

Unit VTO

User Manual



V1.0.1

Foreword

This manual introduces the structure and configuration of the VTO. Read carefully before using the VTO, and keep the manual safe for future reference.

Symbols

The following symbols might appear in the manual.

Symbol	Description
 DANGER	Indicates a high potential hazard which, if not avoided, will result in death or serious injury.
 WARNING	Indicates a medium or low potential hazard which, if not avoided, could result in slight or moderate injury.
 CAUTION	Indicates a potential risk which, if not avoided, could result in property damage, data loss, reductions in performance, or unpredictable results.
 TIPS	Provides methods to help you solve a problem or save time.
 NOTE	Provides additional information as a supplement to the text.

Revision History

Version	Revision Content	Release Time
V1.0.1	• Updated the verification mode. • Updated the home screen.	August 2026
V1.0.0	First release.	November 2025

Privacy Protection Notice

As the device user, you might collect the personal data of individuals such as their names, email addresses, face images, audio and fingerprints. You shall be fully responsible for any activities associated with processing personal data. You commit to comply with your local privacy protection laws and regulations to protect the legitimate rights and interests of individuals, and shall implement measures which are required by applicable law, including but not limited to, providing clear and comprehensive information to individuals before processing their personal data, obtaining consent from individuals when necessary, informing individuals of the existence of the surveillance area, and providing required contact information.

Intelligent Product Usage Statement

Intelligent products utilize AI technology to effectively enhance security. The intelligent recognition and alarm functions of the product might be affected by factors such as environmental lighting, camera angles, object obstructions, and network delays, potentially leading to false alarms, missed alerts, or response delays. This intelligent product is solely intended to be used as a security assistance tool. The results from performing identification are for reference only and do not

constitute absolute guarantee of personal or property safety. Users need to combine these products with necessary physical security measures to enhance overall protection. Except as otherwise provided by laws or in the event of intentional or gross negligence on the part of the company, the company shall not be liable for any losses caused by the aforementioned factors not attributable to the company.

About the Manual

- This manual is provided for general reference only. Discrepancies might exist between the product and this manual, including but not limited to printed, electronic, or any other editions.
- The manual will be updated according to the latest laws and regulations of related jurisdictions. Specifications and documentation are subject to change without prior notice. For the latest versions, as well as legal notices, consult the printed manual, the product webpage, our official website, or scan the QR code to access the electronic edition.
- The manual will be updated as necessary to reflect product changes and applicable legal requirements. These updates will not diminish your statutory rights, nor will they remove or weaken the safety information or essential instructions provided at the time of purchase.
- Although we make every effort to ensure accuracy, errors or deviations in descriptions of functions, operations, or technical data might occur. If there is any uncertainty or controversy, we reserve the right of final explanation.
- All trademarks, registered trademarks and company names referenced in this manual are the property of their respective owners.

Important Safeguard and Warnings

This section introduces content covering the proper handling of the device, hazard prevention, and prevention of property damage. Read carefully before using the device, and comply with the guidelines when using it.

Installation Requirements



- Strictly comply with the local electrical safety code and standards. Make sure that the ambient voltage is stable and meets the power supply requirements of the device.
- The power supply must meet the rated voltage requirements as indicated on the device label.
- If the device uses a power adapter, ensure it meets the following requirements:
 - ◇ If a power adapter was shipped with your device, we recommend you use it. If you need to buy a separate adapter, make sure it meets the following requirements.
 - The power supply must conform to the requirements of IEC 60950-1 and IEC 62368-1 standards.
 - The voltage must meet the SELV (Safety Extra Low Voltage) requirements and not exceed ES-1 standards.
 - When the power of the device does not exceed 100 W, the power supply must meet LPS requirements and be no higher than PS2.
 - ◇ Do not connect the power adapter to the device while the adapter is powered on.



- Personnel working at heights must take all necessary measures to ensure personal safety including wearing a helmet and safety belts.
- Do not place the device in a place exposed to sunlight or near heat sources.
- Keep the device away from dampness, dust, and soot.
- Install the device on a stable surface to prevent it from falling.
- Install the device in a well-ventilated place, and do not block its ventilation.
- Use an adapter or cabinet power supply provided by the manufacturer.
- Use the power cords that are recommended for the region and conform to the rated power specifications.
- The device is a class I electrical appliance. Make sure that the power supply of the device is connected to a power socket with protective earthing.
- The device must be installed at a height of 2 meters or below.

Operation Requirements



Battery Pack Precautions

Preventive measures (including but not limited to):

- Do not transport, store or use the batteries in high altitudes with low pressure and environments with extremely high and low temperatures.
- Do not dispose the batteries in fire or a hot oven, or mechanically crush or cut the batteries to avoid an explosion.

- Do not leave the batteries in environments with extremely high temperatures to avoid explosions and leakage of flammable liquid or gas.
- Do not subject the batteries to extremely low air pressure to avoid explosions and the leakage of flammable liquid or gas.



- Check whether the power supply is correct before use.
- Do not unplug the power cord on the side of the device while the adapter is powered on.
- Operate the device within the rated range of power input and output.
- Transport, use and store the device under allowed humidity and temperature conditions.
- If the device is powered off for longer than a month, it should be placed in its original package and sealed. Make sure to keep it away from moisture, and store it under allowed humidity and temperature conditions.
- Do not drop or splash liquid onto the device, and make sure that there is no object filled with liquid on the device to prevent liquid from flowing into it.
- Do not disassemble the device without professional instruction.

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1 Product Overview

1.1 Introduction

The door station (hereinafter referred to as "VTO") uses capacitive touch screen and is equipped with dual-lens network camera. The VTO integrates deep learning algorithm to enable the user to unlock the door through the recognition function, such as face recognition and card opening.

1.2 Functions

Video and Voice Call

Makes video and voice calls to the VTH or the VTS.

Emergency Call

Directly calls the management center in an emergency.

Unlock

- Unlock through the face: The VTO recognizes the face using the latest deep learning algorithm and opens the door.
- Unlock through the fingerprint: Recognized by the built-in fingerprint module. This function is available on select models.
- Unlock by the Bluetooth. This function is available on select models.
- Unlock by entering the password.
- Unlock through the card: Swipe the authorized card to open the door.

Being Monitored

The VTH or the management center can monitor the VTO. The VTO supports up to 10 streams for monitoring.

Auto Snapshot

Takes snapshots while you are on a call or unlocking the door, and stores them to the SD card. This function is disabled by default.

Alarm Management

The VTO has functions of tamper alarm and door detector detection alarm.



This function is only available on the villa door station.

Alarm Linkage Setting

The VTO can adopt buzzer to ring the calls.

IR Smart Illumination

Automatically detects the actual scenery and opens the illumination (white is normally adapted and red is used for assisting face recognition).

Standalone Operation

Issues the cards, and registers the fingerprints and the faces through the device.

Sub VTO Management

The main VTO can connect with up to 19 sub VTOs in the same unit.

Announcement

Sends the announcement to the VTH.

Log Search

Supports searching for the call log, alarm log and unlock log.

1.3 Structures

The following front and rear panel figures are for reference only.

1.3.1 Front Panel

1.3.1.1 75 Series

Figure 1-1 Front panel

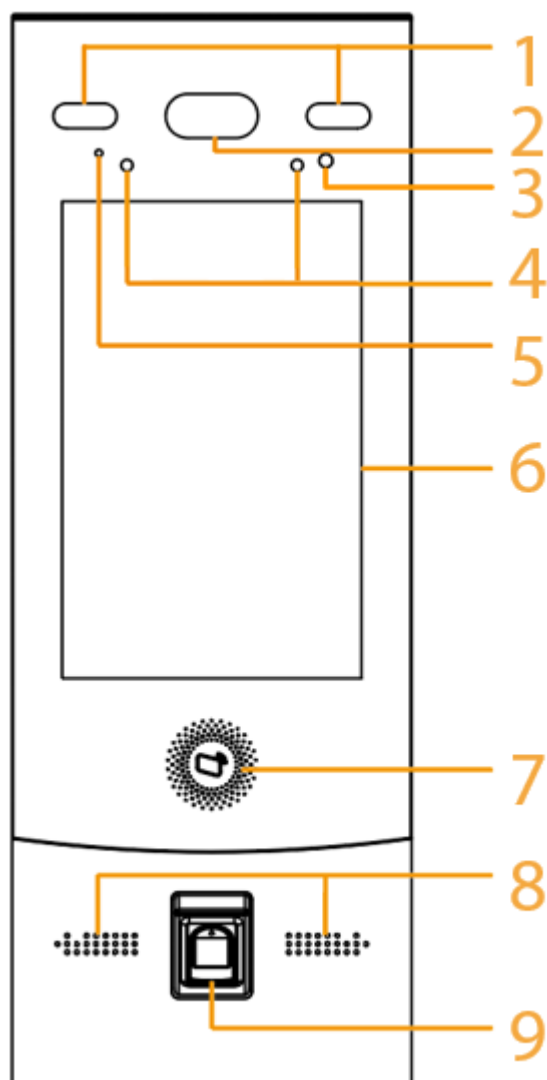


Table 1-1 Component description

No.	Description	No.	Description
1	White illuminator	6	Display
2	Camera	7	Card swiping area
3	Photosensitive sensor	8	Loudspeaker
4	IR illuminator	9	Fingerprint sensor  Fingerprint sensor is only available for the mode of VTO7541G.
5	MIC	—	—

