



# **i501(W)**

# **User Manual**

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## Table of Contents

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|                                          |           |
|------------------------------------------|-----------|
| <b>Table of Contents .....</b>           | <b>2</b>  |
| <b>1 Safety Instructions .....</b>       | <b>5</b>  |
| 1.1 Safety Instructions .....            | 5         |
| <b>2 Product Overview .....</b>          | <b>6</b>  |
| 2.1 Overview .....                       | 6         |
| 2.2 Specification .....                  | 6         |
| <b>3 Installation Instructions .....</b> | <b>7</b>  |
| 3.1 Packing List .....                   | 7         |
| 3.2 Installation .....                   | 7         |
| 3.2.1 Wall-mounted .....                 | 7         |
| 3.2.2 Wi-Fi Configuration .....          | 8         |
| <b>4 User Guide .....</b>                | <b>9</b>  |
| 4.1 Interface Description .....          | 9         |
| 4.2 Button Instruction .....             | 10        |
| 4.3 Device Status .....                  | 11        |
| 4.4 Web Management .....                 | 11        |
| 4.4.1 Device IP Address .....            | 11        |
| 4.4.2 Web Interface .....                | 11        |
| 4.5 Language Settings .....              | 12        |
| 4.6 Line Settings .....                  | 12        |
| <b>5 Call Features .....</b>             | <b>13</b> |
| 5.1 Call .....                           | 13        |
| 5.1.1 Speed Dialing .....                | 13        |
| 5.2 Answer the Call .....                | 13        |
| 5.2.1 Manual Answer .....                | 13        |
| 5.2.2 Auto Answer .....                  | 13        |
| 5.3 End the Call .....                   | 14        |
| 5.3.1 DND .....                          | 14        |
| <b>6 Advanced Function .....</b>         | <b>15</b> |

|           |                                                |           |
|-----------|------------------------------------------------|-----------|
| 6.1       | Intercom .....                                 | 15        |
| 6.1.1     | Initiate Intercom Call .....                   | 15        |
| 6.1.2     | Answer Intercom Call .....                     | 15        |
| 6.2       | Multicast .....                                | 16        |
| 6.3       | Hotspot .....                                  | 17        |
| 6.3.1     | Hotspot .....                                  | 17        |
| 6.4       | Message .....                                  | 18        |
| 6.4.1     | MWI .....                                      | 18        |
| <b>7</b>  | <b>Open Door .....</b>                         | <b>20</b> |
| 7.1       | Open the Door in Standby Mode .....            | 20        |
| 7.1.1     | Settings Of Door Opening in Standby Mode ..... | 20        |
| 7.2       | Open the door during a call .....              | 20        |
| 7.2.1     | Open the Door During a Call .....              | 20        |
| 7.2.2     | Settings Of Door Opening During a Call .....   | 20        |
| <b>8</b>  | <b>Call Logs .....</b>                         | <b>21</b> |
| <b>9</b>  | <b>Device Settings .....</b>                   | <b>22</b> |
| 9.1       | Time Plan .....                                | 22        |
| 9.2       | Action Plan .....                              | 22        |
| 9.3       | Maintenance .....                              | 23        |
| 9.3.1     | System Configurations .....                    | 23        |
| 9.3.2     | Upgrade .....                                  | 24        |
| 9.3.3     | Auto Provisioning .....                        | 26        |
| <b>10</b> | <b>Preferences .....</b>                       | <b>30</b> |
| 10.1      | Audio Settings .....                           | 30        |
| 10.1.1    | Ringtone Setting .....                         | 30        |
| 10.1.2    | Volume Setting .....                           | 30        |
| 10.1.3    | Alert Info Ring Setting .....                  | 30        |
| 10.1.4    | Tone Settings .....                            | 31        |
| 10.1.5    | Upload Ringtone .....                          | 32        |
| <b>11</b> | <b>Function Key Settings .....</b>             | <b>33</b> |
| 11.1      | Function Key .....                             | 33        |

|           |                                     |           |
|-----------|-------------------------------------|-----------|
| <b>12</b> | <b>Network Settings .....</b>       | <b>35</b> |
| 12.1      | Ethernet Connection .....           | 35        |
| 12.2      | Wireless Network (Only i501W) ..... | 35        |
| 12.3      | Network Mode .....                  | 37        |
| 12.4      | Network Server .....                | 37        |
| 12.5      | VPN .....                           | 37        |
| 12.6      | VLAN .....                          | 39        |
| <b>13</b> | <b>Security Settings .....</b>      | <b>41</b> |
| 13.1      | Short-circuit Input .....           | 41        |
| <b>14</b> | <b>Security .....</b>               | <b>43</b> |
| 14.1      | Web Password .....                  | 43        |
| 14.2      | Web Filter .....                    | 43        |
| 14.3      | Mutual Authentication .....         | 44        |
| 14.4      | Network Firewall .....              | 45        |
| <b>15</b> | <b>Trouble Shooting .....</b>       | <b>47</b> |
| 15.1      | Get Device System Information ..... | 47        |
| 15.2      | Reboot Device .....                 | 47        |
| 15.3      | Device Factory Reset .....          | 47        |
| 15.4      | Network Packets Capture .....       | 48        |
| 15.5      | Get Device Logs .....               | 48        |
| 15.6      | Common Fault Cases .....            | 49        |
| <b>16</b> | <b>Appendix .....</b>               | <b>50</b> |
| 16.1      | Appendix 1 - Icon .....             | 50        |
| 16.2      | Appendix 2 - Indicator .....        | 50        |

# 1 Safety Instructions

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## 1.1 Safety Instructions

Please read the following safety notices before installing or using this unit. They are crucial for the safe and reliable operation of the device.

- Please use the product-specified power adapter. If you need to use a power adapter provided by another manufacturer due to special circumstances, please confirm that the voltage and current of the provided adapter meet the specifications of this product, and it is recommended to use a product that has passed safety certification, otherwise it may cause fire or electric shock accidents. When using this product, do not damage the power cord, do not twist, stretch and strap it, and do not press it under heavy objects or sandwich between items, otherwise it may cause fire or electric shock caused by broken power cord.
- Before using the product, please confirm that the temperature and humidity of the environment in which it is located meet the working needs of the product. Do not attempt to open it. Non-expert handling of the device could damage it. Consult your authorized dealer for help, or else it may cause fire, electric shock and breakdown.
- Please refrain from inserting metal objects such as pins or wires into the vents or crevices. Doing so may cause electric shock accidents due to the passage of current through the metal objects. If foreign objects or similar metallic items fall inside the product, usage should be stopped promptly.
- Please do not discard or store the plastic bags used for packaging in places accessible to children to prevent them from covering their heads, leading to obstruction of the nose and mouth, which may cause suffocation.
- Do not install this phone in an ill-ventilated place. You are in a situation that could cause bodily injury. Before you work on any equipment, be aware of the hazards involved with electrical circuitry and be familiar with standard practices for preventing accidents.

## 2 Product Overview

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### 2.1 Overview

The Fanvil i501/i501W is a high-cost-performance screenless indoor station that supports 2 SIP lines and features 1 short-circuit input interface. It is mainly used in residential communities, office buildings, and hotels to receive calls from door stations, conduct intercom communication, and remotely unlock the door station. It provides users with reliable security and convenient visitor call services, creating a safe and comfortable living environment.

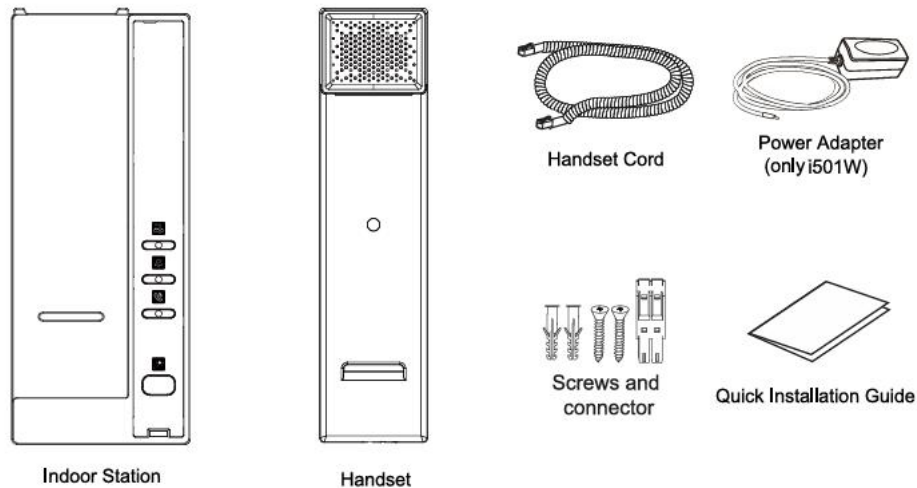
In order to help some interested users to better understand the details of the product, the user manual can be used as a reference guide for the use of i501/i501W. This document may not apply to the latest version of the software. If you have any questions, you can use the help prompt interface that comes with the i501/i501W device, or download and update your user manual from the official website.

