable		
Wi-Fi I WMM C	Multimedia Capable							
Multiple	e SSID				1			
Multiple	e SSID1							
Multiple	e SSID2							
Multiple	e SSID3					22		
APSD C	Capable				Enable (Disable		
Multica	st-to-Unicast Conv	erter			0			
Multica	st-to-Unicast				Enable (Disable		
Field Na	ame	Descr	iption					
BG Prot	ection Mode	Select G	protection	n mode, o	options are on, o	off and automat	ic.	
Beacon	Interval	The inte	rval of se	nding a	wireless beacon	frame, within	this range, it v	vill send a
		beacon f	rame for t	he inforn	nation of the sur	rounding radio	network.	
Data	Beacon	Specify	the interva	ıl of tran	smitting the ind	ication message	e, it is a kind o	f cut down
Rate(D)	TIM)	operation	n, and it i	s used f	or informing th	e next client v	which is going	to receive
Fragmer	nt Threshold	Specify	the fragn	nent thre	shold for the p	backet, when t	the length of	the packet
		exceeds	this value	, the pack	cet is divided.			
RTS Th	reshold	Specify	the packe	t RTS th	reshold, when t	he packet exce	eds this value,	the router
		will send	l RTS to tl	ne destin	ation site consul	tation		

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 TCP					
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-	Multicast-to-Unicast Converter Enable/Disable Multicast-to-Unicast. By default,					

Wireless 5G

Please refer to the wireless 2.4G.

Security

Filtering Setting

Status	Netwo	ork I	РРВХ	Wireless 2.4GHz	Wireless 5GHz	Security	Application
Filtering S	etting	Content	Filtering				
Basic S	ettings						
Basic Settir	ngs —						
Filtering					Dis	sable 🔻	
Default P	olicy				Dr	op 🔻	
The pack	et that do	pesn't mai	tch any ru	ules would be Drop			
Save	Cancel]					
IP/Port Filt	er Settii	ngs —					
Interface					LA	N 🔻	
MAC Add	ress						
Dest IP A	ddress						-
Source IF	P Address						
Protocol					NC	NE T	
Dest. Por	t Range						
Src Port I	Range					-	
Action					AC	cept 🔻	
(The may	r Kimum ru	le count is	5 32)				1
Save	Cancel]	/				
Field Nam	e		Descri	ption			
Filtering		Er	nable/Dis	sable filter function			
Default Po	licy	Cl	hoose to	drop or accept filtered	d MAC addresses		
Mac addre	SS	A	dd the M	ac address filtering			
Dest IP ad	dress	D	estinatio	n IP address			
Source IP	address	So	ource IP a	address			
Protocol		Se	elect a pr	otocol name, support	for TCP, UDP and I	СМР	

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

Status	Network	IPPBX	Wireless 2.4GHz	Wireless 5GHz	Security	Application	Storage
Filtering S	etting Con	tent Filtering					
Basic S	ettings						
Basic Setti	ngs						
Filtering				Disable •			
Default P	Policy			Accept 🔻			
Save	Cancel						
Filter List U	Jpload & Dow	nload —					
Local File		选择文件未	选择任何文件				
Upload	Download	1.4					
Web UI	RL Filter Set	ttings					
Current We	eb URL Filters						
No.				URL			
			Delet	e Cancel			
Add a URL	Filter						
URL							
(The ma	ximum rule cou	unt is 16)					
			Add	Cancel			
Field Nat	ne	De	scription				
Filtering		Enab	le/Disable content	Filtering			

Default F	olicy		The default policy is to accept or to prohibit filtering rules
Current	Webs	URL	List the URL filtering rules that already existed (blacklist)
Delete/Ca	ancel		You can choose to delete or cancel the existing filter rules
Add a UI	RL Filter		Add URL filtering rules
Add/Can	cel		Click adds to add one rule or click cancel
Current	Website	Host	List the keywords that already exist (blacklist)
Delete/Ca	ancel		You can choose to delete or cancel the existing filter rules the existing keywords
Add a Ho	ost Filter		Add keywords
Add/Can	cel		Click the Add or cancel

Application

Advance NAT

Status	Network	ІРРВХ	Wireless 2.4GHz	Wireless 5GHz	Security	Application	Storage
Advance	Nat UPnP	IGMP					
ALG							
ALG Settin	g						
FTP		Enable •	•				
SIP		Disable •	·				
H323		Disable •	•				
PPTP		Disable 1	•				
L2TP		Disable •					
IPSec		Disable •					
File name	e	Descript	tion				
FTP	FP Enable/Disable FTP						
SIP		Enable/Disable SIP					
H323		Enable/Disable H323					
РРТР		Enable/Disable PPTP					
L2TP		Enable/Disable L2TP					
IPSec		Enable/Disable					

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.

