F-G300 5G Smart Light	Product Version	Secret Level
Pole Gateway User	V1.0.1	
Manual	Product Name: F-G300	Total 87 pages

This manual applies to the following models:

The manual applied to the fellowing modele.		
Models Product Categories		
F-G300-MP	5G Smart Light Pole Gateway	
F-G300-M2	5G Smart Light Pole Gateway	
F-G300-4G	4G Smart Light Pole Gateway	
F-G300-N	Smart Light Pole Gateway	

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Page 2 of 87 Add: 11th Floor, Building A06, No. 370, Chengyi Street, Phase III, Software Park, Jimei District, Xiamen Website: www.four-faith.com Customer Service Hotline: 400-8838-199 Tel: 0592-6300320 Fax: 0592-5912735





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Xiamen Four-Faith Communication Technology Co., Ltd.

Page 4 of 87 Add: 11th Floor, Building A06, No. 370, Chengyi Street, Phase III, Software Park, Jimei District, Xiamen Website: www.four-faith.com Customer Service Hotline: 400-8838-199 Tel: 0592-6300320 Fax: 0592-5912735



Content

1.F-G300 Introduction	7
1.1 Overview	7
1.2 Product Features	8
1.3 Working Principle Block Diagram	9
1.4 Product Specifications	10
2.Installation	13
2.1 Overview	13
2.2 Packing List	13
2.3 Installation and Cable Connection	14
2.4 Power Supply	18
2.5 Indicator Light	18
2.6 Reset Button	18
3.Parameter Configuration	19
3.1 Configuration Connection Diagram	19
3.2 Login to the Configuration Page	19
3.2.1 PC IP Address Setting (two ways)	19
3.2.2 Login	21
3.3 Management and Configuration	23
3.3.1 Setup	23
3.3.1.1 Basic Settings	23
3.3.1.2 DDNS	29
3.3.1.3 MAC Address Cloning	
3.3.1.4 Advanced Routing	
3.3.1.5 VLANs	
3.3.1.6 Networking	
3.3.2 Wireless	
3.3.2.1 Basic Configuration	
3.3.2.2 Wireless Security	
3.3.3 Service	40
3.3.3.1 Service	40
3.3.3.2 USB	
3.3.3.3 FTP Service	43
3.3.4 VPN	44
3.3.4.1 PPTP	44
3.3.4.2 L2TP	45
3.3.4.3 OPENVPN	47
3.3.4.4 IPSEC	51
3.3.4.5 GRE	53
3.3.5 Security	55
3.3.5.1 Firewall	55

Xiamen Four-Faith Communication Technology Co., Ltd.

Page 5 of 87

Add: 11th Floor, Building A06, No. 370, Chengyi Street, Phase III, Software Park, Jimei District, Xiamen Website: www.four-faith.com Customer Service Hotline: 400-8838-199 Tel: 0592-6300320 Fax: 0592-5912735

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1.F-G300 Introduction

1.1 Overview

F-G300 is an IoT wireless smart light pole gateway, which utilizes public 4G/5G network to provide users with wireless long-distance big data transmission function.

This product adopts high-performance industrial-grade 32-bit communication processor and industrial-grade wireless module, and uses an embedded real-time operating system as a software support platform. It also provides 1 AC input, 3 AC outputs, 2 DC outputs, and 3 SFPs. , 7 Gigabit Ethernet LANs (4 of which support POE+), 1 Gigabit Ethernet WAN, 4 RS485 and 1 RS232, 2 ADC acquisitions, 4 DI, 4 DO and WIFI interfaces, which can be connected at the same time Connect multiple serial devices, multiple Ethernet devices and WIFI devices.

5G smart light pole gateway F-G300 is a smart gateway specially developed for 5G smart light poles, ubiquitous power Internet of Things and other scenarios. It has powerful device access capabilities, communication protocol conversion, and computing processing capabilities. The gateway can be connected to devices with functions such as intelligent lighting, video surveillance, traffic indication, traffic monitoring, environment, weather monitoring, information release, public broadcasting, public WLAN, emergency assistance, information interaction, charging services, etc., through wired, optical fiber, 4G, 5G communication.

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Page 7 of 87 Add: 11th Floor, Building A06, No. 370, Chengyi Street, Phase III, Software Park, Jimei District, Xiamen Website: www.four-faith.com Customer Service Hotline: 400-8838-199 Tel: 0592-6300320 Fax: 0592-5912735





The product has been widely used in various types of light poles in smart cities, municipalities, highways, characteristic towns, scenic spots, parks and other occasions.

1.2 Product Features

Industrial-grade Design

- Adopt high-performance industrial grade wireless module
- High-performance industrial-grade 32-bit communication processor
- The metal shell is adopted, and the protection level is IP30. Metal housing and system safety isolation, especially suitable for harsh environments

Stability & Reliability

- WDT watchdog design to ensure system stability
- Adopt a complete anti-drop mechanism to ensure that the data terminal is always online
- Ethernet interface built-in 1.5KV electromagnetic isolation protection
- RS232/RS485 interface power and data isolation, in line with CSA, UL and IEC standards
- SIM/UIM card interface built-in 15KV ESD protection
- Power interface built-in reverse phase protection and overvoltage protection

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Page 8 of 87

Add: 11th Floor, Building A06, No. 370, Chengyi Street, Phase III, Software Park, Jimei District, Xiamen Website: www.four-faith.com Customer Service Hotline: 400-8838-199 Tel: 0592-6300320 Fax: 0592-5912735



• Lightning protection of antenna interface (optional)

Standard & Convenience

- Provide standard RS232, RS485, Ethernet and WIFI interfaces, which can directly connect serial devices, Ethernet devices and WIFI devices
- Provides standard wired WAN port (supports standard PPPOE protocol), which can be directly connected to ADSL equipment
- Intelligent data terminal, it can enter the data transmission state after power-on
- Convenient system configuration and maintenance interface (including local and remote WEB mode or CLI mode)
- Supports rail or wall mounting

High Performance

- Support multiple WAN connection methods, including static IP, DHCP, PPPOE, 3G/UMTS/4G/LTE, dhcp-4G, 5G-NR
- Support 4G/5G and wired WAN dual-link intelligent switching backup function (optional)
- Support VPN client (PPTP, L2TP, IPSEC) (Note: Only VPN version supports)
- Support VPN sever (PPTP, L2TP, IPSEC) (Note: Only VPN version supports)
- Support remote management, SYSLOG, SNMP, TELNET, SSHD, HTTPS
- Support local and remote online upgrade, import and export configuration files
- Support NTP, built-in RTC
- Support a variety of DDNS at home and abroad
- Support VLAN, MAC address cloning, PPPoE server
- WIFI supports 802.11b/g/n/ac, supports WIFI AP, AP Client, repeater, repeater bridge and other working modes (optional)
- WIFI supports WEP, WPA, WPA2 and other encryption methods, MAC address filtering
- Support a variety of online and offline trigger modes, including SMS, phone ringing, serial port data, network data trigger online and offline modes
- Support APN/VPDN
- Support multi-channel DHCP server and DHCP client, DHCP binding MAC address, DDNS, firewall, NAT, DMZ host, QoS, traffic statistics, real-time display of data transmission rate
- Support TCP/IP, UDP, FTP (optional), HTTP and other network protocols
- Support SPI firewall, VPN traversal, access control, URL filtering

1.3 Working Principle Block Diagram

The block diagram of the 5G smart light pole gateway is as follows:

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1.4 Product Specifications

Wireless Specification

Items	Contents
Module	Industrial-grade wireless module
	5G NR: n1/n2/n3/n5/n7/n8/n20/n28/n41/n66/n71/n77/n78/n79
	LTE:
Standard	B1/B2/B3/B4(66)/B5(18/19/26)/B7/B8/B12(17)/B13/B14/B20/B25/B26/B28/B
	29/B30/B38/B39 /B40/B41/B42/B43/B46/B48/B71
	P.S.:Choose different modules according to user needs, can support different
	network standards
Theoretical	5G NR: Downlink rate 3.4Gbps, uplink rate 350Mbps
Bandwidth	LTE Cat20: Downlink rate 2.0Gbps, uplink rate 150Mbps
	HSPA+: Downlink rate 42Mpbs, uplink rate 5.76 Mbps
ТХ	<23dBm
RX	<-107dBm

WIFI Specification

Items	Contents
	Support IEEE802.11b/g/n, 2.4G, 2*2 MIMO, support AP mode, Station mode
Standard	(optional)
	Support IEEE802.11ac, 5.8G, 2*2 MIMO, support AP mode, Station mode

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Page 10 of 87 Add: 11th Floor, Building A06, No. 370, Chengyi Street, Phase III, Software Park, Jimei District, Xiamen Website: www.four-faith.com Customer Service Hotline: 400-8838-199 Tel: 0592-6300320 Fax: 0592-5912735



	(optional)	
	IEEE802.11b/g: The highest rate is 108Mbps	
Bandwidth	IEEE802.11n: The highest speed is up to 300Mbps	
	IEEE802.11ac: Maximum speed up to 780Mbps	
Encryption	Support WEP, WPA, WPA2 and other encryption methods, optional WPS	
	function	
Power	26dBm (11b) , 21.5dBm (11g) , 20dBm (11n) , 16dBm (11ac)	
Sensitivity	<-72dBm@54Mpbs	

Hardware System

Items	Contents
CPU	Industrial-grade 32-bit communications processor
FLASH	32MB
DDR3	512MB
TF	8GB/32GB, optional

Interfaces

Items	Contents
AC Input	1 channel 85~264V/35A
AC Output	3 channels of 85~264V/10A, providing 220V output power supply to the
	corresponding equipment; remote control switch, voltage and current
	detection, single channel allows the maximum current to pass 10A, default
	closed
DC Output	1 channel 12V/2A, can realize remote switch and current detection, default on
	1 channel 24V/2A, can realize remote switch and current detection, default on
SFP Optical	3-way SFP optical interface, 10/100/1000M SFP slot, support single-mode,
Port	multi-mode fiber, support ring network management, ring, chain and other
	network topologies
WAN	1 10/100/1000M Ethernet port (RJ45 socket), adaptive MDI/MDIX, built-in
Interfaces	1.5KV electromagnetic isolation protection, WAN/LAN reusable
	7 10/100/1000M Ethernet ports (RJ45 socket), adaptive MDI/MDIX, built-in
LAN	1.5KV electromagnetic isolation protection,
Interfaces	Among them, 4 channels of POE, support POE+ single channel power up to
	30W
	4 RS485 serial ports, built-in 15KV ESD protection, serial port parameters are
	as follows:
	Data bits: 5, 6, 7, 8 bits
Serial Port	Stop bits: 1, 1.5 (optional), 2 bits
	Check: no check, even check, odd check, SPACE (optional) and MARK check
	(optional)
	Serial port rate: 2400~115200bits/s

Xiamen Four-Faith Communication Technology Co., Ltd. Page 11 of 87

Add: 11th Floor, Building A06, No. 370, Chengyi Street, Phase III, Software Park, Jimei District, Xiamen Website: www.four-faith.com Customer Service Hotline: 400-8838-199 Tel: 0592-6300320 Fax: 0592-5912735



Indicator	With "Power", "System", "Online", "Signal" and other indicators
Light	
	4 DIs
DI	Input high level: 5 to 30 VDC
	Input Low: 0 to 3 VDC
DO	2 switch output D0, load current: < 50mA @ 30VDC
Relay	2 passive relay control outputs, relay load: 5A 250VAC/30VDC
AI	2 ADC interfaces of 4~20mA
GPS	1 GPS/Beidou (optional)
	Cellular: 4 standard SMA female antenna ports, characteristic impedance 50
	ohms
Antenna	WIFI: 2 standard SMA male antenna ports, characteristic impedance 50 ohms
Interface	GPS: 1 standard SMA female antenna interface, characteristic impedance 50
	ohms (optional)
	LoRa/ZigBee: 1 standard SMA female antenna interface, characteristic
	impedance 50 ohms (optional)
SIM/UIM Card	2 standard drawer user card interfaces, support 1.8V/3V SIM/UIM card,
Interface	built-in 15KV ESD protection
	P.S.: Compatible with eSIM
TF Card	1 standard pop-up TF card interface, support various TF cards
Interface	
Reset Reset	Through this button, the parameter configuration can be restored to the
Button	factory value

Power Supply

Items	Contents
AC Power	AC 85~264/35A(max)
Supply	
Working	0.15~0.25A (all output ports are unloaded)
Current	
Stand-by	0.1A (all output ports are unloaded)
Current	

Physical Properties

Items	Contents
Shell	Metal shell, protection class IP30
Size	215*134.7*70.2mm (excluding antenna and mounting parts)
Weight	1.8kg(excluding antenna and mounting parts)

Others

Items	Contents
Xiamen Four-Fai	th Communication Technology Co., Ltd.
Page 12 of 87	

Add: 11th Floor, Building A06, No. 370, Chengyi Street, Phase III, Software Park, Jimei District, Xiamen Website: www.four-faith.com Customer Service Hotline: 400-8838-199 Tel: 0592-6300320 Fax: 0592-5912735



Operating	
Temperature	-35~+75°C(-31~+167 F)
Storage	
Temperature	-40~+85°C(-40~+185 F)
Relative	95%(No condensation)
Humidity	

2.Installation

2.1 Overview

The 5G smart light pole gateway must be installed correctly to achieve the designed functions. Usually, the installation of the equipment must be carried out under the guidance of qualified engineers approved by the company.

Note:

Please do not install the equipment with electricity.

2.2 Packing List

Please keep the packing material when you unpack it in case you need to transfer it in the future. The list is as follows:

- ♦ 5G smart light pole gateway host 1 set
- ♦ 4 5G wireless cellular antennas (SMA male)
- ♦ WIFI antenna (SMA female) 2
- Matching AC power input cable 1
- Matching AC power output cable 3
- 4 1 Ethernet direct connection
- ♦ 4 7P terminals
- ♦ 4 2P terminals
- ♦ Warranty card

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2.3 Installation and Cable Connection

Size:

The size is as shown below. (unit: mm)





Xiamen Four-Faith Communication Technology Co., Ltd.

Page 14 of 87 Add: 11th Floor, Building A06, No. 370, Chengyi Street, Phase III, Software Park, Jimei District, Xiamen Website: www.four-faith.com Customer Service Hotline: 400-8838-199 Tel: 0592-6300320 Fax: 0592-5912735



Antenna installation:

The 5G cellular antenna interface is an SMA female socket (identified as "ANT-1", "ANT-2", "ANT-3", "ANT-4"), and screw the supporting 5G cellular antenna to the antenna interface, And make sure to tighten it so as not to affect the signal quality.

The WiFi antenna interface is an SMA male socket (identified as "WIFI1", "WIFI2"), screw the supporting WiFi antenna to the antenna interface, and make sure to screw it tightly so as not to affect the signal quality.

SIM card installation:

When installing or taking out the SIM card, gently press the eject button (yellow dot) with a pointed object, and the SIM card sleeve can be ejected. Put the SIM card into the card sleeve first, and make sure that the metal contact surface of the SIM card is facing outward, then insert the SIM card sleeve into the drawer, and make sure that it is inserted in place. Note that the SIM1 card is facing up and the SIM2 card is facing down.