### 2.2 Specification

| Parameter             | i501                                                | i501W |
|-----------------------|-----------------------------------------------------|-------|
| Material              | ABS                                                 |       |
| Wi-Fi                 | /                                                   | 2.4G  |
| Speaker               | 1 W                                                 |       |
| Interface             | 1 short-circuit input                               |       |
| Network               | RJ45 10M/100 Mbps self-adaptive                     |       |
| Operating Temperature | 0 °C to 50 °C (32 °F to 122 °F)                     |       |
| Dimension (L × W × H) | 238 mm × 81 mm × 43.5 mm<br>(9.37" × 3.19" × 1.71") |       |
| Wall-mounted          | Support                                             |       |

## 3 Installation Instructions

### 3.1 Packing List



**Note:** The i501W comes with a standard power adapter, while the i501 supports PoE for both network connectivity and power supply.

### 3.2 Installation

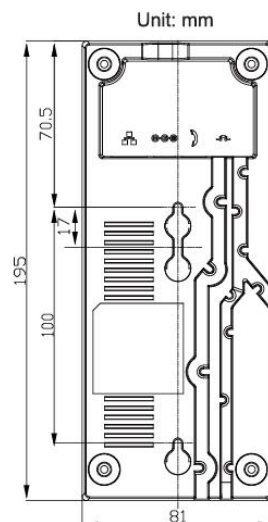
#### 3.2.1 Wall-mounted

- **Please install the indoor station according to the following steps:**

1. Drill two holes in the wall, ensuring that the vertical distance between the two holes is 100 mm.
2. Drive in screw anchors and screws in turn.

**Note:** 5 mm is reserved between the screw cap and the wall for easy installation of the phone base.

3. Connect the Ethernet cable, handset cord, and power cord.
4. Align the holes on the base with the screws made in step 2, and then slide down to complete the installation.



### 3.2.2 Wi-Fi Configuration

- **Method 1:**

1. Enable **[Share Wi-Fi]** on W611W: Go to **[Menu] >> [Advanced Settings] >> [Share Wi-Fi]**. Turn on the Wi-Fi sharing feature and configure the SSID and password for the office network. At this point, the W611W functions as an AP.
2. Power on the i501W.
3. After powering on, the W611W will push the office network's SSID and password to the i501W, enabling it to connect to the office network. When the Wi-Fi is connected, the power indicator will quickly flash red 5 times.

- **Method 2:**

1. The user creates a Wi-Fi network with the SSID **Wi-Fi-device-ssid** and password **i<0%aY8+**.
2. After powering on, the i501W device automatically connects to this Wi-Fi.
3. Upon successful connection, the power indicator will quickly flash red 5 times. The Wi-Fi information of the i501W can then be updated to connect to the office network through auto-provisioning.
4. The Wi-Fi module configuration file is as follows:

```
<<VOIP CONFIG FILE>>Version:2.0000000000

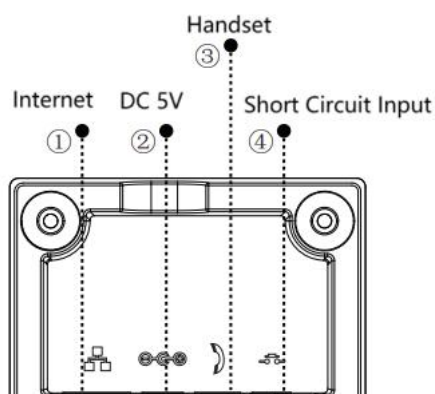
<NET CONFIG MODULE>

--WIFI List--      :
Item1 WIFI Name      :WiFi-test
Item1 WIFI SSID      :WiFi-test
Item1 Secure Mode    :1
Item1 WIFI Encryption :1
Item1 WIFI User Name  :
Item1 WIFI Password   :12345678

<<END OF FILE>>|
```

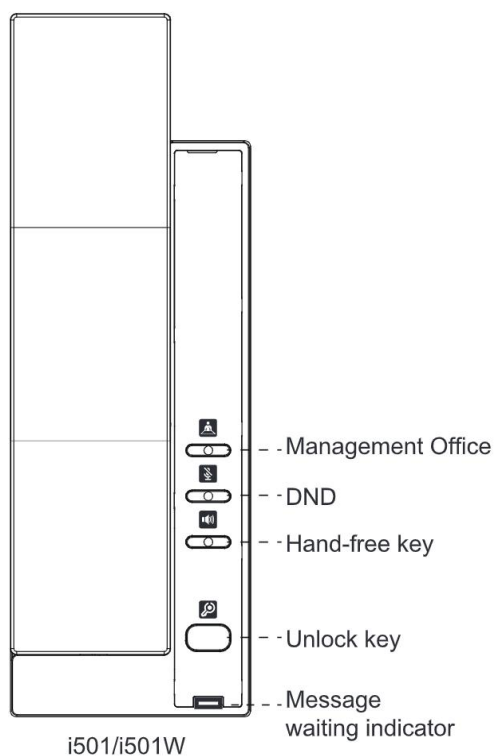
## 4 User Guide

### 4.1 Interface Description



| No. | Name                     | Description                                                            |
|-----|--------------------------|------------------------------------------------------------------------|
| ①   | Network Port             | Connect to a local area network (LAN) or the Internet.                 |
| ②   | Power Port               | Connect the power adapter.                                             |
| ③   | Handset Port             | Connect the device handset.                                            |
| ④   | Short-Circuit Input Port | Configurable short-circuit input function for door unlocking and more. |

## 4.2 Button Instruction



| Number | Name                      | Description                                                                                                 |
|--------|---------------------------|-------------------------------------------------------------------------------------------------------------|
| ①      | Management Office         | Customizable button. Set as speed dial by default. Pressing it will immediately call the management office. |
| ②      | DND                       | Customizable button. Set as Do Not Disturb by default. Press to reject incoming calls.                      |
| ③      | Hands-free key            | Press to enable or disable the hands-free speaker audio channel.                                            |
| ④      | Unlock key                | Customizable button. Set as door unlocking by default. Press to unlock the door.                            |
| ⑤      | Message waiting indicator | Power Indicator/Line Status Indicator.                                                                      |

## 4.3 Device Status

Users can view the device status via the web interface.

Log in to the web interface and navigate to **[System] >> [Information]** to check the device status:

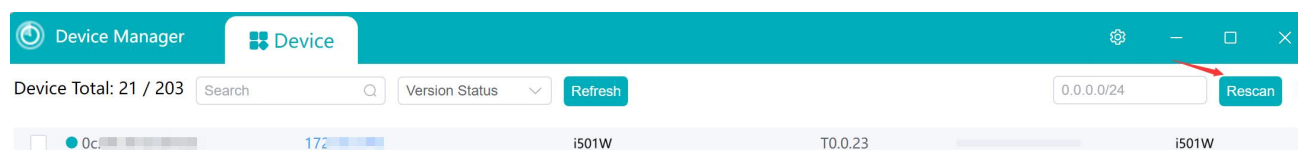
- **System Information:** Displays the device model name, hardware version, software version, uptime, memory information, system time, and other details.
- **Network:** Displays the device's network mode, MAC address, Wi-Fi IP, subnet mask, gateway, and related details.
- **Account:** Displays the registered account name/number and registration status.

## 4.4 Web Management

### 4.4.1 Device IP Address

- **Obtain IP address through Scanning Tool:**

1. Connect both the computer and the i501W to the same local area network (LAN), and then install the scanning tool (Device Manager) on the computer.
2. Open the tool, and click the scan button to obtain the IP address of the device within the local network.



