

i23

IP Voice Access User Manual



Wall mounted



In-wall

Document VER	Firmware VER	Explanation	Time
V1.0	2.3.1028.434	Initial issue	20151209
V.2.0	2.3.1028.434	Increase the interface parameters, modify the company address, increase the QIG IP scanning tool download address	20171027

Safety Notices

1. Please use the specified power adapter. If you need to use the power adapter provided by other manufacturers under special circumstances, please make sure that the voltage and current provided is in accordance with the requirements of this product, meanwhile, please use the safety certificated products, otherwise may cause fire or get an electric shock.
2. When using this product, please do not damage the power cord either by forcefully twist it, stretch pull, banding or put it under heavy pressure or between items, otherwise it may cause damage to the power cord, lead to fire or get an electric shock.
3. Before using, please confirm that the temperature and environment is humidity suitable for the product to work. (Move the product from air conditioning room to natural temperature, which may cause this product surface or internal components produce condense water vapor, please open power use it after waiting for this product is natural drying).
4. Please do not let non-technical staff to remove or repair. Improper repair may cause electric shock, fire, malfunction, etc. It will lead to injury accident or cause damage to your product.
5. Do not use fingers, pins, wire, other metal objects or foreign body into the vents and gaps. It may cause current through the metal or foreign body, which may even cause electric shock or injury accident. If any foreign body or objection falls into the product please stop using.
6. Please do not discard the packing bags or store in places where children could reach, if children trap his head with it, may cause nose and mouth blocked, and even lead to suffocation.
7. Please use this product with normal usage and operating, in bad posture for a long time to use this product may affect your health.
8. Please read the above safety notices before installing or using this phone. They are crucial for the safe and reliable operation of the device.

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A. Product introduction

i23 voice access is a full digital network door phone, with its core part adopting mature VoIP solution (Broadcom chip), stable and reliable performance, hands-free adopting digital full-duplex mode, voice loud and clear, generous appearance, solid durable, easy for installation, comfortable keypad and low power consumption.

i23 voice access supports entrance guard control, voice intercom, ID card and keypad remote to open the door.

1. Appearance of the product



Wall mounted



In-wall

2. description

Buttons and icons	Description	Function
	Numeric keyboard	Input password to open the door or to call.
	programmable keys	Can be set to a variety of functions, in order to meet the needs of different occasions
	induction zone	RFID induction area
	Lock Status	Door unlocking: On Door locking: Off
	Call status	Standby: Off Hold/Blink with 1s Calls: On
	Ring status	Standby: Off Ringing: On
	Network/SIP Registration	Network error: Blink with 1s Network running: Off Registration failed: Blink with 3s Registration succeeded: On

B. Start Using

Before you start to use the equipment, please make the following installation:

1. Confirm the connection

Confirm whether the equipment of the power cord, network cable, electric lock control line connection and the boot-up is normal. (Check the network state of light)

1) Power port

Power supply ways: 12v/DC or POE.

CN1	
1	2
+12V	GND
12V 1A/DC	



2) Electric-lock and indoor switch port

J2				
1	2	3	4	5
S_IN	S_OUT	NC	COM	NO
Indoor switch		Electric-lock switch		



3) Driving mode of electric-lock(Default in active mode)



Jumper in passive mode



Jumper in active mode

【Note】 When the device is in active mode, it can drive 12V/700mA switch output maximum, to which a standard electric-lock or another compatible electrical appliance can be connected.

- When using the active mode, it is 12V DC in output.
- When using the passive mode, output is short control (normally open mode or normally close mode).

4) Wiring instructions

- NO: Normally Open Contact.
- COM: Common Contact.
- NC: Normally Close Contact.

Driving Mode		Electric lock		Jumper port	Connections
Active	Passive	NO	NC		
√		√			<p>Indoor switch No electricity when open the door</p>
√			√		<p>Indoor switch When the power to open the door</p>
	√	√			<p>Indoor switch Electric lock (normally open type) No electricity when open the door</p>
	√		√		<p>Indoor switch Electric lock (normally closed type) When the power to open the door</p>
	√	√			<p>Indoor switch Electric lock (normally open) Without power to open the door</p>

2. Quick Setting

The product provides a complete function and parameter setting. Users may need to have the network and SIP protocol knowledge to understand the meaning represented by all parameters. In order to let equipment users enjoy the high quality of voice service and low cost advantage brought by the device immediately, here we list some basic but compulsory setting options in this section to let users know how to operate without understanding such complex SIP protocols.

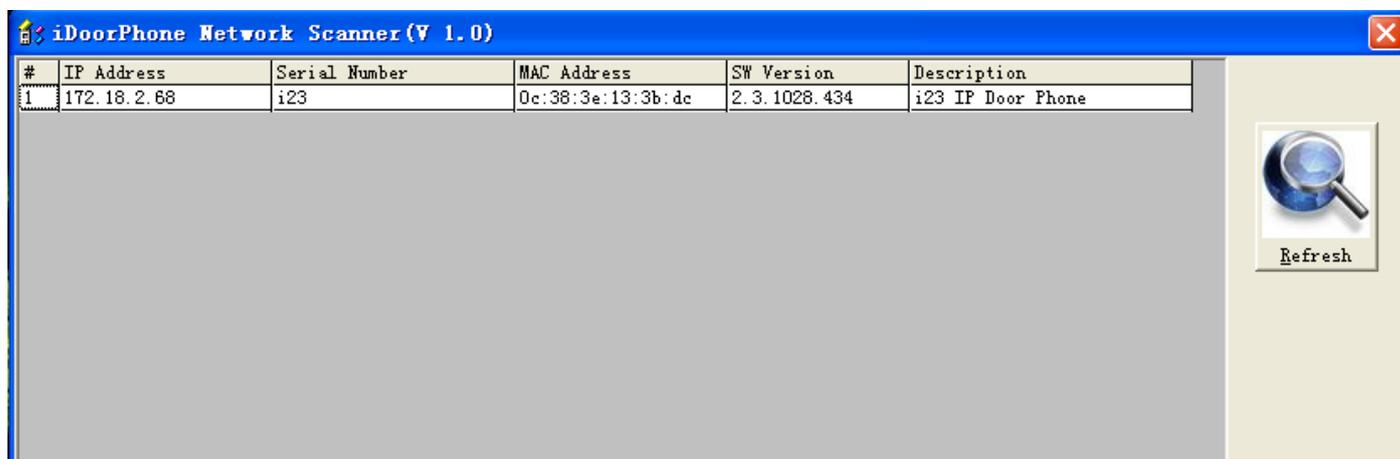
In prior to this step, please make sure your broadband Internet online can be normal operated, and complete the connection of the network hardware. The product factory default network mode is DHCP. Thus, only connect equipment with DHCP network environment that network can be automatically connected.

- Press and hold “#” key for 3 seconds and the door phone will report the IP address by voice, or use the "iDoorPhoneNetworkScanner.exe" software to find the IP address of the device.

(Download address <http://download.fanvil.com/tool/iDoorPhoneNetworkScanner.exe>)

Note: when power on, 30s waiting is needed for device running.

- Log on to the WEB device configuration.
- In a SIP page configuration service account, user name, parameters that are required for server address register.
- You can set DSS key in the Webpage(functions key settings -> function key).
- You can set function parameters in the Webpage (Intercom-> feature).



C. Basic operation

1. Answer a call

When a call comes in, the device will answer automatically. If you cancel auto answer feature and set auto answer time, you will hear the bell ring at the set time and the device will auto answer after a timeout.

2. Call

Configure shortcut key as hot key and setup a number, then press shortcut key can call the configured number.

3. End call

Enable Release key hang up to end call.

4. Call record

The device provides 900 call records. When the storage space is exhausted, it will cover the first call records. When the device is powered down or reboot, call records will be removed.

You can view the call records in the web page (Door phone/Door log)

5. Open the door operation

Through the following seven ways to open the door:

- 1) Input password on the keyboard to open the door.
- 2) Access to call the owner and the owner enter the remote password to open the door.
- 3) Owner/other equipment call the access control and enter the access code to open the door. (access code should be included in the list of access configuration, and enable for remote calls to open the door)
- 4) Swipe the RFID cards to open the door.
- 5) By means of indoor switch to open the door.
- 6) Private access code to open the door.

Enable for local authentication, and set private access code. Input the access code directly under standby mode to open the door. In this way, the door log will record corresponding card number and user name.

- 7) Active URL control command to open the door.

URL is "http://host/cgi-bin/ConfigManApp.com?key=F_LOCK&code=openCode", "openCode" is the remote control code to open the door.

If access code is input correctly, the device will play sirens sound to prompt access control and the remote user, while input error by low-frequency short chirp.

Password input successfully followed by high-frequency sirens sound, while input error is followed by high-frequency short chirp.

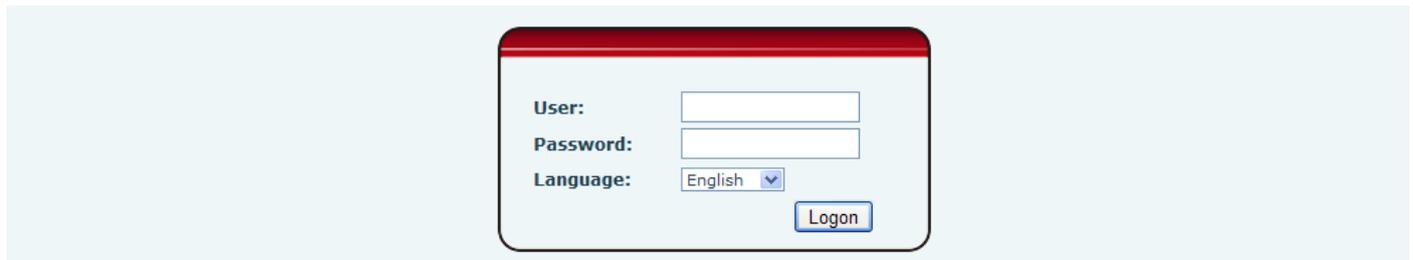
When door has been opened, the device will play sirens sound to prompt.

D. Page settings

1. Browser configuration

When the device and your computer are successfully connected to the network, enter the IP address of the device on the browser as `http://xxx.xxx.xxx.xxx/` and you can see the login interface of the web page management.

Enter the user name and password and click the [logon] button to enter the settings screen.



After configuring the equipment, remember to click SAVE under the Maintenance tab. If this is not done, the equipment will lose the modifications when it has been rebooted.

2. Password Configuration

There are two levels of access: root level and general level. A user with root level access can browse and set all configuration parameters, while a user with general level can set all configuration parameters except server parameters for SIP.