Status	Network	IPPBX	Wireless 2.4GHz	Wireless 5GHz	Security	Application	Storage
Advance I	Nat UPnP	IGMP					
UPnP							
UPnP Setti Enable U	ng IPnP	Enable	•				
File name		Descripti	on				
UPnP		Enable/Di	sable UPnP				

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.

Status Networ	k IPPBX	Wireless 2.4GHz	Wireless 5GHz	Security	Application	Sto
Advance Nat UP	nP IGMP					
IGMP						
IGMP Setting						
Enable IGMP Proxy	Disable •					
Enable IGMP Snoop	Disable •					
Field Name	Descr	iption				
Enable IGMP Prox	y Enable/I	Disable IGMP Proxy	function.			
Enable IGMP Snoo	ping Enable/I	Disable IGMP Snoopi	ng function.			

Storage

Status Network	IPPBX Wireless 2.4GHz Wireless 5GHz Security Application Storage
Disk Management F	TP Setting
Disk Management	
Folder List	
Directory Path	Partition
	Add Delete Remove Disk
Partition Status	
Designed	p-st-
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

Disk Management

FTP Setting

Status	Network	IPPBX	Wireless 2.4GHz	Wireless 5GHz	Security	Application	Storage
Disk Mana	agement Fi	TP Setting					
FTP Se	tting						
FTP Server	Setup						
FTP Serv	/er			🔍 Enable 🛛 🖲 Di	isable		
FTP Serv	ver Name			FTP			
Anonym	ou <mark>s Log</mark> in			Enable 💿 Di	isable		
FTP Port	1			21			
Max. See	ssions			10			
Create D)irectory			🖲 Enable 📃 Di	isable		
Rename	File/Directory			🖲 Enable 📃 Di	isable		
Remove	File/Directory			🖲 Enable 📃 D	isable		
Read File	e			Enable Diale	isable		
Write Fil	e d Caashilt			Enable Di	isable		
Downloa	au capability			Enable Diale	isable		
upioad (LapaDillty			Enable D	ISADIe		
Field Na	me	De	escription				
FTP Serv	/er	Ena	ble/Disable FTP serv	ver			
FTP Serv	ver Name	Set	the FTP server name	<u>}</u>			
Anonym	ous Login	If or	r not support anonyn	nous login			
FTP Port		Set	FTP server port num	ıber			
Max. Ses	sions	Max	kimum number of co	onnections			
Create D	irectory	Ena	ble/Disable create d	irectory			
Rename	File/Director	y Ena	ble/Disable rename	file/directory			
Remove	File/Director	y Ena	ble/Disable transfer	of files/directories	}		
Read File	3	Ena	ble/Disable read file	S			
Write Fil	e	Ena	ble/Disable write file	es			
Downloa	d Capability	Ena	ble/Disable downloa	ad capability funct	ion.		
Upload C	Capability	Ena	ble/Disable upload c	apability function			

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

1) Save config file

Save Config	File		
onfig File Upload	8 & Download		
Local File	选择文件	选择任何文件	
Upload Down	load		

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

2) Administrator settings

Administrator Settings			
Password Reset			
User Type	Admin User 🔻		
New User Name	admin		
New Password	(The maximum length is 25)		
Confirm Password			
Language			
Language	English v		
VPN Access			
Management Using VPN	Disable 🔻		
Web Access			
Remote Web Login	Enable 🔻		
Web Port	80		
Web SSL Port	443		
Web Idle Timeout (0 - 60min)	5		
Allowed Remote IP (IP1;IP2;)	0.0.0.0		
Telnet Access			
Remote Telnet	Enable 🔻		
Telnet Port	23		
Allowed Remote IP (IP1;IP2;)	0.0.0.0		
HostName	G902		

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	Select the language for the web, the device support Chinese, English, and Spanish and
Remote Web Login	Enable/Disable remote Web login
Web Port	Set the port value which is used to login from Internet port and PC port, default is 80

Web Idle timeout	Set the Web Idle timeout time. The webpage can be logged out after Web Idle Timeout				
	without any operation.				
Allowed Remote	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.				