1.3.1.2 95 Series

Figure 1-2 Front panel

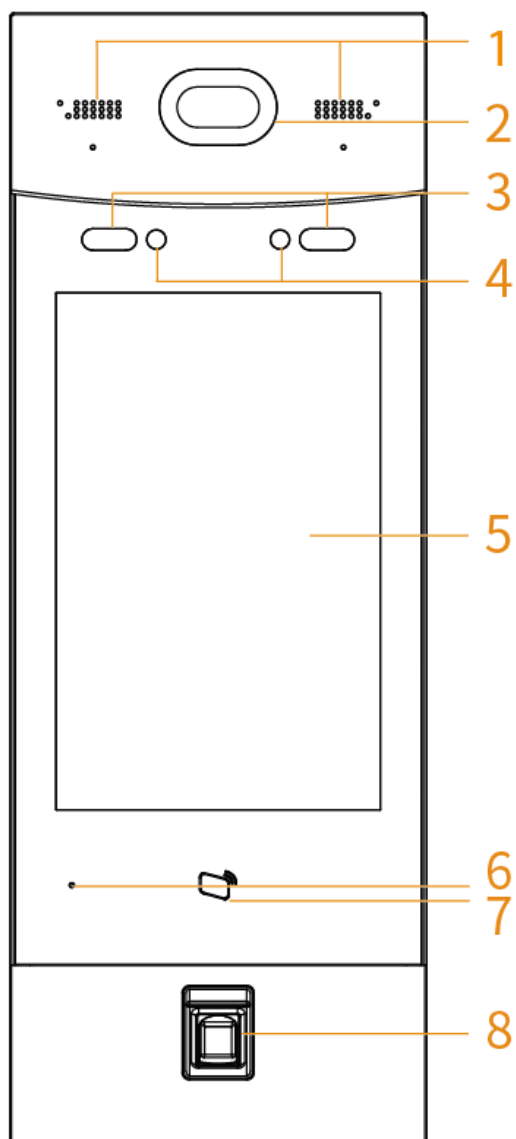


Table 1-2 Component description

No.	Description	No.	Description
1	Loudspeaker	5	Display
2	Camera	6	MIC
3	White illuminator	7	Card swiping area
4	IR illuminator	8	Fingerprint sensor

1.3.1.3 76 Series

Figure 1-3 Front panel

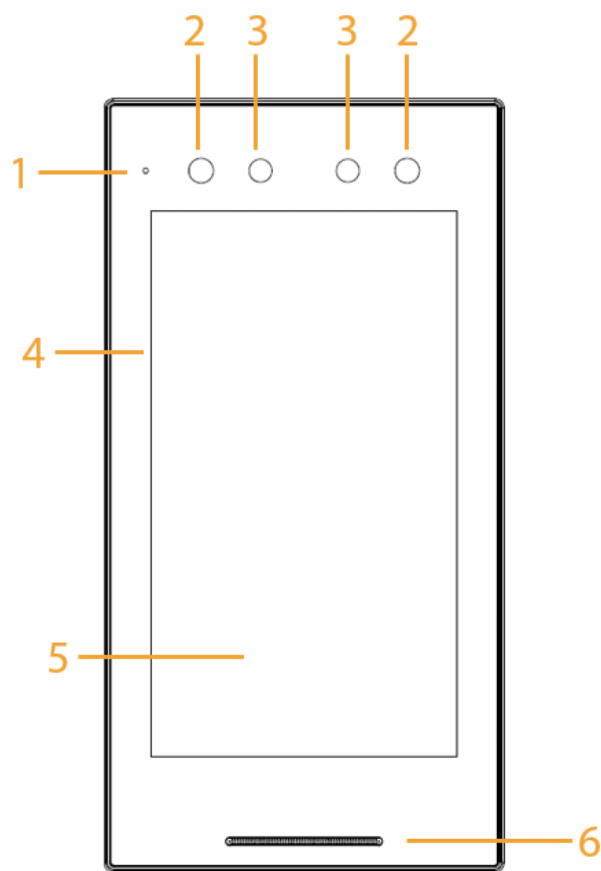


Table 1-3 Component description

No.	Description	No.	Description
1	MIC	4	Display
2	IR illuminator	5	Card swiping area
3	Camera	6	Loudspeaker

1.3.1.4 96 Series

Figure 1-4 Front panel

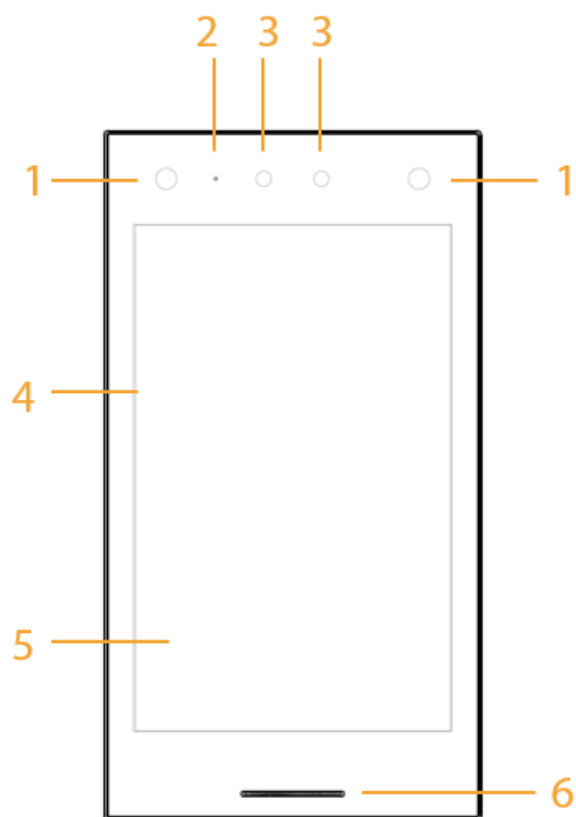


Table 1-4 Component description

No.	Description	No.	Description
1	IR illuminator	4	Display
2	MIC	5	Card swiping area
3	Camera	6	Loudspeaker

1.3.1.5 66 Series

Figure 1-5 Front panel

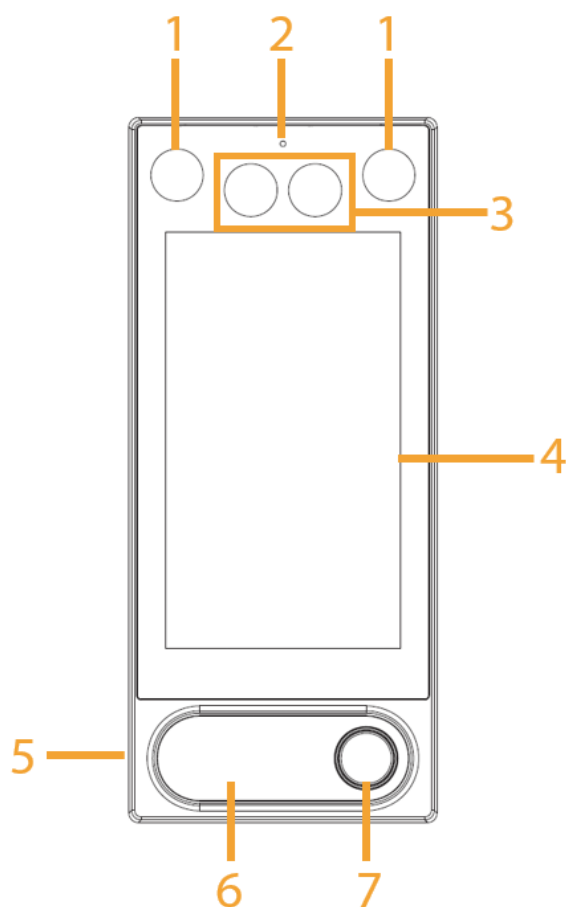


Table 1-5 Component description

No.	Description	No.	Description
1	IR illuminator	5	Loudspeaker
2	MIC	6	Card swiping area
3	Camera	7	Button  Supports calling and calling by period mode.
4	Display	–	–

There is also an indicator on the outer circle of the button:

- Device starts and then performs the default status: Flashing blue and then solid blue.
- Successful verification: Quickly flashing green once.
- Failed verification: Quickly flashing red three times.
- During the intercom period: Slowly flashing blue.
- The intercom period ends: Solid blue.
- Anti-tamper function triggers: Quickly flashing red.

- When 2 locks are opened simultaneously but only one lock is successful: Flashing green once.
- SIP is broken or the network is abnormal: Slowly flashing red.

The priority of the indicator: Authentication > Anti-tampering > SIP disconnection or network anomaly > Intercom.