- Default user with general level:
 - ◆ Username: guest
 - ◆ Password: guest
- Default user with root level:
 - ◆ Username: admin
 - ◆ Password: admin

3. Configuration via WEB

(1) BASIC

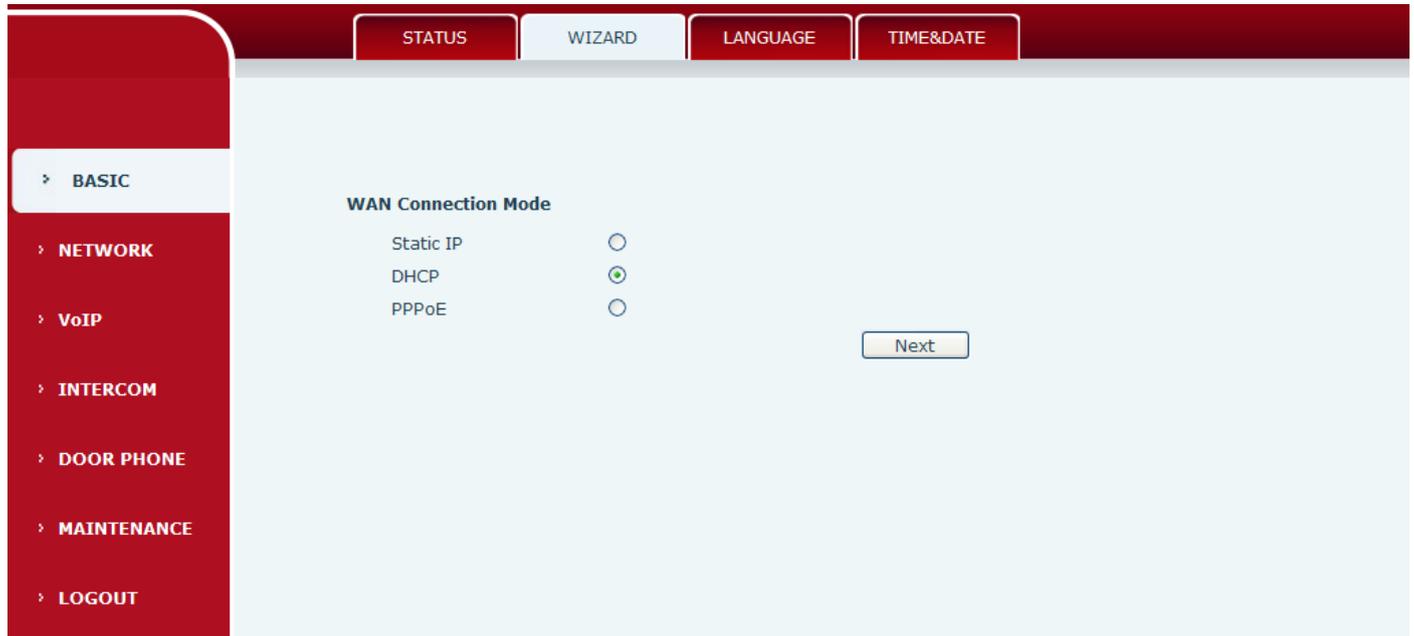
a) STATUS

Network	
WAN	LAN
Connection Mode	DHCP
MAC Address	0c:38:3e:13:3b:dc
IP Address	172.18.2.127
IP Gateway	172.18.1.1
IP Address	192.168.10.1
DHCP Service	Enabled
Bridge Mode	Disabled

Accounts	
SIP Line 1	@:5060 Unapplied
SIP Line 2	@:5060 Unapplied

Status	
Field Name	Explanation
Network	Shows the configuration information for WAN and LAN port, including connection mode of WAN port (Static, DHCP, PPPoE), MAC address, IP address of WAN port and LAN port, DHCP server, status for LAN port (ENABLED or DISABLED).
Accounts	Shows the phone numbers and registration status for the 2 SIP LINES.

b) WIZARD



Wizard	
Field Name	Explanation
Select the appropriate network mode. The equipment supports three network modes:	
Static IP mode	The parameters of a Static IP connection must be provided by your ISP.
DHCP mode	In this mode, network parameter information will be obtained automatically from a DHCP server.
PPPoE mode	In this mode, you must enter your ADSL account and password.
Static IP mode is selected; Click <Next> to go to Quick SIP Settings, Click Back to return to the Wizard screen.	
After selecting DHCP and clicking NEXT, the Quick SIP Settings screen will appear. Click Back to return to the Wizard screen. Click <Next> to go to the Summary screen.	
If PPPoE is selected, this screen will appear. Enter the information provided by the ISP. Click <Next> to go to Quick SIP Setting. Click Back to return to the Wizard screen.	

c) LANGUAGE

Set the current language.

STATUS WIZARD **LANGUAGE** TIME&DATE

> BASIC

> NETWORK

> VoIP

Language

Language Selection English

Apply

d) TIME&DATE

Set the time zone and SNTP (Simple Network Time Protocol) server on this page. Daylight Saving Time configuration and Manual Time and Date entry can also be done in this page.

STATUS WIZARD LANGUAGE **TIME&DATE**

> BASIC

> NETWORK

> VoIP

> INTERCOM

> DOOR PHONE

> MAINTENANCE

> LOGOUT

System Current Time

2015-08-19 11:00:26

Simple Network Time Protocol (SNTP) Settings

Enable SNTP

Enable DHCP Time

Primary Server 0.pool.ntp.org

Secondary Server time.nist.gov

Timezone (GMT+08:00)Beijing,Chongqing,Hong Kong,Urumqi

Resync Period 60 second(s)

12-Hour Clock

Apply

Daylight Saving Time Settings

Enable

Offset 60 minutes(s)

Month March

Week 5

Day Sunday

Hour 2

Minute 0

October

5

Sunday

2

0

Apply

Manual Time Settings

Year

Month

Day

Hour

Minute

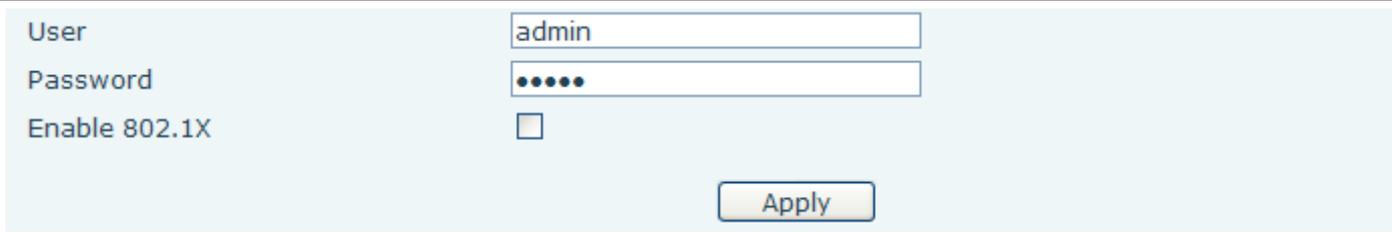
Apply

Time&Date	
Field Name	Explanation
System Current Time	
Display the current time	
Simple Network Time Protocol (SNTP) Settings	
Enable SNTP	Enable or Disable SNTP
Enable DHCP Time	If this is enabled, equipment will synchronize time with DHCP server
Primary Server	IP address of Primary SNTP Server
Secondary Server	IP address of Secondary SNTP Server
Time zone	Local Time Zone
Resync Period	Time between resync to SNTP server. Default is 60 seconds.
12-Hour Clock	If checked, clock is 12 hour mode. If unchecked, 24 hour mode. Default is 24 hour mode.
Daylight Saving Time Settings	
Enable	Enable daylight saving time
Offset	DST offset. Default is 60 minutes
Month	Start and end month for DST
Week	Start and end week for DST
Day	Start and end day for DST
Hour	Start and end hour for DST
Minute	Start and end minute for DST
Manual Time Settings	
Enter the values for the current year, month, day, hour and minute. All values are required. Be sure to disable SNTP service before entering manual time and date.	

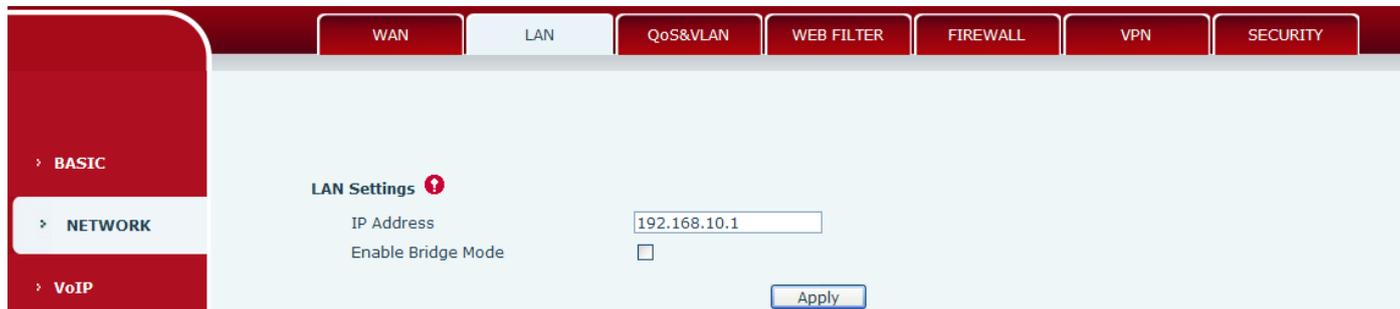
(2) NETWORK

a) WAN

Field Name	Explanation
WAN Status	
Active IP address	The current IP address of the equipment
Current subnet mask	The current Subnet Mask
Current IP gateway	The current Gateway IP address
MAC address	The MAC address of the equipment
MAC Timestamp	Get the MAC address of time.
WAN Settings	
Select the appropriate network mode. The equipment supports three network modes:	
Static	Network parameters must be entered manually and will not change. All parameters are provided by the ISP.

Field Name	Explanation
DHCP	Network parameters are provided automatically by a DHCP server.
PPPoE	Account and Password must be input manually. These are provided by your ISP.
If Static IP is chosen, the screen below will appear. Enter values provided by the ISP.	
After entering the new settings, click the APPLY button. The equipment will save the new settings and apply them. If a new IP address was entered for the equipment, it must be used to login to the phone after clicking the APPLY button.	
802.1X Settings	
	
User	802.1X user account
Password	802.1X password
Enable 812.1X	Enable or Disable 812.1X
Service port Settings	
Web Server Type	Specify Web Server Type – HTTP or HTTPS
HTTP Port	Port for web browser access. Default value is 80. To enhance security, change this from the default. Setting this port to 0 will disable HTTP access. Example: The IP address is 192.168.1.70 and the port value is 8090, the accessing address is http://192.168.1.70:8090.
HTTPS Port	Port for HTTPS access. Before using HTTPS, an HTTPS authentication certification must be downloaded into the equipment. Default value is 443. To enhance security, change this from the default.
Telnet Port	Port for Telnet access. The default is 23.
RTP Port Range Start	Set the beginning value for RTP Ports. Ports are dynamically allocated.
RTP Port Quantity	Set the maximum quantity of RTP Ports. The default is 200.
Note: <ol style="list-style-type: none"> Any changes made on this page require a reboot to become active. It is suggested that changes to HTTP Port and Telnet ports be values greater than 1024. Values less than 1024 are reserved. If the HTTP port is set to 0, HTTP service will be disabled. 	

b) LAN

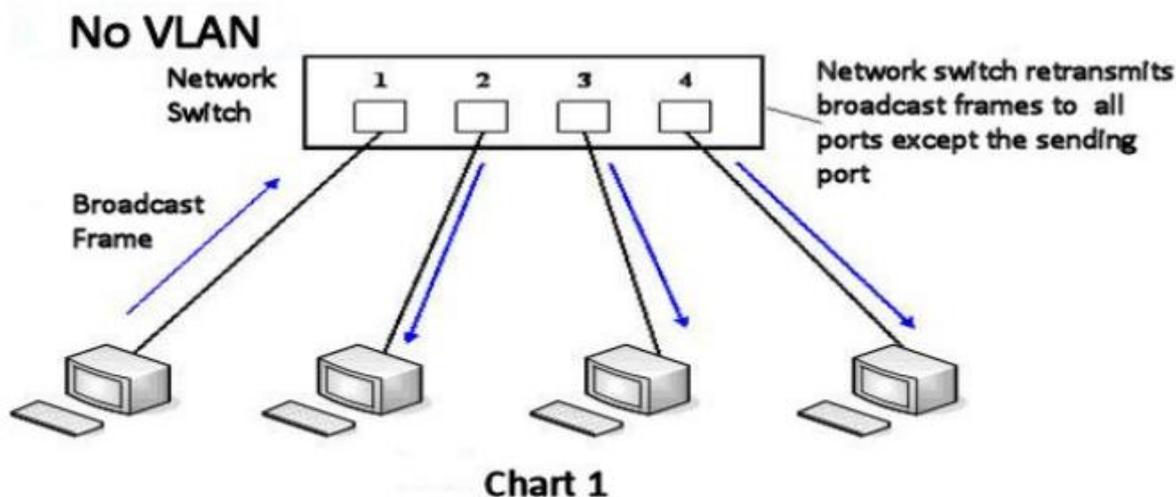


LAN	
Field Name	Explanation
IP Address	LAN static IP
Enable bridge mode	If Bridge Mode is activated, the equipment will not provide an IP address for the LAN port. Instead, the LAN and WAN will be part of the same network. If this is activated, clicking Apply, will cause the equipment reboot.
Note: If bridge mode is chosen, static LAN configuration will be disabled automatically.	