Connect the network cable:

Plug one end of the direct network cable into any port of the Local Network of the device, and the other end into the Ethernet port of the user equipment. The network direct connection signal connection is as follows:

RJ45-1	RJ45-2	Line Color
1	1	White/Orange
2	2	Orange
3	3	White/Green
4	4	Blue
5	5	White/Blue
6	6	Green
7	7	White/Brown
8	8	Brown

Connection terminal: (7Pin terminal is required)

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Page 15 of 87 Add: 11th Floor, Building A06, No. 370, Chengyi Street, Phase III, Software Park, Jimei District, Xiamen Website: www.four-faith.com Customer Service Hotline: 400-8838-199 Tel: 0592-6300320 Fax: 0592-5912735



Insert the 7Pin terminal into the corresponding interface, press the yellow switch firmly to insert the bare wire into the terminal, and connect the required signal. As shown below:



Connecting the optical fiber interface: (requires an optical module)

Insert the optical module and the optical fiber head into the SFP optical fiber interface respectively. As shown below:



Xiamen Four-Faith Communication Technology Co., Ltd. Page 16 of 87

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To connect the AC input cable and the AC output cable:

To connect the matching AC input cable and AC output cable to the corresponding port, you need to open the protective cover first, align the cable end with the port on the panel (the ports have a foolproof design), and then screw it tightly. As shown below:



Note:

The core of the input line (thick) is defined as: blue-brown L-N, yellow-green PE. The core of the output line (thin) is defined as: red-black L-N, yellow PE



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Page 17 of 87 Add: 11th Floor, Building A06, No. 370, Chengyi Street, Phase III, Software Park, Jimei District, Xiamen Website: www.four-faith.com Customer Service Hotline: 400-8838-199 Tel: 0592-6300320 Fax: 0592-5912735



2.4 Power Supply

5G smart light pole gateways are usually used in complex external environments. In order to adapt to the complex application environment and improve the working stability of the system, the equipment adopts advanced power technology. Users can use the standard 220V power supply to power the device.

2.5 Indicator Light

The device provides the following indicators: "Power", "System", "Online", "Signal". The status of each indicator light is described in the following table:

Indicator Light	State	Remarks
Power	On	The device power is OK
	Off	The device is not powered on/is in the shutdown period
		of the timer switch function
System	Blinking	The system is running normally
	Off	The system is abnormal
Online	On	The device is logged into the network
	Off	The device is not logged into the network
	Not on	No signal coverage
	Blinking	Weak signal strength (less than -90dbm)
Signal	slowly	
	Blinking fast	Moderate signal strength (-70dbm~-90dbm)
	Always on	Excellent signal strength (greater than -70dbm)

2.6 Reset Button

The device has a reset button, identified as "Reset". The function of this button is to restore the parameter configuration of the device to the factory value. The method is as follows: insert a pointed object into the "Reset" hole, and gently press and hold the reset button for about 15 seconds, then release, at this time, the device will automatically restore the parameter configuration to the factory value, and after about 10 seconds , the device restarts automatically (the phenomenon of automatic restart is as follows: the "System" indicator goes off for about 10 seconds, and then works normally again).

Page 18 of 87 Add: 11th Floor, Building A06, No. 370, Chengyi Street, Phase III, Software Park, Jimei District, Xiamen Website: www.four-faith.com Customer Service Hotline: 400-8838-199 Tel: 0592-6300320 Fax: 0592-5912735



3.Parameter Configuration

3.1 Configuration Connection Diagram

Before configuring the router, you need to connect the router and the PC used for configuration through the factory-configured network cable or WIFI. When connecting with a network cable, one end of the network cable is connected to any Ethernet port of the router's "Local Network" (hereinafter referred to as the LAN port), and the other end is connected to the Ethernet port of the PC. When connected by WIFI, the default SSID of the router is "FOUR-FAITH", and no password verification is required.



3.2 Login to the Configuration Page

3.2.1 PC IP Address Setting (two ways)

The first way: get an IP address automatically



General	Alternate Configuration						
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.							
	e the following IP address	aucally					
000	e ale following in address	" п					1
IP ad	Idress:			•	1	1.0	
Subn	et mask:						
Defa	ult gateway:				1]
Obtain DNS server address automatically							
OUs	e the following DNS serve	r addre	sses				
Prefe	erred DNS server:	[]
Alter	nate DNS server:				•]
U Va	Validate settings upon exit Advanced						
					ОК		Cancel

The second way: specify the IP address

Set the IP address of the PC to 192.168.4.9 (or another IP address of the 192.168.4 network segment), the subnet mask to 255.255.255.0, and the default gateway to 192.168.4.1. DNS is set to a locally available DNS server.

General					
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.					
Obtain an IP address automatica	lly				
• Use the following IP address:					
IP address:	192.168.4.119				
Subnet mask:	255.255.255.0				
Default gateway:	192.168.4.1				
Obtain DNS server address auto	Obtain DNS server address automatically				
Use the following DNS server add	dresses:				
Preferred DNS server:	218 . 85 . 157 . 99				
Alternate DNS server:	218 . 85 . 152 . 99				
Validate settings upon exit	Advanced				
	OK Cancel				

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Page 20 of 87 Add: 11th Floor, Building A06, No. 370, Chengyi Street, Phase III, Software Park, Jimei District, Xiamen Website: www.four-faith.com Customer Service Hotline: 400-8838-199 Tel: 0592-6300320 Fax: 0592-5912735



3.2.2 Login

This chapter describes the main functions of each page. The web tools can be accessed through a web browser using a computer connected to the router. There are eleven main pages, namely: Settings, Wireless, Services, VPN, Security, Access Restrictions, NAT, QoS Settings, Applications, Administration, and Status. Click on one of the master pages and more slave pages will appear.

To access the router's web-based web management tool, launch IE or other browser and enter the router's default IP address of 192.168.4.1 in the "Address" field. Press Enter. If you log in to the web page for the first time, you can see the page shown below, prompting the user whether to modify the default user name and password of the router. If you need to enter the user-defined user name and password, click the "Change Password" button to take

effect.

0592-5912735

Your Router is currently not protected and uses an unsafe default username and password combination, please change it using the following dialog!				
Router Password				
Router Username	admin			
Router Password	••••			
Re-enter to confirm	••••			
	Change Password			

Then you can go to the main information page:



Setup Wireless	Services VPN Security M	IAT Access QoS Proto	col Conversion Admin Status
System Information			
Router		Services	
Router Name	Four-Faith	DHCP Server	Enabled
Router Model	Four-Faith Router	radauth	Disabled
LAN MAC	36:4B:50:B8:92:7F		
WAN MAC	36:4B:50:B8:92:7F	Memory	
Wireless MAC	36:4B:50:B8:92:81	Total Available	501.2 MB / 512.0 MB
WAN IP	0.0.0.0	Free	460.1 MB / 501.2 MB
BKUP WAN IP	0.0.0.0	Used	41.1 MB / 501.2 MB
LAN IP	192.168.4.1	Buffers	3.3 MB / 41.1 MB
		Cached	9.8 MB / 41.1 MB
Wireless		Active	5.0 MB / 41.1 MB
Radio	Radio is On	Inactive	10.5 MB / 41.1 MB
Mode	AP		
Network	Mixed		
SSID	Four-Faith		
Channel	4 (2427 MHz)		
TX Power	100 mW		
Rate	150 Mb/s		
Wireless Packet Info —			
Received (RX)	0 OK,no error		

If you click the main menu for the first time, you need to enter the corresponding user name and password:

Sign in to access this site

Authorization required by http://192.168.4.1 Your connection to this site is not secure

Username	admin		
Password	•••••		
		Sign in	Cancel

Enter the correct user and password to access the corresponding menu page. The default user name is admin, and the default password is admin. (Username and password can be changed on the admin page). Then click "OK".

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Page 22 of 87 Add: 11th Floor, Building A06, No. 370, Chengyi Street, Phase III, Software Park, Jimei District, Xiamen Website: www.four-faith.com Customer Service Hotline: 400-8838-199 Tel: 0592-6300320 Fax: 0592-5912735



3.3 Management and Configuration

3.3.1 Setup

The first page opened by clicking "Settings" is the basic settings. From this page, you can follow the prompts to make changes to the basic settings, click the "Apply Settings" button to make changes but not take effect, click the "Apply" button to make the changes effective, or click the "Cancel Changes" button to cancel Change.

3.3.1.1 Basic Settings

The WAN Connection Type settings section describes how to configure the router to connect to the Internet. Details on this can be obtained from your ISP.

WAN Connection Type

Select the type of Internet connection your ISP provides you from the drop-down menu, WAN connection type includes 7 ways: Disabled, Static IP, Automatic Configuration - DHCP, PPPOE, 3G Link, DHCP-4G/5G.

Method 1: Disabled

Connection Type

Disabled 🗸 🗸

Disable the connection type setting of the WAN port

Method 2: Static IP

Dedicated line access, such as business fiber, typically uses this connection type. The broadband service provider will provide you with detailed parameters such as IP address, subnet mask, gateway and DNS, which you need to set on the router.

Connection Type	Static IP	~
WAN Port Assignment	WAN/LAN1 🗸	
WAN IP Address	0.0.0	. 0
Subnet Mask	0.0.0	. 0
Gateway	0.0.0	. 0
Static DNS 1	0.0.0	. 0
Static DNS 2	0.0.0	. 0
Static DNS 3	0.0.0	. 0

WAN IP address: The IP address set by users according to their own or ISP allocation.Subnet Mask: The subnet mask set by users according to their own or ISP distribution.Gateway: The gateway set by users according to their own or ISP distribution.Static DNS (1-3): Static DNS set by users according to their own or ISP distribution.

Method 3: Automatic Configuration - DHCP

The router's default WAN connection type. Cable TV and some residential broadband use **Xiamen Four-Faith Communication Technology Co., Ltd.**

Page 23 of 87

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this connection method. Such as Shenzhen Tianwei Video, Shanghai Cable Communication and so on.

Connection Type

Automatic Configuration - DHCP 🗸

The IP address of the WAN port is obtained by DHCP.

Method 4: PPPOE

This connection type is commonly used by China Telecom and China Netcom ADSL broadband services, but also by some other broadband service providers. The PPPoE connection type requires the ISP to provide you with a username, password and service name, which need to be set up on the router.

Connection Type	PPPoE	~	
User Name			
Password			🗌 🗆 Unmask
	analiana ana ta tha lintan	1	

User name: Username for logging on to the Internet. **Password:** The password used to log in to the Internet.

Method 5:3G Link

Connection Type	3G Link 1 🗸	
User Name	card	
Password	••••	🗆 Unmask
Dial String	#777 (CDMA/EVDO)	
APN	3gnet	
PIN	Unmask	

User name: Username for logging on to the Internet.

Password: The password used to log in to the Internet.

Dial String: The calling number to call to the operator.

APN: Access point name.

PIN: The PIN code provided by the SIM card.

Network Type

Connection type

Auto	~

Connection type: Including automatic mode, forced to 3G, forced to 2G, 3G first, 2G first, etc. If 4G module is used, 4G network options will be added accordingly, according to user needs and different module types to choose.

Method 6:DHCP-4G/5G

Connection Type

dhcp-4G/5G 🗸

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The IP address of the WAN port is obtained by DHCP-4G/5G

Keep Online

Keep Online Detection	Ping 🗸
Detection Interval	120 Sec.
Primary Detection Server IP	114 . 114 . 114 . 114
Backup Detection Server IP	208 . 67 . 220 . 220

The keep-alive function is used to detect whether the Internet link is in a valid state. If this item is set, the router will automatically detect the Internet link. Once it detects that the link is disconnected or invalid, the system will automatically reconnect and re-establish a valid link. If the network environment is relatively poor, or in the case of a private network, it is recommended to use the Router mode.

Keep Online Detection:

None: Do not use the online hold function.

Ping: Send ping packets to check the link. If it is set to this mode, the configuration items of "Online Keeping Detection Time Interval", "Online Keeping Checking Primary Server IP" and "Online Keeping Checking Secondary Server IP" must also be configured correctly.

Route: Use the route method to detect the link. If this method is set, you must also correctly configure the "Online maintenance detection interval", "Online maintenance detection main server IP" and "Online maintenance detection secondary server IP" configuration items.

TCP: Use TCP mode to detect the link. If this mode is set, the configuration item "Online Keeping Detection Time Interval" must also be correctly configured.

Detection Interval:

The time interval between two online hold detections, in seconds.

Primary Detection Server IP:

The IP address of the primary server that responds to router online detection packets. This configuration item is valid only when "Preservation Mode" is set to "Ping" or "Route". Backup Detection Server IP:

The IP address of the secondary server that responds to router online detection packets. This configuration item is valid only when "Preservation Mode" is set to "Ping" or "Route".

Enable Dial Failure to Restart

Enable Disable (Default: 10 minutes)

Enable Dial Failure to Restart: This function can reconnect to the Internet when the router fails to dial. (Default: 10 minutes)

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Page 25 of 87 Add: 11th Floor, Building A06, No. 370, Chengyi Street, Phase III, Software Park, Jimei District, Xiamen Website: www.four-faith.com Customer Service Hotline: 400-8838-199 Tel: 0592-6300320 Fax: 0592-5912735



STP

STP

🔘 Enable 🔘 Disable

STP stands for spanning Tree Protocol. The protocol can be applied to the loop network to realize path redundancy through certain algorithms, and at the same time, the loop network is pruned into a loop-free tree network, so as to avoid packet proliferation and infinite loop in the loop network.

Optional Settings

Router Name	Four-Faith
Host Name	
Domain Name	
MTU	Auto 🗸 1500
Force Net Card Mode	Auto 🗸

Router Name: In this field, you can enter a name of up to 39 characters that represents the router.

Hostname and Domain Name: These options can be used to provide a hostname and domain name. Some ISPs (usually fixed network ISPs) require these names for identification. You'll want to check with your ISP to see if your broadband internet service has a hostname and domain name configured. In most cases, leaving this information blank is fine.

MTU: MTU refers to the maximum transmission unit. The MTU setting specifies the maximum packet size allowed in Internet transmission. The default state is "Auto", and the maximum packet value that will be transmitted can be manually entered. The recommended range for this value is 1200 to 1500. For most DSL users, 1492 is recommended. You should make this number in the range of 1200 to 1500. Select the Automatic option if you want the router to be able to choose the best MTU for your internet.

Network Setup

The Network Settings section allows you to modify the network settings connected to the router's Ethernet port.

Local IP Address	192].[168].[4].	1
Subnet Mask	255].[255].[255].	0
Gateway	0].[0].[0].[0
Local DNS	0].[0].[0].[0

Local IP Address: Indicates the router IP address that can be seen by your local area

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Page 26 of 87 Add: 11th Floor, Building A06, No. 370, Chengyi Street, Phase III, Software Park, Jimei District, Xiamen Website: www.four-faith.com Customer Service Hotline: 400-8838-199 Tel: 0592-6300320 Fax: 0592-5912735



network.

Subnet Mask: Indicates the router IP address subnet mask as seen by your LAN. **Gateway:** Set the internal gateway of the router. If it is set by default, the internal gateway is the address of the router itself.

Local DNS: The DNS server is automatically assigned by the operator access server. If you have your own DNS server or other stable and reliable DNS servers, you can choose to use these reliable DNS servers. Otherwise, the default setting

Network Address Server Settings (DHCP)

These settings are used to configure the router's Dynamic Host Configuration Protocol (DHCP) server function. The router can act as a DHCP server for the network. A DHCP server automatically assigns an IP address to every computer on the network. If you choose to enable the router's DHCP server option, you can set all computers on the LAN to automatically obtain IP addresses and DNS, and ensure that there are no other DHCP servers on the network.

DHCP Type	DHCP Server V
DHCP Server	
Start IP Address	192.168.4. 100
Maximum DHCP Users	50
Client Lease Time	1440 minutes
Static DNS 1	0.0.0
Static DNS 2	0.0.0
Static DNS 3	0.0.0.0
WINS	0.0.0.0
Use DNSMasq for DHCP	
Use DNSMasq for DNS	
DHCP-Authoritative	

DHCP Type: Including DHCP server and DHCP forwarder

If set to DHCP forwarder, enter the DHCP server address, as follows

DHCP Type	DHCF	Forw	/arde	er 🗸		
DHCP Server	0		0		0	 0

DHCP Server: DHCP is enabled by default at the factory. Click Disable if there is already a DHCP server on the network, or if you do not wish to have a DHCP server. If you choose DHCP forwarder, fill in the corresponding DHCP server IP.

Start IP Address: Enter a value in the range 1-254 to use as the starting value when the DHCP server assigns an IP address. Since the default IP address of this router is 192.168.4.1, the starting IP address must be 192.168.4.2 or greater but less than

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Page 27 of 87 Add: 11th Floor, Building A06, No. 370, Chengyi Street, Phase III, Software Park, Jimei District, Xiamen Website: www.four-faith.com Customer Service Hotline: 400-8838-199 Tel: 0592-6300320 Fax: 0592-5912735



192.168.4.254. The default starting IP address is 192.168.4.100.

Maximum DHCP Users: Enter the maximum number of computers you want the DHCP server to assign IP addresses to. This number cannot exceed 253, and the starting IP address plus the number of users cannot exceed 255. The default value is 50.