1.3.2 Rear Panel

1.3.2.1 75 Series

Figure 1-6 Rear panel

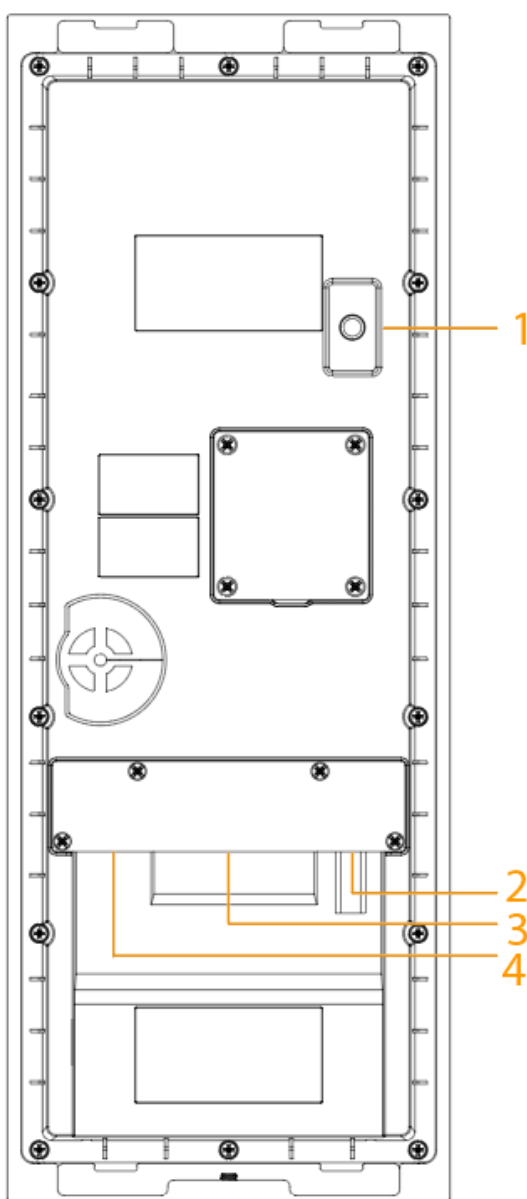
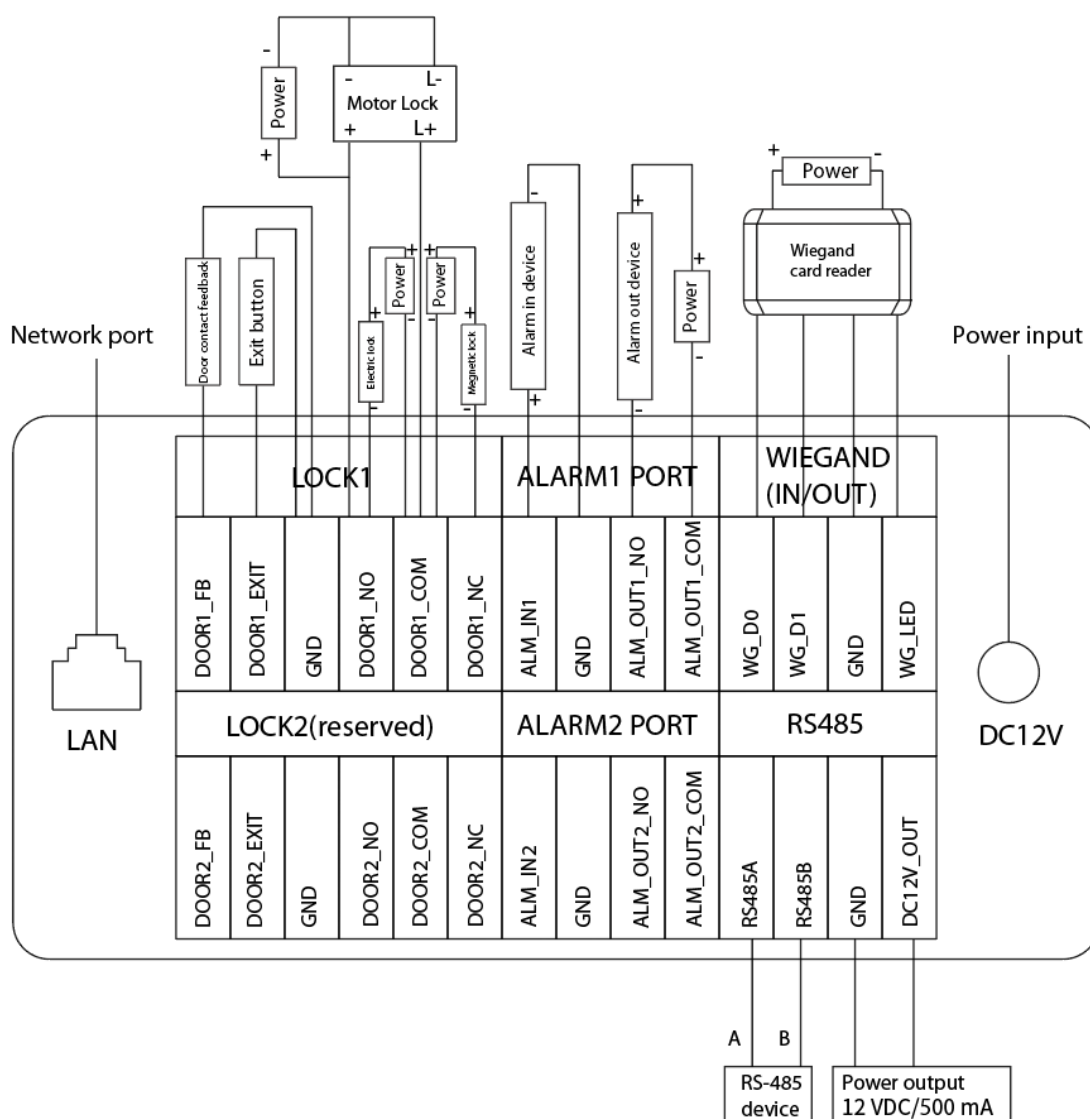


Table 1-6 Component description

No.	Description
1	Tamper button - Triggers alarms for illegal dismantling or damage in emergency situations. - Within 10 minutes after the device is powered on, if you continuously press the tamper button for 5 times in 8 seconds, the device beeps and deletes the admin account information.
2	Power port
3	Function ports (such as alarm in/out port, lock port, and wiegand port)
4	Ethernet port

Figure 1-7 Cable connection



1.3.2.2 95 Series

Figure 1-8 Rear panel

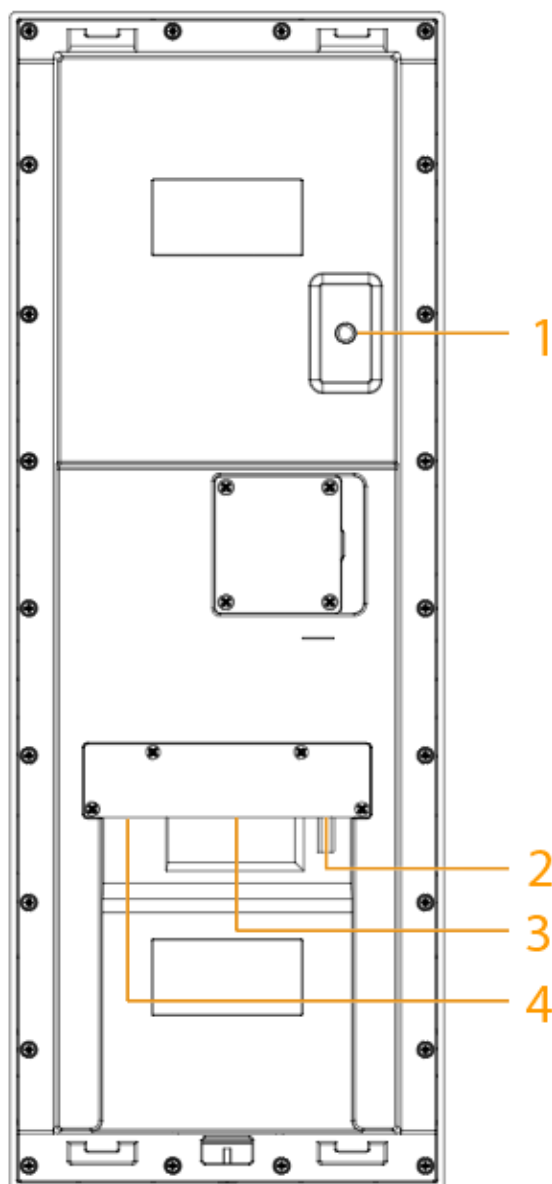
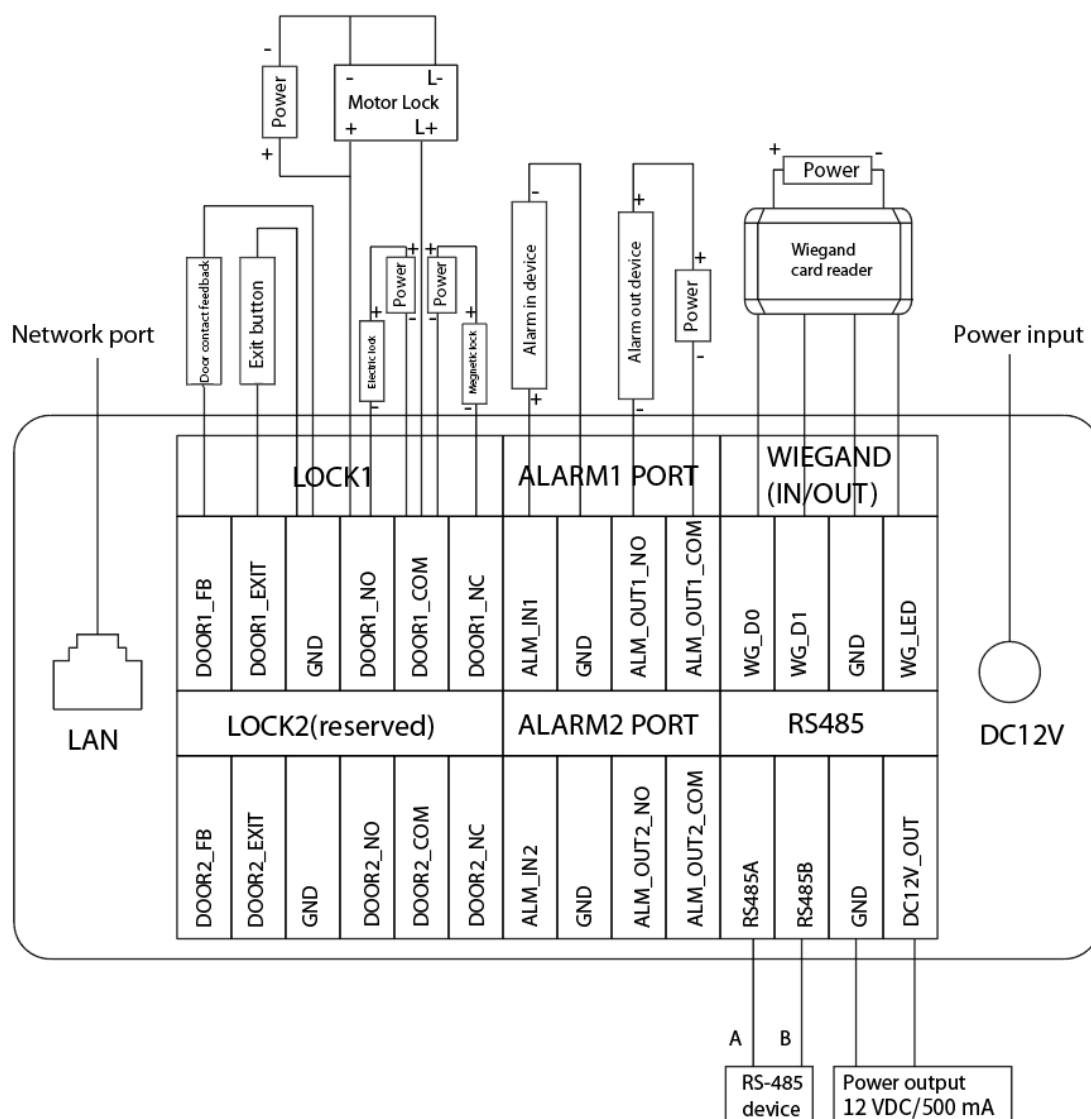