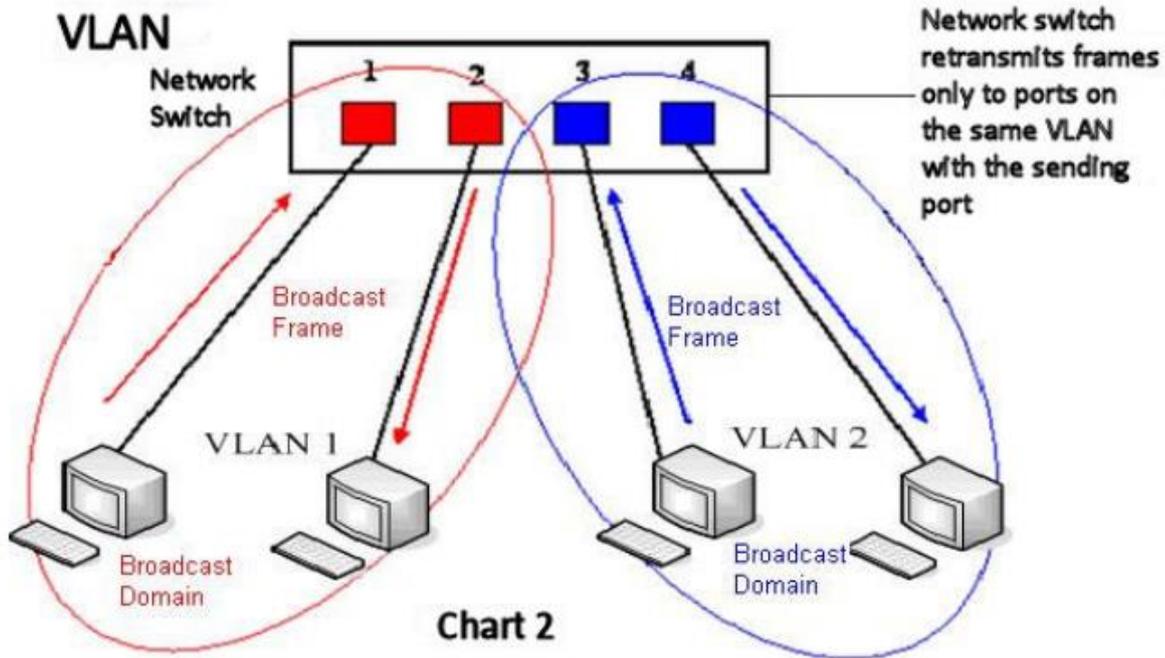
c) QoS&VLAN

The equipment supports 802.1Q/P protocol and DiffServ configuration. Use of a Virtual LAN (VLAN) allows voice and data traffic to be separated.

- Chart 1 shows a network switch with no VLAN. Any broadcast frames will be transmitted to all other ports. For example, frames broadcast from Port 1 will be sent to Ports 2, 3, and 4.



- Chart 2 shows an example with two VLANs indicated by red and blue. In this example, frames broadcast from Port 1 will only go to Port 2 since Ports 3 and 4 are in a different VLAN. VLANs can be used to divide a network by restricting the transmission of broadcast frames.



Note: In practice, VLANs are distinguished by the use of VLAN IDs.

WAN	LAN	QoS&VLAN	WEB FILTER	FIREWALL	VPN	SECURITY
-----	-----	----------	------------	----------	-----	----------

- BASIC
- NETWORK
- VoIP
- INTERCOM
- DOOR PHONE
- MAINTENANCE
- LOGOUT

Link Layer Discovery Protocol (LLDP) Settings

Enable LLDP ! Packet Interval(1~3600) second(s)

Enable Learning Function

Quality of Service (QoS) Settings

Enable DSCP SIP DSCP (0~63)

Audio RTP DSCP (0~63)

WAN Port VLAN Settings

Enable WAN Port VLAN WAN Port VLAN ID (0~4095)

SIP 802.1P Priority (0~7) Audio 802.1P Priority (0~7)

LAN Port VLAN Settings

LAN Port VLAN Mode LAN Port VLAN ID (0~4095)

QoS&VLAN	
Field Name	Explanation
Link Layer Discovery Protocol (LLDP) Settings	
Enable LLDP	Enable or Disable Link Layer Discovery Protocol (LLDP)
Enable Learning Function	Enables the telephone to synchronize its VLAN data with the Network Switch. The telephone will automatically synchronize DSCP, 802.1p, and VLAN ID values even if these values differ from those provided by the LLDP server.
Packet Interval	The time interval for sending LLDP Packets
Quality of Service (QoS) Settings	
Enable DSCP	Enable or Disable Differentiated Services Code Point (DSCP)
Audio RTP DSCP	Specify the value of the Audio DSCP in decimal
SIP DSCP	Specify the value of the SIP DSCP in decimal
WAN Port VLAN Settings	
Enable WAN Port VLAN	Enable or Disable WAN Port VLAN
WAN Port VLAN ID	Specify the value of the WAN Port VLAN ID. Range is 0-4095
SIP 802.1P Priority	Specify the value of the signal 802.1p priority. Range is 0-7
Audio 802.1P Priority	Specify the value of the voice 802.1p priority. Range is 0-7
LAN Port VLAN Settings	
LAN Port VLAN Mode	Follow WAN: LAN Port ID is same as WAN ID. Disable: Disable Port VALN Enable: Specify a VLAN ID for the LAN port which is different from WAN ID
LAN Port VLAN ID	Used when the VLAN ID is different from WAN ID. Range is 0-4095

d) WEB FILTER

The screenshot displays the 'WEB FILTER' configuration page in the Fanvil web interface. The left sidebar shows a navigation menu with 'NETWORK' selected. The top navigation bar includes 'WAN', 'LAN', 'QoS&VLAN', 'WEB FILTER', 'FIREWALL', 'VPN', and 'SECURITY'. The main content area is titled 'Web Filter Table' and contains a table with columns for 'Start IP Address', 'End IP Address', and 'Option'. Below this is the 'Web Filter Table Settings' section with input fields for 'Start IP Address' and 'End IP Address', and an 'Add' button. At the bottom is the 'Web Filter Setting' section with a checkbox for 'Enable Web Filter' and an 'Apply' button.

Web filter
The Web filter is used to limit access to the equipment. When the web filter is enabled, only the IP addresses between the start IP and end IP can access the equipment.
Web Filter Table
Web page access allows display the IP network list.
Web Filter Table Settings
Beginning and Ending IP Address for MMI Filter, Click add this filter range to the Web Filter Table.
Web Filter Setting
Select to enable MMI Filter. Click <apply> Make filter settings effective.
Note: Be sure that the filter range includes the IP address of the configuration computer.

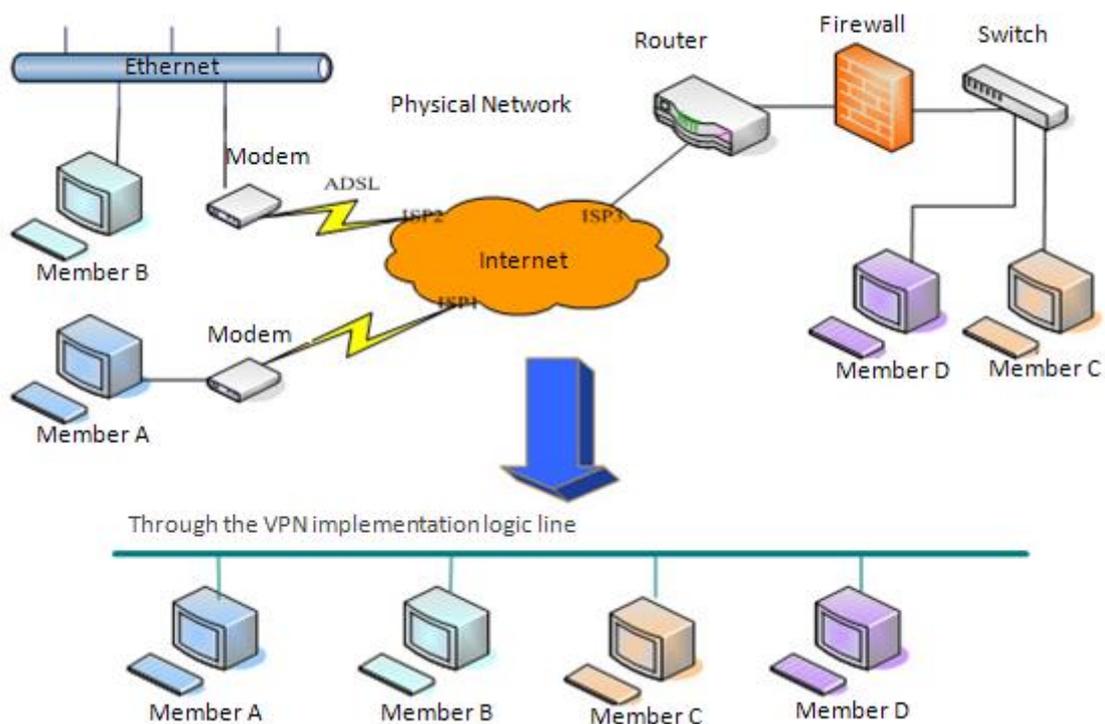
e) FIREWALL

Firewall	
Firewall rules can be used to prevent unauthorized Internet users from accessing private networks connected to this phone (input rule), or prevent unauthorized devices connected to this phone from accessing the Internet (output rule). Each rule type supports a maximum of 10 items.	
Firewall Rules Settings	
Enable Input Rules	Enable rules limiting access from the Internet.
Enable Output Rules	Enable rules limiting access to the Internet.