- **Obtain IP address from the device:**

In standby mode, press and hold the first button , and the device will announce the IP address.

### 4.4.2 Web Interface

Ensure the computer and device are on the same local network. Open a browser and manually enter the device's IP address, or click the IP address directly in the scanning tool interface to redirect to the browser. Enter the correct username and password on the login page. The default username and password are both "admin."

## 4.5 Language Settings

Users can set the language through the web interface.

Log in to the device's web page and select the desired language from the dropdown menu in the upper

right corner . Select "Sync language to the phone" to ensure the language setting is applied to the device. After switching the web page language, the language used for IP announcements will also change accordingly.

## 4.6 Line Settings

The device supports two SIP accounts, allowing registration and seamless switching between them.

Users can register SIP accounts through the web interface.

Navigate to **[Line] >> [SIP] >> [Line]** on the web page to select the desired line for registration. Under **[Register Settings]**, configure the SIP parameters. Once the settings are complete, click **[Apply]** to successfully register the SIP account.

### Parameter description:

| Parameters              | Description                                                                                                                          |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| Line Status             | On this page, the current status of the line is displayed. To obtain the latest online status, users must manually refresh the page. |
| Enable                  | The status of this line is 'Enabled'                                                                                                 |
| Username                | Enter the username of the service account.                                                                                           |
| Authentication User     | Enter the authentication name of the service account.                                                                                |
| Display Name            | Enter the display name shown when a call request is sent.                                                                            |
| Authentication Password | Enter the authentication password of the service account.                                                                            |
| Server Address          | Enter the SIP server address.                                                                                                        |
| Server Port             | Enter the SIP server port.                                                                                                           |

## 5 Call Features

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### 5.1 Call

#### 5.1.1 Speed Dialing

You can press the speed dial key to make a call quickly.

Configure the speed dial key via the web interface:

Navigate to **[Function Key] >> [DSS Key]**, select **[Memory Key]** as the type, enter the SIP account or IP address, and select **[Speed Dial]** as the subtype. In standby mode, pressing the key will immediately dial the configured number.

### 5.2 Answer the Call

#### 5.2.1 Manual Answer

You can answer calls by pressing the hands-free key or picking up the handset.

#### 5.2.2 Auto Answer

You can enable the auto-answer feature through the web interface. Once enabled, the phone will automatically answer incoming calls. Auto-answer can be enabled for specific lines. When disabled, the phone will ring for incoming calls and will not automatically answer after a timeout.

##### Enable auto-answer for the line:

Log in to the device web page, navigate to **[Line] >> [SIP] >> [Basic Settings]**, select **[Enable Auto Answering]**, set the auto-answer time, and click apply.

## 5.3 End the Call

You can either return the handset or press the hands-free key to end the call.

- For handset calls, hang up the handset to end the call.
- For hands-free calls, press the hands-free key to end the call.

### 5.3.1 DND

You can enable the Do Not Disturb (DND) feature on the device to reject incoming calls. After configuring it on the device's web interface, you can enable it directly on the device.

#### **Set through the device web interface:**

On the web page of the device, navigate to **[Function Key] >> [Function Key]**, select **[Key Event]** as the type, and "Do-not-disturb" as the subtype. After configuring, click **[Apply]**.

## 6 Advanced Function

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### 6.1 Intercom

After enabling the intercom mode, the device can automatically answer incoming calls in intercom mode.

#### 6.1.1 Initiate Intercom Call

To use the intercom function, the function key needs to be set as a memory key - intercom button in advance. This can be configured through the device web interface.

**Configure the intercom function key through the web interface:**

Go to **[Function Key] >> [Function Key]**, select the key to configure, set the key type to **[Memory Key]**, the subtype to **[Intercom]**, and set the value, name, line, etc. Click 'Save' to save the settings.

#### 6.1.2 Answer Intercom Call

Once the intercom mode is enabled, the device will automatically answer incoming intercom calls.

You can configure intercom-related parameters through the device's web interface by navigating to **[Phone Settings] >> [Function Settings] >> [Intercom Settings]**.

#### Parameter description

| Parameters            | Description                                                                                                                                                   |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Enable Intercom       | When the intercom system is enabled, the device will automatically answer calls upon receiving the SIP header Call-Info command in the incoming call request. |
| Enable Intercom Mute  | Enable the mute function during an intercom mode call.                                                                                                        |
| Enable Intercom Tone  | Incoming intercom calls will trigger a notification tone.                                                                                                     |
| Enable Intercom Barge | Automatically answers intercom calls during a call. If the current call is in intercom mode, new intercom calls will be rejected.                             |

## 6.2 Multicast

The multicast feature allows for simple and convenient announcements to all multicast members by configuring the device to monitor a multicast address and play the RTP stream sent to that address.

Users can configure the multicast listening address and port through the web interface: **[Phone Settings] >> [MCAST]**.

### Parameter description

| Parameters           | Description                                                                                                                                                                                                           |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Priority             | Defines the priority in the current call, with 1 being the highest priority and 10 the lowest.                                                                                                                        |
| Enable Page Priority | Regardless of which of the two multicast groups is called in first, the device will receive the higher priority multicast first.                                                                                      |
| Enable Prio Chan     | When enabled, only calls with matching ports and channels can be connected. Channel 24 is the highest priority channel, above channels 1–23. A channel value of 0 indicates that the device does not use any channel. |
| Enable Emer Chan     | When enabled, channel 25 has the highest priority.                                                                                                                                                                    |
| Name                 | Set the multicast name.                                                                                                                                                                                               |
| Host: port           | Set the multicast server address and port.                                                                                                                                                                            |
| Channel              | 0-25 (24: Priority Channel, 25: Emergency Channel).                                                                                                                                                                   |

### Dynamic multicast:

Multicast configuration information can be delivered via SIP Notify signaling. Upon receiving the information, the device will configure it into the system to enable multicast listening or cancel multicast listening in the system.

### Multicast call:

- Go to Web Interface >> **[Function Key] >> [Function Key]**, select Multicast as the key type, set the multicast address, and choose the codec.
- After configuration, click **[Apply]**.
- On the receiving phone's Web Interface >> **[Phone Settings] >> [MCAST]**, configure the multicast

name, host, and port.

- Press the configured DSS Key for multicast.
- The receiving phone will accept the multicast call and automatically play the multicast audio.

## 6.3 Hotspot

### 6.3.1 Hotspot

SIP hotspot is a simple utility. Its configuration is simple, which can realize the function of group vibration and expand the quantity of sip account.

Take one device A as the SIP hotspot and the other devices (B, C) as the SIP hotspot client. When someone calls device A, devices A, B, and C will ring, and if any of them answer, the other devices will stop ringing and not be able to answer at the same time. When A B or C device is called out, it is called out with A SIP number registered with device A.

Users can set up a SIP Hotspot on the web page of **[Line] >> [SIP Hotspot]**.

#### Parameter description

| Parameters      | Description                                                                                                                                                                                                                                                                                                                                                                     |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Enable Hotspot  | Enable or disable hotspot.                                                                                                                                                                                                                                                                                                                                                      |
| Mode            | Selecting 'SIP Hotspot' indicates that this device exists as a SIP Hotspot.<br>Selecting 'Client' indicates that this device exists as a client.                                                                                                                                                                                                                                |
| Monitor Type    | The monitoring type can be set as broadcast or multicast. If you want to restrict broadcast packets in the network, you can select multicast. The monitoring type on the server side and the client side must be the same, for example, when the device on the client side is selected for multicast, the device on the SIP hotspot server side must also be set for multicast. |
| Monitor Address | When the monitoring type is set to multicast, enter the multicast communication address used by both the client and the server. If Broadcast is selected, this address does not need to be configured. The system will automatically use the broadcast                                                                                                                          |

|               |                                                                                                                                              |
|---------------|----------------------------------------------------------------------------------------------------------------------------------------------|
|               | address of the device's WAN port for communication.                                                                                          |
| Local Port    | Fill in a custom hotspot communication port. The server and client ports need to be consistent.                                              |
| Name          | Fill in the name of the SIP hotspot. This configuration is used to identify different hotspots on the network to avoid connection conflicts. |
| Line Settings | Sets whether to enable the SIP hotspot function on the corresponding SIP line.                                                               |

### Server settings:

- Go to the device's web page: **[Line] >> [SIP Hotspot] >> [SIP Hotspot Settings]**. Enable hotspot settings as "Enabled", set the mode to "Hotspot", and assign a unique name that does not match any other hotspot server name.
- After completing the settings, click **[Apply]**.