Client Lease Time: refers to the lease period of the IP address occupied by the network user of the dynamic IP address. Enter the time in minutes that this user "leases" this dynamic IP address. After the dynamic IP address expires, a new dynamic IP address is automatically assigned to the user. The default setting is 1440 minutes, which represents 1 day. The setting range is 0-99999.

Static DNS (1-3): The Domain Name System (DNS) is used by the Internet to translate domain names or web page names into Internet addresses or URLs (Universal Resource Locators). Your ISP will give you the IP address of at least one DNS server. You can enter up to three DNS server IP addresses. By using these addresses, quick access to a working DNS server can be achieved.

WINS: The Windows Internet Naming Service (WINS) manages every computer that interacts with the Internet. If using a WINS server, enter the server's IP address here. Otherwise, do not fill in any address.

DNSMasq: Add your domain name to the local search field, add extended host options, use DNSMasq to assign IP addresses and DNS to the subnet, if you do not select DNSMasq, use the dhcpd service to provide IP addresses and DNS for the subnet.

Time Settings

NTP Client	● Enable ○ Disable	
Time Zone	UTC-12:00 🗸	
Summer Time (DST)	none	~
Server IP/Name		

NTP Client: Enable and disable to provide a time synchronization function for the system, that is, to set the system time.

Time Zone: West 12th to East 12th, set by your own location.

Summer Time(DST): Set according to your location.

Server IP/Name: IP address of your NTP server, up to 32 characters, if not, the system will find the server by default.

Adjust Time

Adjust Time	
Auto 🗸	2022 - 01 - 27 14 : 30 : 11 Set

Adjust the time for the system, refresh to get the current time of the web page, and set it to modify the system time. The function of system time calibration, especially when the NTP service cannot be obtained, you can manually adjust the system time.

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Page 28 of 87 Add: 11th Floor, Building A06, No. 370, Chengyi Street, Phase III, Software Park, Jimei District, Xiamen Website: www.four-faith.com Customer Service Hotline: 400-8838-199 Tel: 0592-6300320 Fax: 0592-5912735



After making changes, click the **"Save"** button to make the changes but not take effect, click the **"Apply Settings"** button to make the changes effective, or click the **"Cancel Changes"** button to cancel the changes. Help information is located on the right side of the screen.

3.3.1.2 DDNS

If the IP address obtained by the router's Internet access is dynamically assigned by the operator, the IP address obtained by the router may be different each time. In this case, dynamic domain name service can be used. The domain name provider allows you to register a domain name that always corresponds to the current dynamic IP address of the router. In this way, you can access the latest Internet IP address of the router by accessing the domain name.

DDNS Service: This router supports a variety of DDNS servers, such as: DynDNS, freedns, Zoneedit, NO-IP, 3322, easyDNS, TZO, DynSIP. You can also define your own.

DDNS Service	3322.org ¥
User Name	
Password	Unmask
Host Name	
Туре	Dynamic 🗸
Wildcard	
Do not use external ip check	● Yes ○ No

User Name: Username registered on the DDNS server, with a maximum length of 64 characters.

Password: The password entered by the user when registering the user name on the DDNS server, the maximum length is 32 characters.

Host Name: The hostname applied by the user on the DDNS server, the current input length is not limited.

Type: different servers are different.

Wildcard: Whether to support wildcard, the default is OFF. ON means *.host.3322.org is equivalent to host.3322.org.

Do not use external ip check: Enable or disable Do not use external IP detection.

Force Update Interval

10

(Default: 10 Days, Range: 1 - 60)

Force Update Interval: unit day, in the set number of days, it is forced to update the dynamic DNS to the server

Status

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Page 29 of 87 Add: 11th Floor, Building A06, No. 370, Chengyi Street, Phase III, Software Park, Jimei District, Xiamen Website: www.four-faith.com Customer Service Hotline: 400-8838-199 Tel: 0592-6300320 Fax: 0592-5912735



DDNS Status

Tue Feb 8 17:14:01 2022: INADYN: Started 'INADYN Advanced version 1.96-ADV' - dynamic DNS updater. Tue Feb 8 17:14:01 2022: W: DYNDNS: Error: device has no WAN Address Tue Feb 8 17:14:01 2022: W:'RC_ERROR' (0x1) updating the IPs. (it 0) Tue Feb 8 17:15:02 2022: W: DYNDNS: Error: device has no WAN Address Tue Feb 8 17:15:02 2022: W:'RC_ERROR' (0x1) updating the IPs. (it 1)

The status shows the status of the current connection, the information that is already in the process of connecting.

After making changes, click the **"Save"** button to make the changes but not take effect, click the **"Apply Settings"** button to make the changes effective, or click the **"Cancel Changes"** button to cancel the changes. Help information is located on the right side of the screen.

3.3.1.3 MAC Address Cloning

Some ISPs may require you to register your MAC address. If you don't want to re-register your MAC address, you can clone the router's MAC address to the one you registered with your ISP.

Enable Disable	
Clone LAN(VLAN) MAC	36 : 4B : 50 : B8 : 92 : 7F
Clone WAN MAC Get Current PC MAC Address	36 : 4B : 50 : B8 : 92 : 80
Clone LAN(Wireless) MAC	36 : 4B : 50 : B8 : 92 : 81

Mac address clone can clone 3 parts, one is the clone of the LAN port, the other is the clone of the WAN port, and the other is the clone of the wireless MAC address. There are two points to note. First, the MAC address is 48 bits and cannot be set to The address of the multicast, i.e. the first byte should be an even number. Second, since the wireless and LAN ports are connected by a bridge br0, the MAC address of the bridge br0 is determined by the smaller value of the LAN MAC address and the wireless MAC address.

3.3.1.4 Advanced Routing

On the Advanced Routing page, run mode and static routing can be set. Gateway mode is recommended for most users.

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Main Mode

Main Mode

Gateway 🗸

Main Mode: Select the correct running mode. If the router shares an Internet broadband connection, keep the default gateway setting (gateway mode is recommended for most users). Select Router if you want to use only the router's routing functions on the network.

Dynamic Routing

D	ynamic Routing –		
	Interface	Disable	~

This feature is not available in gateway mode. The dynamic routing feature enables routers to automatically adjust to physical changes in the network layout and to exchange routing tables with other routers. Routers determine the route of network packets based on the minimum number of hops between source and destination.

To enable dynamic routing on the WAN side, select WAN. To enable this feature on the LAN and wireless side, select LAN&WLAN. To enable this feature for both WAN and LAN, select Both. To disable dynamic routing for all data transfers, keep the default setting Disabled.

Static Routing

To set up a static route between the router and another network, select a number from the Static Route drop-down list to set it up. (A static route is a predetermined path through which network information must travel to a specific host or network).

v	which network information must have to a specific host of networ				
S	tatic Routing				
	Select set number	1() V Delete			
	Route Name				
	Metric	0			
	Destination LAN NET	0.0.0.0			
	Subnet Mask	0.0.0.0			
	Gateway	0.0.0.0			
	Interface	LAN & WLAN 🗸			
		Show Routing Table			

Select Set Number: 1-50 static routes.

Route Name: User-defined routing name, up to 25 characters can be entered.

Metric: The unit of measure for the route between the source address and the destination address. Range 0-9999

Destination LAN NET: The destination IP address is the address of the destination

Xiamen Four-Faith Communication Technology Co., Ltd.

Page 31 of 87 Add: 11th Floor, Building A06, No. 370, Chengyi Street, Phase III, Software Park, Jimei District, Xiamen Website: www.four-faith.com Customer Service Hotline: 400-8838-199 Tel: 0592-6300320 Fax: 0592-5912735



network or host for the static route.

Subnet Mask: The subnet mask determines which part of the destination IP address is the network part and which part is the host part.

Gateway: This is the IP address of the gateway device that allows communication between the router and the destination network or host.

Interface: According to the location of the target IP address, several ports such as LAN and wireless or WAN (Internet) can be selected.

To delete the static route that has been set, please select the corresponding routing table number and click the **"Delete"** button. To view the detailed routing information of the current router, click the **"Show Routing Table"** button.

Routing Table Entry List			
Destination LAN NET 192.168.4.0	Subnet Mask 255.255.255.0	Gateway 0.0.0	Interface LAN & WLAN
	Refresh Clo	ose	

After making changes, click the **"Save"** button to make the changes but not take effect, click the **"Apply Settings"** button to make the changes effective, or click the **"Cancel Changes"** button to cancel the changes. Help information is located on the right side of the screen.

3.3.1.5 VLANs



1/1 A NI

F-G300 5G Smart Light Pole Gateway User Manual

	Port					Assigned
VLAN	WAN/LAN1	SFP1	SFP2	SFP3	LAN2/LAN3/LAN3/LAN5/LAN6/LAN7/LAN8	Bridge
1		\checkmark		\checkmark		LAN 🗸
2						None \checkmark
3						None 🗸
4						None 🗸
5						None 🗸
6						None 🗸
7						None 🗸
8						None 🗸
9						None 🗸
10						None 🗸
11						None 🗸
12						None 🗸
13						None 🗸
14						None 🗸
15						None 🗸

The VLANs function can be divided into different VLAN ports according to the user's own wishes. The system supports 15 VLAN ports of VLAN1-VLAN15, but only 5 ports are used at the same time, including one WAN port and 4 LAN ports. The ports are divided according to your own needs, and the LAN port and the WAN port cannot be divided into the same VLAN port.

3.3.1.6 Networking

Create Bridge			
Bridge 0		br0 STP Off V Prio 32768 MTU	1500
Add			
Assign to Bridge			
Add			
Current Bridging	Table ——		
Bridge Name	STP enabled	Interfaces	
br0	no	vlan1 rai0 ra0	
		Auto-Refresh is On	

Create Bridge: Create a new bridge for use. STP stands for Spanning Tree Protocol, and you can set bridge priorities. The lowest number has the highest priority.

Xiamen Four-Faith Communication Technology Co., Ltd.

Page 33 of 87 Add: 11th Floor, Building A06, No. 370, Chengyi Street, Phase III, Software Park, Jimei District, Xiamen Website: www.four-faith.com Customer Service Hotline: 400-8838-199 Tel: 0592-6300320 Fax: 0592-5912735



Assign to Bridge: Allows you to assign any valid interface to an already established bridge.

Current Bridging Table: Displays the current bridge list.

The steps to create are as follows:

In creating a bridge, click the "**Add**" button first, and then the following configuration appears:

Create Bridge —							
Bridge 0	br0	STP Off 🗸	Prio	32768	MTU	1500	
Bridge 1 Delete Add		STP On 🗸	Prio	32768	MTU	1500	

This item is an option for creating a bridge. The first br0 represents the name of the bridge, STP represents whether the spanning tree protocol is enabled, Prio represents the priority level of the spanning tree protocol, the smaller the number, the higher the level, and the MTU represents the maximum transmission unit. The default is 1500. If you don't need it, delete it, and then click **"Save"** or **"Apply settings"**, and the bridge property configuration as shown below will appear:

Create Bridge	
Bridge 0 Delete	br0 STP Off v Prio 32768 MTU 1500
Bridge 1 Delete	br1 STP Off v Prio 32768 MTU 1500
IP Address	192 . 168 . 2 . 1
Subnet Mask	255 . 255 . 255 . 0
Add	

After entering the IP address and subnet mask of the corresponding bridge, click the Apply button to generate the bridge.

Note: Bridges can only be applied after they have been generated

Assign to Bridge	
Assignment 0	none V Interface eth2 V Prio 63 Delete
Add	none br0
	br1

This item is assigned to the bridge, you can assign different interfaces to the already created bridge, for example, in the bridge of br1, assign the interface of ra0 (that is, the wireless interface), as shown below

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Page 34 of 87 Add: 11th Floor, Building A06, No. 370, Chengyi Street, Phase III, Software Park, Jimei District, Xiamen Website: www.four-faith.com Customer Service Hotline: 400-8838-199 Tel: 0592-6300320 Fax: 0592-5912735



A	ssign to Bridge		
	Assignment 0	br1 V Interface ra0 V Prio 63 Del	ete
	Add		

Prio represents the priority level, which is useful if multiple interfaces are bound to the same bridge. The smaller the value, the higher the level. Click "**Apply settings**" for it to take effect.

Note: The interfaces of some WAN ports that appear in the corresponding interface should not be bound. This bridge function is basically used on the LAN port side and should not be bound with the WAN port.

If the binding is successful, the binding list of the bridge will appear in the Current Bridge Table, as follows:

C	Current Bridging Table					
	Bridge Name	STP enabled	Interfaces			
	br0	no	vlan1 rai0			
	br1	no	ra0			

If the bridge of br1 also has the function of DHCP address allocation, it is necessary to set the multi-channel DHCP function. For details, see the introduction of multi-channel DHCPD.

Network Configuration eth2	○ Unbridged ● Default	
Network Configuration vlan1	○ Unbridged ● Default	
Network Configuration ra0	○ Unbridged ● Default	
Network Configuration rai0	○ Unbridged ● Default	
Network Configuration apcli0	○ Unbridged ● Default	
Network Configuration apclii0	○ Unbridged ● Default	
Network Configuration wds1	○ Unbridged ● Default	
Network Configuration wdsi3	○ Unbridged ● Default	
Network Configuration wds0	○ Unbridged ● Default	
Network Configuration wdsi2	○ Unbridged ● Default	
Network Configuration wdsi1	○ Unbridged ● Default	
Network Configuration wds3	○ Unbridged ● Default	
Network Configuration wdsi0	○ Unbridged ● Default	
Network Configuration wds2	○ Unbridged ● Default	
Network Configuration br0	○ Unbridged ● Default	
Network Configuration br1	○ Unbridged ● Default	

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Page 35 of 87

Port Setup

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Network Configuration: configure the properties of each port, the following is an ra0 port

as an illustration:

Network Configuration ra0	Unbridged O Default
MTU	1500
Multicast forwarding	○ Enable
Masquerade / NAT	Enable O Disable
IP Address	0.0.0.0
Subnet Mask	0.0.0.0

If you choose not bridged, you can set the properties of the port itself. The detailed properties are as follows:

MTU: Maximum Transmission Unit

Multicast forwarding: whether to enable the multicast forwarding function

Masquerade/NAT: Whether to enable Masquerade/NAT

IP Address: Set the IP address of ra0, do not conflict with other ports or bridges **Subnet Mask:** Configure the subnet mask of the port

N	Multiple DHCP Server			
	DHCP 0	wds1 🗸 On 🗸 Start 100 Max 50 Leasetim	ıe	
	3600 Delete			
	Add			

Multiple DHCP Server: Use multiple DHCP services. Click Add in the multi-channel DHCP server, and the corresponding configuration will appear. The first one represents the name of the interface or bridge (do not configure it as eth0), the second represents whether the DHCP function is enabled, and "**Start**" represents the starting address is How many, "**Max**" represents the maximum number of DHCP clients allocated, "**Leasetime**" represents the client lease time, the unit is minutes, after setting, click "**Save**" or "**Apply Settings**" to make it take effect.

Note: You can only configure the next one by clicking Save after one configuration is complete, instead of setting multiple DHCP at the same time at one time.

3.3.2 Wireless

3.3.2.1 Basic Configuration

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Page 36 of 87 Add: 11th Floor, Building A06, No. 370, Chengyi Street, Phase III, Software Park, Jimei District, Xiamen Website: www.four-faith.com Customer Service Hotline: 400-8838-199 Tel: 0592-6300320 Fax: 0592-5912735


Wireless Physical Interface wl0 [2.4 GHz]				
Wireless Network	Enable Disable			
Physical Interface ra0 - SSID [Fou	Physical Interface ra0 - SSID [Four-Faith] HWAddr [36:4B:50:B8:92:81]			
Wireless Mode	AP 🗸			
Wireless Network Mode	Mixed V			
Wireless Network Name (SSID)	Four-Faith			
Wireless Channel	Auto 🗸			
Channel Width	Auto 🗸			
Wireless SSID Broadcast	Inable O Disable			
Network Configuration	O Unbridged 🖲 Bridged			
Virtual Interfaces				

Enable: Turn on WIFI.