Field Name	Explanation
Firewall Settings	
Input / Output	Specify if the current rule is input or output.
Deny/Permit	Specify if the current rule is Deny or Permit.
Protocol	Filter protocol type (TCP/ UDP/ ICMP/ IP)
Port Range	Set the filter Port range
Source Address	Set source address. It can be a single IP address or use * as a wild card. For example: 192.168.1.14 or *.*.*.14.
Destination Address	Set destination address. It can be a single IP address or use * as a wild card. For example: 192.168.1.14 or *.*.*.14.
Source Mask	Set the source address mask. For example: 255.255.255.255 points to one host while 255.255.255.0 points to a C type network.
Destination Mask	Set the destination address mask. For example: 255.255.255.255 points to one host while 255.255.255.0 points to a C type network.

f) VPN

The device supports remote connection via VPN. It supports both Layer 2 Tunneling Protocol (L2TP) and OpenVPN protocol. This allows users at remote locations on the public network to make secure connections to local networks.



Field Name	Explanation
Virtual Private Network (VPN) Status	
VPN IP	Shows the current VPN IP address.
VPN Mode	
Enable VPN	Enable/Disable VPN.
L2TP	Select Layer 2 Tunneling Protocol
Open VPN	Select OpenVPN Protocol. (Only one protocol may be activated. After the selection is made, the configuration should be saved and the phone be rebooted.)
Layer 2 Tunneling Protocol (L2TP)	
VPN Server address	Set VPN L2TP Server IP address.
VPN user	Set User Name access to VPN L2TP Server.
VPN password	Set Password access to VPN L2TP Server.

g) SECURITY

Field Name	Explanation
Update Security File	Select the security file to be updated. Click the Update button to update.
Delete Security File	Select the security file to be deleted. Click the Delete button to Delete.
SIP TLS Files	Show SIP TLS authentication certificate.
HTTPS Files	Show HTTPS authentication certificate.
OpenVPN Files	Show OpenVPN File authentication certificate file.

(3) VOIP

a) SIP

Configure a SIP server on this page.

SIP Line: SIP 1

Basic Settings >>

Status: Unapplied

Server Address:

Server Port: 5060

Authentication User:

Authentication Password:

SIP User:

Display Name:

Enable Registration:

Advanced SIP Settings >>

Apply

SIP Global Settings >>

Advanced SIP Settings >>

Proxy Server Address	<input type="text"/>	Proxy Server Port	<input type="text"/>
Proxy User	<input type="text"/>	Proxy Password	<input type="text"/>
Backup Server Address	<input type="text"/>	Backup Server Port	5060
Domain Realm	<input type="text"/>	Server Name	<input type="text"/>
RTP Encryption	<input type="checkbox"/>	Enable Session Timer	<input type="checkbox"/>
Registration Expires	60 second(s)	Session Timeout	0 second(s)
Keep Alive Type	SIP Option	Keep Alive Interval	60 second(s)
User Agent	<input type="text"/>	Server Type	COMMON
DTMF Type	AUTO	RFC Protocol Edition	RFC3261
DTMF SIP INFO Mode	Send */#	Local Port	5060
Enable Rport	<input type="checkbox"/>	Keep Authentication	<input type="checkbox"/>
Enable PRACK	<input type="checkbox"/>	Ans. With a Single Codec	<input type="checkbox"/>
Enable Strict Proxy	<input type="checkbox"/>	Auto TCP	<input type="checkbox"/>
Enable DNS SRV	<input type="checkbox"/>	Use VPN	<input checked="" type="checkbox"/>
Transport Protocol	UDP		

Apply

SIP Global Settings >>

Strict Branch	<input type="checkbox"/>	Enable Group	<input type="checkbox"/>
Registration Failure Retry Time	<input type="text" value="32"/> second	DND Return Code	<input type="text" value="480(Temporarily Not Available)"/>
Reject Return Code	<input type="text" value="603(Decline)"/>	Busy Return Code	<input type="text" value="486(Busy Here)"/>

Apply

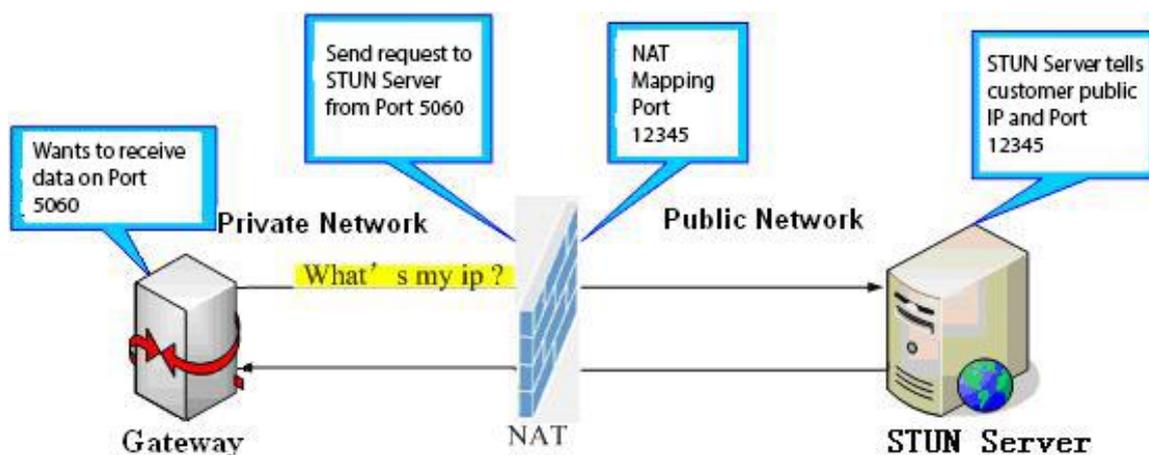
SIP	
Field Name	Explanation
Basic Settings (Choose the SIP line to configured)	
Status	Shows registration status. If the registration is successful done, it will display "has been registered", otherwise will display "not registered". The wrong password will display "403 errors" and account number failure will display "timeout".
Server Address	SIP server IP address or URI.
Server Port	SIP server port. Default is 5060.
Authentication User	SIP account name (Login ID).
Authentication Password	SIP registration password.
SIP User	Phone number assigned by VoIP service provider. Equipment will not register if there is no phone number configured.
Display Name	Set the display name. This name is shown on Caller ID.
Enable Registration	Check to submit registration information.
Advanced SIP Settings	
Proxy Server Address	SIP proxy server IP address or URI, (This is normally the same as the SIP Registrar Server)
Proxy Server Port	SIP Proxy server port. Normally 5060.
Proxy User	SIP Proxy server account.
Proxy Password	SIP Proxy server password.
Backup Server Address	Backup SIP Server Address or URI (This server will be used if the primary server is unavailable)
Backup Server Port	Backup SIP Server Port.
Domain Realm	SIP Domain if different than the SIP Register Server.
Server Name	Name of SIP Backup server

Field Name	Explanation
SIP Encryption	Enable/Disable SIP Encryption.
Enable Session Timer	If enabled, this will refresh the SIP session timer per RFC4028.
Registration Expires	SIP re-registration time. Default is 60 seconds. If the server requests a different time, the phone will change to that value.
Session Timeout	Refresh interval if Session Timer is enabled.
Keep Alive Type	Specifies the NAT keep alive type. If SIP Option is selected, the equipment will send SIP Option SIP messages to the server every NAT Keep Alive Period. The server will then respond with 200 OK. If UDP is selected, the equipment will send a UDP message to the server every NAT Keep Alive Period.
Keep Alive Interval	Set the NAT Keep Alive interval. Default is 60 seconds
User Agent	Set SIP User Agent value.
Server Type	Configures phone for unique requirements of selected server.
DTMF Type	DTMF sending mode. There are four modes: <ul style="list-style-type: none"> ● In-band ● RFC2833 ● SIP_INFO ● AUTO Different VoIP Service providers may require different modes.
RFC Protocol Edition	Select SIP protocol version RFC3261 or RFC2543. Default is RFC3261. Used for servers which only support RFC2543.
DTMF SIP INFO Mode	You can chose Send 10/11 or Send */#
Local Port	SIP port. Default is 5060.
Enable Rport	Enable/Disable support for NAT traversal via RFC3581 (Rport).
Keep Authentication	Enable /disable registration with authentication. It will use the last authentication field which passed authentication by server. This will decrease the load on the server if enabled
Enable PRACK	Enable or disable SIP PRACK function. Default is OFF. It is suggested this be used.
Ans. With a Single Codec	If enabled phone will respond to incoming calls with only one codec.
Enable Strict Proxy	Enables the use of strict routing. When the phone receives packets from the server it will use the source IP address, not the address in via field.
Auto TCP	Force the use of TCP protocol to guarantee usability of transport for SIP messages above 1500 bytes

Field Name	Explanation
Enable DNS SRV	Enables use of DNS SRV records
Use VPN	Enable SIP use VPN for every line individually, not all of them
Transport Protocol	Configuration using the transport protocol, TCP, TLS or UDP, the default is UDP.
SIP Global Settings	
Strict Branch	Enable Strict Branch - The value of the branch must be after "z9hG4bK" in the VIA field of the INVITE message received, or the phone will not respond to the INVITE. Note: This will affect all lines
Enable Group	Enable SIP Group Backup. This will affect all lines
Registration Failure Retry Time	Registration failures retry time – If registrations fails, the phone will attempt to register again after registration failure retry time. This will affect all lines
DND Return Code	Specify SIP Code returned for DND. Default is 480 - Temporarily Not Available.
Reject Return Code	Specify SIP Code returned for Rejected call. Default is 603 – Decline.
Busy Return Code	Specify SIP Code returned for Busy. Default is 486 – Busy Here.

b) STUN

STUN – Simple Traversal of UDP through NAT –A STUN server allows a phone in a private network to know its public IP and port as well as the type of NAT being used. The equipment can then use this information to register itself to a SIP server so that it can make and receive calls while in a private network.



SIP
STUN

- > BASIC
- > NETWORK
- > VoIP
- > INTERCOM
- > DOOR PHONE
- > MAINTENANCE
- > LOGOUT

Simple Traversal of UDP through NATs (STUN) Settings

STUN NAT Traversal	FALSE	
Server Address		<input type="text"/>
Server Port		<input type="text" value="3478"/>
Binding Period		<input type="text" value="50"/> second(s)
SIP Waiting Time		<input type="text" value="800"/> millisecond(s)
Local SIP Port		<input type="text" value="5060"/>

SIP Line Using STUN

Use STUN

STUN	
Field Name	Explanation
STUN NAT Traversal	Shows whether or not STUN NAT Traversal was successful.
Server Address	STUN Server IP address
Server Port	STUN Server Port – Default is 3478.
Binding Period	STUN blinding period – STUN packets are sent at this interval to keep the NAT mapping active.
SIP Waiting Time	Waiting time for SIP. This will vary depending on the network.
Local SIP Port	Port configure the local SIP signaling
SIP Line Using STUN (SIP1 or SIP2)	
Use STUN	Enable/Disable STUN on the selected line.
Note: the SIP STUN is used to achieve the SIP penetration of NAT, is the realization of a service, when the equipment configuration of the STUN server IP and port (usually the default is 3478), and select the Use Stun SIP server, the use of NAT equipment to achieve penetration.	

(4) INTERCOM

a) AUDIO

This page configures audio parameters such as voice codec, speak volume, mic volume and ringer volume.