3)NTP settings

Time/Date Setting							
NTP Settings							
NTP Enable		Enable 🔻					
Option 42		Disable ▼ 2018 - 04 - 19 . 17 : 16 : 08					
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 - 1	1440min)	60					
Daylight Saving Time							
Daylight Saving Time		Disable 🔻					
Field Name	Description						
NTP Enable	Enable/Disable NTP						
Option 42	Enable/Disable DHCP optio	on 42. This option specifies a list of the NTP servers					
Current Time	Display current time						
NTP Settings	Setting the Time Zone						
Primary NTP Server	Primary NTP server's IP add	ress or domain name					
Secondary NTP Server	Options for NTP server's IP a	address or domain name					
NTP synchronization							
TVIT Synemonization	NIP synchronization cycle,	cycle time can be 1 to 1440 minutes in any one, the					

4) Daylight Saving Time

Daylight Saving Time	Enable 🔻
Offset	0 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.

5)System Log Setting

og Setting	
Syslog Enable	Enable 🔻
Syslog Level	INFO T
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	

Field Name	Description
Syslog Enable	Enable/Disable syslog function
Syslog Level	Select the system log, there is INFO and Debug two grades, the Debug INFO can

Remote Syslog Enable	Enable/Disable remote syslog function
Remote Syslog server	Add a remote server IP address.
Syslog Enable	Enable/Disable syslog function

6)Factory Defaults Setting

Factory Defaults Setting		
Factory Defaults Setting		
Factory Defaults Lock	Disable 🔻	
Factory Defaults Lock	Disable V	

Description

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

Firmware Upgrade

Status	Network	Wireless 2	.4GHz	Wireless	5GHz	SIP	FXS1	FXS2	Security	Application
Manager	Management Firmware Upgrade Scheduled Tasks				Certifi	ates	Provision	SNMP	TR-069	Diagnosis
Firmw	Firmware Management									
Firmware	Upgrade —									
Local Up	Local Upgrade 选择文件 未选择任何文件									
	Upgrade									
Description										
1. C	hoose upgra	de file type f	rom Im	age File ar	nd Dial	Rule				
2. P	2. Press "Browse" button to browser file									
3. P	3. Press Upgrade to start upgrading									

Scheduled Tasks

Status Ne	twork IPPBX	Wireless 2.4GHz	Wireless 5G	Hz Secur	rity Ap	plication	Storage	Administration
Management	Firmware Upgrade	Scheduled Tasks	Certificates	Provision	SNMP	TR069	Diagnosis	Operating Mode
Scheduled T Scheduled Wifi No.	Tasks Enable	SSID	Week Sele	ect Ope	n Time	Close	Time	Help Scheduled Ta: This function is automatically to
Delete Select Scheduled Rebo Scheduled Rebo Scheduled Moo Time Scheduled PPPO Scheduled PPP Scheduled Moo Time	Add Edit Add Edit Disa de Eve 00 DE Disa de Eve 00	able V ryDay V V : 00 V able V ryDay V V : 00 V						WIFI, REBOÓT moment.
Field Name Scheduled W	Desci	ription						
Enable	Enab	le/Disable Sched	luled Wi-Fi					
SSID	Choo	se one SSID						
Scheduled M	ode Chos	se Scheduled Mo	ode					
Wi-Fi Work	Гіте Settir	Setting Wi-Fi Work Time						
Apply	After	After setting, you can choose "apply" or "cancel"						
Scheduled Re	eboot							
Scheduled Re	boot Enabl	e/Disable schedu	led Reboot					
Scheduled Mo	ode Selec	t scheduled Mode	2					
Time	Set th	e time to restart						
Scheduled PI	PPoE							
Scheduled PP	PoE Enabl	e/Disable schedu	led PPPoE					
Scheduled Mo	ode Selec	t scheduled Mode						
Time	Set th	e time to start PP	РоЕ					

Provision

- 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.