Disable: Turn off WIFI.

Wireless Mode: AP, client, Ad-hoc, relay, relay bridge four modes are optional.

Wireless Network Mode:

Mixed: Wireless devices that simultaneously support 802.11b, 802.11g, and 802.11n standards.

BG-Mixed: Wireless devices that support both 802.11b and 802.11g standards.

B-only: Wireless devices that only support the 802.11b standard.

G-only: Only wireless devices that support the 802.11g standard.

NG-Mixed: Wireless devices that support both 802.11g and 802.11n standards.

N-Only: Wireless devices that only support the 802.11n standard.

- Wireless Network Name (SSID): The network name shared by all devices in the wireless network, and the SSID of all devices is the same. The SSID consists of numbers and letters, is case-sensitive, and cannot exceed 32 characters.
- Wireless Channel: There are 1-13 channels to choose from. In the environment of multiple wireless devices, please try to avoid using the same channel with other devices.

Channel Width: 20MHZ and 40MHZ are available.

Wireless SSID Broadcast:

Enable: Broadcast SSID.

Disable: Hide the SSID.

Network Configuration:

Bridged: Bridged to the router, under normal circumstances, please select Bridged. **Unbridged:** not bridged to the router, the IP address needs to be configured

Xiamen Four-Faith Communication Technology Co., Ltd.

Page 37 of 87

Add: 11th Floor, Building A06, No. 370, Chengyi Street, Phase III, Software Park, Jimei District, Xiamen Website: www.four-faith.com Customer Service Hotline: 400-8838-199 Tel: 0592-6300320 Fax: 0592-5912735



manually.

Virtual Interface: Click Add to add a virtual interface. After the addition is successful, click Remove to remove the virtual interface.

Virtual Interfaces ra1 SSID [ff_vap]		
Wireless Network Name (SSID)	ff_vap	
Wireless SSID Broadcast	● Enable ○ Disable	
AP Isolation	🔿 Enable 🔘 Disable	
Network Configuration	O Unbridged 🖲 Bridged	
	Add Remove	

AP Isolation: Completely isolate all wireless client devices so that they can only access the fixed network connected to the AP.

Note: Apply Settings: Save the changes, after changing the "Wireless Mode", "Wireless Network Mode", "Wireless Width", "Broadband" options, please click this button first, and then configure other options.

3.3.2.2 Wireless Security

Wireless security options are used to configure the security of your wireless network. There are 7 wireless security modes in this router. The default mode is disabled and safe mode is not enabled. To change the safety mode, click Apply to take effect immediately.

Wireless Security wl0	
Physical Interface ra0 SSID [Four-F	aith] HWAddr [36:4B:50:B8:92:81]
Security Mode	Disabled V
Wireless Security wl0	
Physical Interface ra0 SSID [Four-	Faith] HWAddr [36:4B:50:B8:92:81]
Security Mode	WEP 🗸
Authentication Type	Open O Shared Key
Default Transmit Key	1
Encryption	64 bits 10 hex digits/5 ASCII 🗸
ASCII/HEX	○ ASCII
Passphrase	Generate
Key 1	

WEP: is a basic encryption algorithm, not as secure as WPA.

Authentication Type: Open or Shared Key can be selected.

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Default Transmit Key: Choose to use one of Key 1-Key 4 to use for transport encryption. **Encryption:** There are "64 bit 10 hex digits/5 ASCII", "128 bit 26 hex digits/13 ASCII". Can be generated using a passphrase or entered manually.

64 bit 10 hex digits/5 ASCII: Each key is 10 hexadecimal characters or 5 ASCII characters.

128 bit 26 hex digits/13 ASCII: Each key is 26 decimal characters or 13 ASCII characters.

ASCII/HEX: ASCII, select the key as ASCII code.

HEX, the selection key is a hexadecimal number.

Passphrase: A combination of letters and numbers used to generate a key.

Key 1: It can be filled in manually or generated by the router based on the input passphrase.

Wireless Security wl0				
Physical Interface ra0 SSID [Four-Faith] HWAddr [36:4B:50:B8:92:81]				
Security Mode	WPA Personal	~		
WPA Algorithms	AES 🗸			
WPA Shared Key		Unmask		
Key Renewal Interval (in seconds)	3600	(Default: 3600, Range: 1 - 99999)		

WPA Personal/WPA2 Personal/WPA2 Person Mixed: Provides three WPA algorithms, TKIP and AES, TKIP+AES, using dynamic encryption keys. TKIP+AES, self-applied TKIP or AES. WPA Person Mixed, allows WPA Personal and WPA2 Personal clients to be mixed.

WPA Shared Key: 8-63 characters, consisting of letters and numbers. Key Renewal Interval (in seconds): 1-99999.

Physical Interface ra0 SSID [Four-Faith] HWAddr [36:4B:50:B8:92:81]

Security Mode	WPA Enterprise 🗸
WPA Algorithms	AES 🗸
Radius Auth Server Address	0.0.0.0
Radius Auth Server Port	1812 (Default: 1812)
Radius Auth Shared Secret	Unmask
Key Renewal Interval (in seconds)	3600

WPA Enterprise/WPA2 Enterprise/WPA2 Enterprise Mixed: Enterprise WPA/WPA2 encryption, the router needs to connect to the Radius authentication server. WPA Algorithm: AES/TKIP/TPIP+AES.

Radius Auth Server Address: The IP of the Radius server connected to the router.
Radius Auth Server Port: the port used by the radius service on the Radius server.
Radius Auth Shared Secret: The shared key between the Radius server and the router.
Key Renewal Interval (in seconds): 1-99999.

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Page 39 of 87 Add: 11th Floor, Building A06, No. 370, Chengyi Street, Phase III, Software Park, Jimei District, Xiamen Website: www.four-faith.com Customer Service Hotline: 400-8838-199 Tel: 0592-6300320 Fax: 0592-5912735



3.3.3 Service

3.3.3.1 Service

DHCP Server

The DHCP service assigns an IP address to your local device. You can enter the main menu, and then go to the setting page to configure the special functions of DHCP that you need.

HCP Server			
Additional DHCPd Optio	ns		
		h	
Static Leases			
MAC Address	Host Name	IP Address	Client Lease Time
		Add Remove	

DNSMasq

DNSMasq is a local DNS server. This will resolve all known host names from DHCP (dynamic and static) routers as well as forwarding and cached DNS entries from remote DNS servers. Local DNS enables DHCP clients on the LAN to resolve static and dynamic DHCP hostnames.

DNSMasq	
DNSMasq	Enable O Disable
Local DNS	🔿 Enable 🔎 Disable
No DNS Rebind	Enable O Disable
Additional DNSMasq Options	
	h

Local DNS: Use the local DNS, you can set the DNS server in the setting page

No DNS Rebind: When enabled it prevents external attackers from accessing the router's internal web interface and is a security measure

Additional DNSMasq Options: There are some additional options that can be set, enter your own corresponding configuration.

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Page 40 of 87

Add: 11th Floor, Building A06, No. 370, Chengyi Street, Phase III, Software Park, Jimei District, Xiamen Website: www.four-faith.com Customer Service Hotline: 400-8838-199 Tel: 0592-6300320 Fax: 0592-5912735



For example:

Statically assigned address:dhcp-host=AB:CD:EF:11:22:33,192.168.0.10,myhost,m yhost.

domain,12th

Maximum number of leases: dhcp-lease-max=2

IP range of DHCP server: dhcp-range=192.168.0.110,192.168.0.111,12h

SNMP

SNMP

SNMP (Simple Network Management Protocol). This is a widely used network management protocol. Data is passed through an SNMP agent. SNMP agents refer to hardware and/or software processes that report the activities of each network device (such as hubs, routers, and bridges) to workstations for network monitoring purposes. The agent returns the information contained in the MIB (Management Information Base). A MIB is a data structure that defines options that can be obtained from a device and that can be controlled (such as turned on or off).

SNMP	Enable O Disable
Location	Unknown
Contact	root
Name	four-faith
RO Community	public
RW Community	private

Location: The location identifier of the device, which is defined by the customer **Contact:** User defined, should be consistent with the client

Name: User defined, should be consistent with the client

RO Community: user-defined, should be consistent with the client, only read permission **RW Community:** user-defined, should be consistent with the client, with read and write permissions

SSHD

Enable the SSHD service to allow remote access to your router's operating system via an SSH client.

Page 41 of 87 Add: 11th Floor, Building A06, No. 370, Chengyi Street, Phase III, Software Park, Jimei District, Xiamen Website: www.four-faith.com Customer Service Hotline: 400-8838-199 Tel: 0592-6300320 Fax: 0592-5912735



S	ecure Shell			
	SSHd	Enable	\bigcirc Disable	
	SSH TCP Forwarding	◯ Enable	Disable	
	Password Login	Enable	○ Disable	
	Port	22		(Default: 22)
	Authorized Keys			
				11

SSH TCP Forwarding: Whether to support the TCP forwarding function

Password Login: whether password login is required

Port: Set the port of SSHD, the default system is set to port 22

Authorization Keys: set as needed, the system login password and user name are used by default

System Log

System Log	
Syslogd	Enable O Disable
Syslog Out Mode	● Net ○ Console ○ Web
Remote Server	

Syslog Out Mode: network and serial port, the remote server IP address needs to be set in the network mode

Remote Server: The IP address of the remote server that accepts syslogs

Telnet

This is a terminal emulation protocol commonly used on the Internet and in TCP/IP-based networks. It allows end users or computers to log on to remote devices and run programs.

Telnet	
Telnet	Enable O Disable
Telnet: Enable or disable th	e Telnet function
WAN traffic counter	
WAN Traffic Counter	
ttraff Daemon	Enable O Disable

Ttraff Daemon: enable or disable the traffic statistics function

3.3.3.2 USB

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Page 42 of 87 Add: 11th Floor, Building A06, No. 370, Chengyi Street, Phase III, Software Park, Jimei District, Xiamen Website: www.four-faith.com Customer Service Hotline: 400-8838-199 Tel: 0592-6300320 Fax: 0592-5912735



Enable this service to identify the U disk, TF card or SD memory card connected to the router, and use these types of storage media. The specific setting instructions are as follows:

USB Support			
JSB Support			
USB Storage Support	Enable O Disable		
Storage Media Priority	TF card 🗸		
USB Port Status	Idle		
New Media version	None		
New Media file size			
Storage List			
Disk Info			

Storage Media Priority: TF card or SSD can be set as the priority storage medium in the router

Storage List: The storage medium currently recognized in the router, marked with TF and SSD.

3.3.3.3 FTP Service

When this service is enabled, the router is used as a simple FTP application server, and users can upload or download files to the router's external U disk, TF card or SD memory card as an FTP client.

FTP Server		
FTPD	Enable O Disable	
Server Port	21	(Default: 21)
Login TimeOut	20	(Default: 20)
IDLE TimeOut	240	(Default: 240)
admin	•••••	(Default: admin)
Password	•••••	(Default: admin)
Confirm	•••••	
Anonymous Login	○ Enable	(Default: Disable)
	Manage Accout	

Server Port: The router acts as the local listening port of the FTP server, the default is 21.

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Page 43 of 87 Add: 11th Floor, Building A06, No. 370, Chengyi Street, Phase III, Software Park, Jimei District, Xiamen Website: www.four-faith.com Customer Service Hotline: 400-8838-199 Tel: 0592-6300320 Fax: 0592-5912735



Admin: The administrator account for logging in to the router's FTP server, the default is the user name "admin" for the router's WEB configuration management.

Password: the administrator password for logging in to the router's FTP server, the default is the password "admin" for the router's WEB configuration management.

3.3.4 VPN

3.3.4.1 PPTP

PPTP Server	
PPTP Server	
PPTP Server	Enable O Disable
Broadcast support	○ Enable
Force MPPE Encryption	🔿 Enable 🔎 Disable
DNS1	
DNS2	
WINS1	
WINS2	
Server IP	
Client IP(s)	
CHAP-Secrets	

Broadcast support: enable or disable the PPTP server to support the broadcast function **Force MPPE Encryption:** Whether to force PPTP data MPPE encryption **DNS1, DNS2, WINS1, WINS2:** Set your 1st DNS, 2nd DNS, 1st WINS, 2nd WINS **Server IP:** Enter the IP address of the router as the PPTP server, which should be different from the LAN address.

Client IP: The IP address assigned to the client, in the format xxx.xxx.xxx.xxx.xxx **CHAP-Secrets:** Username and password when the client uses the PPTP service **Note:** The client IP cannot be the same as the IP assigned by the router's DHCP, as long as it is outside this range.CHAP Secrets format is user space * space password space *

PPTP client

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Page 44 of 87 Add: 11th Floor, Building A06, No. 370, Chengyi Street, Phase III, Software Park, Jimei District, Xiamen Website: www.four-faith.com Customer Service Hotline: 400-8838-199 Tel: 0592-6300320 Fax: 0592-5912735



PPTP Client

PPTP Client Options	Enable O Disable	
Server IP or DNS Name		
Remote Subnet	0.0.0.	0
Remote Subnet Mask	0.0.0.	0
MPPE Encryption	mppe stateless	
MTU	1450	(Default: 1450)
MRU	1450	(Default: 1450)
NAT	● Enable ○ Disable	
Fixed IP	○ Enable	
User Name	DOMAIN\\Username	
Password		🗌 🗆 Unmask

Server IP or DNS name: The IP address of the PPTP server or the corresponding DNS name

Remote Subnet: Intranet of the remote PPTP server

Remote Subnet Mask: The subnet mask of the remote PPTP server

MPPE Encryption: Whether to support MPPE encryption.

MTU: Maximum Transmission Unit 0-1500

MRU: Maximum receiving unit 0-1500

NAT: Enable or disable NAT traversal

User Name: Username allowed by the PPTP server

Password: The password corresponding to the username allowed by the PPTP server

3.3.4.2 L2TP

L2TP Server				
L2TP Server Options	Enable	\bigcirc Disable		
Force MPPE Encryption	Enable	○ Disable		
Server IP				
Client IP(s)				
Tunnel Authentication Password				🗆 Unmask
CHAP-Secrets				
			1	

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Page 45 of 87 Add: 11th Floor, Building A06, No. 370, Chengyi Street, Phase III, Software Park, Jimei District, Xiamen Website: www.four-faith.com Customer Service Hotline: 400-8838-199 Tel: 0592-6300320 Fax: 0592-5912735



Force MPPE Encryption: Whether to force L2TP data MPPE encryption **Server IP:** Enter the IP address of the router as the L2TP server, which should be different from the LAN address.

Client IP: The IP address assigned to the client, the format is xxx.xxx.xxx.xxx.xxx.xxx.xxx.xxx

CHAP-Secrets: Username and password when the client uses the L2TP service **Note:** The client IP cannot be the same as the IP assigned by the router's DHCP, as long as it is outside this range.CHAP Secrets format is user space * space password space *

L2TP client

Ľ	OTD Client			
	L2TP Client Options	Enable		
	Tunnel name	Router		
	User Name	DOMAIN\\Username		
	Password			🗆 Unmask
	Tunnel Authentication Password			🗆 Unmask
	Gateway (L2TP Server)			
	Remote Subnet	172 . 16 . 1 .	0	
	Remote Subnet Mask	255 . 255 . 255 .	0	
	MPPE Encryption	mppe stateless		
	MTU	1450	(Default: 1450)	
	MRU	1450	(Default: 1450)	
	NAT	● Enable ○ Disable		
	Fixed IP	○ Enable		
	Require CHAP	● Yes ○ No		
	Refuse PAP	● Yes ○ No		
	Require Authentication	● Yes ○ No		

Gateway(L2TP Server): IP address or corresponding DNS name of the L2TP server Remote Subnet: The network to which the L2TP server intranet belongs Remote Subnet Mask: The network mask to which the L2TP server's intranet belongs MPPE Encryption: Whether to support MPPE encryption. MTU: Maximum Transmission Unit 0-1500 MRU: Maximum receiving unit 0-1500 NAT: Enable or disable NAT traversal

User Name: Username allowed by the L2TP server

Password: The password corresponding to the username allowed by the L2TP server

Require CHAP: whether to support chap authentication

Refuse PAP: whether to refuse to support pap authentication

Xiamen Four-Faith Communication Technology Co., Ltd.