The screenshot shows the 'AUDIO' configuration page in the Fanvil web interface. The page is divided into three main sections:

- Audio Settings:**
 - First Codec: G.711A
 - Second Codec: G.711U
 - Third Codec: G.722
 - Fourth Codec: G.729AB
 - DTMF Payload Type: 101 (range 96~127)
 - Default Ring Type: Type 1
 - G.729AB Payload Length: 20ms
 - Tone Standard: United States
 - G.722 Timestamps: 160/20ms
 - G.723.1 Bit Rate: 6.3kb/s
 - Enable VAD:
- Talk Volume Settings:**
 - SPK Output Volume: 5 (range 1~9)
 - MIC Input Volume: 2 (range 1~9)
- Media Volume Settings:**
 - Broadcast Output Volume: 5 (range 1~9)
 - Signal Tone Volume: 7 (range 0~9)

An 'Apply' button is located at the bottom right of the settings area.

Field Name	Explanation
Audio Settings	
First Codec	The first codec choice: G.711A/U, G.722, G.723.1, G.726-32, G.729AB
Second Codec	The second codec choice: G.711A/U, G.722, G.723.1, G.726-32, G.729AB, None
Third Codec	The third codec choice: G.711A/U, G.722, G.723.1, G.726-32, G.729AB, None
Fourth Codec	The forth codec choice: G.711A/U, G.722, G.723.1, G.726-32, G.729AB, None
DTMF Payload Type	The RTP Payload type that indicates DTMF. Default is 101
Default Ring Type	Ring Sound – There are 9 standard types and 3 User types.
G.729AB Payload Length	G.729AB Payload Length – Adjusts from 10 – 60 mSec.
Tone Standard	Configure tone standard area.
G.722 Timestamps	Choices are 160/20ms or 320/20ms.
G.723.1 Bit Rate	Choices are 5.3kb/s or 6.3kb/s.
Enable VAD	Enable or disable Voice Activity Detection (VAD). If VAD is enabled, G729 Payload length cannot be set greater than 20 mSec.

Field Name	Explanation
Talk Volume Settings	
SPK Output Volume	Set the speaker calls the volume level.
MIC Input Volume	Set the MIC calls the volume level.
Media Volume Settings	
Broadcast Output Volume	Set the broadcast the output volume level.
Signal Tone Volume	Set the audio signal the output volume level.

b) FEATURE

Feature	
Field Name	Explanation
Feature Settings	
DND (Do Not Disturb)	DND might be disabled phone for all SIP lines, or line for SIP individually. But the outgoing calls will not be affected
Ban Outgoing	If enabled, no outgoing calls can be made.

Field Name	Explanation
Enable Intercom Mute	If enabled, mutes incoming calls during an intercom call.
Enable Intercom Tone	If enabled, plays intercom ring tone to alert to an intercom call.
Enable Auto Answer	Enable Auto Answer function
Auto Answer Timeout	Set Auto Answer Timeout
No Answer Handdown	Enable automatically hang up when no answer
No Answer Handdown Time	Configuration in a set time, automatically hang up when no answer
Dial Fixed Length to Send	Enable or disable dial fixed length to send.
Send length	The number will be sent to the server after the specified numbers of digits are dialed.
Enable Speed Dial Handdown	Enable Speed Dial Hand Up function
Dial Number Voice Play	Configuration Open / Close Dial Number Voice Play
Use Function Key to Answer	Configure whether to enable the function keys, is disabled by default.
Block Out Settings	
<p>Add or Delete Blocked numbers – Enter the prefix of numbers which should not be dialled by the phone. For example, if 001 is entered, the phone will not dial any numbers beginning with 001.</p> <p>X and x are wildcards which match single digits. For example, if 4xxx or 4XXX is entered, the phone will not dial any 4 digit numbers beginning with 4. It will dial numbers beginning with 4 which are longer or shorter than 4 digits.</p>	

c) MCAST

MCAST Settings

Priority: 1

Enable Page Priority:

Index/Priority	Name	Host:port
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

Apply

It is easy and convenient to use multicast function to send notice to each member of the multicast via setting the multicast key on the device and sending multicast RTP stream to pre-configured multicast address. By configuring monitoring multicast address on the device, monitor and play the RTP stream which sent by the multicast address.

MCAST Settings

Equipment can be set up to monitor up to 10 different multicast address, used to receive the multicast RTP stream sent by the multicast address.

Here are the ways to change equipment receiving multicast RTP stream processing mode in the Web interface: set the ordinary priority and enable page priority.

- **Priority:**

In the drop-down box to choose priority of ordinary calls the priority, if the priority of the incoming flows of multicast RTP, lower precedence than the current common calls, device will automatically ignore the group RTP stream. If the priority of the incoming flow of multicast RTP is higher than the current common calls priority, device will automatically receive the group RTP stream, and keep the current common calls in state. You can also choose to disable in the receiving threshold drop-down box, the device will automatically ignore all local network multicast RTP stream.

- The options are as follows:

- ✧ 1-10: To definite the priority of the common calls, 1 is the top level while 10 is the lowest
- ✧ Disable: ignore all incoming multicast RTP stream
- ✧ Enable the page priority:

Page priority determines the device how to deal with the new receiving multicast RTP stream when it is in multicast session currently. When Page priority switch is enabled, the device will automatically ignore the low priority multicast RTP stream but receive top-level priority multicast RTP stream, and keep the current multicast session in state; If it is not enabled, the device will automatically ignore all receiving multicast RTP stream.

- Web Settings:

MCAST Settings

Priority

Enable Page Priority

Index/Priority	Name	Host:port
1	ss	239.1.1.1:1366
2	ee	239.1.1.1:1367

The multicast SS priority is higher than that of EE, which is the highest priority.

Note: when pressing the multicast key for multicast session, both multicast sender and receiver will beep.

Listener configuration

MCAST Settings

Priority

Enable Page Priority

Index/Priority	Name	Host:port
1	group 1	224.0.0.2:2366
2	group 2	224.0.0.2:1366
3	group 3	224.0.0.6:3366
4		
5		
6		
7		
8		
9		
10		

- **Blue part (name)**

"Group 1", "Group 2" and "Group 3" are your setting monitoring multicast name. The group name will be displayed on the screen when you answer the multicast. If you have not set, the screen will display the IP: port directly.

- **Purple part (host: port)**

It is a set of addresses and ports to listen, separated by a colon.

- **Pink part (index / priority)**

Multicast is a sign of listening, but also the monitoring multicast priority. The smaller number refers to higher priority.

- **Red part (priority)**

It is the general call, non multicast call priority. The smaller number refers to high priority. The followings will explain how to use this option:

- ✧ The purpose of setting monitoring multicast "Group 1" or "Group 2" or "Group 3" launched a multicast call.
- ✧ All equipment has one or more common non multicast communication.
- ✧ When you set the Priority for the disable, multicast any level will not answer, multicast call is rejected.
- ✧ when you set the Priority to a value, only higher than the priority of multicast can come in, if you set the Priority is 3, group 2 and group 3 for priority level equal to 3 and less than 3 were rejected, 1 priority is 2 higher than ordinary call priority device can answer the multicast message at the same time, keep the hold the other call.

- **Green part (Enable Page priority)**

Set whether to open more priority is the priority of multicast, multicast is pink part number. Explain how to use:

- ✧ The purpose of setting monitoring multicast "group 1" or "3" set up listening "group of 1" or "3" multicast address multicast call.
- ✧ All equipment has been a path or multi-path multicast phone, such as listening to "multicast information group 2".
- ✧ If multicast is a new "group of 1", because "the priority group 1" is 2, higher than the current call "priority group 2" 3, so multicast call will can come in.
- ✧ If multicast is a new "group of 3", because "the priority group 3" is 4, lower than the current call "priority group 2" 3, "1" will listen to the equipment and maintain the "group of 2".

Multicast service

- **Send:** when configured ok, our key press shell on the corresponding equipment, equipment directly into the Talking interface, the premise is to ensure no current multicast call and 3-way of the case, the multicast can be established.
- **Lmonitor:** IP port and priority configuration monitoring device, when the call is initiated and incoming multicast, directly into the Talking interface equipment.

d) Action URL

Action URL Settings

Active URI Limit IP	<input type="text"/>
Setup Completed	<input type="text"/>
Registration Success	<input type="text"/>
Registration Disabled	<input type="text"/>
Registration Failed	<input type="text"/>
Off Hook	<input type="text"/>
On Hook	<input type="text"/>
Incoming Call	<input type="text"/>
Outgoing Call	<input type="text"/>
Call Established	<input type="text"/>
Call Terminated	<input type="text"/>
DND Enabled	<input type="text"/>
DND Disabled	<input type="text"/>
Mute	<input type="text"/>
Unmute	<input type="text"/>
Missed Call	<input type="text"/>
IP Changed	<input type="text"/>
Idle To Busy	<input type="text"/>
Busy To Idle	<input type="text"/>

Action URL Settings

URL for various actions performed by the phone. These actions are recorded and sent as xml files to the server. Sample format is `http://InternalServer /FileName.xml`

(5) DOOR PHONE

a) FUNCTION KEY

Function Key Settings

Key	Type	Number 1	Number 2	Line	Subtype
DSS Key 1	Key Event	<input type="text"/>	<input type="text"/>	SIP1	OK
DSS Key 2	None	<input type="text"/>	<input type="text"/>	SIP1	Speed Dial
DSS Key 3	None	<input type="text"/>	<input type="text"/>	SIP1	Speed Dial
DSS Key 4	None	<input type="text"/>	<input type="text"/>	SIP1	Speed Dial

➤ Key Event Settings

Set the key type to the Key Event.

Key	Type	Number 1	Number 2	Line	Subtype
DSS Key 1	Key Event			SIP1	OK
DSS Key 2	None			SIP1	None
DSS Key 3	Hot Key			SIP1	Dial
DSS Key 4	Line			SIP1	Release
	Key Event			SIP1	OK
	Multicast			SIP1	Handfree
	None			SIP1	Speed Dial

DSS key type	Subtype	Usage
Key Event	None	Not responding
	Dial	Dial function
	Release	End calls
	OK	Identify key
	Handfree	The hand-free key(with hook dial, hang up)

➤ Hot key Settings

Enter the phone number in the input box, when you press the shortcut key, equipment will dial set telephone number. This button can also be used to set the IP address, press the shortcut key IP direct dial call.

Key	Type	Number 1	Number 2	Line	Subtype
DSS Key 1	Hot Key			SIP1	Speed Dial
DSS Key 2	None			SIP1	Speed Dial
DSS Key 3	Hot Key			SIP1	Intercom
DSS Key 4	Line			SIP1	Speed Dial
	Key Event			SIP1	Speed Dial
	Multicast			SIP1	Speed Dial
	None			SIP1	Speed Dial

DSS key type	Number	Line	Subtype	Usage
Hot Key	Fill the called party's SIP account or address	The SIP account corresponding lines	Speed Dial	In Speed dial mode, with  can define whether this call is allowed to be hang up by re-press the speed dial
			Intercom	In Intercom mode, if the caller's IP phone support intercom feature, can realize auto answer

➤ Multicast Settings

Multicast function is launched will voice messages sent to set the multicast address, all equipment to monitor the group multicast address can receive sponsors speech information, etc. Using multicast functionality can be simple and convenient to send notice to each member in the multicast.