Table 1-7 Component description

No.	Description
1	Tamper button • Triggers alarms for illegal dismantling or damage in emergency situations. • Within 10 minutes after the device is powered on, if you continuously press the tamper button for 5 times in 8 seconds, the device beeps and deletes the admin account information.
2	Power port

No.	Description
3	Function ports
4	Ethernet port

Figure 1-9 Cable connection



1.3.2.3 76 Series

Figure 1-10 Rear panel

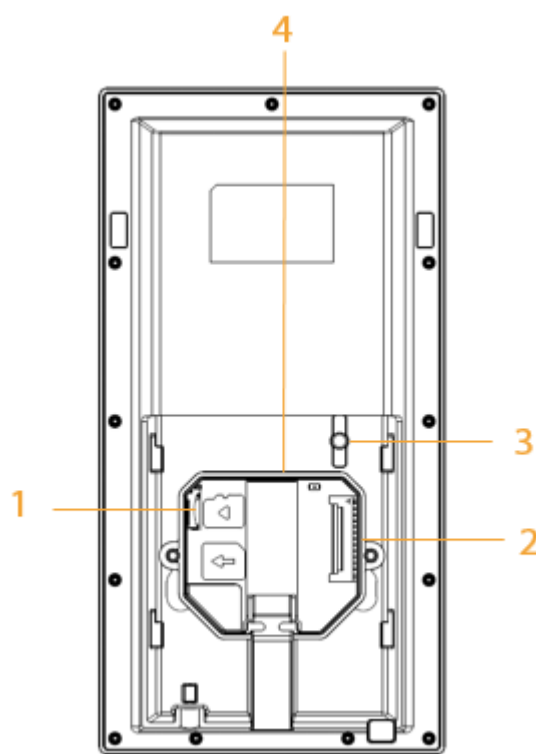
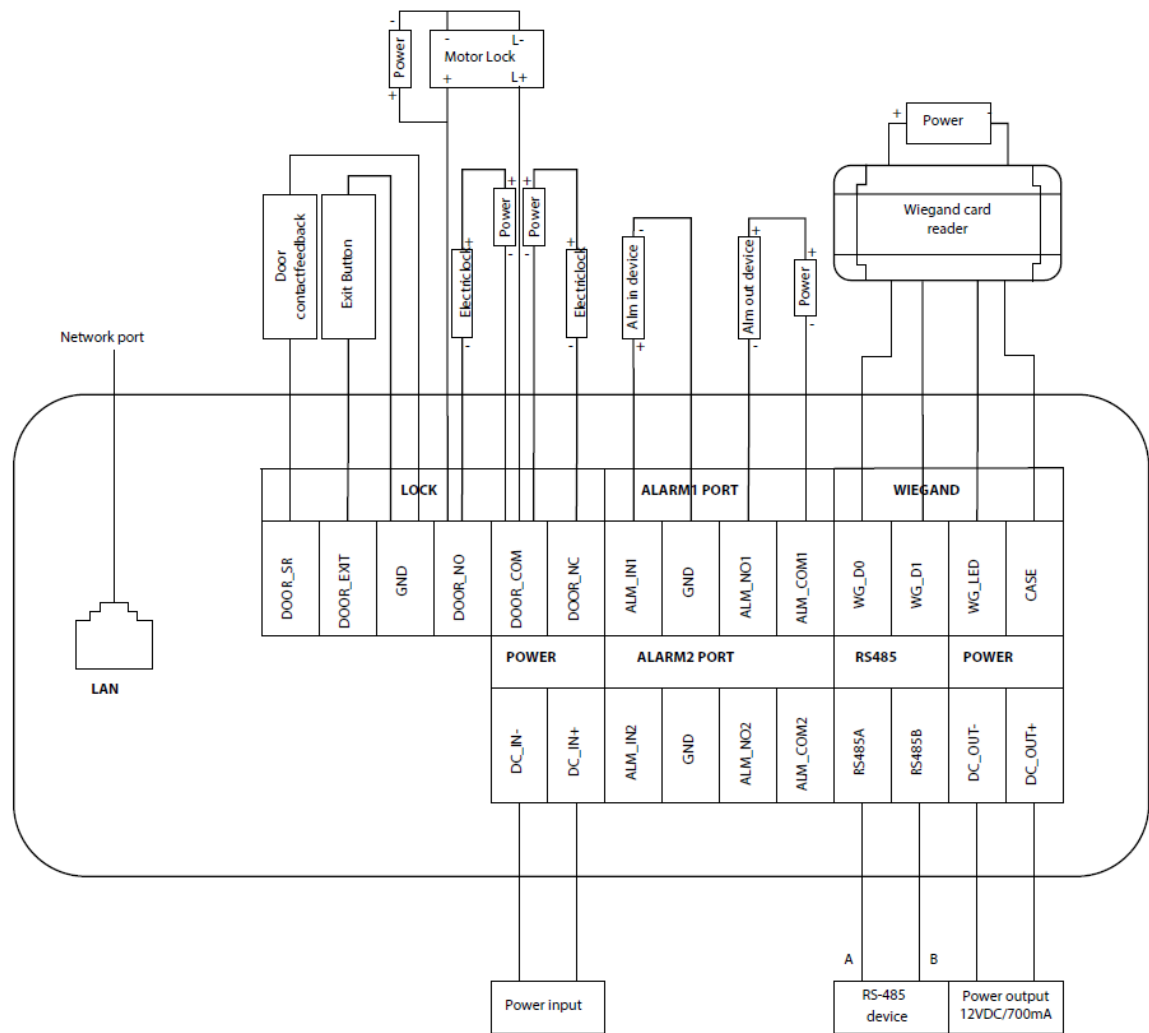


Table 1-8 Component description

No.	Description
1	SD card slot
2	Function ports, such as DC_IN/OUT, alarm in/out port, lock port, RS-485 port, and wiegand port.
3	Tamper button ● Triggers alarms for illegal dismantling or damage in emergency situations. ● Within 10 minutes after the device is powered on, if you continuously press the tamper button for 5 times in 8 seconds, the device beeps and deletes the admin account information.
4	Ethernet port