Page 46 of 87

Add: 11th Floor, Building A06, No. 370, Chengyi Street, Phase III, Software Park, Jimei District, Xiamen Website: www.four-faith.com Customer Service Hotline: 400-8838-199 Tel: 0592-6300320 Fax: 0592-5912735



Require Authentication: Whether to support authentication protocol

3.3.4.3 OPENVPN

OPENVPN server

Ctort	Tuno
Start	IVDe
o cui c	., PC

Start Type: WAN Up---Enable after going online, System---Enable at startup

Server	mode
201401	mouc

Router (TUN) O Bridge (TAP)

Server mode: Router---routing mode, Bridge---bridge mode Route method:

Network	0.0.0.0
Netmask	0.0.0.0

Network: The network address allowed by the OPENVPN server **Netmask:** The subnet mask allowed by the OPENVPN server **Bridge Mode:**

DHCP-Proxy mode	○ Enable
Pool start IP	0.0.0.0
Pool end IP	0.0.0.0
Gateway	0.0.0.0
Netmask	0.0.0.0

DHCP-Proxy mode: Enable or disable DHCP proxy mode

Pool start IP: the start address of the client allowed by the OPENVPN server **Pool end IP:** the end address of the client allowed by the OPENVPN server **Gateway:** OPENVPN server allows the client's gateway **Netmask:** Allowed client subnet mask of OPENVPN server

Port	1194	(Default: 1194)
Tunnel Protocol	UDP 🗸	(Default: UDP)
Encryption Cipher	Blowfish CBC 🗸	
Hash Algorithm	SHA1 🗸	

Port: The listening port of the OPENVPN server

Tunnel Protocol: OPENVPN's tunnel protocol UDP or TCP

Encryption Cipher: The encryption standard of the channel includes: Blowfish CBC, AES-128 CBC, AES-192 CBC, AES-256 CBC, AES-512 CBC five kinds of encryption **Hash Algorithm:** Hash algorithm provides a fast way to access data, including SHA1, SHA256, SHA512, MD5 four algorithms

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Page 47 of 87 Add: 11th Floor, Building A06, No. 370, Chengyi Street, Phase III, Software Park, Jimei District, Xiamen Website: www.four-faith.com Customer Service Hotline: 400-8838-199 Tel: 0592-6300320 Fax: 0592-5912735



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h

Advanced Options

Advanced Options	Enable	O Disable	
TLS Cipher	None		~
Use LZO Compression	Adaptive 🗸	·	
Redirect default Gateway	○ Enable	Disable	
Allow Client to Client	Enable	○ Disable	
Allow duplicate cn	○ Enable	Disable	
TUN MTU Setting	1500		(Default: 1400)
Tunnel UDP Fragment			(Default: Disable)
MSS-Fix/Fragment across the tunnel	\bigcirc Enable	Disable	
CCD-Dir DEFAULT file			
			1.
Client connect script			
			li li
L			

Use LZO Compression: Enable or disable the use of LZO compression for transmitted data

Redirect Default Gateway: Enable or disable the relocation gateway Allow Client to Client: Enable or disable allow client-to-client Allow duplicate cn: Enable or disable Allow duplicate CN TUN MTU setting: set the MTU value of the channel Client connection script: some self-defined client scripts

CA Cert

CA Cert: the server and client public CA certificate

Public Server Cert

Public Server Cert: server-side certificate

Private Server Key

DH PEM

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Page 48 of 87 Add: 11th Floor, Building A06, No. 370, Chengyi Street, Phase III, Software Park, Jimei District, Xiamen Website: www.four-faith.com Customer Service Hotline: 400-8838-199 Tel: 0592-6300320 Fax: 0592-5912735



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Private Server Key: the key set on the server-side

DH PEM: PEM certificate of the server

Additional Config

1.

TLS Auth Key

Certificate Revoke List

CCD-Dir DEFAULT file

Additional Config: other additional configuration of the server TLS Auth Key: The authentication key of the secure transport layer Certificate Revoke List: configure some revoked certificate lists CCD-Dir DEFAULT file: other file paths

OPENVPN client

Server IP/Name	0.0.0.0	
Port	1194 ((Default: 1194)
Tunnel Device	TUN 🗸	
Tunnel Protocol	UDP 🗸	
Encryption Cipher	AES-128 CBC 🗸	
Hash Algorithm	SHA1 🗸	

Server IP/Name: IP address or domain name of OPENVPN server

Port: The listening port of the OPENVPN client

Tunnel Device: TUN---routing mode, mode TAP---bridge mode

Tunnel Protocol: UDP and TCP protocols

Encryption Cipher: The encryption standard of the channel includes: Blowfish CBC, AES-128 CBC, AES-192 CBC, AES-256 CBC, AES-512 CBC five kinds of encryption **Hash Algorithm:** Hash algorithm provides a fast way to access data, including SHA1,

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Page 49 of 87 Add: 11th Floor, Building A06, No. 370, Chengyi Street, Phase III, Software Park, Jimei District, Xiamen Website: www.four-faith.com Customer Service Hotline: 400-8838-199 Tel: 0592-6300320 Fax: 0592-5912735



SHA256, SHA512, MD5 four algorithms

Advanced Options	Enable	\bigcirc Disable	
TLS Cipher	None		~
Use LZO Compression	Adaptive 🗸	•	
NAT	○ Enable	Disable	
Bridge TAP to br0	○ Enable	Disable	
IP Address			
Subnet Mask			
TUN MTU Setting	1500		(Default: 1500)
Tunnel UDP Fragment			(Default: Disable)
MSS-Fix/Fragment across the tunnel	○ Enable	Disable	
nsCertType verification			
TLS Auth Key			
			4
Additional Config			
			1.
Policy based Routing			
			11
Liso I 70 Compression: Enable	or disable	the use of	170 comprossion for

Use LZO Compression: Enable or disable the use of LZO compression for transmitted data

NAT: Enable or disable NAT traversal function

Bridge TAP to br0 : Enable or disable TAP binding to br0 bridge

IP Address: Set the IP address of the local OPENVN client

TUN MTU Setting: set the MTU value of the channel

TLS Cipher: TLS (Transport Layer Security) encryption standard supports AES-128 SHA and AES-256 SHA

TLS Auth Key: The authentication key of the secure transport layer

Additional Config: OPENVPN server other additional configuration

Policy based Routing: enter some custom routing policies

nsCertType verification: whether to support the ns certificate type

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Page 50 of 87 Add: 11th Floor, Building A06, No. 370, Chengyi Street, Phase III, Software Park, Jimei District, Xiamen Website: www.four-faith.com Customer Service Hotline: 400-8838-199 Tel: 0592-6300320 Fax: 0592-5912735



CA Cert

	li li
Public Client Cert	
	1.
Private Client Key	
	li.

CA Cert: the server and client public CA certificate Public Client Cert: client certificate Private Client Key: the client's secret key

3.3.4.4 IPSEC

Connection Status and Operation

On the IPSEC page, the IPSEC connection and status of the current device will be displayed.

Connection status and control

Num	Name	Туре	Common Name	Action
Add Sh	ow IPSec Tunnel	Status		

Name: the name of the IPSEC connection;

Type: the type and function of the current IPSEC connection;

Common name: the currently connected local network, local address, peer address and peer network;

Action: There are four types of operations that can be performed on the connection, namely delete, edit, reconnect and enable.

Delete: This operation will delete the connection, and if the IPSEC channel has been established, it will also be torn down;

Edit: Modify the configuration information of the connection. After the modification, if you want the configuration to take effect, you need to reload the connection;

Reconnect: This operation will remove the current channel and re-initiate the channel establishment request;

Enable: When the connection is enabled, the connection will initiate a channel establishment when the system restarts or performs a reconnection operation.

request; conversely, no request will be made.

Add: This function is used to add a new IPSEC connection.

Add IPSEC connection or edit IPSEC connection

Type: Select the IPSEC mode and the corresponding function in this column. Currently,

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Page 51 of 87

Add: 11th Floor, Building A06, No. 370, Chengyi Street, Phase III, Software Park, Jimei District, Xiamen Website: www.four-faith.com Customer Service Hotline: 400-8838-199 Tel: 0592-6300320 Fax: 0592-5912735



the client function of the tunnel mode, the server function of the tunnel mode and the transmission mode are supported.

Туре		
Туре	Net-to-Net Virtual Private Network	~
IPSEC role	● Client ○ Server	

Connection: This column contains the basic address information of the channel.

C	onnection			
	Name		Enabled	>
	Local WAN Interface	WAN 🗸	Peer WAN address	
	Local Subnet		Peer subnet	
	Local Id		Peer ID	

Name: The name used to identify the connection, which must be unique;

Enabled: Select Enable, then the connection will initiate a channel connection request when the system starts or reconnects; otherwise, it will not;

Local WAN Interface: the local address of the channel;

Peer WAN address: the IP/domain name of the peer. If the server function in tunnel mode is used, this option cannot be filled;

Local Subnet: IPSec local protection subnet and subnet mask, for example: 192.168.1.0/24; if the transmission mode is used, this option cannot be filled;

Peer Subnet: IPSec peer protection subnet and subnet mask, for example: 192.168.7.0/24; if the transmission mode is used, this option cannot be filled;

Local Id: the local identifier of the channel, which can be IP and domain name;

Peer Id: channel peer identifier, which can be IP and domain name.

Detection: This column contains configuration information for connection detection (DPD).

D	etection –						
	Enable DPD I	Detection	2				
	Time Interva	l 60	(S) Timeout	60	(S) Action	restart	~

Enable DPD Detection: whether to enable this function, check it to enable it; **Time Interval:** Set the time interval for connection detection (DPD);

Timeout: Set the connection detection (DPD) timeout;

Action: Set the action for connection detection.

Advanced configuration: This column contains related configurations such as IKE, ESP and negotiation mode.

Xiamen Four-Faith Communication Technology Co., Ltd. Page 52 of 87 Add: 11th Floor, Building A06, No. 370, Chengyi Street, Phase III, Software Park, Jimei District, Xiamen Website: www.four-faith.com Customer Service Hotline: 400-8838-199 Tel: 0592-6300320 Fax: 0592-5912735



Advanced Settings

Enable advanced	l settings 🗹			
Phase 1 IKE Encryption IKE Lifetime	AES (256 bit) VIKE Integrity	MD5 V	IKE Grouptype	Group2(1024) V
Phase 2 ESP Encryption ESP Keylife	AES (256 bit) V ESP Integrity	SHA2 (512) 🗸	ESP Grouptype	NULL V
Enable IKEv2				

□ IKE aggressive mode allowed. Avoid if possible (preshared key is transmitted in clear text)!

Perfect Forward Secrecy (PFS)

Enable advanced settings: Enable, you can configure the information of the first stage and the second stage, otherwise, it will be automatically negotiated according to the peer end;

IKE Encryption: the encryption method in the IKE phase;

IKE Integrity: the integrity scheme of the IKE phase;

IKE Grouptype: DH exchange algorithm;

IKE Lifetime: set the life cycle of IKE, currently in hours, the default is 0;

ESP Encryption: the encryption method of ESP;

ESP Integrity: ESP integrity scheme;

ESP Keylife: Set the life cycle of ESP, currently in hours, the default is 0;

IKE aggressive mode: if checked, the negotiation mode will adopt the aggressive mode, otherwise the main mode;

Perfect Forward Secrecy: if checked, PFS is enabled, otherwise it is not enabled;

Authentication

Use a Pre-Shared Key:



Generate and use the X.509 certificate

Authentication: You can choose shared key or certificate authentication according to your needs. Currently, only the shared key method can be selected.

3.3.4.5 GRE

GRE (Generic Routing Encapsulation, Generic Routing Encapsulation) protocol encapsulates the data packets of some network layer protocols (such as IP and IPX), so that these encapsulated data packets can be used in another network layer protocol (such as IP) in transmission. GRE adopts Tunnel technology, which is the third layer tunneling protocol of VPN (Virtual Private Network).

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Page 53 of 87 Add: 11th Floor, Building A06, No. 370, Chengyi Street, Phase III, Software Park, Jimei District, Xiamen Website: www.four-faith.com Customer Service Hotline: 400-8838-199 Tel: 0592-6300320 Fax: 0592-5912735



GRE Tunnel

GRE Tunnel	(
------------	---

🔾 Enable 🔎 Disable

GRE Tunnel: Enable or disable GRE function

Number	1 () V Delete	
Status	Disable 🗸	
Name		ļ
Through	WAN(Static IP) V	
Peer Wan IP Addr		ļ
Peer Subnet		(eg:192.168.1.0/24)
Peer Tunnel IP]
Local Tunnel IP		
Local Netmask		

Number: A channel that can be set, currently up to 12 GRE tunnels can be set **Status:** Enable means enable the currently configured GRE tunnel, otherwise means

close the current GRE tunnel

Name: The name of the tunnel can be up to 30 characters long

Through: GRE transceiver interface, currently there are LAN port, and PPP dial-up rt

port

Peer WAN IP Addr: Enter the WAN port IP address of the peer GRE
Peer Subnet: Subnet IP of the GRE peer, for example: 192.168.1.0/24
Peer Tunnel IP: peer GRE tunnel IP
Local Tunnel IP: local GRE tunnel IP address
Local Netmask: Local Subnet Mask

Keepalive	Enable	\bigcirc Disable
Retry times	10	
Interval	60	
Fail Action	Hold 🗸	

Keepalive: Enable/disable GRE keepalive

Retry times: the maximum number of GRE keepalive failures

Interval: GRE keep-alive packet sending interval

Fail Action: Keepalive Failure Policy

Click the "View GRE Tunnels" button to view GRE information

GRE Tunnels list										
Number Name	Enable Thro	Peer Wan Dugh IP Addr	Peer Subnet	Peer Tunnel IP	Local Tunnel IP	Local Netmask	Keepalive	Retry times	Interval	Fail Action
None										

Xiamen Four-Faith Communication Technology Co., Ltd.

Page 54 of 87

Add: 11th Floor, Building A06, No. 370, Chengyi Street, Phase III, Software Park, Jimei District, Xiamen Website: www.four-faith.com Customer Service Hotline: 400-8838-199 Tel: 0592-6300320 Fax: 0592-5912735



3.3.5 Security

3.3.5.1 Firewall

You can enhance the security of your network by enabling or disabling the firewall, choosing to filter specific types of Internet data, and blocking anonymous Internet requests.

Firewall Protection

Firewal	Protection	

SPI Firewall

Enable
 Disable

Firewall enhances network security and uses Stateful Inspection (SPI) to inspect packets entering the network. To use firewall protection, select Enable, otherwise disable. Other firewall functions: filtering proxies, blocking WAN requests, etc., are only available if the SPI firewall is enabled.

Additional Filters

A	Additional Filters					
	□ Filter Proxy					
	□ Filter Cookies					
	□ Filter Java Applets					
	□ Filter ActiveX					

Filter Proxy: Using a wan proxy server may reduce the security of the gateway. Filter Proxy will deny any access to any wan proxy server. Click the checkbox to enable proxy filtering or deselect it to disable this function.

Filter Cookies: Cookies are data that web sites store on your computer and are used when you interact with Internet sites. Click the checkbox to enable cookie filtering or uncheck it to disable the feature.

Filter Java Applets: If Java is denied, web pages programmed with Java tools may not open, click the checkbox to enable Java applet filtering or uncheck to disable the feature.

Filter ActiveX: If ActiveX is denied, web pages programmed with ActiveX tools may not be opened, click the checkbox to enable ActiveX filtering or deselect it to disable the feature.