Status	Network	IPPBX	Wireless 2.4GHz	Wireless 5GF	lz Seci	irity	Application	Storage
Managemer	nt Firmw	are Upgrade	Scheduled Tasks	Certificates	Provision	SNM	P TR-069	Diagnosis
Provision	n							
Configuratio	n Profile							
Provision E	Enable			Enable *				
Resync on	Reset			Enable 🔻				
Resync Ra	ndom Delay ((sec)		40				
Resync Per	riodic (sec)			3600				
Resync Err	ror Retry Dela	ay (sec)		3600				
Forced Res	sync Delay (s	ec)		14400				
Resync aft	er Upgrade			Enable 🔻				
Resync fro	m SIP			Disable ▼				
Option 66				Enable 🔻				
Option 67				Enable 🔻				
Config File	Name			\$(MA)				
User Agent	t							
Profile Rule	e			http://prv1.fl	lyingvoice.ne	et:69/con	fig/\$(MA)?mac=	\$(MA)&:
Firmware Up	ograde –							
Enable Upg	grade			Enable 🔻				
Upgrade E	rror Retry De	lay (sec)		3600				
Upgrade R	tule							
Field Nom			Description					
Field Nam	le		Description					
Provision 1	Enable	-	Enable provision or	not.				
Resync on	Reset	-	Enable resync after	restart or not				
Resync Ra	ndom Dela	y(sec)	Set the maximum d	elay for the rec	quest of sy	nchron	ization file. Tl	ne default
			is 40.					
Resume De	riodic(sec)		If the last resume	was failure	The route	r will	retry resume	after the
itesyne i e	110010(500)		in the fust resylle	mus fulfulo,	The Tould	1 VV 111	ieuy iesyile	
			"Resync Error Retry	y Delay " time,	, default is	3600	S.	
Resync Err	ror Retry	ł	Set the periodic time	e for resync, de	efault is 36	500s.		

Forced Resync Delay(sec)	If it's time to resync, but the device is busy now, in this case, the router
	will 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
Resync Random Delay(sec)	Set the maximum delay for the request of synchronization file. The default
	is 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.

Firmware Upgrade		
Upgrade Enable		Enable 🔻
Upgrade Error Retry Delay	(sec)	3600
Upgrade Rule		
Field Name	Description	
Upgrade Enable	Enable firmware upgrad	de 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

Status	Network	IPPBX	Wireless 2.4GHz	Wireless 5GI	lz Seci	irity	Application	Storage
Managem	ent Firmw	are Upgrade	Scheduled Tasks	Certificates	Provision	SNM	IP TR-069	Diagnosis
SNMP	Configuratio	on						
SNMP Cont	figuration							
SNMP Se	ervice			Disable 🔻				
Trap Ser	ver Address							
Read Co	mmunity Name	1		public				
Write Co	ommunity Name	9		private				
Trap Cor	mmunity			trap				
Trap Per	iod Interval (se	ec)		300				
Field Na	ime]	Description					
SNMP S	Service		Enable or Disable t	he SNMP se	rvice			
Trap Ser	ver Address		Enter the trap serve	r address for s	ending SN	IMP t	raps	
Read Co	ommunity Na	ume	String value that is	s used as a pa	ssword to	reques	st information	n via SNMP
			from the device					
Write Co	ommunity N	ame	String value that is	used as a pas	sword to v	write co	onfiguration	values to the
			device via SNMP					
Trap Co	mmunity		String value used as	s a password f	or retrievi	ng traps	s from the dev	vice
Trap per	riod interval(sec)	The interval for wh	ich traps are se	ent from th	ne devid	ce	

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.

Status Network TP	PBX Wireless 2.4G	tz Wireless 50	iHz Secur	ity Ar	plication.	Storage
Management Firmware U	pgrade Scheduled Tas	ks Certificates	Provision	SNMP	TR-069	Diagnosis
						N.
TR-069 Configuration						
CS						
TR-069 Enable	Enable T					
CWMP	Enable 🔻					
ACS URL	http://acs1.flyingvoice.	.net:8080/tr069				
User Name	FLY69167000116					
Password	•••••					
Enable Periodic Inform	Enable 🔻					
Periodic Inform Interval	75821					
onnect Request						
User Name	FPX9102H					
Password	••••••					
Field Name	Descripti	on				
ACS parameters						
TR069 Enable	Enable or Disab	ole TR069				
CWMP	Enable or Disab	ole CWMP				
ACS URL	ACS URL addr	ess				
User Name	ACS username					
Password	ACS password					
Periodic Inform Enable	Enable the func	tion of periodic i	nform or not	By defai	ılt it is Fna	bled

Periodic Inform Interval	Periodic notification interval with the unit in seconds. The default value is
	3600s
Connect Request parameters	
User Name	The username used to connect the TR069 server to the DUT
Password	The password used to connect the TR069 server to the DUT