### Client settings:

As a SIP Hotspot client, you only need to set the hotspot mode to "Client," and the device will configure itself automatically. The other option settings are the same as those of the Hotspot server.

### Calling internal extension:

The hotspot server and client can dial each other through the extension number. For example, extension 1 dials extension 0.

## 6.4 Message

### 6.4.1 MWI

If the server on this line supports voicemail functionality, the caller can leave a voicemail on the server when the user does not answer. To listen to voicemails, the user must first configure the voicemail number. After configuring the voicemail number, the user can retrieve voicemails from the default line.

Users can configure the power indicator's display status for received voicemails via the web interface:

**[Phone Settings] >> [Features] >> [Power LED]**.

### **Listen to voicemail:**

To listen to voicemail, you must enable voicemail for that line and fill in the voicemail retrieval number.

Users can enable and fill in this information on the web page **[Line] >> [SIP] >> [Basic Settings] >> [Voice Message Number]**.

Users can configure the voicemail function key on the web page **[Function Key] >> [Function Key]**.

Select **[Key Event]** as the type and **[Voice Mail]** as the subtype. After configuration, users can press the voicemail function key to call the voicemail number, follow the prompts to enter the PIN code, and listen to their voicemail.

## 7 Open Door

---

The indoor unit can perform door unlocking either in standby mode or during a call.

### 7.1 Open the Door in Standby Mode

In standby mode, you can press the  button on the device to open the door.

#### 7.1.1 Settings Of Door Opening in Standby Mode

The user can configure the settings through the web interface:

Navigate to **[Function Key] >> [Function Key]**, set the type to URL, enter the name and value, and click **[Apply]** to save.

### 7.2 Open the door during a call

During a call, the user can press the **[Open Door]** button  on the indoor station to open the door. Once pressed, the door connected to the intercom system will unlock while the call is active.

#### 7.2.1 Open the Door During a Call

Steps to unlock the door during a call:

- Establish a call with the door phone.
- During the call, press the  button to unlock the door.

#### 7.2.2 Settings Of Door Opening During a Call

Users can configure the **Open Door** button via the web interface:

Navigate to **[Function Key] >> [Function Key]**, set the type to DTMF, enter the name and value, and click **[Apply]** to save.

## 8 Call Logs

---

### Web interface for viewing call logs:

- **View:** The system can store up to 1000 call records. You can view the call logs by navigating to **[Call Logs] >> [Call Information]**, including records of all incoming, outgoing, forwarded, and missed calls.
- **Delete:** You can delete call records by selecting the desired records or selecting all, and then click the **[Delete]** button to remove them.
- **Export:** You can select the desired call records or select all, and then click the **[Export]** button to export the records.

## 9 Device Settings

### 9.1 Time Plan

The time plan feature allows users to set specific actions to occur at either a particular time or within a period. A time point triggers an action at a specific moment, while a period triggers an action during a specified duration.

You can configure the schedule by navigating to **[Phone Settings] >> [Time Plan]** on the web interface. You can set the name, action type, repeat type, and the effective date and time, and then click “Add.” Once configured, the device will perform the corresponding action at the scheduled time.

#### Parameter description:

| Parameters        | Description                                                                                                                                                                                                                                                                 |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name              | Set a name for the time plan                                                                                                                                                                                                                                                |
| Type              | Scheduled reboot, upgrade, call forwarding and configuration update                                                                                                                                                                                                         |
| Repetition Period | No repetition: Perform the action once within the configured time range.<br>Daily: Perform the action at the same time range every day.<br>Weekly: Perform the action on the specified days of the week.<br>Monthly: Perform the action on the specified days of the month. |
| Start Date        | The date when it takes effect.                                                                                                                                                                                                                                              |
| End Date          | The date when it ends.                                                                                                                                                                                                                                                      |
| Effective Time    | Set the time period for execution.                                                                                                                                                                                                                                          |



#### Note:

If the set time period is fully occupied with calls, the reboot or upgrade operation will be skipped.

### 9.2 Action Plan

A technology defined and designed by Fanvil for remote control and behavior linkage between Fanvil terminal devices and other devices. When an event occurs on a Fanvil terminal, the terminal can execute an action based on a predefined plan rule.

### Setting method:

On the web page, navigate to **[Line] >> [Action Plan]** to configure action plan rules. After the setting is complete, the configuration is assigned to the corresponding device and updated, and the corresponding terminal will perform the corresponding action when the event occurs.

### Parameter description:

| Parameters | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Action     | <p>When the rule is triggered, the following actions can be performed:</p> <p><b>Multicast:</b> When the trigger rule is activated, the device converts incoming calls or multicast to multicast and sends them to the configured multicast address and port.</p> <p><b>Mute:</b> The device will automatically mute when the rule is triggered.</p> <p><b>Answer:</b> The device will automatically answer the incoming call when the rule is triggered.</p> |
| Number     | Each action plan corresponds to a call number and supports the same number expression as the Dial Plan.                                                                                                                                                                                                                                                                                                                                                       |
| Type       | <b>Connected:</b> Triggered and executed after the call is established.                                                                                                                                                                                                                                                                                                                                                                                       |
| Line       | The selected rule corresponds to the matching SIP line.                                                                                                                                                                                                                                                                                                                                                                                                       |
| Direction  | <p>The behavior handling method corresponding to the configured rule:</p> <p><b>Both:</b> Triggered for both incoming and outgoing calls.</p> <p><b>Outgoing Call:</b> Triggered on outgoing calls.</p> <p><b>Incoming Call:</b> Triggered on incoming calls.</p>                                                                                                                                                                                             |
| Username   | RTSP Authentication Username                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Password   | RTSP Authentication Password                                                                                                                                                                                                                                                                                                                                                                                                                                  |

## 9.3 Maintenance

### 9.3.1 System Configurations

On this page, users with administrator privileges can view, export, or import the phone configuration, or restore the phone to factory settings.

## ■ Export Configurations

Right click to select **target save as** to download the device's configuration file in the ".txt" format (note: configuration export requires administrator privileges).

## ■ Import Configurations

Import the configuration file of settings.

## ■ Clear Configuration

Clear configurations related to SIP, auto-provisioning, shortcuts, etc.

## ■ Clear User Data

Clear configurations contact, call logs, blocklist, and other user data.

## ● Clear ETC

Clear HTTPS and VPN certificates.

## ● Factory Reset

All device data will be erased, including configurations and database tables.

## 9.3.2 Upgrade

### 9.3.2.1 Web Upgrade

Upgrade Device Software Version: Upgrade to the new version via the web. Once the upgrade is complete, the device will automatically restart and update to the new version.

Go to **[System] >> [Upgrade]**, select a file, choose the version, and then click **"Upload"** to proceed.

### 9.3.2.2 Online Upgrade

Upgrade the device online.

Configuration for online upgrade:

- On the Web page, navigate to **[System] >> [Upgrade] >> [Upgrade Server]**, configure the upgrade server and the update cycle, etc. Place the .txt upgrade file and software on the corresponding server. When the device detects that the software version number on the server is different from its own software version number, it will prompt for an upgrade.