Figure 1-11 Cable connection



1.3.2.4 96 Series

Figure 1-12 Rear panel

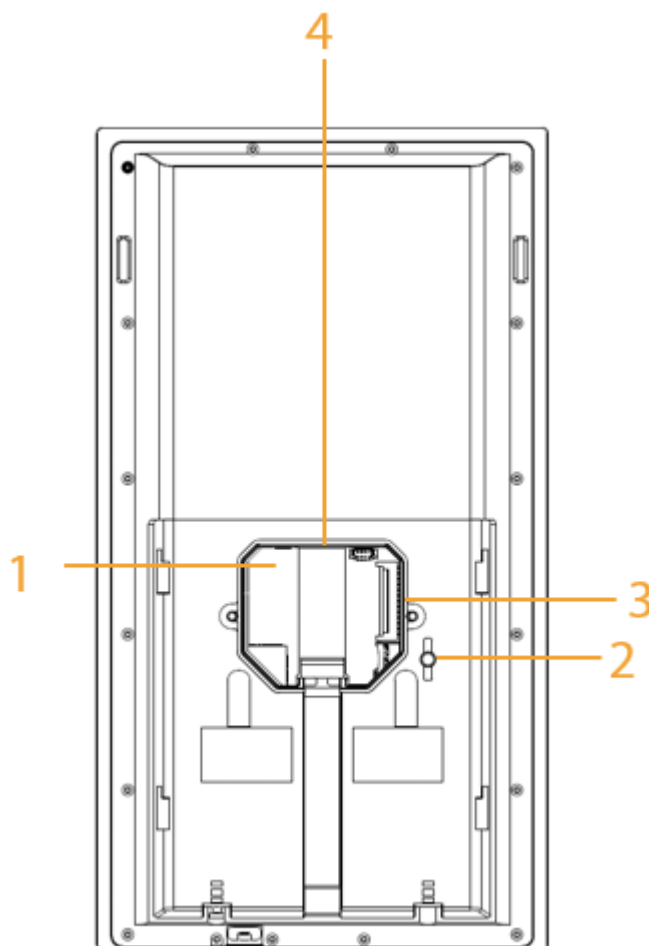
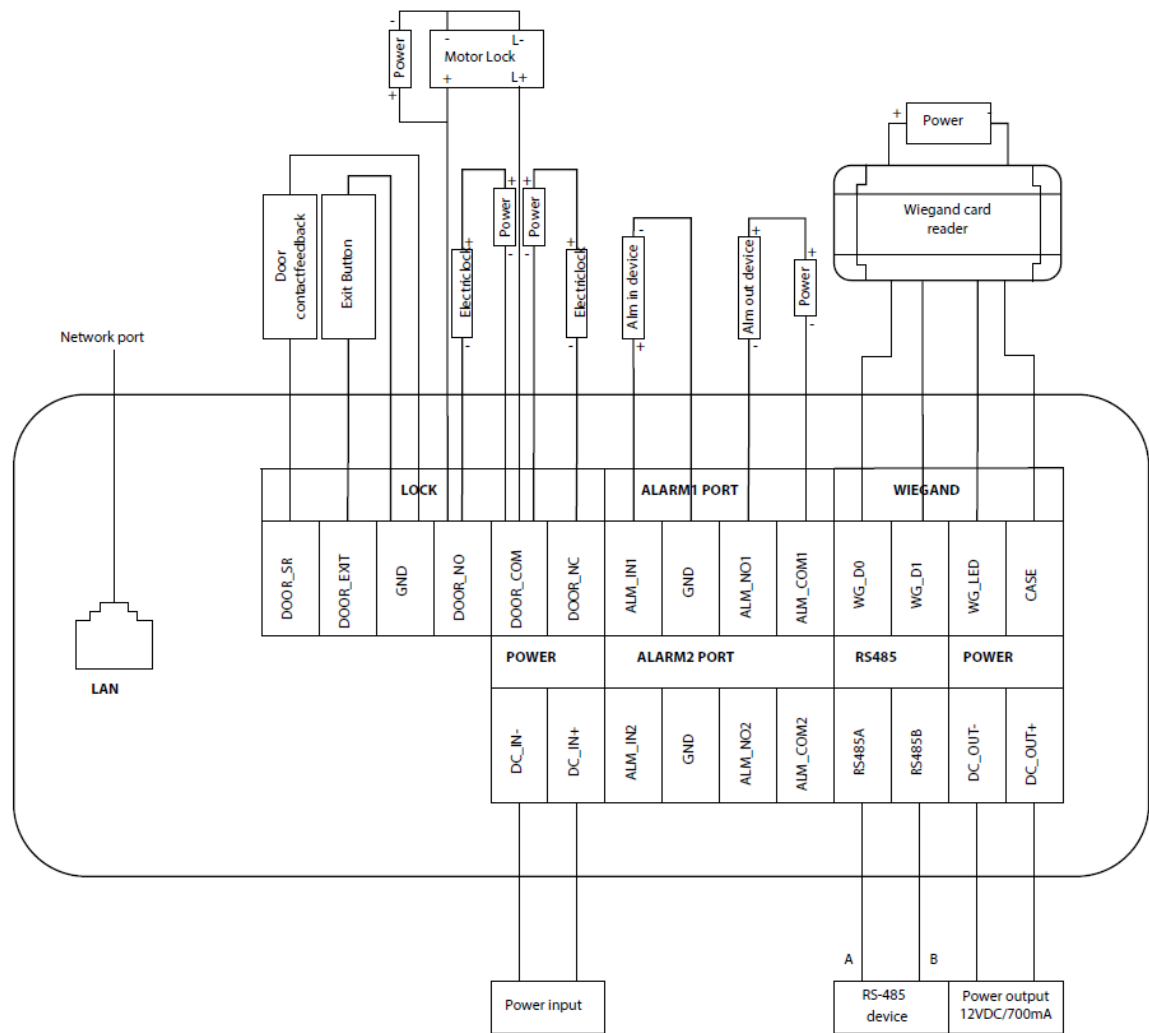


Table 1-9 Component description

No.	Description
1	Audio output port
2	Tamper button • Triggers alarms for illegal dismantling or damage in emergency situations. • Within 10 minutes after the device is powered on, if you continuously press the tamper button for 5 times in 8 seconds, the device beeps and deletes the admin account information.
3	Function ports
4	Ethernet port

Figure 1-13 Cable connection



1.3.2.5 66 Series

Figure 1-14 Rear panel

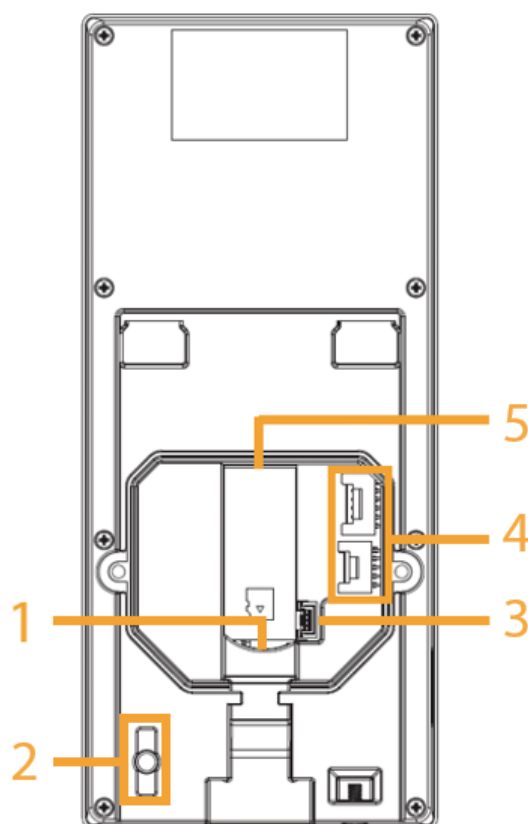
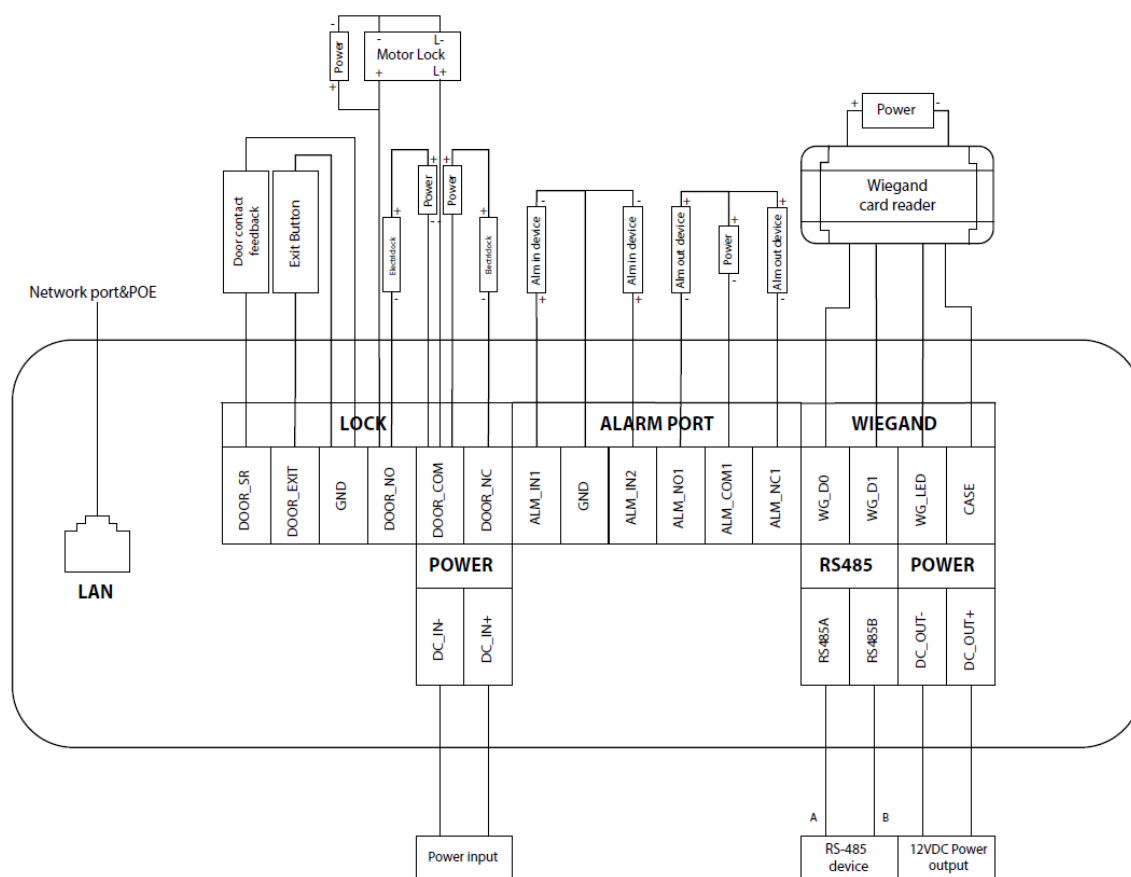


Table 1-10 Component description

No.	Description
1	SD card slot
2	Tamper button • Triggers alarms for illegal dismantling or damage in emergency situations. • Within 10 minutes after the device is powered on, if you continuously press the tamper button for 5 times in 8 seconds, the device beeps and deletes the admin account information.
3	Power output port
4	Function ports
5	Ethernet port

Figure 1-15 Cable connection



- When the power input is PoE, the power output is 12 VDC/500 mA.
- When the power input is an adapter, the power output is 12 VDC/1500 mA.

2 Initialization

For the first-time use of the VTO, initialize the device first.

2.1 Initialization through the Device

Procedure

- Step 1 Turn on the VTO.
- Step 2 Select the language as needed, and then tap **OK**.
- Step 3 Initialize the Device.
1. Configure the password, and then confirm it again.
 2. Enter the Email address so that when you forget the password, you can reset it through the reserved Email address.
 3. Enable the **Cloud Service** according to the actual needs, and then click **OK**.



After the function is enabled and the device connects to the network, we will collect device information, such as the IP address, MAC address, device name, and serial number.

2.2 Initialization on the Webpage

Prerequisites

Make sure that the computer and the VTO are on the same network segment.

Procedure

- Step 1 Turn on the VTO.
- Step 2 Enter the IP address of the VTO in the browser.
- 
- For the first-time login, enter the default IP (192.168.1.108).
- Step 3 Select the language, and then click **Next**.
- Step 4 Read the software license agreement and privacy policy, select **I have read and agree to the terms of the Software License Agreement and Privacy Policy**, and then click **Next**.
- Step 5 Configure the password, and then confirm it again.
- Step 6 (Optional) Select **Email Address**, enter the Email address, and then click **OK**.
- When you forget the password, you can reset it through the reserved Email address.
- Step 7 Select **Auto Check for Updates** and **Cloud Service** as needed.