Diagnosis

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

Status Ne	twork IPPBX	Wireless 2.4GHz	Wireless 5GH	lz Secur	ity Ap	plication	Storage
Management	Firmware Upgrade	Scheduled Tasks	Certificates	Provision	SNMP	TR-069	Diagnosis
Packet Trac	ce						
Packet Trace							
Tracking Inter	face	WAN	۲				
Packet Trace		start	stop save				
Ping Test							
Ping Test							
Dest IP/Host N	Name						
WAN Interface	9	1_MAN/	AGEMENT_VOICE	INTERNET_R	_VID_ ▼		
Apply Ca	ncel						
Traceroute	Test						
Traceroute Test							
Dest IP/Host N	Name						
WAN Interface	e	1_MAN/	AGEMENT_VOICE	INTERNET_R	_VID_ V		

Description

1.Packet Trace

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

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_	
PING www.baidu.c	om (115.239.210.26): 56 data bytes	
64 bytes from 115	.239.210.26: seq=0 ttl=54 time=43.979 ms	
64 bytes from 115	.239.210.26: seq=1 ttl=54 time=53.875 ms	
64 bytes from 115	.239.210.26: seq=2 ttl=54 time=45.226 ms	
64 bytes from 115	.239.210.26: seq=3 ttl=54 time=49.534 ms	
64 bytes from 115	.239.210.26: seq=4 ttl=54 time=49.045 ms	
www.baidu.con	n ping statistics	
5 packets transmit	ted, 5 packets received, 0% packet loss	-
round trip min/our	(may - 42 070/49 221/52 975 mc	

3. Traceroute Test

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

ceroute Test		
Dest IP/Host Name	www.google.com	
WAN Interface	1_MANAGEMENT_VOICE_INTERNET_R_VID	
traceroute to www.google.co	om (216.58.208.68), 30 hops max, 38 byte packets	
1 10.110.134.254 (10.110.)	134.254) 1.017 ms 9.507 ms 1.419 ms	Î.
2 * * *		
3 * * *		
4 * * *		
5 * * *		Ļ
6 * * *		
7 * * *		
8 * * *		
9 * * *		
10 * * *		
12		

Operating Mode

Status	Network	IPPBX	Wireless 2.4GHz	Wireless 5GI	lz Secu	rity A	pplication	Storage	Administration
Manageme	ent Firm	ware Upgrade	Scheduled Tasks	Certificates	Provision	SNMP	TR-069	Diagnosis	Operating Mode
Operati	ng Mode	Settings							Help
perating I	Mode Settir	gs							
Operating	g Mo <mark>d</mark> e			Advanced M	ode ▼				
	nun anna a								- 22

Choose the Operation Mode as Basic Mode or Advanced Mode.

Chapter 4 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".

stworking Sharing	2		Alternate Configuration	
Connect using:			You can get IP settings assigned a	automatically if your network supports
Microsoft Virtu	ial WiFi Miniport Adapter i	#2	for the appropriate IP settings.	ed to ask your network administrator
		Configure	Obtain an IP address automa	atically
This connection use	s the following items:	05 55	Use the following IP address	
Client for M	icrosoft Networks		IP address:	
QoS Packe	t Scheduler nter Sharing for Microsoft	Networks	Subnet mask:	
Internet Pro	tocol Version 6 (TCP/IPv	6)	Default gateway:	
	INCOLVEISION 4 INCE/IEV	4	1 (h)	
 Internet Pro Link-Layer 	Topology Discovery Map	per I/O Driver	Obtain DNS server address a	automatically
 ✓ ▲ Link-Layer ✓ ▲ Link-Layer 	Topology Discovery Map Topology Discovery Resp	ber I/O Driver bonder	Obtain DNS server address a O Use the following DNS server	automatically r addresses:
Internet Pro Link-Layer	Topology Discovery Map	poer I/O Driver wonder	 Obtain DNS server address a Use the following DNS server Preferred DNS server: 	automatically r addresses:
Install	Topology Discovery Mapp Topology Discovery Resp	Properties	 Obtain DNS server address a Use the following DNS server Preferred DNS server: Alternate DNS server: 	automatically r addresses:
Install Install Description Transmission Con wide area networh across diverse inte	Topology Discovery Mapp Topology Discovery Resp Uninstall trol Protocol/Internet Prot c protocol that provides c erconnected networks.	oper I/O Driver ponder Properties ocol. The default ommunication	Obtain DNS server address a O Use the following DNS server Preferred DNS server: Alternate DNS server: Validate settings upon exit	automatically r addresses:

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.