Parameter description:

| Parameters     | Description |
|----------------|-------------|
| Upgrade Server |             |

|                                     |                                                                                                                                                                                                |
|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Enable Auto Upgrade                 | Select the box, and the device can detect the txt version information and available versions in the HTTP server.                                                                               |
| Upgrade Server Address1             | Fill in the available primary upgrade server (HTTP server) address.                                                                                                                            |
| Upgrade Server Address2             | Fill in the address of the available backup upgrade server (HTTP server). When the primary server is unavailable, request the backup server.                                                   |
| Upgrade Interval                    | The web page starts to automatically detect the upgrade and configure the interval. If the server has a new version, the device will prompt for the upgrade at the interval.                   |
| <b>Software Version Information</b> |                                                                                                                                                                                                |
| Current Software Version            | Displays the current device software version number.                                                                                                                                           |
| Server Software Version             | Displays the server software version number.                                                                                                                                                   |
| [Upgrade] Button                    | When there are a corresponding TXT file and version on the server side, the <b>[Upgrade]</b> button changes from grayed out to available. Click <b>[Upgrade]</b> to choose whether to upgrade. |
| New Version Description Information | When the server has the corresponding TXT file and version, the and version information in txt will be displayed under the new version description information.                                |

### Instructions:

- After completing the configuration on the Manager web page, place the version information TXT file into the configured HTTP server. The naming format for the version information TXT file should be: vendor\_model\_hvv1\_0.txt
- The TXT file must be in UTF-8 format, with the following content format:

```
Version=2.12.0  #Software Version Number
Firmware=http://ip:port/xxx.z  #URL of the Software Version File
BuildTime=2023.09.11 20:00
Info=TXT

Release Note:
Xxxxx
Xxxxx
Xxxxx
```

- After the update interval has elapsed, if the server has available TXT files and version files, the device UI will indicate that a new version file is available. Users can click to upgrade to the new version; the web page will show an enabled upgrade button along with the Release Note from the TXT file, allowing users to click and upgrade the version.

### 9.3.3 Auto Provisioning

On the web page, navigate to **[System] >> [Auto Provision]**.

The device supports 4 methods to obtain auto-provisioning parameters, including SIP Plug and Play, DHCP options, static provision server, and TR069. If all of the 4 methods are enabled, the priority from high to low is as below:

#### **PNP>DHCP>TR069> Static Provisioning**

Supported protocol: FTP, TFTP, HTTP, and HTTPS.

| Parameters            | Description                                                                                                                                                                              |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Basic Settings</b> |                                                                                                                                                                                          |
| CPE Serial Number     | Display the device serial number (SN).                                                                                                                                                   |
| Authentication Name   | Configure the username for the FTP server. TFTP does not require a username. If FTP is used for downloading and this field is left blank, the default FTP user “anonymous” will be used. |

|                                           |                                                                                                                                                                                                                                                             |
|-------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Authentication Password                   | Set the password for the FTP server user.                                                                                                                                                                                                                   |
| Configuration File Encryption Key         | If the device configuration file is encrypted, user should add the encryption key here.                                                                                                                                                                     |
| General Configuration File Encryption Key | If the common configuration file is encrypted, user should add the encryption key here.                                                                                                                                                                     |
| Download Fail Check Times                 | The default value is 1. If the download of the configuration fails, it will be downloaded once again.                                                                                                                                                       |
| Save Auto Provision Information           | Configure whether to save the automatic update information.                                                                                                                                                                                                 |
| Download CommonConfig enabled             | Whether phone will download the common configuration file.                                                                                                                                                                                                  |
| Enable Server Digest                      | If the terminal matches the configuration file content using Digest authentication, the terminal will download updates whenever the configuration on the server is modified or when the terminal's configuration does not match the server's configuration. |
| Provision Config Priority                 | Set the priority between auto-provisioning and manual provisioning                                                                                                                                                                                          |
| <b>DHCP Option</b>                        |                                                                                                                                                                                                                                                             |
| Option Value                              | Configure DHCP option, which supports DHCP custom option, DHCP option 66, and DHCP option 43. You can select any one of them to get auto-provisioning parameters. DHCP option is disabled by default.                                                       |
| Custom Option Value                       | Custom Option value is allowed from 128 to 254, and the type must be same as that defined by DHCP server.                                                                                                                                                   |
| Enable DHCP Option 120                    | Set SIP server address via DHCP option 120.                                                                                                                                                                                                                 |
| <b>DHCPv6 Option</b>                      |                                                                                                                                                                                                                                                             |
| Option Value                              | Configure DHCP option, which supports DHCP custom option, DHCP option 66, and DHCP option 43. You can select any one of them to get auto-provisioning parameters. The                                                                                       |

|                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                   | default is DHCP option 66.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Custom Option Value               | Custom Option value is allowed from 128 to 254, and the type must be same as that defined by DHCP server.                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>SIP Plug and Play</b>          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Enable SIP PnP                    | If PnP is enabled, phone will send a SIP SUBSCRIBE message with broadcast method. Any server can support the feature will respond and send a Notify with URL to phone. Phone could get the configuration file with the URL.                                                                                                                                                                                                                                                                                                                                          |
| Server Address                    | Broadcast address                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Server Port                       | PnP port.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Update Interval                   | Configuration file update interval time. As default it is 1, means phone will check the update every 1 hour.                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Transport Protocol                | PnP protocol, TCP or UDP.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Static Provisioning Server</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Server Address                    | Configure the address of the FTP server to be set up. The server address can be in the form of an IP address, such as 192.168.1.1, or a domain name, such as ftp.domain.com. The system also supports the configuration of subdirectories for the server. For example, the server address can be set in the format 192.168.1.1/ftp/Config/ or ftp.domain.com/ftp/config, meaning that the server address is 192.168.1.1 or ftp.domain.com, and the file storage path is /ftp/Config/. The presence or absence of a '/' at the end of the subdirectory is acceptable. |
| Configuration File Name           | Configure the name of the configuration file to be upgraded. Generally, when using the auto-upgrade function, this field is left blank. In this case, the device will use its own MAC address as the file name to retrieve the file from the server.                                                                                                                                                                                                                                                                                                                 |
| Protocol Type                     | Supports FTP, TFTP, HTTP and HTTPS.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Update Interval                   | Configure the interval for upgrades, in hours.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

|                           |                                                                                                                                                                                                        |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Update Mode               | Auto-provisioning Mode:<br>1. Disabled.<br>2. Update after reboot.<br>3. Update at time interval.                                                                                                      |
| <b>Update Now</b>         |                                                                                                                                                                                                        |
| <b>TR069</b>              |                                                                                                                                                                                                        |
| Enable TR069              | Select to enable TR069.                                                                                                                                                                                |
| ACS Server Type           | Select the type of ACS server. Currently supports telecom and general.                                                                                                                                 |
| ACS Server URL            | ACS server address                                                                                                                                                                                     |
| ACS User                  | ACS server username                                                                                                                                                                                    |
| ACS Password              | ACS server password                                                                                                                                                                                    |
| Enable TR069 Warning Tone | Select to enable the tone.                                                                                                                                                                             |
| TLS Version               | If auto-login is selected, the device will not prompt for a username and password upon reboot. Instead, it will use the previously entered correct username and password to connect to the ACS server. |
| STUN Server Address       | Enter STUN address                                                                                                                                                                                     |
| STUN Enable               | Enable STUN                                                                                                                                                                                            |

## 10 Preferences

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### 10.1 Audio Settings

#### 10.1.1 Ringtone Setting

##### Set ringtone on the web interface:

You can set the device ringtone type through the web page **[Phone Settings] >> [Media Settings] >> [Media Settings]**. After making the settings, click **[Apply]** to save.

#### 10.1.2 Volume Setting

The user can set the device volume through the web page.

##### Web interface volume setting:

The user can set the device volume through the webpage **[Phone Settings] >> [Media Settings] >> [Media Settings]**. After making the settings, click **[Apply]** to save.

##### Volume parameters:

- Handset Volume: Set the handset receiver volume.
- Speakerphone Ring Volume: Set the ringtone volume in hands-free mode.
- Handset SignalTone Volume: Set the volume for tones such as incoming and outgoing call signals.
- Hands-free SignalTone Volume: Set the hands-free call volume.

#### 10.1.3 Alert Info Ring Setting

##### Alert-Info:

- Access the webpage **[Phone Settings] >> [Media Settings] >> [Alert Info Ring Settings]** to configure Alert Info rules.