Through the DSS Key configuration multicast calling WEB is as follows:

Key	Type	Number 1	Number 2	Line	Subtype
DSS Key 1	Multicast			SIP1	G.711A
DSS Key 2	None			SIP1	G.711A
DSS Key 3	Hot Key			SIP1	G.711U
DSS Key 4	Line			SIP1	G.722
	Key Event			SIP1	G.723.1
	Multicast			SIP1	G.726-32
	None			SIP1	G.729AB

DSS key type	Number	Subtype	Usage
Multicast	Set the host IP address and port number, the middle separated by a colon	G.711A	Narrowband speech coding (4Khz)
		G.711U	
		G.722	Wideband speech coding (7Khz)
		G.723.1	Narrowband speech coding (4Khz)
		G.726-32	
		G.729AB	

✧ operation mechanism

Device through the DSS Key configuration of multicast address and port and started coding; set by WEB to monitor the multicast address and port; device sends a multicast, listens to the address of the device can receive the multicast content.

✧ calling configuration

The call is already exists, and three party or initiated multicast communication, so it will not be able to launch a new multicast call.

b) DOOR PHONE

FUNCTION KEY
DOOR PHONE
DOOR CARD
DOOR ACCESS
DOOR LOG

- > BASIC
- > NETWORK
- > VoIP
- > INTERCOM
- > DOOR PHONE
- > MAINTENANCE
- > LOGOUT

EGS Settings

Switch Mode	<input type="text" value="monostable"/>	Keypad Mode	<input type="text" value="Dial and Password"/>
Switch-On Duration	<input type="text" value="5"/> (1~600 seconds)	Talk Duration	<input type="text" value="120"/> (20~600 seconds)
Remote Password	<input type="text" value="*"/>	Local Password	<input type="text" value="6789"/>
Description	<input type="text" value="i23 IP Door Phone"/>	Enable Access Table	<input type="text" value="Enable"/>
Hot Key Dial Mode Select	<input type="text" value="Main-Secondary"/>	Call Switched Time	<input type="text" value="16"/> (5~50 seconds)
Day Start Time	<input type="text" value="06:00"/> (00:00~23:59)	Day End Time	<input type="text" value="18:00"/> (00:00~23:59)
Address of Log Server	<input type="text" value="0.0.0.0"/>	Port of Log Server	<input type="text" value="514"/>
Enable Log Server	<input type="text" value="Disable"/>	Enable Indoor Open	<input type="text" value="Enable"/>
Enable Card Reader	<input type="text" value="Enable"/>	Limit Talk Duration	<input type="text" value="Enable"/>
Door Unlock Indication	<input type="text" value="Long beeps"/>	Remote Access Code Check Length	<input type="text" value="4"/> (1~6)

Tamper Alarm Settings

<input type="checkbox"/> Tamper Alarm	<input type="button" value="Reset"/>
Alarm command	<input type="text" value="Tamper_Alarm"/>
Reset command	<input type="text" value="Tamper_Reset"/>
Server Address	<input type="text" value="0.0.0.0"/>
Tamper Alarm Ring	<input type="text" value="default"/>

Field Name	Explanation	Initial Value
EGS Settings		
Switch Mode	Monostable: there is only one fixed action status for door unlocking. Bistable: there are two actions and statuses, door unlocking and door locking. Each action might be triggered and changed to the other status. After changed, the status would be kept.	Monostable
Keypad Mode	Only password: password input only, dialing would be forbidden. Password+dialing: password input is default. Dialing mode is as below if you want. <ul style="list-style-type: none"> ● key for off hook to dialing mode, # key for hang up. ● Time out or length match for number sending when dialing mode. * Key to enter the dial, the # key to hang up. 	Password+dialing
Switch-On Duration	Door unlocking time for Monostable mode only. If the time is up, the door would be locked automatically.	5 seconds
Talk Duration	The call will be ended automatically when time up.	120 seconds
Remote Password	Remote door unlocking password.	*
Local Password	Local door unlocking password via keypad, the default password length is 4.	6789
Description	Device description displayed on IP scanning tool software.	i23 IP door phone

Field Name	Explanation	Initial Value
Enable Access Table	Enable Access Table: enter <Access Code> for opening door during calls. Disable Access Table: enter <Remote Password> for opening door during calls.	Enable
Hot Key Dialed Mode Selection	<Primary /Secondary>mode allow system to call primary extension first, if there were no answer, it would cancel the call and then call secondary extension automatically. <Day/Night>mode allow system to check the calling time is belong to Day or Night time, and then decide to call the number 1 or number 2 automatically. Users just press speed dial key once.	Primary /secondary
Call Switched Time	The period between hot key dialing to the first and second number.	16 seconds
Day Start Time	The start time of the Day When you select<Day/Night>mode	06:00
Day End Time	The end time of the day When you select <Day/Night>mode	18:00
Address of Log Server	Log server address(IP or domain name)	0.0.0.0
Port of Log Server	Log server port(0-65535)	514
Enable Log Server	Enable or disable to connect with log server	Disable
Enable Indoor Open	Enable or disable to use indoor switch to unlock the door.	Enable
Enable Card Reader	Enable or disable card reader for RFID cards.	Enable
Limit Talk Duration	If enabled, calls would be forced ended after talking time is up.	Enable
Door Unlock Indication	Indication tone for door unlocked. There are 3 type of tone: silent/short beeps/long beeps.	Long beeps
Remote Access Code Check Length	The remote access code length would be restricted with it. If the input access code length is matched with it, system would check it immediately.	4

Field Name	Explanation
Tamper Alarm Settings	
Tamper Alarm	When the selection is enabled, the tamper detection enabled
Reset	Directly stop the alarm from equipment in the Webpage
Alarm command	When detected someone tampering the equipment, will be sent alarm to the corresponding server
Reset command	When the equipment receives the command of reset from server, the equipment will stop alarm
Server Address	Configure remote response server address
Tamper alarm ring	When the detected someone tampering the equipment, plays the corresponding ringtone or alarm

c) DOOR CARD

The screenshot displays the 'DOOR CARD' configuration page in the Fanvil web interface. The page features a sidebar navigation menu on the left with the following items: BASIC, NETWORK, VoIP, INTERCOM, DOOR PHONE (highlighted), MAINTENANCE, and LOGOUT. The main content area has a top navigation bar with tabs for FUNCTION KEY, DOOR PHONE, DOOR CARD, DOOR ACCESS, and DOOR LOG. The 'DOOR CARD' tab is selected, showing the following sections:

- Door Card Table:** A table with columns for Index, Name, ID, Issuing Date, and Card State. The table is currently empty (Total: 0). Navigation buttons include Page, Pre, Next, Delete, and Delete All. A link 'Right Click here to Save Door Card Table' is also present.
- Add Door Card:** A form with an ID input field and an 'Add' button.
- Import Door Card Table:** A form with a 'Select File' input field, a 'Browse' button, and an 'Update' button. The file type is specified as '(doorCard.csv)'.
- Card Reader Setting>>:** A form with a 'State' dropdown menu set to 'Normal' and an 'Apply' button.
- Administrator Table>>:** A section with links for 'Add Administrator>>' and 'Delete Administrator>>'.

Door Card	
Field Name	Explanation
Door Card Table	
Index	The serial number of has been issuer cards.
Name	The name of has been issuer cards.
ID	The card number of has been issuer cards. (Note: The card is not registered in the remote access list is unable to open the door.)
Issuing Date	The issuing date of has been issuer cards.
Card State	To have been issuer cards the state.
Delete	Click <delete>, will delete the door card list within the selected ID cards.
Delete All	Click <Delete All>, to delete all door card lists.
Export door card table	Right Click here to Save Door Card Table Right-click it and select save target to your computer.
Add Door Card	
The input RFID card numbers the top 10, for example, 0004111806, click <add>.	
Import Door Card Table	
Click the <Browse> to choose to import door card list file (doorCard.csv), click <Update> can be batch import.	
Card Reader Setting	
Set ID card stats: Normal: This is the work mode, after the slot card can to open the door. Card Issuing: This is the issuing mode, after the slot card can to add ID cards. Card Revoking: This is the revoking mode, after the slot card can to delete ID cards.	
Administrator Table	
The show admin card the ID, Date and Type.	
Add Administrator	
ID: admin card the card number. Type: Issuer and Revoking. Entrance guard in normal state, brush card(issuing card) entrance guard into the issuing state, and then brush to add a card, the card is added to the database, add swipe again after card(issuing card) entrance guard returned to normal. Delete card operation and issuing card the same. Can release at most 10 cards, 500 copies of ordinary cards. Note: in the issuing state to delete brush card is invalid, and vice versa.	
Delete Administrator	
Choose to delete the card number, then press <delete>.	

d) DOOR ACCESS

FUNCTION KEY
DOOR PHONE
DOOR CARD
DOOR ACCESS
DOOR LOG

- > BASIC
- > NETWORK
- > VoIP
- > INTERCOM
- > DOOR PHONE
- > MAINTENANCE
- > LOGOUT

Access Table

Total: 0 Page: ▼ Pre Next Delete ⚠ Delete All [Right Click here to Save Access Table](#)

Index	Name	ID	Department	Position	location	Number	Fwd Number	Access Code	Double Auth	Access by Call	Access by Psw	Profile Type	<input type="checkbox"/>

Add Access Rule

Name ★ Department Position

ID ▼ Time Profile None ▼ Access Type Guest ▼

Access Code Remote Call and Local Auth ▼ ⚠ Double Authentication Disable ▼ ⚠

Location ⚠ Phone Num Forward Num

Add Modify

Import Access Table

Select File: Browse (accessList.csv) Update

Profile Settings

Profile Profile 1 ▼

Profile Name	Day	Active	From(00:00-23:59)	To(00:00-23:59)
	Sunday	No ▼	<input type="text" value="00:00"/>	<input type="text" value="00:00"/>
	Monday	No ▼	<input type="text" value="00:00"/>	<input type="text" value="00:00"/>
	Tuesday	No ▼	<input type="text" value="00:00"/>	<input type="text" value="00:00"/>
	Wednesday	No ▼	<input type="text" value="00:00"/>	<input type="text" value="00:00"/>
	Thursday	No ▼	<input type="text" value="00:00"/>	<input type="text" value="00:00"/>
	Friday	No ▼	<input type="text" value="00:00"/>	<input type="text" value="00:00"/>
	Saturday	No ▼	<input type="text" value="00:00"/>	<input type="text" value="00:00"/>

Apply

Field Name	Explanation
Access Table	
According to entrance guard access rules have been added, can choose single or multiple rules on this list to delete operation.	
Add Access Rule	
Name(necessary)	User name
Department	Card holder's department
Position	Card holder's position
ID	RFID card number
Time Profile	Valid for user access rules (including RFID, access code, etc) within corresponding time section. If NONE is selected, it would be taken effect all day.
Access Type	Host: the door phone would answer all call automatically. Guest: the door phone would be ringing for incoming call, if the auto answer had been disabled.
Access Code	1/ When the door phone has been answering the call from below <Phone Num> user, then the <Phone Num> user can input the access code by keypad to unlock the door remotely. 2/ The user's private password for local door unlocking by door phone's keypad.
Double Authentication	When enabled, private password inputting and RFID reading must be matched simultaneously for door unlocking.
Location	Virtual extension number, used to make position call instead of real number. It might be taken with unit number, or room number.
Phone Num	User Phone Number
Forward Num	Call forwarding number when above Phone Num is unavailable.
Import Access Table	
Click the <Browse> to choose to import remote access list file (access List.csv) and then click <Update> can be batch import remote access rule.	
Profile Settings	
Time profile sections	There are 4 sections for time profile configuration
Profile Name	The name of profile to help administrator to remember the time definition
Active	If it were yes, the time profile would be taken effect. Other time section not included in the profiles would not allow users to open door
From	The start time of section
To	The end time of section

e) DOOR LOG

According to open event log, can record up to 2 w open event, after more than cover the old records.