Figure 2-1 Enable the service

✓ Language — ✓ Disclaimer — ✓ Password Settings — Auto Check for Updates

☐ Auto Check for Updates

Notify when a version update is detected

To keep you up-to-date on firmware updates, we will collect information on your device such as the name, IP address and serial number of the device, and its firmware version. All collected information will only be used to verify the legitimacy of the device, and to send notifications of updates.

☒ Cloud Service

After the function is enabled and the device connects to the network, we will collect device information such as the IP address, MAC address, device name and serial number. The collected information will only be used to remotely access the device. If you do not want to enable this function, please clear the selection from the check box.

Completed

Step 8 Click **Completed**.

Step 9 Click **Login** to go to the login page, and then enter the user name and the password to log in.

3 VTO Operations

The following snapshots of the devices are for reference only, and slight differences might be found in the operation screen of the VTO, depending on your model.

3.1 Home Screen

Figure 3-1 Home screen (66 series)



Table 3-1 Description of home screen

No.	Description
1	Displays the time. For details, see "4.11.4 Configuring Time".

No.	Description
2	Displays the device title. For details, see "3.5.4 Personalization" or "4.7.2 Personalization".  Tap the title area, and then you can view the device SN.
3	Indicates that the SD card is inserted.
4	Displays the Wi-Fi function. For details, see "3.5.2.2 Wi-Fi" or "4.10.6 Configuring Wi-Fi".
5	Displays the Bluetooth function. For details, see "4.10.7 Configuring the Bluetooth" or "3.5.2.3 Bluetooth Settings".
6	Displays the network port status.
7	Displays the status of the SIP.
8	Tap it to configure the device language.  It is temporarily effective. After the language is set and then the screen is turned off and on, it will be restored to the original setting language.
9	The zone is used for recognizing face and QR code.
10	Displays the shortcuts. For details about the shortcuts configuration, see "4.7.2.1 Configuring Personalization" and "3.5.4 Personalization". ● Tap Password, and then enter the password to unlock the door. ● Tap Call to make a call. ● Tap Center to call the management center. ● Tap More to see other shortcuts.

Figure 3-2 Home screen (75/95/76/96 series)

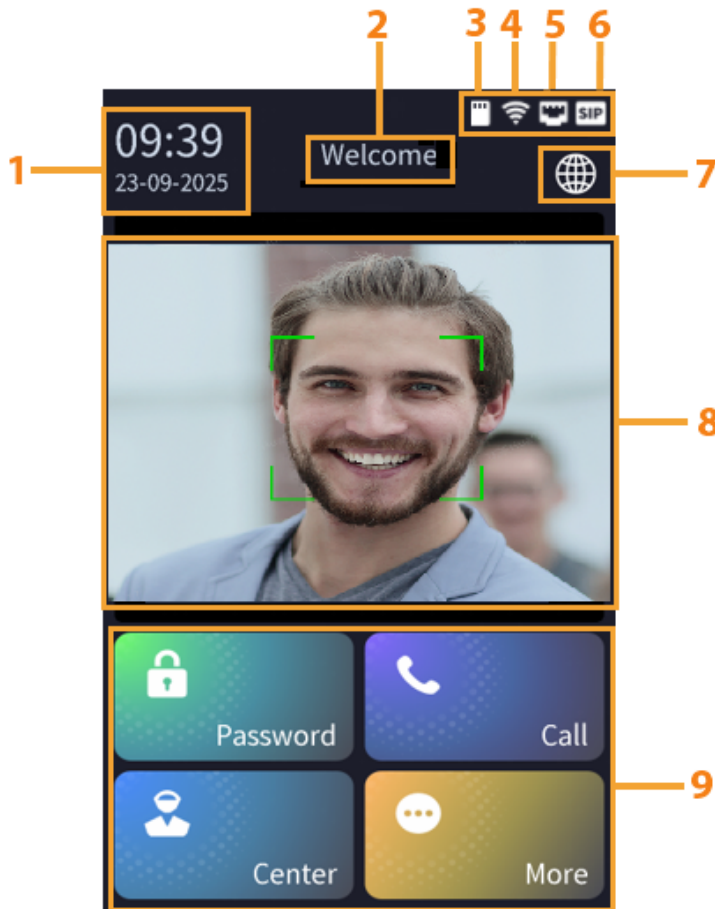


Table 3-2 Description of home screen

No.	Description
1	Displays the time. For details, see "4.11.4 Configuring Time".
2	Displays the device title. For details, see "3.5.4 Personalization" or "4.7.2 Personalization".  Tap the title area, and then you can view the device SN.
3	Indicates that the SD card is inserted.
4	Displays the Wi-Fi function. For details, see "3.5.2.2 Wi-Fi" or "4.10.6 Configuring Wi-Fi".
5	Displays the network port status.
6	Displays the status of the SIP.
7	Tap it to configure the device language.  It is temporarily effective. After the language is set and then the screen is turned off and on, it will be restored to the original setting language.

No.	Description
8	The zone is used for recognizing face and QR code.
9	Displays the shortcuts. For details about the shortcuts configuration, see "4.7.2.1 Configuring Personalization" and "3.5.4 Personalization". • Tap Password, and then enter the password to unlock the door. • Tap Call to make a call. • Tap Center to call the management center. • Tap More to see other shortcuts.

3.2 Homeowner Registration

Add more users through the existed homeowner.

Prerequisites

The person has been added and registered card or face.

Procedure

Step 1 Tap **Homeowner Registration** on the homepage.



If there is no **Homeowner Registration** shortcut, select **More** > **Homeowner Registration**.

Step 2 Select **Card** or **Face** to authorize the homeowner.

- Card: Swipe the card, and then it goes to the **Person Management** page.
- Face: Recognize the face, and then it goes to the **Person Management** page.

Step 3 Tap **Add User**, and then enter the detailed user information, including name, face, password, and fingerprint.



The room number cannot be edited, and is the same as the one of the existed homeowner.

Step 4 Tap **Person List**, and then you can view all users with the same room number as the one of the existed homeowner.

3.3 Unlock

You can unlock the door in many methods, such as entering the password, swiping the card, identifying the face, scanning the QR code, using the Bluetooth, remote unlock, and others.

3.3.1 Unlocking by the Password

Prerequisites

You have configured the password on the webpage of the VTO. For details, see "4.9 Person Management".

Procedure

Step 1 Tap **Password** on the home screen.

Step 2 Enter the password to unlock the door.

The voice prompt and the device prompt **Successfully unlocked** means that the door opens and you can enter. If the device beeps, check the password.

3.3.2 Unlocking by the Card

Swipe the authorized card.

- The voice prompt and the device prompt **Successfully unlocked** means that the door opens and you can enter.
- If the device beeps, register the card. For details, see "4.9 Person Management".

3.3.3 Unlocking by Identifying the Face

When you come close to the VTO, the VTO automatically displays face detect screen and detects the face.

- That the voice prompts **Successfully unlocked** means that the door opens and you can enter.
- If the device displays **Unauthorized**, register the face first. For details, see "4.9 Person Management".

3.3.4 Unlocking by Scanning the QR Code

This function is only available on select models.

Procedure

Step 1 Get the QR code from the platform, such as DSS Pro. For details, see the user manual of the corresponding platform.

Step 2 Show the QR code, and make sure the QR code is displayed in the viewfinder.

The voice prompt **Successfully unlocked** means that the door opens and you can enter. If the device beeps, check the QR code.

3.3.5 Unlocking by the Bluetooth

You can unlock the door by the Bluetooth via the DMSS app. This function is only available on select models.

Prepare the following things.

- The Bluetooth has been enabled. For details, see "4.10.7 Configuring the Bluetooth" or "3.5.2.3 Bluetooth Settings".
- The Device has been added to the DMSS app. For details, see the corresponding user manual.

Unlock the door via the DMSS app.

The voice prompt **Successfully unlocked** means that the door opens and you can enter.

3.3.6 Unlocking by the Fingerprints



This function is only available on select models.

Press the fingerprint.

- The voice prompt and the device prompt **Successfully unlocked** means that the door opens and you can enter.
- If the device prompts **Unregistered fingerprint**, register the fingerprint. For details, see "4.9 Person Management".

3.3.7 Unlocking through the VTH

When the VTO calls the VTH or the VTH monitors the VTO, you can press the unlock button on the VTH for the visitors. The voice prompts **Successfully unlocked**, and then the door opens and visitors can enter.

3.3.8 Unlocking through the VTS

When the VTO calls the VTS or the VTS monitors the VTO, you can press the unlock button on the VTS for the visitors. The voice prompts **Successfully unlocked**, and then the door opens and visitors can enter.

3.4 Call

Prerequisites

Add the VTHs and VTS on the webpage of the VTO. For details, see "4.8 Device Setting".

3.4.1 Calling the VTH

Procedure

Step 1 Tap **Call** on the home screen.

Step 2 Call the VTH.

- Dial the room number of the VTH, and then tap .
- Tap **Phone Book**, and then select the VTH you want to call.