##### Parameter description

| Parameters                                | Description                                                                                                                                                                                                                |
|-------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Values from Alert Info 1 to Alert Info 10 | Set the values for specific ringtone types for incoming calls. When the device receives an Invite message with an Alert Info field value that matches the set value, the device will play the corresponding ringtone type. |
| Line                                      | Set whether to enable specific ringtones for incoming calls on the respective SIP line.                                                                                                                                    |
| Ring Type                                 | Type1-Type7, WirelessRing                                                                                                                                                                                                  |

### 10.1.4 Tone Settings

Users can configure call tones, conversation tones, ringback tones, and hang-up reminder tones via the webpage **[Phone Settings] >> [Features] >> [Tone Settings]**.

| Parameters               | Description                                                                                                                                                                                                                                                                                                                     |
|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Enable Holding Tone      | There will be an alert tone when the user presses the hold call button during a call. This feature is enabled by default on the device.                                                                                                                                                                                         |
| Enable Call Waiting Tone | There will be an alert tone when a second incoming call is received during an ongoing call. This feature is enabled by default on the device.                                                                                                                                                                                   |
| Play Dialing DTMF Tone   | When the user presses the device's numeric keys during a call, DTMF prompt tones will be heard.                                                                                                                                                                                                                                 |
| Play Talking DTMF Tone   | When the user presses the device's numeric keys during a call, DTMF prompt tones will be heard. This feature is enabled by default.                                                                                                                                                                                             |
| Play Boot Up Tone        | The tone played when the device powers on and starts up.                                                                                                                                                                                                                                                                        |
| Auto Answer Tone         | <p><b>Enabled:</b> When there is an incoming SIP or IP direct dialing call, if automatic answering is enabled, there will be a prompt tone during the automatic answering.</p> <p><b>Disabled:</b> When there is an incoming SIP or IP direct dialing call, if automatic answering is enabled, there will be no prompt tone</p> |

|                       |                                                                                                                                                                                                                                                                                                                                            |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                       | during the automatic answering.                                                                                                                                                                                                                                                                                                            |
| Ring Back Tone        | <p><b>Closed:</b> Disables the ringback tone for calls.</p> <p><b>Default:</b> Uses the default ringback tone.</p> <p>Supports custom ringback tone, which can be set by upgrading ringtone files under <b>[System] &gt;&gt; [Upgrade] &gt;&gt; [Ring Upgrade]</b>, and then selecting the custom option for the ringback tone.</p>        |
| Hang-up Reminder Tone | <p><b>Closed:</b> Disables the call waiting tone.</p> <p><b>Default:</b> Uses the default call waiting tone.</p> <p>Supports custom call waiting tones, which can be set by upgrading ringtone files under <b>[System] &gt;&gt; [Upgrade] &gt;&gt; [Ring Upgrade]</b>, and then selecting the custom option for the call waiting tone.</p> |

### 10.1.5 Upload Ringtone

You can upgrade the ringtone by accessing the device webpage >> **[System] >> [Upgrade] >> [Ring Upgrade]**, selecting the ringtone file, and then click **[Upload]**.

#### Ringtone file format:

- Supports WAV
- Maximum file size: 1 MB per file

## 11 Function Key Settings

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### 11.1 Function Key

#### Function key setting

You can configure function keys through the web management interface.

#### Web interface configuration of function keys:

In the webpage **[Function Key]**, configure the DSSKEY keys. The key types can be memory keys, function keys, DTMF, etc. Assign the configuration to the corresponding device and update it.

#### Function key usage:

Function keys support the following types:

- **Memory key**
  - Voice Mail: In standby mode, press the key to play the voicemail.
  - Speed Dial: In standby mode, press the key to quickly dial a preset number.
  - Intercom: Make a call to the preset number via intercom. If the other party is set to receive intercom calls, they can automatically answer the intercom call.
- **Key event**
  - Voice Mail: In standby mode, press the key to play the voicemail.
  - Do-not-disturb: Enter the Do Not Disturb settings interface to enable/disable the Do Not Disturb feature.
  - Call hold: Hold/Resume current call.
  - Intercom: Open the dial pad and make a call to the entered number via intercom.
  - Prefix: Configure the number prefix. When dialing, press this key to automatically add the prefix number.
  - End: Press the key to end the current call.
  - Disposition: This feature relies on the Broadsoft server and is a method of recording call information in a call center.
  - Hands-free: Enter hands-free dialing or switch to hands-free mode.
  - Answer: Press the key to answer the incoming call.
  - Private Hold: This feature is related to the Broadsoft server. During a call, if you don't want others to retrieve the call, you can use the Private Hold key.

- DTMF: Press this key during a call to send the configured values in sequence to the remote end.
- URL: Access the configured remote URL address, where you can set the XML phonebook address and more.
- Action URL: Users can use a specific URL to perform basic call operations and configure multicast listening by setting the multicast address. When RTP is available, pressing the key allows listening to the multicast.
- XML Browser: Place the configured XML file on an HTTP/HTTPS server. Press this key to retrieve the XML content and perform the corresponding action based on the content.
- MCAST Listening: Configure the multicast listening function key on the function key page. After configuring the multicast address and port, save the settings. In standby mode, press the configured function key to listen to the multicast when the key is pressed.

## 12 Network Settings

---

### 12.1 Ethernet Connection

Users can configure the wired network through the device's web interface. The device defaults to IPv4 mode, and the [Network Mode](#) can be modified as needed.

#### Configure the wired network through the web interface:

Users can navigate to **[Network] >> [Basic] >> [IPv4 Settings]** on the web interface to configure the network type. Both Static IP and DHCP options are supported.

#### To set a static IP:

When the network is set to use a static IP, the device allows you to manually configure the IP address.

- IP address: Enter the IP address you wish to set.
- Subnet mask: Set the subnet mask.
- Default gateway: Used for network interconnection, fill in as needed.
- Primary DNS Server: The IP address of the primary DNS server. The default is 8.8.8.8, provided for free by Google.
- Secondary DNS Server: The IP address of the secondary DNS server.

### 12.2 Wireless Network (Only i501W)

The device supports wireless network. There are two ways to connect to Wi-Fi:

- Go to the device web page **[Network] >> [Wi-Fi Settings]** to configure the wireless network connection.
- Use the built-in SSID and password, the same as W611W, and enable the **[Share Wi-Fi]** feature on W611W. Alternatively, change the AP's SSID and password to match i501W. After powering on, the device will automatically connect to the wireless network, provided it has been restored to factory settings and has no previously connected Wi-Fi networks.

#### To connect via the web interface:

- Log in to the device web page, go to **[Network] >> [Wi-Fi Settings]**, and enable Wi-Fi.
- After adding Wi-Fi information, click **[Add]**.

- You will then see the connected Wi-Fi in the wireless network list.

#### To connect via another device (built-in default Wi-Fi SSID):

##### ● Method 1:

4. Enable **[Share Wi-Fi]** on W611W: Go to Menu >> Advanced Settings >> 7. Share Wi-Fi. Turn on the Wi-Fi sharing feature and configure the SSID and password for the office network. At this point, the W611W functions as an AP.
5. Power on the i501W device.
6. After powering on, the W611W will push the office network's SSID and password to the i501W, enabling it to connect to the office network. When the Wi-Fi connection is successful, the power indicator will flash red five times quickly.

##### ● Method 2:

5. The user creates a Wi-Fi network with the SSID Wi-Fi-device-ssid and password i<0%aY8+.
6. After powering on, the i501W device automatically connects to this Wi-Fi.
7. Upon successful connection, the power indicator will flash red quickly five times. The Wi-Fi information of the i501W can then be updated to connect to the office network using automatic deployment.
8. The Wi-Fi module configuration file is as follows:

```
<<VOIP CONFIG FILE>>Version:2.0000000000

<NET CONFIG MODULE>

--WIFI List--    :
Item1 WIFI Name   :WiFi-test
Item1 WIFI SSID   :WiFi-test
Item1 Secure Mode :1
Item1 WIFI Encryption :1
Item1 WIFI User Name :
Item1 WIFI Password :12345678

<<END OF FILE>>|
```

## 12.3 Network Mode

- There are three IP Mode options available: IPv4, IPv6, and IPv4 & IPv6. Users can configure the wired network mode via the device's web interface or device menu. Each network mode supports setting the network type and choosing between a static IP or DHCP.

Users can also set the network mode via the web interface by going to **[Network] >> [Basic] >> [Network Type]**. Supported Mode: IPv4, IPv6, and IPv4 & IPv6.

## 12.4 Network Server

### Setting method:

- Log in to the device web page **[Network] >> [Service Ports] >> [Server Port Settings]** to configure the web server type, which allows configuration of web login protocol type, login ports, and other parameters.