[Right Click here to Save Logs](#) Right click on the links to select save target as the door log can export CSV format.

Door Opening Log

Page: 1 [Pre](#) [Next](#) [Delete All](#) [Right Click here to Save Logs](#)

Door Opening Time	Duration	Access Name	Access ID	Type
JAN 01 03:16:32	5 second(s)			Local
JAN 01 03:18:38	5 second(s)	joe	0006800281	IC Card
JAN 01 03:23:30	5 second(s)	joe	8207	Remote

Call Information

Start Time	Duration	Peer Calls	Type
------------	----------	------------	------

Field Name	Explanation
Door Opening Log	
Door Opening Time	Open the door of time.
Duration	Duration of open the door.
Access Name	If is the open the door for slot card or remote, will display remote access the name.
Access ID	1. If open the door way to brush card shows card number 2. If the door way to open the door for the remote display the phone number of the door. 3. If open the door way to open the door for local, no display information.
Type	Open type: 1. local, 2. Remote, 3. Brush card.
Call Information	
Display device call records. Including: start time, duration, call number and call type.	

(6) MAINTENANCE

a) AUTO PROVISION

The equipment supports PnP, DHCP, and Phone Flash to obtain configuration parameters. They will be queried in the following order when the equipment boots.

DHCP option → PnP server → Phone Flash

Field Name	Explanation
Auto Provision Settings	
Current Config Version	Show the current config file's version. If the version of configuration downloaded is higher than this, the configuration will be upgraded. If the endpoints confirm the configuration by the Digest method, the configuration will not be upgraded unless it differs from the current configuration
Common Config Version	Show the common config file's version. If the configuration downloaded and this configuration is the same, the auto provision will stop. If the endpoints confirm the configuration by the Digest method, the configuration will not be upgraded unless it differs from the current configuration.
CPE Serial Number	Serial number of the equipment
User	Username for configuration server. Used for FTP/HTTP/HTTPS. If this is blank the phone will use anonymous
Password	Password for configuration server. Used for FTP/HTTP/HTTPS.

Field Name	Explanation
Config Encryption Key	Encryption key for the configuration file
Common Config Encryption Key	Encryption key for common configuration file
Save Auto Provision Information	Save the auto provision username and password in the phone until the server url changes
DHCP Option Settings	
DHCP Option Setting	The equipment supports configuration from Option 43, Option 66, or a Custom DHCP option. It may also be disabled.
Custom DHCP Option	Custom option number. Must be from 128 to 254.
Plug and Play (PnP) Settings	
Enable PnP	If this is enabled, the equipment will send SIP SUBSCRIBE messages to a multicast address when it boots up. Any SIP server understanding that message will reply with a SIP NOTIFY message containing the Auto Provisioning Server URL where the phones can request their configuration.
PnP server	PnP Server Address
PnP port	PnP Server Port
PnP Transport	PnP Transfer protocol – UDP or TCP
PnP Interval	Interval time for querying PnP server. Default is 1 hour.
Phone Flash Settings	
Server Address	Set FTP/TFTP/HTTP server IP address for auto update. The address can be an IP address or Domain name with subdirectory.
Config File Name	Specify configuration file name. The equipment will use its MAC ID as the config file name if this is blank.
Protocol Type	Specify the Protocol type FTP, TFTP or HTTP.
Update Interval	Specify the update interval time. Default is 1 hour.
Update Mode	<ol style="list-style-type: none"> 1. Disable – no update 2. Update after reboot – update only after reboot. 3. Update at time interval – update at periodic update interval

Field Name	Explanation
TR069 Settings	
Enable TR069	Enable/Disable TR069 configuration
ACS Server Type	Select Common or CTC ACS Server Type.
ACS Server URL	ACS Server URL.
ACS User	User name for ACS.
ACS Password	ACS Password.
TR069 Auto Login	Enable/Disable TR069 Auto Login.
"Inform" Sending Period	Time between transmissions of "Inform" Unit is seconds.

b) SYSLOG

The screenshot shows the Fanvil web interface with the 'SYSLOG' tab selected. On the left is a navigation menu with options: BASIC, NETWORK, VoIP, INTERCOM, DOOR PHONE, MAINTENANCE (highlighted), and LOGOUT. The main content area is titled 'Syslog Settings' and includes the following fields:

- Server Address: 0.0.0.0
- Server Port: 514
- MGR Log Level: None (dropdown)
- SIP Log Level: None (dropdown)
- Enable Syslog:

An 'Apply' button is located below the settings. Below the Syslog Settings section is a 'Web Capture' section with 'Start' and 'Stop' buttons.

Syslog is a protocol used to record log messages using a client/server mechanism. The Syslog server receives the messages from clients, and classifies them based on priority and type. Then these messages will be written into a log by rules which the administrator has configured.

There are 8 levels of debug information.

Level 0: emergency; System is unusable. This is the highest debug info level.

Level 1: alert; Action must be taken immediately.

Level 2: critical; System is probably working incorrectly.

Level 3: error; System may not work correctly.

Level 4: warning; System may work correctly but needs attention.

Level 5: notice; It is the normal but significant condition.

Level 6: Informational; It is the normal daily messages.

Level 7: debug; Debug messages normally used by system designer. This level can only be displayed via telnet.

Field Name	Explanation
System log settings	
Server Address	System log server IP address.
Server port	System log server port.
MGR log level	Set the level of MGR log.
SIP log level	Set the level of SIP log.
Enable syslog	Enable or disable system log.
Web Capture	
Start	Capture a packet stream from the equipment. This is normally used to troubleshoot problems.
Stop	Stop capturing the packet stream

c) CONFIG

Field Name	Explanation
Save Configuration	Save the current equipment configuration. Clicking this saves all configuration changes and makes them effective immediately.
Backup Configuration	Save the equipment configuration to a txt or xml file. Please note to Right click on the choice and then choose "Save Link As."
Clear Configuration	Logged in as Admin, this will restore factory default and remove all configuration information. Logged in as Guest, this will reset all configuration information except for VoIP accounts (SIP1-2) and version number.

d) UPDATE

This page allows uploading configuration files to the equipment.

The screenshot shows the Fanvil web interface. At the top, there is a navigation bar with tabs: AUTO PROVISION, SYSLOG, CONFIG, UPDATE (selected), ACCESS, and REBOOT. On the left, there is a sidebar menu with categories: BASIC, NETWORK, VoIP, INTERCOM, DOOR PHONE, MAINTENANCE (selected), and LOGOUT. The main content area is titled 'Web Update' and contains a 'Select File:' text label, an empty file input field, a 'Browse' button, a file type filter '(*.z,*.txt,*.xml,*.au,*.wav)', and an 'Update' button.

Field Name	Explanation
Web Update	Browse to the config file, and press Update to load it to the equipment. Various types of files can be loaded here including firmware, ring tones, local phonebook and config files in either text or xml format.

e) ACCESS

Through this page, user can add or remove users depends on their needs and can modify existing user permission.

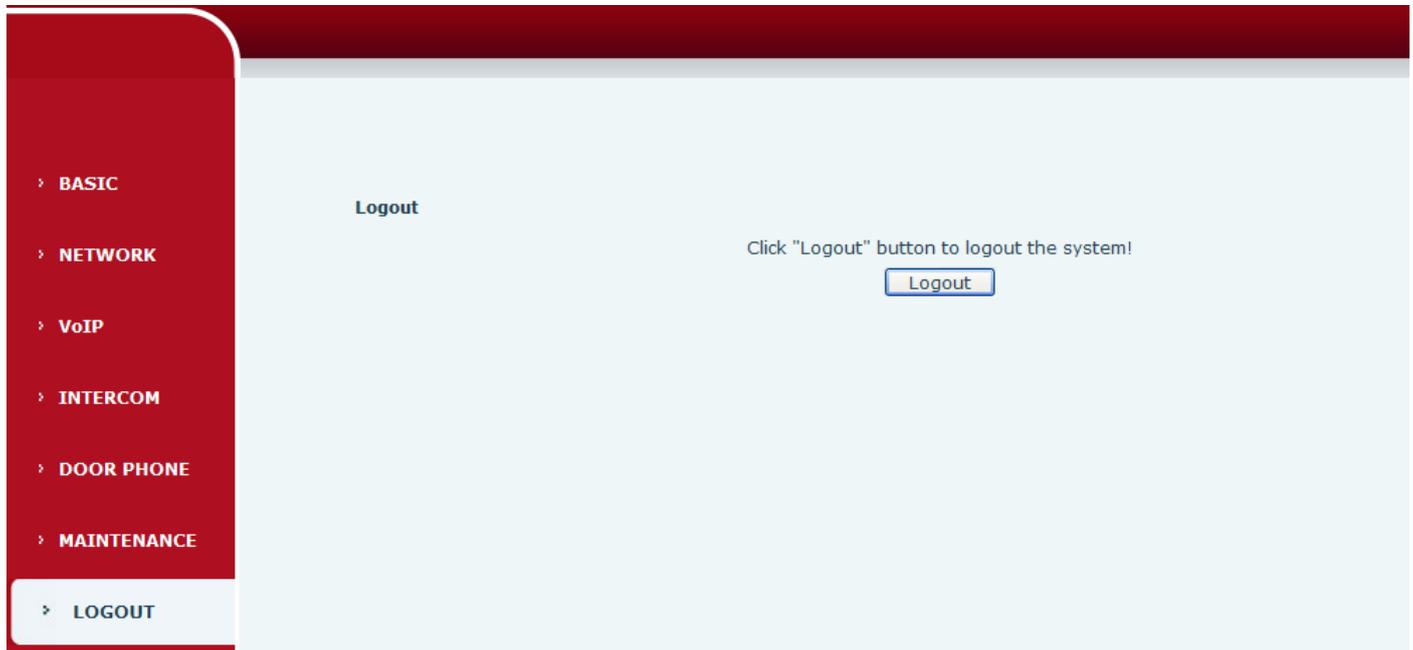
Field Name	Explanation
User Settings	
User	shows the current user name
User level	Show the user level; admin user can modify the configuration. General user can only read the configuration.
Add User	
User	Set User Account name
Password	Set the password
Confirm	Confirm the password
User level	There are two levels. Root user can modify the configuration. General user can only read the configuration.
User Management	
Select the account and click Modify to modify the selected account. Click Delete to delete the selected account. A General user can only add another General user.	

f) REBOOT

Some configuration modifications require a reboot to become effective. Clicking the Reboot button will lead to reboot immediately.

Note: Be sure to save the configuration before rebooting.

(7) LOGOUT



Click <Logout> from the web to exit. Users need to enter their user name and password again when visit next time.