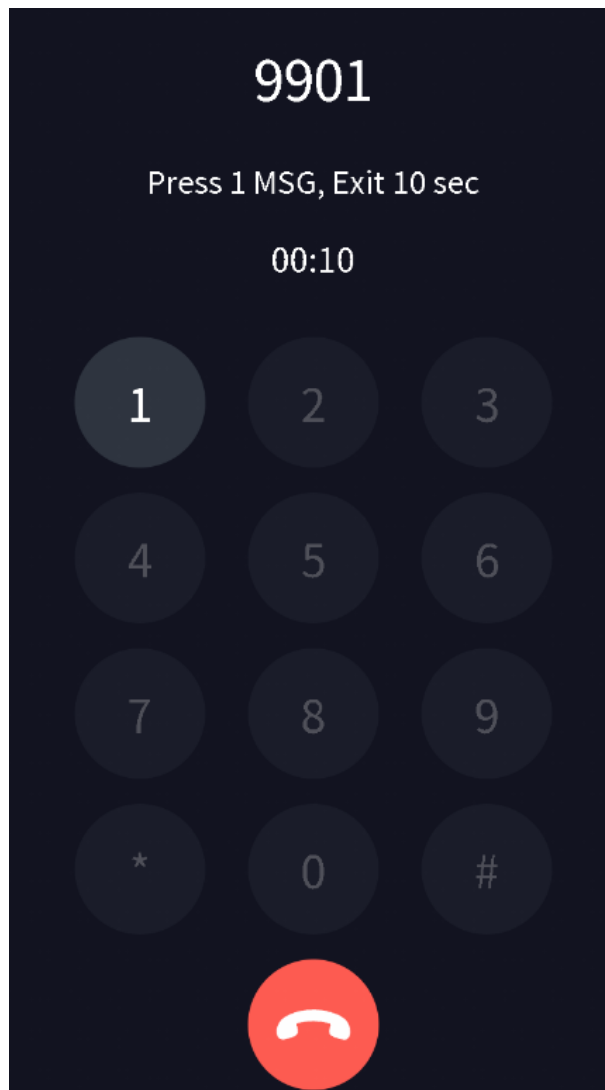


The VTH managed in the phone book can be added on the webpage of the VTO. For details, see "4.8.2 Adding the VTH".

Related Operations

When the VTO is inserted SD card and during the calling, you can press **1** to make a leave video.

Figure 3-3 Make a leave video



3.4.2 Calling the VTS

Through the Shortcut

Tap **Center** on the homepage of the device.

Through the Call

1. Tap **Call** on the homepage of the device.
2. Tap  to call the VTS.

3.5 Engineering Setting

Configure the engineering settings, including person management, communication, general settings, personalization, and device information.

Procedure

- Step 1 Power on the VTO.
- Step 2 Long press the home screen.

The long-press areas vary for different themes. Here use 2 themes as examples.

Figure 3-4 Theme (1)

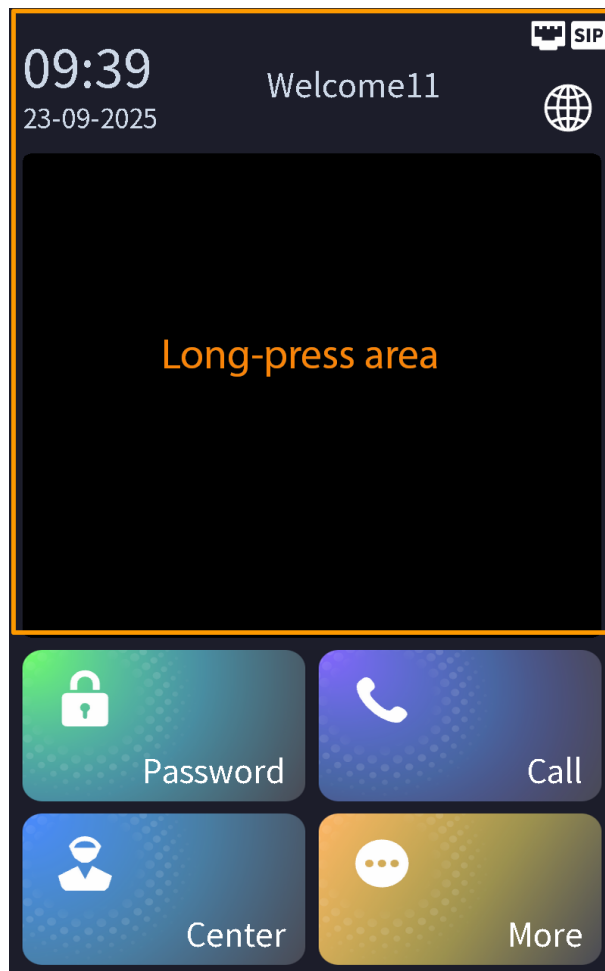
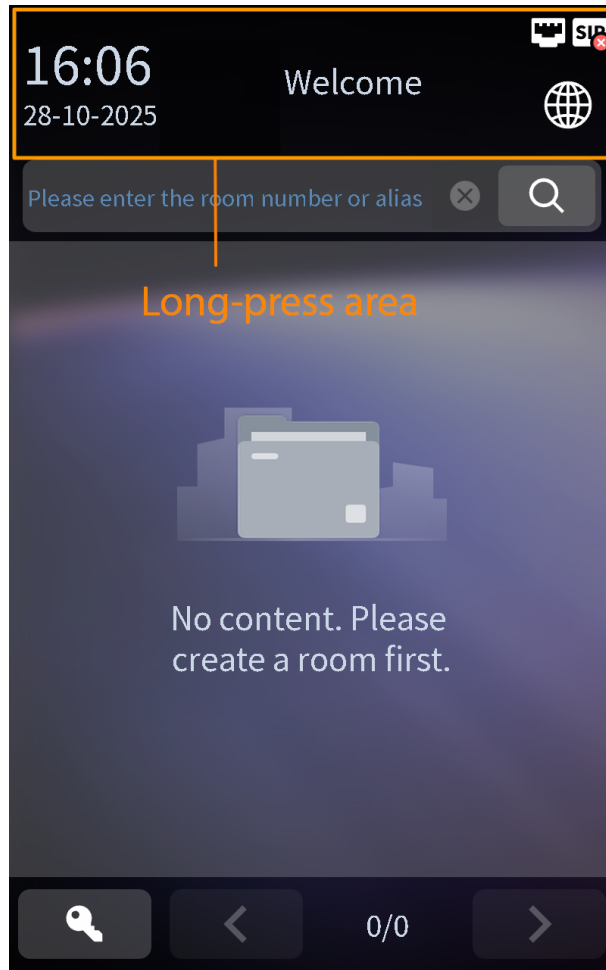
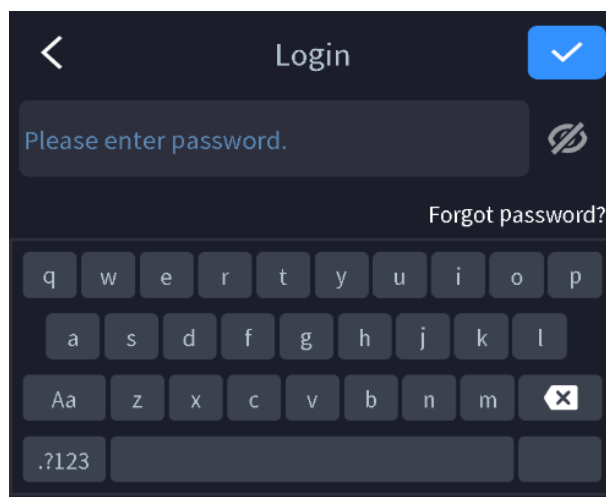


Figure 3-5 Theme (2)



Step 3 Enter the password, and then tap  to go to the engineering setting.

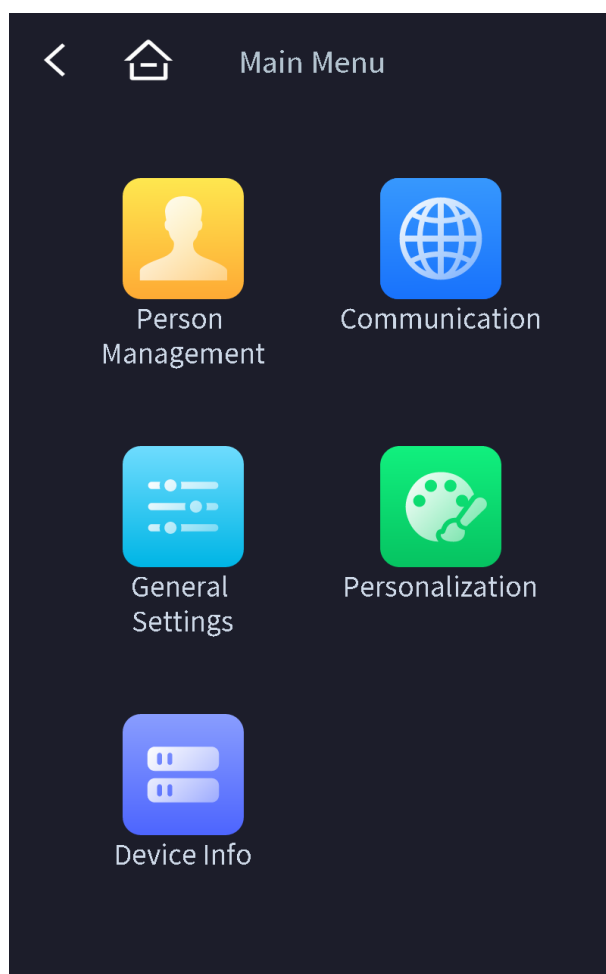
Figure 3-6 Enter the password



Results

You can configure the engineering settings on the main menu.

Figure 3-7 Main menu



3.5.1 Person Management

Add the user, and then register the information on the face, fingerprint and the card.

Prerequisites

Make sure the server type is configured as **Device** or **Third-party Server**. For details, see "4.10.3 Configuring the SIP Server".

Procedure

- Step 1 Tap **Person Management** on the screen of the **Main Menu**.
- Step 2 Tap **Add User**, and then configure the user information.

Figure 3-8 Add users

Table 3-3 User information

Parameter	Description
Person ID	Enter the person ID, room number and the user name.
Name	
Room No.	
Fingerprint	Tap Fingerprint, and then register the fingerprint.  - Each user can register 3 fingerprints at most. - This function is only available on select models.
Face	Tap Face, capture the face, and then tap OK. If you are not satisfied with the picture, tap Recapture to capture again.
Card	Tap Card, and then register the card.  - Each user can register 5 cards at most. - This function is only available on select models.