### Configuration details:

- Web Server Type: Changes take effect after a restart. You can choose the web login to be either HTTP or HTTPS.
- Web Login Timeout: Default is 15 minutes. After this time, the login session will automatically expire, requiring a new login.
- Web Auto Login: After timeout, re-login to the web page does not require entering username and password; it will automatically log in.
- HTTP Port: Default is 80. For enhanced system security, you can set a port other than 80, such as 8080. Web login would be: HTTP://IP:8080
- HTTPS Port: Default is 443, used in the same way as the HTTP port.
- RTP Port Range Start: The value range is 1025-65530, and the RTP port value starts from the configured initial value; with each call, the voice and video port values increase by 2.
- RTP Port Quantity: The number of calls.

## 12.5 VPN

### Feature description:

- Virtual Private Network (VPN) is a technology that allows devices to create a connection to a server

and become part of the server's network. The network transmission of the indoor unit can be connected through the VPN server routing function.

- For some users, particularly corporate users, it may be necessary to establish a VPN connection before activating line registration. The device supports two VPN modes: Layer 2 Tunneling Protocol (L2TP) and OpenVPN.
- Users must enable (or disable) and configure the VPN by logging into the web page.

#### **L2TP setup method:**

- Visit the Manager webpage >> **[Network]** >> **[VPN]**, enable VPN mode, select "L2TP" as the type, and then fill in the L2TP server address, L2TP authentication username, and authentication password. Click "Apply" and the phone will attempt to connect to the L2TP server.
- When establishing a VPN connection, the VPN IP address will be displayed in the VPN status area. There may be delays in establishing the connection. Users need to refresh the page to update the status timely.
- Once the VPN configuration is successful, the indoor unit will automatically attempt to connect to the VPN each time unless disabled. Sometimes, if the VPN connection is not established promptly, users can try restarting the device and check if the VPN has been successfully established after the restart.



#### **Note:**

The device only supports basic unencrypted authentication and data transmission. If users require data encryption, please use the OpenVPN feature instead.

#### **To set up an OpenVPN connection, follow these steps:**

- Obtain authentication and configuration files from your OpenVPN service provider. The files required include:
  - OpenVPN Configuration file: client.ovpn
  - CA Root Certification: ca.crt
  - Client Certification: client.crt
  - Client Key: client.key
- Upload the files listed above to the Manager's webpage under **[Network]** >> **[VPN]**, and select the OpenVPN files.
- Go to the device webpage, navigate to **[Network]** >> **[VPN]**, enable VPN mode, choose

“OpenVPN” as the type, and submit the information to activate the OpenVPN feature.

- Like the L2TP connection, the system will attempt to establish a connection upon every system restart until manually disabled by the user.

## 12.6 VLAN

VLAN (Virtual Local Area Network) technology allows a LAN to be divided into multiple logical LANs—VLANs, each VLAN being a broadcast domain where broadcast messages are confined within a single VLAN.

Support is provided for acquiring VLAN ID via LLDP, CDP, DHCP, and manual settings.

### LLDP (Link Layer Discovery Protocol)

- Access the device web page >> **[Network]** >> **[Advanced]** >> **[Link Layer Discovery Protocol]**, configure LLDP settings:
  - Enable LLDP: Activate the LLDP protocol function.
  - Packet Interval: Set the send interval for LLDP discovery packets.
  - Enable Learning Function: Enable LLDP to autonomously learn VLAN configuration settings.

### CDP (Cisco Discovery Protocol)

- Access the device web page >> **[Network]** >> **[Advanced]** >> **[Cisco Discovery Protocol]**, configure CDP settings:
  - Enable CDP: Activate the CDP protocol function
  - Packet Interval: Set the send interval for CDP discovery packets

### DHCP VLAN

- Access the device web page >> **[Network]** >> **[Advanced]** >> DHCP VLAN Settings, configure DHCP VLAN parameters:
  - Selection of Option Value: Enable or disable acquiring the VLAN ID through DHCP OPTION.
  - DHCP Option VLAN: Set the OPTION value, 128-254, to obtain the VLAN value via DHCP.

### Manual VLAN setup

- WAN VLAN Settings: Access the device web page >> **[Network]** >> **[Advanced]** >> **[WAN VLAN]**

**Settings]**, manually configure the WAN VLAN ID:

- Enable VLAN: Activate the manual setting of the WAN VLAN function.
- WAN VLAN ID: Set the WAN VLAN ID.

## 13 Security Settings

### 13.1 Short-circuit Input

Short-circuit input detection interface: Used for connecting devices such as switches, infrared probes, door sensors, and vibration sensors;

When the short-circuit input is triggered, it can send a text message to a specified server address, or make a call to a designated number, and play an alarm ringtone locally. This facilitates quick response by management personnel.

Users can configure security information on this interface. When the device is triggered according to the alarm information, it will send an alarm message to the server and play the preset alarm ringtone.

The screenshot shows a web interface for security settings. On the left is a red sidebar with a menu: System, Network, Line, Phone settings, Web Dial, Call logs, Function Key, Security (highlighted), and Device Log. Below this is a 'Security Settings' link. The main area is light blue and contains two sections. The 'Basic Settings' section has three fields: 'Ringtone Duration' (set to 5, range 1~600s), 'Input & Tamper Server Address' (empty), and 'Message' (set to 'Alarm\_Info:Description=\$model;SIP User=\$active\_user;Mac=\$mac;IP=\$ip;port=\$trigge'). An 'Apply' button is below. The 'Input Settings >>' section has a checked 'Input1' checkbox. It includes 'Triggered By' (set to 'Low Level Trigger(Close Trigger)'), 'Triggered Action' (with 'Send SMS' unchecked and 'Dss Key' set to 'None'), 'Input Duration' (empty, range 0.00~3600s), and 'Triggered Ringtone' (set to 'NONE'). An 'Apply' button is at the bottom.

| Parameters                    | Description                                                                                                                                                                                                                                                                   |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Basic Settings</b>         |                                                                                                                                                                                                                                                                               |
| Ringtone Duration             | When the input interface triggers an alarm, if the alarm sound is enabled, specify the duration of the alarm sound.                                                                                                                                                           |
| Input & Tamper Server Address | Configure the remote response server address, including the remote response server address and the triggered alarm server address.<br>When the input interface or tamper is triggered, it will send a short message to the server. The server address supports IP:Port or SIP |

|                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                       | number.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Information           | <p>The alarm information to be sent:</p> <p>The \$ parameter can be replaced with actual values. The supported parameters are as follows:</p> <p>\$model: Replaced with the actual model.</p> <p>\$active_user: Replaced with the actual SIP username.</p> <p>\$mac: Replaced with the device's MAC address.</p> <p>\$ip: Replaced with the device's IP address.</p> <p>\$trigger: Replaced with the triggered interface, such as input1, input2, etc.</p> <p>\$triggerName: Replaced with the name of the trigger.</p> |
| <b>Input settings</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Input 1               | Enable or disable Input 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Triggered by          | When choosing the low-level trigger (closed trigger), detect the input port (low level) closed trigger.                                                                                                                                                                                                                                                                                                                                                                                                                 |
|                       | When choosing the high-level trigger (disconnect trigger), detect the input port (high level) disconnected trigger.                                                                                                                                                                                                                                                                                                                                                                                                     |
| Input Duration        | Set the Input change duration time, the default is 0 seconds.                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Triggered Behavior    | Enable or disable the input port from sending messages to the server.                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| DSS Key               | Select the DSSKey to configure.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Triggered Ringtone    | Supports ringtone selection: None, no ringtone triggered.                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

## 14 Security

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### 14.1 Web Password

#### Modify the password through the user configuration interface:

Users can customize and change the web login password by accessing the webpage at **[System] >> [Account] >> [User Management]** and selecting the account to modify.

#### Modify the password by logging into the user interface:

Users can customize and change the web login password. After logging into the webpage, click on

**Default password is in use. Please change** in the upper right corner to modify it.

#### Password change settings:

- Current Password: Enter the web login password.
- New Password: Enter the new login password.
- Confirm Password: Re-enter the new login password to confirm.



#### Note:

After changing the password, you will be automatically logged out and must re-enter the new password to log in again.

### 14.2 Web Filter

Users can configure to allow only machines from a specific IP subnet to access and manage the configuration of the device.