E. Appendix

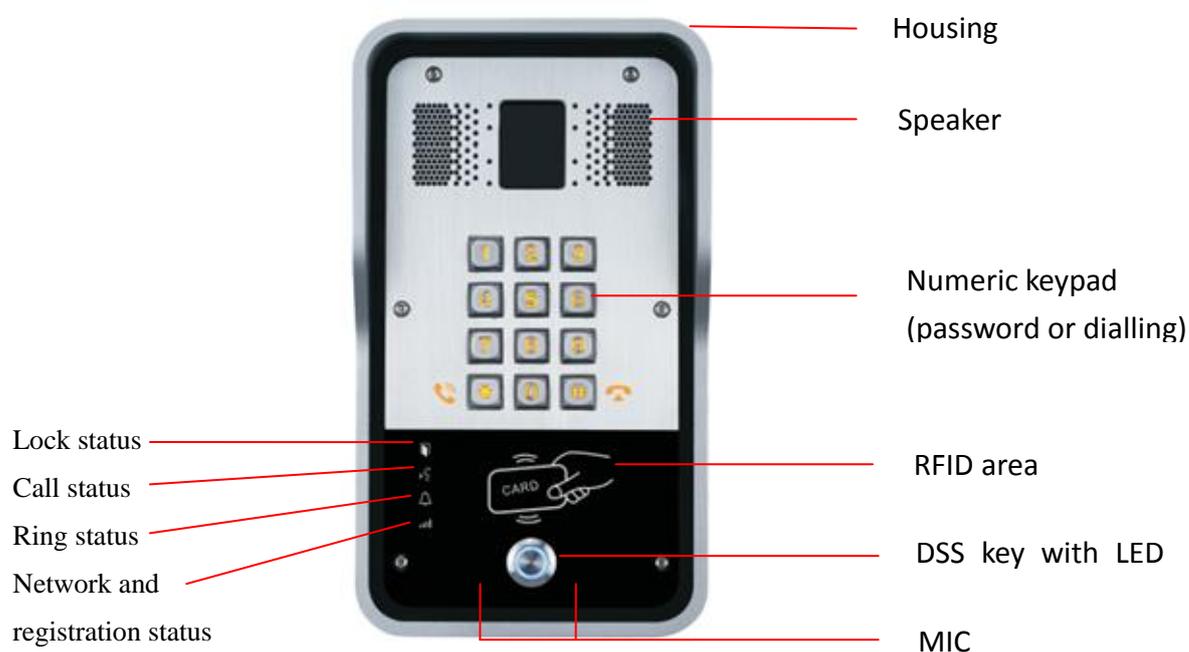
1. Technical parameters

Communication protocol		SIP 2.0(RFC-3261)
Main chipset		Broadcom
Key	DSS key materials	Stainless steel
	DSS Key	1
	Numeric keyboard	Support
Speech flow	Audio amplifier	2.4W
	Volume control	Adjustable
	Full duplex speakerphone	Support (AEC)
	Protocols	RTP
	Decoding	G.729、 G.723、 G.711、 G.722、 G.726
Port	Passive switch(relay)	Normally open/Normally close, support 30V/1A AC/DC.
	Active Switched Output	12V/750mA DC
	External speakers	Audio output (only support to fully functional version)
	WAN	10/100BASE-TX s Auto-MDIX, RJ-45
	LAN	10/100BASE-TX s Auto-MDIX, RJ-45
RFID/IC card reader(relay)		EM4100 (125Khz) MIFARE One(13.56Mhz) NFC
Power supply mode		12V / 1A DC or PoE
Cables		CAT5 or better
Shell Material		Cast aluminium panel, Cast aluminium back shell
Working temperature		-40°C to 70°C
Working humidity		10% - 90%
Storage temperature		-40°C to 70°C
Installation way		Wall mounted or In-wall
Dimension		Wall mounted: 225*131*73.5mm In-wall: 270*150*83mm

2. Basic functions

- 2 SIP Lines
- PoE Enabled
- Full-duplex speakerphone (HF)
- Numeric keypad (Dial pad or Password input)
- Intelligent DSS Keys (Speed Dial/intercom etc)
- Wall mounted / In-wall
- Special integrated noise reduction module
- Dual microphone Omnidirectional voice pickup
- Integrated RFID Card reader
- 1 indoor switch interface
- 1 electric lock relay
- Anti-tamper switch
- External power supply
- Door phone: call, password, RFID card, indoor switch
- Protection level: IP65, IK10, CE/FCC

3. Schematic diagram



F. Other instructions

1. Open door modes

● Local control

1) Local Password

- ✧ Set <Local Password> (the password is "6789" by default) via DOOR PHONE\DOOR PHONE as above.
- ✧ Input password via keypad and press the "#" key, then the door will be unlocked.

2) Private access code

- ✧ Set <Add Access Rule\Access Code> and enable local authentication.
- ✧ Input access code via keypad and press the "#" key, then the door will be unlocked.

● Remote control

1) Visitors call the owner

- ✧ Visitors can call the owner via position speed dial or phone number. (After setting the speed dial key, visitors can press it to call direct.)
- ✧ The owner answers the call and presses the "*" key to unlock the door for visitors.

2) Owner calls visitors

- ✧ Owner calls visitors via SIP phone.
- ✧ SIP door phone answers the call automatically.
- ✧ Owner inputs corresponding <Access codes> via SIP phone keypad to unlock the door.

● Swip cards

- ✧ Use pre-assigned RFID cards to unlock the door, by touching RFID area of the device.

● Indoor switch

- ✧ Press indoor switch, which is installed and connected with the device, to unlock the door.

Day Start Time	<input type="text" value="06:00"/> (00:00-23:59)	Day End Time	<input type="text" value="18:00"/> (00:00-23:59)
Address of Log Server	<input type="text" value="0.0.0.0"/>	Port of Log Server	<input type="text" value="514"/>
Enable Log Server	<input type="button" value="Disable"/>	Enable Indoor Open	<input type="button" value="Enable"/>
Enable Card Reader	<input type="button" value="Enable"/>	Limit Talk Duration	<input type="button" value="Disable"/> <input type="button" value="Enable"/>
Door Unlock Indication	<input type="button" value="Long beeps"/>	Remote Access Code Check Length	<input type="text" value="4"/> (1~6)
<input type="button" value="Apply"/>			

2. Management of card

● Add Administrator

There are 2 types of Administrator cards: issuer used for adding cards, revocation used for deleting cards.

1) Add<Issuer admin card>

Input a card's ID, selected <Issuer> in the types and Clicked <Add>, you can add Issuer admin card.

Add Administrator>>

ID

Type

2) Add<Revocation admin card>

Input a card's ID, selected <Revocation> in the types and Clicked <Add>, you can add Revocation admin card.

Add Administrator>>

ID

Type

3) Administrator Table

Administrator Table>>

ID	Date	Type
0003476384	JAN 01 02:09:04	Issuer
0003408919	JAN 01 02:09:29	Revocation

● Delete Administrator

Select the admin card of need to delete, click <Delete>.

Delete Administrator>>

● Add user cards

Method 1: used to add cards for starters typically

1) In web page < Door card\Card Reader Setting> option, select <Card Issuing> function.

Card Reader Setting>>

State

Administrator Table>>

2) Click <Apply>, Card Reader would be entered the issuing status.

Submit Success

Return

- 3) Use new card to touch card reader induction area, and then you might hear the confirmed indication tone from the device. Repeat step 3 to add more cards.
- 4) In web page <Door card\card reader Settings > option, select <normal> function.

Card Reader Setting>>

State

Administrator Table>>

Normal
Normal
Card Issuing
Card Revoking

- 5) Click <Apply>, Card Reader would be back to the Normal status.
- 6) The issuing records can be found from the door card table list.

Door Card Table

Total: 3 Page: 1 [Right Click here to Save Door Card Table](#)

Index	Name	ID	<input type="checkbox"/>	Issuing Date	Card State
1	zhangsan	0004770424	<input type="checkbox"/>	JAN 01 02:10:30	Enable <input type="button" value="v"/>
2	joe	0003477117	<input type="checkbox"/>	JAN 01 02:10:44	Enable <input type="button" value="v"/>
3		0003408920	<input type="checkbox"/>	JAN 01 02:10:58	Enable <input type="button" value="v"/>

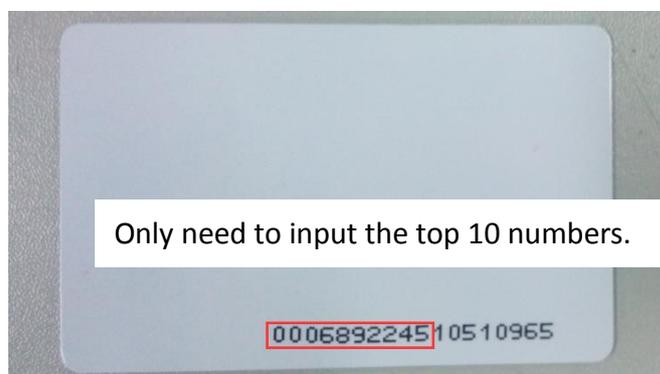
Methods 2: use to add few cards

- 1) Input cards number in door card settings page, and then click <Add>.

Add Door Card

ID

Note: you can also use the USB card reader connected with PC to get cards ID automatically.



Method 3: used to add cards for professionals

- 1) Use <Issuer admin card> to touch card reader induction area, and it would be entered issuing card status.
- 2) Use new card to touch card reader induction area, and you might hear the confirmed indication tone from the device. Repeat step 2 to add more cards.
- 3) Use <Issuer admin card> to touch card reader induction area again, it would be back to normal working status.

● **Delete user cards**

Method 1: used to batch delete cards for starters.

- 1) In web page <Door card →Card Reader Setting> option, select <Card revoking>.

Card Reader Setting>>

State

Administrator Table>>

Normal
Card Issuing
Card Revoking

- 2) Click <Apply>, Card Reader would be entered the revoking status.

Submit Success

Return

- 3) Use card to touch card reader induction area, and you might hear the card reader confirmed indication tone. Repeat step 3 to delete more cards.
- 4) In web page <Door card →card reader Settings >option, select <normal>.

Card Reader Setting>>

State

Administrator Table>>

Normal
Card Issuing
Card Revoking

- 5) Click <Apply>, Card Reader would be back to the Normal status.

Method 2: used to batch add cards for intermediates.

- 1) Use < Revocation admin card> to touch card reader induction area, and it would be entered revoking card status.
- 2) Use the cards you want to delete from system, to touch card reader induction area, and you might hear the card reader confirmed indication tone. Repeat step 2 to delete cards.
- 3) Use <Revocation admin card> to touch card reader induction area, and it would be back to card read only status.

Method 3: use to bulk delete or partially delete card records

- 1) In web page<Door Card Table>select the card ID and then click <Apply>.

Note: If you click <Delete All>, system will delete all the ID card records.

Door Card Table

Total: 3 Page: 1 [Right Click here to Save Door Card Table](#)

Index	Name	ID	<input type="checkbox"/>	Issuing Date	Card State
1	zhangsan	0004770424	<input type="checkbox"/>	JAN 01 02:10:30	Enable <input type="button" value="v"/>
2	joe	0003477117	<input checked="" type="checkbox"/>	JAN 01 02:10:44	Enable <input type="button" value="v"/>
3		0003408920	<input type="checkbox"/>	JAN 01 02:10:58	Enable <input type="button" value="v"/>