Block WAN Requests

Block WAN Requests

Block Anonymous WAN Requests (ping)

- Filter IDENT (Port 113)
- Block WAN SNMP access

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Block Anonymous WAN Requests(ping): Enable this feature by checking the box next to "Block anonymous Internet requests", thereby preventing your network from being pinged or probed by other Internet users, making it more difficult for external users to break into your network. Network, this feature is enabled by default, select Disable to allow anonymous Internet requests.

Filter IDENT (Port 113): This feature prevents port 113 from being scanned by devices outside your local network. Select Enable to filter port 113, or deselect to disable this feature.

Block WAN SNMP access: This feature blocks SNMP connection requests from the WAN.

After making changes, click **"Apply Settings"** to save the changes, or **"Cancel Changes"** to cancel the changes.

Impede WAN DoS/Bruteforce



Limit SSH Access: This function limits SSH access requests from the WAN, and accepts a maximum of 2 SSH connection requests per minute for the same IP.

Limit Telnet Access: This function limits Telnet access requests from the WAN. For the same IP, a maximum of 2 Telnet connection requests are accepted per minute.

Limit PPTP Server Access: When the device establishes a PPTP server, this function limits the PPTP access requests from the WAN. For the same IP, a maximum of 2 PPTP connection requests are accepted per minute.

Limit L2TP Server Access: When the device establishes an L2TP server, this function limits the L2TP access requests from the WAN. For the same IP, a maximum of 2 L2TP connection requests are accepted per minute.

Log Management

The router can keep a log of all your Internet connections, both incoming and outgoing.

Log	
Log	● Enable ○ Disable
Log Level	Low 🗸

To keep the log active, select "Enable", to stop logging, select "Disable". When enabled, the following selection page will appear.

Log Level: Set the "Log Level", a higher level will record more logs.

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Page 56 of 87 Add: 11th Floor, Building A06, No. 370, Chengyi Street, Phase III, Software Park, Jimei District, Xiamen Website: www.four-faith.com Customer Service Hotline: 400-8838-199 Tel: 0592-6300320 Fax: 0592-5912735



Options

Options	
Dropped	Disable 🗸
Rejected	Disable 🗸
Accepted	Disable 🗸

When each of the above three options is enabled, the corresponding connection will be recorded in the log, and if disabled, it will not be recorded.

Incoming Log Table

To see the router's most recent incoming temporary log, click the "Connect Log" button.

Incoming Log Table				
Source IP	Protocol	Destination Port Number	Rule	
		Refresh Close		

Outgoing Log Table

To see the router's most recent incoming temporary log, click the "Connect Out Log" button.

Outgoing Log Table					
LAN IP	Destination URL/IP	Protocol	Service/Port Number	Rule	
		Refresh Close			

3.3.6 Access

3.3.6.1 WAN Access

Use the Internet Access page to block or allow specific types of Internet applications, and you can set Internet access policies for specific PCs.

Access Policy	
Policy	1() V Delete Summary
Status	🔿 Enable 🔘 Disable
Policy Name	
PCs	Edit List of clients
O Deny	Internet access during selected days and hours.
Filter	

There are two options of "Filter" and "Deny" in the default policy rule. If you select "Deny", Xiamen Four-Faith Communication Technology Co., Ltd.

Page 57 of 87

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it will deny a specific computer to access any Internet service during a specific period of time; if you select "Filter", it will prevent a specific computer from accessing any Internet service within a specific period of time. Access to a specific website; you can set 10 Internet access policies to filter the Internet services accessed by a specific PC in a specific time period.

Policy: You can define up to 10 access policies. Click the Delete button to delete a strategy, or click the Summary button to view a strategy overview.

Status: Enable or disable a policy.

Policy Name: You should give your policy a name.

PCs: This column is used to edit the client list. The policy is only valid for PCs in this list.

Days								
	Everyday	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Times								
24 H	lours		۲					
Fron	n		0 v	: 00 ~	To 0 ∨:	00 v		

Days: Please select the day you want your policy to be applied.

Times: Enter the time you want your policy to be applied.

Website Blocking by Keyword

]			
]			

Websites Blocking by URL Address: You can block access to some websites by entering the URL.

Websites Blocking by Keyword: You can block access to Web pages by keywords contained in them.



List of clients	
Enter MAC Address of the cli	ents in this format: xx:xx:xx:xx:xx:xx
MAC 01	00:00:00:00:00:00
MAC 02	00:00:00:00:00:00
MAC 03	00:00:00:00:00:00
MAC 04	00:00:00:00:00
MAC 05	00:00:00:00:00:00
MAC 06	00:00:00:00:00:00
MAC 07	00:00:00:00:00:00
MAC 08	00:00:00:00:00:00
Enter the IP Address of the c	lients
IP 01	192.168.4. 0
IP 02	192.168.4. 0
IP 03	192.168.4. 0
IP 04	192.168.4. 0
IP 05	192.168.4. 0
IP 06	192.168.4. 0
Enter the IP Range of the cli	ents
IP Range 01	0.0.0.0~00

Save	Apply Settings	Cancel Changes	Close

0

0

0

0

0

0

Create an Internet Access Policy

IP Range 02

0 0

- 1. Select one from the Internet Access Policy drop-down menu.
- 2. To enable this policy, click the radio button next to Enable.
- 3. Enter a policy name in the field provided.
- 4. Click the "Edit PC List" button, and the "PC List" page appears. Enter the PC to which the policy is applied. You can use the MAC address or PC address to specify the PC. If you want this policy to be applied to a group of PCs, you can enter a group of IP address ranges, and after modifying the page, click "Apply Settings" to save the

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Page 59 of 87 Add: 11th Floor Building AGE

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changes, or click "Cancel Changes" to complete the changes then close this window.

- 5. Determine when this policy will take effect. Select a specific day for the policy to take effect or select "Daily" and then enter a specific time period for this policy to take effect, or select "24 hours".
- 6. To deny or only allow access to websites at specific URL addresses, enter each URL address in the separate field next to "Website URL Addresses".
- 7. If you want to deny or only allow access to websites with specific keywords, enter each keyword in a separate field in the "Site Keywords" narration.
- 8. Click the "Apply Settings" button to save the policy settings, if you want to cancel the policy settings, click the "Cancel Changes" button.

Note:

- The factory default value of the policy rule is "Filter". If the user selects the default
 policy rule to be "Deny", edit the relevant policy to save or save the settings directly. If
 the strategy you edited is the first, it will automatically become the second after saving,
 and if it is not the first, it will be saved with the original number.
- 2. The router itself does not have a battery to keep the clock running. Powering off the router or restarting the router will temporarily invalidate the router clock. After the router fails, if the NTP time server cannot be automatically synchronized, the time needs to be recalibrated to ensure the correct execution of the relevant "control by time period" function.

3.3.6.2 URL Filter

If you want to prevent some clients from accessing specific external domain names, such as www.sina.com. This can be achieved through the URL filtering function.

URL Filter Setting

i.	Irl Filter Setting	
1	in The Secting	
	Enable Url Filter	○ Enable
	Policy	Accept only the data packets conform to the following rules \checkmark
	Del Nu	m URL
		- None -
	Add Filter Rule Type	URL 🗸

Accept only the data packets conform to the followin rules: Only allow access to matching URL addresses.

Discard packets conform to the following rules: Only accept network addresses that meet the custom rules, and discard all other URLs.

3.3.6.3 Packet Filter

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Page 60 of 87 Add: 11th Floor, Building A06, No. 370, Chengyi Street, Phase III, Software Park, Jimei District, Xiamen Website: www.four-faith.com Customer Service Hotline: 400-8838-199 Tel: 0592-6300320 Fax: 0592-5912735



If you want to block certain packets from entering the Internet through the router, or block certain packets from the Internet, you can do so through filters.

Ра	ck	et	Filt	er S	Setting	l		
-			end.	~				

P	acket Filter Setting	
	Enable Packet Filter	
	Policy	Discard packets conform to the following rules \checkmark

Enable Packet Filter: Whether to enable the packet filtering function. Policy

Discard packets conform to the following rules: drop packets matching custom rules, accept all other packets.

Accept only the data packets conform to the following rules: Receive only packets matching the custom rules, discard all other packets.

Del	Num	Source IP	SPorts	Destination IP	DPorts	Pro	Interface	Dir
	1	0.0.0.0/0	1 65535	0.0.0.0/0	1 65535	both	Main WAN	output

The custom packet filtering rules list will list the set packet filtering rules. If you want to delete one of the items, select the corresponding item, check the **"Delete"** button, and then click the **"Save"** button.

Add Filter Rule Dir	OUTPUT V
Interface	Main WAN 🗸
Pro	TCP/UDP 🗸
SPorts	1 - 65535
DPorts	1 - 65535
Source IP	IP Address 0
Destination IP	IP Address ✔ 0 <th< td=""></th<>
	Add

Add Filter Rule

Add custom packet filtering rules. "Source Port", "Destination Port", "Source Address", "Destination Address" must be filled in at least one item.

Dir

Input: The data packet goes from the WAN port to the LAN port.

Output: Data packets from the LAN port to the WAN port.

Pro: The protocol type of the packet.

SPorts: The source port of the packet.

DPorts: The destination port of the packet.

Source IP: The source IP address of the packet.

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Page 61 of 87 Add: 11th Floor, Building A06, No. 370, Chengyi Street, Phase III, Software Park, Jimei District, Xiamen Website: www.four-faith.com Customer Service Hotline: 400-8838-199 Tel: 0592-6300320 Fax: 0592-5912735



Destination IP: The destination IP address of the data packet.

3.3.7 NAT

3.3.7.1 Port Forwarding

Port forwarding is used to set up public services on the network, such as web servers, ftp servers, or other dedicated internet applications (a dedicated internet application is any application that uses internet access to use functionality).

	Port F	orward							
F	orwards								
	Delete	Num	Application	Protocol	Source Net	Port from	IP Address	Port to	Enable
		1		Both 🗸		0	0.0.00	0	
		2		Both 🗸		0	0.0.00	0	
					Add				

Application: Enter the name of the application in the field provided by the application. **Protocol:** Choose UDP or TCP protocol for each application, choose two protocols when both are at the same time.

Source Net: Fill in the IP address of the Internet user in this field.

Port from: Enter the external port number used by the service in this field.

IP Address: Enter the intranet IP address of the server you want internet users to access. **Port to:** Enter the internal port number used by the service in this field.

Enable: Check the Enable box to enable the multi-port forwarding service you have defined. The default configuration is disabled (not selected).

After completing the page modification, click the **"Apply Settings"** button to save the changes, or click the **"Cancel Changes"** button

to cancel the modification, the help information is on the right, for details, click "More".

3.3.7.2 Port Range Forwarding

Some applications may require specific port ranges to be forwarded to function properly, and when a request for a port range is made from the Internet, the router sends this data to the designated computer. For security reasons, it may be desirable to limit port forwarding to only those ports that are in use, and if the port forwarding is no longer used, it is recommended to uncheck the "Enable" checkbox to temporarily disable the port forwarding.

Page 62 of 87 Add: 11th Floor, Building A06, No. 370, Chengyi Street, Phase III, Software Park, Jimei District, Xiamen Website: www.four-faith.com Customer Service Hotline: 400-8838-199 Tel: 0592-6300320 Fax: 0592-5912735



Port Range Forward

F

Fo	orwards							
	Delete	Num	Application	Start	End	Protocol	IP Address	Enable
		1		0	0	Both 🗸	0.0.0.0	
		2		0	0	Both 🗸	0.0.0.0	
					Add			

Application: Enter the name of the application in the field provided by the application; **Start:** Enter the start port number of the port forwarding range;

End: Enter the end port number of the port forwarding range;

Protocol: Choose UDP or TCP protocol for each application, and choose two protocols when both are at the same time;

IP Address: Enter the intranet IP address of the server you want Internet users to access. Enable: Check the Enable box to enable the multi-port forwarding service you have defined. The default configuration is disabled (not selected).

After completing the page modification, click the "Save" button to save the changes, or click the "Cancel Changes" button

to cancel the modification, the help information is on the right, for details, click "More".

3.3.7.3 DMZ

The DMZ function allows a network user to be exposed to the Internet to use certain services. A DMZ host forwards all ports to one computer at the same time, port forwarding is more secure because only the ports you want are open, while a DMZ host opens all ports, exposing the computer to the Internet.

	Demilitarized Zone (DMZ)	
D)MZ	
	Use DMZ	Enable O Disable
	DMZ Host IP Address	192.168.4. 0

To enable the DMZ feature, select Enable, then enter the computer's IP address in the "DMZ Host IP Address" field.

After completing the page modification, click the "Save" button to save the changes, or click the "Cancel Changes" button

to cancel the modification, the help information is on the right, for details, click "More".

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Page 63 of 87 Add: 11th Floor, Building A06, No. 370, Chengyi Street, Phase III, Software Park, Jimei District, Xiamen Website: www.four-faith.com Customer Service Hotline: 400-8838-199 Tel: 0592-6300320 Fax: 0592-5912735



3.3.8 QoS settings

3.3.8.1 Basic

Using the QOS function can limit upload and download traffic separately, and can assign priority to specific IP or MAC.

Main WAN QoS Settings

Start QoS	${old o}$ Enable ${old O}$ Disable
Port	WAN 🗸
Packet Scheduler	HTB 🗸
Uplink (kbps)	0
Downlink (kbps)	0

Uplink (kbps): Fill in the bandwidth you allocate to upload in this column. In actual use, it is generally 80% to 90% of the maximum bandwidth you have.

Downlink (kbps): Fill in the bandwidth you allocate to download in this column. In actual use, it is generally 80% to 90% of the maximum bandwidth you have.

3.3.8.2 Classification

Netmask Priority

Ν	letma <mark>sk</mark> I	Priority				
	Delete	Net	Protocol	src Port Range	dst Port Range	Priority
		0.0.0.0/0	both	1 65535	1 65535	Standard 🗸
	Add	0.0.0. 0/0.0.	TCP/UDP 🗸	1 65535	1 65535	

You can specify a priority order for all traffic to a given IP address or IP range.

Priority description: This system provides five priorities, of which the "unrestricted" priority is independent of the other four priorities, the other four priorities are: high priority (Premium), priority (Express), Standard, and Bulk.

Unrestricted: A data stream at the Exempt level, its bandwidth is only limited by hardware, and the relationship between the unrestricted bandwidth and the other four priorities is as follows:

Let the total upload bandwidth be Max_Up, the total download bandwidth be Max_Down, the upload limit in "QOS Settings" is Uplink, the download limit is Downlink, and the traffic rates of unrestricted data streams are Exempt_Rate_Up and Exempt_Rate_Do.

Then the total upload bandwidth of other priorities is: mini(Max _Up - Xiamen Four-Faith Communication Technology Co., Ltd. Page 64 of 87

Add: 11th Floor, Building A06, No. 370, Chengyi Street, Phase III, Software Park, Jimei District, Xiamen Website: www.four-faith.com Customer Service Hotline: 400-8838-199 Tel: 0592-6300320 Fax: 0592-5912735



Exempt_Rate_Up, Uplink);

The total download bandwidth for other priorities is: mini (Max _Downlink- Exempt_Rate_Do, Downlink).

The remaining four priorities

After the unrestricted data stream is sent, the remaining bandwidth of the system is allocated by the remaining four priority data streams according to a certain proportion. Assuming that the remaining upload bandwidth is 1000kbps and download is 1000kbps, there are four data streams at this time. The levels are high priority, priority, standard, and low, respectively, then the upload and download bandwidths of each data stream are as follows:

High priority: (75/100) * Uplink; (75/100) * Downlink

Priority: (15/100)*Uplink; (15/100)*Downlink

Standard: (10/100)*Uplink; (10/100)*Downlink

Low: 1000bit (almost 0); 1000bit (almost 0);

For low priority, the upload and download rates are both 1000bit, and it is its turn when the data streams of other priorities are sent;

When there is only one level of data flow, the bandwidth of the data flow is only limited by the upload and download limits in "QOS Settings";

Note: When a connection meets the control conditions in both MAC priority and netmask priority, the rule added first shall prevail.