Navigate to the webpage **[Security] >> [Web Filter]**, add or delete allowed IP subnets. Configure the starting and ending IP addresses within the specified range, and then click **[Add]** to apply the changes. You can set a large subnet or add multiple subnets. When deleting, choose the starting IP of the subnet you want to remove from the dropdown menu, and then click **[Delete]** to apply the changes.

Enable Web Filtering: Configure to enable/disable web access filtering. Click the **[Submit]** button to apply the changes.



**Note:**

If accessing the device from a machine within the same subnet, do not configure the web filtering subnet to be outside of your own subnet; otherwise, you won't be able to log in to the webpage.

## 14.3 Mutual Authentication

The device supports mutual authentication using HTTPS and SIP TLS.

### Certificate management

- Device Certificate: Access the web page **[Security] >> [Device Certificates]** to set the device certificate parameters:
  - Device Certificates: Choose the device certificate to be used for authentication, which can be either the default certificate built into the device or a custom certificate uploaded by the user.
  - Import Certificates: Upload a custom device certificate.
  - Certificate List: Displays the list of uploaded custom device certificates. Only one custom device certificate can be uploaded. If no custom certificate is uploaded, the certificate list will be empty.
- Trusted Certificates: Access the web page **[Security] >> [Trusted Certificates]** to set the trusted certificates parameters:
  - Permission Certificate: Used to decide whether to enable server certificate verification.
  - Common Name Validation: Option to enable or disable common name validation.
  - Certificate Module: Select the certificate module to be used, with the following options:
    - ✧ All Certificates: Trusts all certificate modules, including both the custom uploaded trusted certificate list and the built-in trusted list in the device.
    - ✧ Default Certificates: Trusts the built-in trusted certificate list of the device.
    - ✧ Custom Certificates: Trusts the custom uploaded trusted certificate list.
  - Import Certificates: Used to import trusted certificates from the server side.
  - Certificate List: Displays the list of custom uploaded server trusted certificates.

### Mutual authentication explanation

- Upload the device certificate used to the server's trusted certificate list, ensuring that the server's trusted certificate list includes the device's certificate. Please confirm with the server administrator.
- Access the web page **[Security] >> [Trusted Certificates] >> [Import Certificates]** to upload the server's device certificate to the device's trusted certificate list and select the trusted certificate module to use.

## 14.4 Network Firewall

### Network firewall settings

- Access the device's web page >> **[Security] >> [Firewall]**, where you can set whether to enable the inbound and outbound firewall. You can also define rules for the inbound and outbound traffic through the firewall. These settings help prevent malicious network access and restrict internal users from accessing certain external network resources, thereby enhancing security.

### Feature description

- The firewall rule setting is a simple firewall module that supports two types of rules: inbound rules and outbound rules. Each rule is assigned a sequence number, with a maximum of 10 rules allowed for each type.
- Once the parameters are set, clicking **[Add]** will add a new item to the firewall's outbound rules.
- To delete an item, select the desired list and click **[Delete]** to remove the selected list.

### Parameter description:

| Parameters          | Description                                                              |
|---------------------|--------------------------------------------------------------------------|
| Enable Input Rules  | Indicates that the input rule application is enabled.                    |
| Enable Output Rules | Indicates that the output rule application is enabled.                   |
| Input/Output        | To select whether the currently added rule is an input or output rule.   |
| Deny/Permit         | To select whether the current rule configuration is disabled or allowed; |
| Protocol            | There are three types of filtering protocols: TCP, UDP, and ICMP.        |
| Src Port Range      | Filter port range                                                        |

|             |                                                                                                                                                                             |
|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Src Address | Source address can be host address, network address, or all addresses 0.0.0.0; It can also be a network address similar to *.*.*.0, such as: 192.168.1.0.                   |
| Dst Address | The destination address can be either the specific IP address or the full address 0.0.0.0; It can also be a network address similar to *.*.*.0, such as: 192.168.1.0.       |
| Src Mask    | Is the source address mask. When configured as 255.255.255.255, it means that the host is specific. When set as 255.255.255.0, it means that a network segment is filtered. |
| Dst Mask    | Is the destination address mask. When configured as 255.255.255.255, it means the specific host. When set as 255.255.255.0, it means that a network segment is filtered.    |

## 15 Trouble Shooting

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When the device is not in normal use, the user can try the following methods to restore normal operation of the device or collect relevant information and send a problem report to Fanvil technical support mailbox.

### 15.1 Get Device System Information

Users can obtain information through the device web page **[System] >> [Information]** or the device **[Menu] >> [System]** options. The following information will be provided:

1. Device information (model, MAC address, software and hardware version).
2. Network information.
3. Account Information.

### 15.2 Reboot Device

Users can restart the device via the web interface.

#### **Restart the device on the web interface:**

Select **[System] >> [Reboot Device]**, and then press **[OK]**.

#### **Power cycle restart:**

Simply unplug the power and plug it back in to restart.

### 15.3 Device Factory Reset

Users can restore the device to default settings through the web interface.

#### **Factory reset on the web interface**

Click on **[System] >> [Configurations] >> [Reset Device] >> [Reset]** button, and then press **[OK]**.

## 15.4 Network Packets Capture

In order to obtain the data packet of the device, the user needs to log in to the webpage of the device, open the webpage **[System] >> [Tools] >> [LAN Packet Capture]**, and click the **[Start]** option in the "Network Packets Capture". If you are using a Wi-Fi network, click the **[Start]** option in **[WLAN Packet Capture]**. A message will pop up asking the user to save the captured file. At this time, the user can perform related operations, such as starting/deactivating the line or making a call, and clicking the **[Stop]** button on the webpage after completion. Network packets during the device are saved in a file. Users can analyze the packet or send it to the Technical Support mailbox.

## 15.5 Get Device Logs

When encountering abnormal issues, log information can be helpful. The device supports exporting system logs and Wi-Fi logs.

### Obtain system log:

To obtain the device's log information, users can log in to the device's web page, and navigate to **[System] >> [Tools] >> [Syslog]**:

- Set the system log to diagnostic mode.
- Enable log export and submit the changes.

Follow the steps where the issue occurs until it appears, then go to **[System] >> [Tools] >> [Export Log]** and click export logs to save the logs locally for analysis or send them to technical support for problem resolution.

### Obtain Wi-Fi log:

To obtain the device's Wi-Fi log information, users can log in to the device's web page, and navigate to **[System] >> [Tools] >> [WLAN Logs]**:

Enable WLAN logging and submit the changes.

Follow the steps where the issue occurs until it manifests, then go to **[System] >> [Tools] >> [WLAN Logs]** and click on export logs to save the logs locally for analysis or send them to technical staff for problem resolution.

## 15.6 Common Fault Cases

| Case                                            | Solution                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Device could not boot up                        | <ol style="list-style-type: none"> <li>1. The device is powered by either a power adapter or a PoE switch. Please use a Fanvil power adapter or a PoE switch that meets the standard specifications, and check whether the device is properly connected to the power.</li> <li>2. If the device enters "POST mode," the system is corrupted. Contact Fanvil technical support to restore the device system.</li> </ol>                                                                                                                                                                                                                                                                                                                                                    |
| Device could not register to a service provider | <ol style="list-style-type: none"> <li>1. Please check if the device is connected to the network .</li> <li>2. Verify if the device has an IP address. Check the system information; if the IP address is <b>Negotiating...</b>, it indicates that the device has not obtained an IP address. Ensure that the network configuration is correct.</li> <li>3. If the network connection is fine, recheck your cable configuration. If all configurations are correct, contact your service provider for support, or follow the instructions in "15.4 Network Data Capture" to obtain network packets for analysis. Send them to the support email to help diagnose the issue.</li> </ol> |

## 16 Appendix

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### 16.1 Appendix 1 – Icon

| Icon                                                                              | Description       |
|-----------------------------------------------------------------------------------|-------------------|
|  | Management Office |
|  | Do Not Disturb    |
|  | Hands-free Call   |
|  | Door Open         |

### 16.2 Appendix 2 – Indicator

| Type      | Status            | Cause                                                |
|-----------|-------------------|------------------------------------------------------|
| Indicator | Red fast flashing | Registration failed or network error                 |
|           | Red slow flashing | There are missed calls or unread messages/voicemails |
|           | Red fast flashing | Ringing                                              |
|           | Red steady on     | Do not disturb (DND)                                 |