3.3.9 Application

3.3.9.1 Protocol Conversation



	F-G300 5G	Smart	Light	Pole	Gateway	User	Manual
--	-----------	-------	-------	------	---------	------	--------

To Master	
To Master	Enable O Disable
Number of Master	1 🗸
To Master	
Center 1	
Transport protocol	Acquisition mode 🗸
Apply protocol	MQTT 🗸
protocol	MQTT 🗸
Server addr 1	
Server port 1	
MQTT User	
Passwd	
Publish Topic	
Subscribe Topic	
Clientid	
Keep alive(s)	
Report count	
Data Change Report	O Enable
Data Store	O Enable
TLS Enable	O Enable

To Master: Open or enable the current application of the entire smart function gateway.

Number of Master: Configure the number of servers.

Server addr 1: The main configuration is to fill in the ip address of the server. When multiple servers are selected, configure the corresponding ip address of each.

Port: Configure the port of the server. When multiple servers are selected, configure the corresponding port number of each server.

Protocol: It mainly configures some protocols related to communication with the server cente. The default MQTT protocol is used for this configuration.

MQTT User: The account used to provide user authentication.

Passwd: The password used to provide user authentication.

Publish Topic: Used to set the topic content to be published.

Subscribe Topic: Used to set the topic content that needs to be subscribed.

Clientid: Each MQTT connection requires a unique client ID, and the connection ID needs to be configured here.

Keep alive(s): The time interval for data reporting.

Xiamen Four-Faith Communication Technology Co., Ltd.

Page 66 of 87

Add: 11th Floor, Building A06, No. 370, Chengyi Street, Phase III, Software Park, Jimei District, Xiamen Website: www.four-faith.com Customer Service Hotline: 400-8838-199 Tel: 0592-6300320 Fax: 0592-5912735



Report count: the number of data reported each time.

Data Change Report: It is used to configure whether a data change is reported immediately, instead of waiting until the reporting period arrives, which is equivalent to reporting a piece of information immediately when the data changes.

Data Store: Whether the data needs to be cached to related storage devices such as TF card.

TLS Enable: Whether to encrypt the data, encrypt it according to the selected encryption method.

Transport protocol	transparent 🗸
protocol	PORT V
Server addr 1	
Server port 1	
devices ID	
dev phone number	

Transmission protocol: port mode.

Devices ID: The ID of the device that needs to communicate.

Dev phone number: The phone number of the sim card of the communication device.

Transport protocol	Acquisition mode \checkmark
Apply protocol	Cloud Platform
protocol	PuAoYun 🗸
Server addr 1	
Server port 1	
devices ID	
MQTT User	
Report Intv	10
Passwd	
KEY	

Transmission protocol: PuAoYun.

Devices ID: The ID number required by the device connected to the cloud.

MQTT User: the account required for mqtt connection.

Report Intv: the periodic interval of data reporting.

Passwd: The password required for the mqtt connection.

Key: The secret key required to connect to the platform.

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Page 67 of 87 Add: 11th Floor, Building A06, No. 370, Chengyi Street, Phase III, Software Park, Jimei District, Xiamen Website: www.four-faith.com Customer Service Hotline: 400-8838-199 Tel: 0592-6300320 Fax: 0592-5912735



Transport protocol	Acquisition mode 🗸
Apply protocol	Cloud Platform
protocol	Baidu Iot 🗸
Server addr 1	
Server port 1	
MQTT User	
Passwd	
Clientid	
Keep alive(s)	
Report count	

Protocol: Baidu lot.

Server addr1: Baidu Cloud's server IP address.

MQTT User: The username required to connect to the platform.

Passwd: The password required to connect to the platform.

Clientid: The ID number required by the device connected to the cloud.

Keep alive(s): the interval time for data transmission.

Transport protocol	Acquisition mode 🗸
Apply protocol	Cloud Platform
protocol	ALI_YUN 🗸
Server addr 1	
Server port 1	
Connect type	Direct type
ProductKey	
ProductSecret	
DeviceName	
DeviceSecret	
Keep alive(s)	
Data Change Report	○ Enable
Custom Topic Class	🔿 Enable 🔘 Disable
Data Store	○ Enable
TLS Enable	○ Enable

Protocol: ALI_YUN.

Connection type: direct connection type or gateway type, used for direct data transmission or forwarding.

ProductKey: Product key.

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Page 68 of 87 Add: 11th Floor, Building A06, No. 370, Chengyi Street, Phase III, Software Park, Jimei District, Xiamen Website: www.four-faith.com Customer Service Hotline: 400-8838-199 Tel: 0592-6300320 Fax: 0592-5912735



ProductSecret: Product encryption.

DeviceName: Device name.

DeviceName: Device encryption.

Keep alive(s): The time interval for data upload.

Data Change Report: Whether to report the data to the cloud immediately when the data changes.

Custom Topic Class: To fill in the topic for publishing and subscribing.

Transport protocol	Acquisition mode 🗸
Apply protocol	Cloud Platform
protocol	Azure 🗸
Connect string	

Transport Protocol: Azure (Microsoft Cloud). **Connect string:** The string required to connect to Azure.

Apply protocol

RS232 RS485- RS485- 1 2	RS485- RS485- Smart ETH1 Add Inteface Del Inteface
	lightpole
Enable	● enable ○ disable
DI1	DI1
DI2	DI2
DI3	DI3
DI4	DI4
DO1	DO1
DO2	DO2
RLY1	К1
RLY2	К2
Automatic reporting period	10
AC channel 1 switch(AC_OUT1)	○ enable
AC channel 2 switch(AC_OUT2)	🔿 enable 🔎 disable
AC channel 3 switch(AC_OUT3)	○ enable
DC channel 1 switch(DC_OUT1)	⊖ enable
DC channel 2 switch(DC_OUT2)	⊖ enable
	Coprocessor program upgrade

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Page 69 of 87 Add: 11th Floor, Building A06, No. 370, Chengyi Street, Phase III, Software Park, Jimei District, Xiamen Website: www.four-faith.com Customer Service Hotline: 400-8838-199 Tel: 0592-6300320 Fax: 0592-5912735



Interface selection and mode selection: used to select and configure the related COM port and LAN port, as well as some parameters set in the smart light pole to communicate with the coprocessor.

DI1: Input signal 1.

DO1: Output signal 1.

RLY1: Relay 1 output.

RLY2: Relay 2 output.

Automatic reporting period: The time interval at which the page collects data from the coprocessor. By default, it is not collected in real time. After it is turned on, the data is collected once every 10s by default. It can also be set as required.

AC channel 1 switch: used to control the closed state of a relay switch of the mcu AC channel, and the delivered field is AC_OUT1.

AC channel 2 switch: used to control the closed state of the MCU AC channel 2 relay switch, and the delivered field is AC_OUT2.

AC channel 3 switch: It is used to control the closed state of the MCU AC channel three relay switch, and the delivered field is AC_OUT3.

DC channel 1 switch: used to control the closed state of the MCU DC channel 1 relay switch, and the field to be sent is DC_OUT1.

DC channel 2 switch: used to control the closed state of the mcu DC channel 2 relay switch, and the delivered field is DC_OUT2.

Coprocessor program upgrade: upgrade the firmware of the mcu module. After the button is triggered, it will enter the upgrade process. After the upgrade is completed or canceled, click the continue button.

3.3.10 Management

3.3.10.1 Management

Denter Deserved

This page allows network administrators to manage specific router functions to ensure access and security.

K	outer Password	
	Router Username	•••••
	Router Password	•••••
	Re-enter to confirm	•••••

The new password must be no longer than 32 characters and must not contain any spaces. The confirmation password should be the same as the new password you set, otherwise the setting will be unsuccessful.

Warn:

The default username is: admin.

We strongly recommend that you modify the factory default password admin, so that all users who try to access and modify the router should only be able to access and use the Xiamen Four-Faith Communication Technology Co., Ltd.

Page 70 of 87

Add: 11th Floor, Building A06, No. 370, Chengyi Street, Phase III, Software Park, Jimei District, Xiamen Website: www.four-faith.com Customer Service Hotline: 400-8838-199 Tel: 0592-6300320 Fax: 0592-5912735



router by entering the correct router password.

Web Access

This feature allows you to manage the router using HTTP protocol or HTTPS protocol. If you choose to disable this feature, a manual restart will be required. You can also activate or deactivate the router's information web pages. That way you can password protect this page (enter the correct username and password).

V	Web Access			
	Protocol	🗹 HTTP 🛛 HTTPS		
	Auto-Refresh (in seconds)	3		
	Enable Info Site	Enable O Disable		
	Info Site Password Protection	Enabled		

Protocol: The protocols supported by web pages include HTTP and HTTPS **Auto-Refresh (in seconds):** Adjust the web interface auto refresh interval. 0 means disable this feature.

Enable Info Site: whether to enable display system information page before login Info Site Password Protection: whether to enable the system information site password protection function

R	emote Access		
	Web GUI Management	● Enable ○ Disable	
	Use HTTPS		
	Web GUI Port	8088	(Default: 8088, Range: 1 - 65535)
	Local Web GUI Port	80	(Default: 80, Range: 1 - 65535)
	SSH Management	Enable Disable	
	SSH Remote Port	22	(Default: 22, Range: 1 - 65535)
	Telnet Management	🔿 Enable 🔘 Disable	

Web GUI Management: This feature allows you to manage the router from a remote location via the internet. To disable this feature, keep the default setting, which is disabled. To enable this feature, select Enable and use the designated port on your computer (8080 by default) to remotely manage the router. If you haven't set a password, you must also set the default password for your own router.

To remotely manage the router, enter http://xxx.xxx.xxx:8080 (x represents the router's Internet IP address, 8080 represents the designated port) in your web browser's address bar. You will be asked to enter your router's password.

If you use HTTPS, you need to specify the URL as https://xxx.xxx.xxx.8080 (not all firmwares support SSL rebuild)

SSH Management: You can enable SSH to remotely and securely access the router. Note that more information on the settings of the SSH daemon can be found on the Services page.

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Warn:

If remote router access is enabled, anyone who knows the router's Internet IP address and password will be able to change the router's settings.

Telnet Management: Enable or disable the remote Telnet function.

Cron	
Cron	Enable O Disable
Additional Cron Jobs	
	1.

Cron: The subsystem of cron, which is the Linux command you plan to execute. You need to use the command line or startup script in actual use.

Remote Management		
Remote Management	Enable O Disable	
Protocol	○ v1.0 ● v2.0	
Remote Login Server IP	121.43.158.101	
Remote Login Server Port	8039	(Default: 44008, Range: 1 - 65535)
Heart Interval	60	(Default: 60Sec.Range: 1 - 999)
3G Flow Upload Interval	300	(Default: 300Sec.Range: 1 - 86400)
Device Code	SN 🗸	
Device Type Description	Router	
Customized Local Domian	wifi.cn	

Remote management: Monitor and manage this router, configure parameters, and update WIFI advertisements through a custom-developed remote management server.

3.3.10.2 Keep Active

Schedule Reboot

Schedule Reboot	
Schedule Reboot	Enable O Disable
Interval (in seconds)	3600
At a set Time	00 v : 00 v Sunday v

You can set a schedule to restart the route:

Restart after timing xxx seconds

Reboot on a specific date time, week or day.

Warn:

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Choose when to restart the router. In the Admin tab, the Cron option must be enabled.

3.3.10.3 Command

Instructions: You can run the command line through the web interface. Fill in the text area with your command and click the Run Command button to submit.

Command Sh	ell			
Commands				
				h
	Run Commands	Save Startup	Save Shutdown	Save Firewall
		Save C	ustom Script	

Run Command: You can run the command line through the web interface. Fill in the text area with your command and submit it by clicking the Run Command button.

Save Startup: You can save certain command lines that are executed when the router is started. Enter the command (only one command line) into the text area and click Save as Startup Command.

Save Shutdown: You can save certain command lines that are executed when the router is shut down. Enter the command (only one command line) into the text area and click Save as Shutdown Command.

Save Firewall: Every time you start the firewall, it can run some custom iptables commands. Enter the firewall command (only one command line) into the text area and click Save as Firewall Command.

Save Custom Script: Custom directives are stored in the /tmp/custom.sh file. You can receive run or use cron to call it. Enter the script's command (only one command line) into the text area and click Save as Custom Command.

3.3.10.4 Factory default

Reset router settings		
Keset router settings		
Restore Factory Defaults	O Yes No	

Restore factory defaults: Click the **"Yes"** button and save the settings to restore all configurations to factory defaults. All settings you made will be lost when you revert to default settings. The default configuration for this feature is **"No"**. For more information, please click **"More"**.

3.3.10.5 Firmware Upgrade

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Firmware Upgrade		
Please select a file to upgrade	选择文件 未选择文件	
	WARNING	
Upg Do not	rading firmware may take a few minutes. turn off the power or press the reset button!	
		1

Firmware Upgrade: New firmware can be loaded onto the router. The new firmware version will be published on www.four-faith.com and can be downloaded free of charge. If there is no problem with the router, there is no need to download a newer firmware version unless the new version includes the new features you want to use.

Note: When upgrading the router's firmware, its configuration settings may be lost, so make sure to back up the router's settings before upgrading the firmware.

Click Browse, select the firmware file to be upgraded, and then click the Upgrade button to start the firmware upgrade. It will take a few minutes to upgrade the firmware, please do not power off or press the reset button.

3.3.10.6 Backup

This page is used to backup or restore the router's configuration files.

Backup Configuration
Backup Settings Click the "Backup" button to download the configuration backup file to your computer.
Restore Configuration
Restore Settings Please select a file to restore 选择文件 未选择文件
W A R N I N G Only upload files backed up using this firmware and from the same model of router. Do not upload any files that were not created by this interface!
Backup Restore

To back up the router's configuration files, click the **"Backup"** button. After that, follow the on-screen instructions.

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Page 74 of 87 Add: 11th Floor, Building A06, No. 370, Chengyi Street, Phase III, Software Park, Jimei District, Xiamen Website: www.four-faith.com Customer Service Hotline: 400-8838-199 Tel: 0592-6300320 Fax: 0592-5912735



To restore the router's configuration file, click the **"Browse"** button, and after locating the backup file, follow the on-screen instructions. Select the backup file and click the **"Restore"** button.

3.3.11 Status

3.3.11.1 Router

C	watam	
3	ystem	
	Router Name	Four-Faith
	Router Model	Four-Faith Router
	Firmware Version	F-G300 v1.0 (Dec 30 2021 14:15:24) std - build 6275:6276
	MAC Address	<u>36:4B:50:B8:92:7F</u>
	SN	FFC310959896
	Host Name	
	WAN Domain Name	
	LAN Domain Name	
	Current Time	Thu, 10 Feb 2022 15:48:57
	Uptime	0 min

Router Name: the name of this router, which can be modified in the basic settings

Router Model: the model of the router, which is fixed by the system and cannot be modified

Firmware Version: The firmware version number of the software, which is fixed by the system and cannot be modified

MAC Address: It reflects the MAC address of the WAN, which can be modified in the setting of the MAC address clone

Host Name: The hostname of the router, which can be modified in the basic settings

WAN Domain Name: The domain name of the WAN port, which can be modified in the basic settings

LAN Domain Name: The domain name of the LAN port, which is fixed by the system and cannot be modified

Current Time: The system's local time

Uptime: The time the system is powered on

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Page 75 of 87 Add: 11th Floor, Building A06, No. 370, Chengyi Street, Phase III, Software Park, Jimei District, Xiamen Website: www.four-faith.com Customer Service Hotline: 400-8838-199 Tel: 0592-6300320 Fax: 0592-5912735



Memory		
Total Available	513228 kB / 524288 kB	98%
Free	470060 kB / 513228 kB	92%
Used	43168 kB / 513228 kB	8%
Buffers	3512 kB / 43168 kB	8%
Cached	10520 kB / 43168 kB	24%
Active	5688 kB / 43168 kB	13%
Inactive	11136 kB / 43168 kB	26%

Total Available: All available RAM size (i.e. physical memory minus some reserved bits and the kernel's binary code size)

Free: Unused memory is reserved by the system. If the memory is less than 500kB, it will restart.

Used: used memory, all available memory minus free memory

Buffers: The memory used by the buffer, the total memory minus the allocated memory is the buffer memory.

Cached: The amount of memory used by the cache memory

Active: The size of the buffer or cache page file that is actively in use

Inactive: The size of the buffer or cache page file that is infrequently used

ľ	letwork			
	IP Filter Max Connections	16384		
	Active IP Connections	<u>92</u>	1%	I

IP Filter Max Connections: default 4096, which can be managed in

Active IP Connections: real-time detection of the number of active IP connections in the system, if you click it, you can see the following

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Active IP Connections

No. Protocol	Timeout (s)	Source Address	Remote Address	Service Name State
1 TCP	117	192.168.4.110	192.168.4.1	80 TIME_WAIT
2 TCP	117	192.168.4.110	192.168.4.1	80 TIME_WAIT
3 TCP	111	192.168.4.110	192.168.4.1	80 TIME_WAIT
4 TCP	111	192.168.4.110	192.168.4.1	80 TIME_WAIT
5 TCP	111	192.168.4.110	192.168.4.1	80 TIME_WAIT
6 UDP	16	192.168.4.110	192.168.4.1	53 UNREPLIED
7 UDP	22	192.168.4.110	192.168.4.1	53 UNREPLIED
8 TCP	112	192.168.4.110	192.168.4.1	80 TIME_WAIT
9 UDP	16	192.168.4.110	192.168.4.1	53 UNREPLIED
10 TCP	111	192.168.4.110	192.168.4.1	80 TIME_WAIT
11 TCP	111	192.168.4.110	192.168.4.1	80 TIME_WAIT
12 TCP	111	192.168.4.110	192.168.4.1	80 TIME_WAIT
13 TCP	112	192.168.4.110	192.168.4.1	80 TIME_WAIT
14 TCP	115	192.168.4.110	192.168.4.1	80 TIME_WAIT
15 TCP	111	192.168.4.110	192.168.4.1	80 TIME_WAIT
16 TCP	115	192.168.4.110	192.168.4.1	80 TIME_WAIT
17 TCP	117	192.168.4.110	192.168.4.1	80 TIME_WAIT
18 UDP	18	192.168.4.110	192.168.4.255	138 UNREPLIED
19 TCP	3599	192.168.4.110	192.168.4.1	80 ESTABLISHED
20 TCP	115	192.168.4.110	192.168.4.1	80 TIME_WAIT
21 TCP	111	192.168.4.110	192.168.4.1	80 TIME_WAIT
22 TCP	117	192.168.4.110	192.168.4.1	80 TIME_WAIT
23 TCP	115	192.168.4.110	192.168.4.1	80 TIME_WAIT
24 TCP	112	192.168.4.110	192.168.4.1	80 TIME_WAIT
25 TCP	112	192.168.4.110	192.168.4.1	80 TIME_WAIT
26 TCP	111	192.168.4.110	192.168.4.1	80 TIME_WAIT
27 TCP	112	192.168.4.110	192.168.4.1	80 TIME_WAIT
28 TCP	3599	192.168.4.110	192.168.4.1	80 ESTABLISHED

Active IP Connections: Total active IP connections Protocol: the protocol of the connection Timeout: the timeout in seconds for the connection Source Address: The IP address of the source Remote Address: The IP address of the remote Service Name: The service port number to connect to State: Displays detailed status of active IPs

49

3.3.11.2 WAN

Connection Type	Automatic Configuration - DHCP
Connection Uptime	Not available
IP Address	0.0.0.0
Subnet Mask	0.0.0.0
Gateway	0.0.0.0
DNS 1	
DNS 2	

DNS 3

Connection Type: Include 7 ways: Disable, Static IP, Auto-Config-DHCP, PPPOE, PPTP,

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Page 77 of 87 Add: 11th Floor, Building A06, No. 370, Chengyi Street, Phase III, Software Park, Jimei District, Xiamen Website: www.four-faith.com Customer Service Hotline: 400-8838-199 Tel: 0592-6300320 Fax: 0592-5912735



L2TP, 3G/UMTS.

Connection Uptime: the time when connected, if not connected, it will ask "unavailable" IP Address: the IP address obtained by the WAN port of the router Subnet Mask: The subnet mask obtained by the WAN port of the router Gateway: The gateway obtained by the WAN port of the router DNS1, DNS2, DNS3: The first DNS, the second DNS, and the third DNS obtained by the

WAN port of the router

Remaining Lease Time 0 days 00:00:00

Remaining Lease Time: the remaining time for obtaining an IP address in DHCP mode

Signal Status	-113 dBm
Network	NONE

Signal Status: module module signal strength in 3G/UMTS mode **Network:** The network type of the module in 3G/UMTS mode

|--|

Incoming (MBytes)	0
Outgoing (MBytes)	0

Traffic by Month



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Page 78 of 87

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Total Traffic: Statistics on the traffic used since the last power outage are divided into two directions: download and upload

Traffic by Month: MB of traffic units counted in one month

Previous Month: View the traffic of the previous month

Next Month: View traffic for the next month

Data Administration —

Backup Restore Delete

Backup: Backup data traffic statistics **Restore:** Restore data traffic statistics **Delete:** Delete data traffic statistics

3.3.11.3 LAN

LAN Status

MAC Address	36:4B:50:B8:92:7F
IP Address	192.168.4.1
Subnet Mask	255.255.255.0
Gateway	0.0.0.0
Local DNS	0.0.0.0

MAC Address: MAC address of the LAN port IP Address: IP address of the LAN port Subnet Mask: The subnet mask of the LAN port Gateway: The gateway of the LAN port Local DNS: DNS of LAN port

Active Clients

Host Name	IP Address	MAC Address	Conn. Count	Ratio [16384]
*	192.168.4.110	b4:a9:fc:eb:9f:4b	79	0%

Host Name: The hostname of the LAN port client
IP Address: The IP address of the client
MAC Address: The MAC address of the client
Conn.Count: The number of connections made by the client
Ratio: % of 4096 connections

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Page 79 of 87 Add: 11th Floor, Building A06, No. 370, Chengyi Street, Phase III, Software Park, Jimei District, Xiamen Website: www.four-faith.com Customer Service Hotline: 400-8838-199 Tel: 0592-6300320 Fax: 0592-5912735



DHCP Status

DHCP Server	Enabled
DHCP Daemon	DNSMasq
Start IP Address	192.168.4.100
End IP Address	192.168.4.149
Client Lease Time	1440 minutes

DHCP Server: whether to enable DHCP server

DHCP Daemon: The protocol distribution used by DHCP mainly includes DNSMasq and DHCPd

Start IP Address: The starting IP address of the DHCP client

End IP Address: The end IP address of the DHCP client

Client Lease Time: The lease time of the DHCP client

DHCP Clients

		- None -		
Host Name	IP Address	MAC Address	Client Lease Time	Delete

Host Name: The hostname of the LAN port client
IP Address: The IP address of the client
MAC Address: The MAC address of the client
Client Lease Time: The time the client leases this IP address
Delete: Click to delete the DHCP client

3.3.11.4 Wireless



2.4G Wireless Status

MAC Address	36:4B:50:B8:92:81
Radio	Radio is On
Mode	AP
Network	Mixed
SSID	Four-Faith
Channel	1 (2412 MHz)
TX Power	100 mW
Rate	150 Mb/s
Encryption - Interface wl0	Disabled

5G Wireless Status

MAC Address	36:4B:50:B8:92:82
WiFi	Radio is On
Mode	AP
Network	Mixed
SSID	Four-Faith_5G
Channel	165 (5512 MHz)
TX Power	100 mW
Rate	Auto
Encryption - Interface wl0_5G	Disabled

MAC Address: The wireless MAC address
WiFi: Displays whether Wi-Fi is enabled
Mode: wireless mode
Network: The mode of the wireless network
SSID: The name of the wireless network
Channel: The channel of the wireless network
TX Power: The reflected power of the wireless network
Rate: The reflection rate of the wireless network
Encryption-interface wI0: whether to encrypt the wI0 interface

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Page 81 of 87 Add: 11th Floor, Building A06, No. 370, Chengyi Street, Phase III, Software Park, Jimei District, Xiamen Website: www.four-faith.com Customer Service Hotline: 400-8838-199 Tel: 0592-6300320 Fax: 0592-5912735



2.4G W	/ireless Packet Info		
Rece	ived (RX)	0 OK, no error	100%
Trans	smitted (TX)	0 OK, no error	100%
5G Wir	eless Packet Info		
Rece	ived (RX)	0 OK, no error	100%
Trans	smitted (TX)	0 OK, no error	100%

Received (RX): Packets that have been received **Transmitted (TX):** Packets that have been sent

2.4G Wireless Nodes
Clients
MAC Address Interface Uptime Rate Rate Signal Noise SNR Signal Quality - None -
5G Wireless Nodes
Clients
MAC Address Interface Uptime Rate Rate Signal Noise SNR Signal Quality
- None -
MAC Address: The MAC address of the wireless client
Interface: The interface of the wireless client
Uptime: Access time for wireless clients
TX Rate: The transfer rate of the wireless client
RX Rate: The receive rate of the wireless client
Signal: The signal of the wireless client

Noise: Noise from wireless clients

SNR: Signal-to-Noise Ratio of Wireless Clients

Signal Quality: The signal quality of the wireless client

Neighbor's Wireless Networks										
SSID	Mode	MAC Address	Channel	Rssi	Noise	beacon	Open	dtim	Rate	Join Site

Neighbor's Wireless Networks: Show other nearby networks

Mode: Proximity wireless working mode

MAC Address: The MAC address of the neighboring wireless

Channel: Nearby wireless channel

Rssi: nearby wireless signal strength

Noise: Nearby wireless noise

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Page 82 of 87 Add: 11th Floor, Building A06, No. 370, Chengyi Street, Phase III, Software Park, Jimei District, Xiamen Website: www.four-faith.com Customer Service Hotline: 400-8838-199 Tel: 0592-6300320 Fax: 0592-5912735



Beacon: Proximity wireless signal markers
Open: Whether the proximity wireless is on
Dtim: Delivery and transmission indication information of the adjacent wireless
Rate: The speed of the adjacent wireless
Join Site: Click to join a nearby wireless network

3.3.11.5 Bandwidth



The abscissa of the LAN port's constant detection state diagram represents the code rate of the time ordinate.

Bandwidth Monitor	ing - WAN	
In Out	Switch to bytes/s Autoscale (follow)	
	Cannot get data about interface	

The abscissa of the WAN port's time-to-time detection state diagram represents the code

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Page 83 of 87 Add: 11th Floor, Building A06, No. 370, Chengyi Street, Phase III, Software Park, Jimei District, Xiamen Website: www.four-faith.com Customer Service Hotline: 400-8838-199 Tel: 0592-6300320 Fax: 0592-5912735



rate of the time ordinate.

Bandwidth Monitoring - W	/ireless (wl0)	
In 0 Kbps Out 0 Kbps	Switch to bytes/s Autoscale (follow)	
		8 Kbps
		5 Kbps
		3 Kbps

The time-to-time detection state diagram of the wireless network The abscissa represents the code rate of the time ordinate.

Switch to: Click on the label to select the unit (bytes/second or bits/second). **Autoscale:** Click the tab to select the type of graph autoscale.

3.3.11.6 System Information

Router

Router Name	Four-Faith
Router Model	Four-Faith Router
LAN MAC	36:4B:50:B8:92:7F
WAN MAC	36:4B:50:B8:92:7F
Wireless MAC	36:4B:50:B8:92:81
WAN IP	0.0.0.0
BKUP WAN IP	0.0.0.0
LAN IP	192.168.4.1

Router Name: The name of the local router Router Model: the model of the local router LAN MAC: MAC address of the LAN port WAN MAC: The MAC address of the WAN port Wireless MAC: Wireless MAC address WAN IP: IP address of the WAN port LAN IP: IP address of the LAN port

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Page 84 of 87 Add: 11th Floor, Building A06, No. 370, Chengyi Street, Phase III, Software Park, Jimei District, Xiamen Website: www.four-faith.com Customer Service Hotline: 400-8838-199 Tel: 0592-6300320 Fax: 0592-5912735



Wireless

Radio	Radio is On
Mode	AP
Network	Mixed
SSID	Four-Faith
Channel	1 (2412 MHz)
TX Power	100 mW
Rate	150 Mb/s

Radio: Displays whether radio is on
Mode: Wireless mode
Network: The mode of the wireless network
SSID: The name of the wireless network
Channel: The channel of the wireless network
TX power: the reflected power of the wireless network
Rate: The reflection rate of the wireless network

Wire	eless Packet Info	
Re	eceived (RX)	0 OK,no error
Tr	ansmitted (TX)	0 OK,no error

Received (RX): Packets that have been received Transmitted (TX): Packets that have been sent

Wireless
Clients MAC Address Interface Uptime TX Rate RX Rate Signal Noise SNR Signal Quality
- None -
MAC Address: The MAC address of the wireless client
Interface: The interface of the wireless client
Uptime: Access time for wireless clients
TX Rate: The transfer rate of the wireless client
RX Rate: The receive rate of the wireless client
Signal: The signal of the wireless client
Noise: Noise from wireless clients
SNR: Signal-to-Noise Ratio of Wireless Clients
Signal Quality: The signal quality of the wireless client

Xiamen Four-Faith Communication Technology Co., Ltd.

Page 85 of 87 Add: 11th Floor, Building A06, No. 370, Chengyi Street, Phase III, Software Park, Jimei District, Xiamen Website: www.four-faith.com Customer Service Hotline: 400-8838-199 Tel: 0592-6300320 Fax: 0592-5912735



Services

DHCP Server	Enabled
radauth	Disabled

DHCP server: whether to enable DHCP server **radauth:** whether to enable radauth service

em	or	v

Total Available	501.2 MB / 512.0 MB
Free	458.2 MB / 501.2 MB
Used	43.0 MB / 501.2 MB
Buffers	3.3 MB / 43.0 MB
Cached	9.9 MB / 43.0 MB
Active	5.7 MB / 43.0 MB
Inactive	10.4 MB / 43.0 MB

Total Available: All available RAM size (i.e. physical memory minus some reserved bits and the kernel's binary code size)

Free: Unused memory is reserved by the system. If the memory is less than 500kB, it will restart.

Used: used memory, all available memory minus free memory

Buffers: The memory used by the buffer, the total memory minus the allocated memory is the buffer memory.

Cached: The amount of memory used by the cache memory

Active: The size of the buffer or cache page file that is actively in use

Inactive: The size of the buffer or cache page file that is infrequently used

DHCP				
DHCP Clients				
Host Name	IP Address	MAC Address	Client Lease Time	
- None -				

Host Name: The hostname of the LAN port client IP Address: The IP address of the client MAC Address: The MAC address of the client Client Lease Time: The time the client leases this IP address

3.3.11.7 Smart Gataway Status

Page 86 of 87 Add: 11th Floor, Building A06, No. 370, Chengyi Street, Phase III, Software Park, Jimei District, Xiamen Website: www.four-faith.com Customer Service Hotline: 400-8838-199 Tel: 0592-6300320 Fax: 0592-5912735



Gateway status

Gatewa	y status	Enabled		
Gatev	vay status			
SN	Channel	Use	Bind Center	Protocol
□ 1	COM1	-	-	-
□ <u>2</u>	COM2	-	-	-
3	COM3	-	-	-
□ <u>4</u>	COM4	-	-	-
05	COM5	-	-	-
7	ETH1	-	-	-
Data status Numerical operation state				
Server Connet status				
Serve	r Server Addre	SS	Use Status	Connet status
1	:		Used	Connecting

Gateway status: The current page is displayed when the smart gateway is turned on. **Data status:** Enable configuration and data display corresponding to the relevant functions of the smart gateway application in the application.

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Page 87 of 87 Add: 11th Floor, Building A06, No. 370, Chengyi Street, Phase III, Software Park, Jimei District, Xiamen Website: www.four-faith.com Customer Service Hotline: 400-8838-199 Tel: 0592-6300320 Fax: 0592-5912735