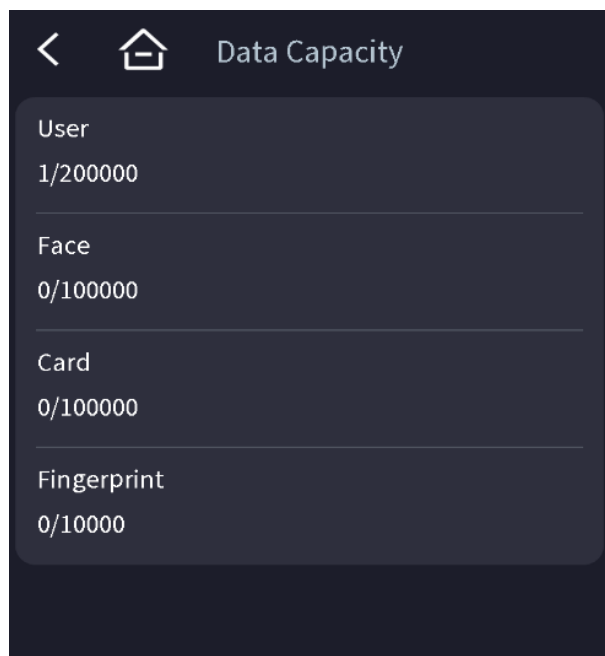
Parameter	Description
Password	Configure the user password.  The password must consist of 4-6 digits.
Local Lock	After it is enabled, the user will have authority to open the local lock.
External Lock	After it is enabled, the user will have authority to open the second lock that connects to the VTO through the function port.
Multi-Door Unlock	After it is enabled, when the verification is successful, the local lock and external lock will open at the same time.  The user password cannot be authenticated to perform multi-door unlock.

Step 3 Tap **Person List** to view the person list.

- Tap the person in the list, and then you can view the person information, such as person name, room number, and authorized permissions.
- Tap  to search for the wanted person.

Step 4 Tap **Data Capacity** to view the capacity for person.

Figure 3-9 Data capacity



3.5.2 Communication

Tap **Communication** on the screen of the main menu to configure the communication of the Device.

3.5.2.1 IP Settings

Configure the IP address of the VTO according to your actual network plan.

Procedure

Step 1 Tap **IP Settings**, and then configure the IP address as needed.

Figure 3-10 IP settings

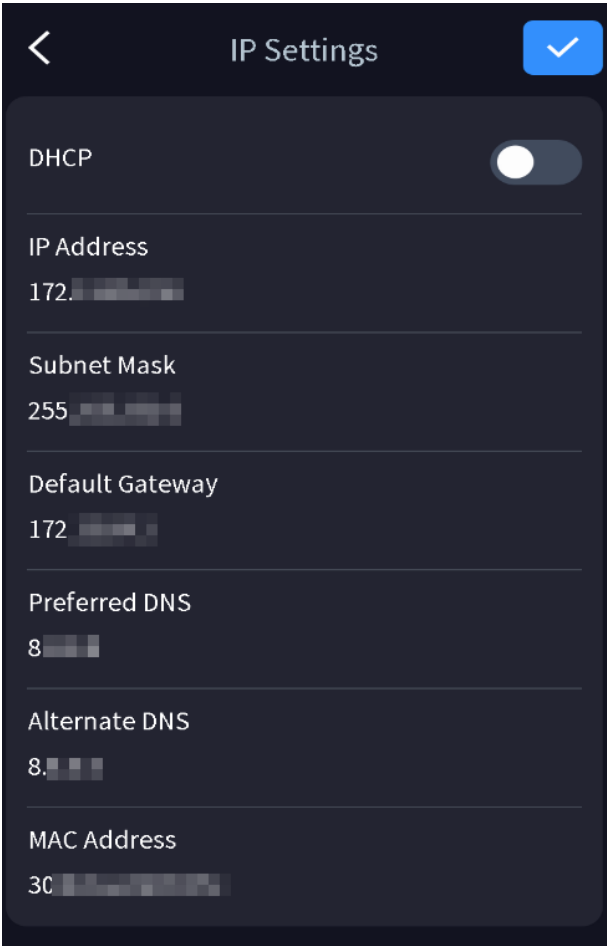


Table 3-4 Description of IP parameters

Parameter	Description
DHCP	DHCP stands for Dynamic Host Configuration Protocol. • When not enabled, manually enter IP address, subnet mask, and gateway. • When enabled, the Device will automatically be assigned with IP address, subnet mask, and gateway.
IP Address	When DHCP is not enabled, tap the item to configure the IP address, subnet mask and gateway.
Subnet Mask	
Default Gateway	
Preferred DNS	Set IP address of the preferred DNS server.
Alternate DNS	Set IP address of the alternate DNS server.

Parameter	Description
MAC Address	Displays the MAC address of the Device.

Step 2 Tap .

3.5.2.2 Wi-Fi

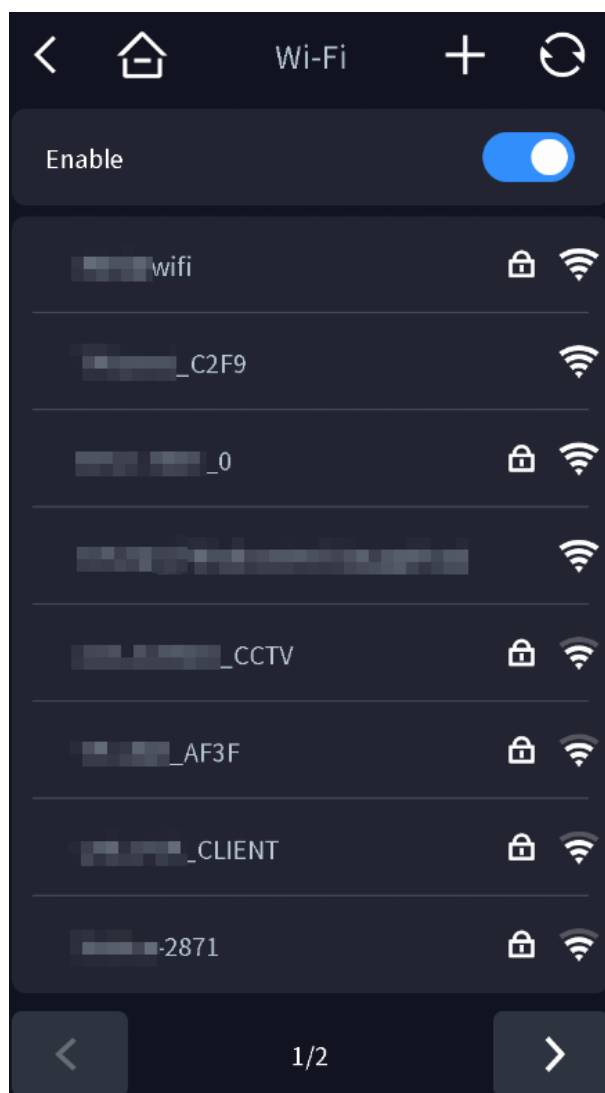
Configure the Wi-Fi function of the Device. This function is only available on select models.

Procedure

Step 1 Tap **Wi-Fi**.

Step 2 Tap  to enable the Wi-Fi function, and then you can view the available Wi-Fi list.

Figure 3-11 Wi-Fi list



Step 3 Tap the Wi-Fi to be connected, enter the password, and then tap .

Related Operations

- Tap  to enter the Wi-Fi manually.
- Tap  to refresh the Wi-Fi list.

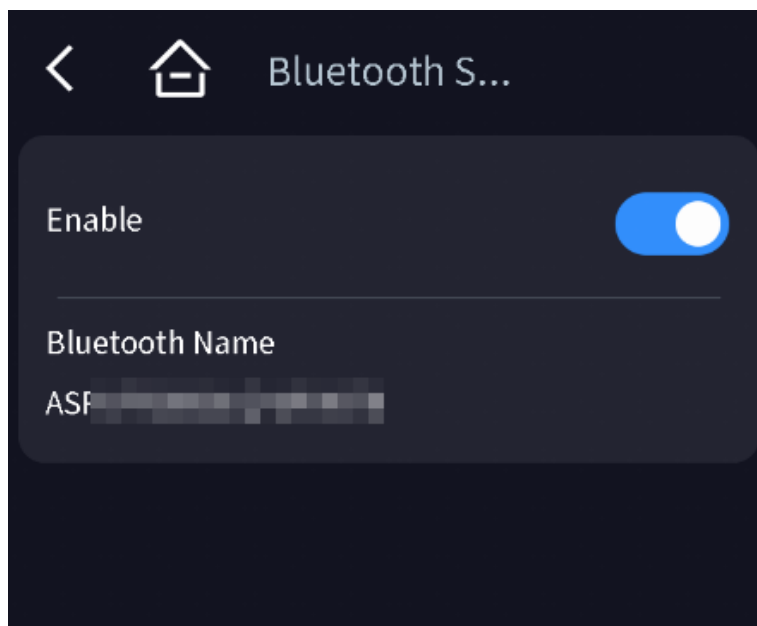
3.5.2.3 Bluetooth Settings

Configure the Bluetooth function of the Device. This function is only available on select models.

Procedure

- Step 1 Tap **Bluetooth Settings**.
- Step 2 Tap ☒ near the **Enable** to enable the Bluetooth function.

Figure 3-12 Bluetooth



Results

You can unlock the door through the Bluetooth via the DMSS app. For details, see "3.3.5 Unlocking by the Bluetooth".

3.5.2.4 Cloud Service

Through the cloud service, you can manage the VTO through DMSS.

Procedure

- Step 1 Connect the VTO to the external network through wired or wireless connection.
- Step 2 Tap ☐ behind the **Cloud Service** to enable the function.

3.5.3 General Settings

Configure the volume, screen off time and other parameters.

Procedure

- Step 1 Tap **General Settings** on the screen of the main menu.
- Step 2 Configure the parameters.

Figure 3-13 General settings

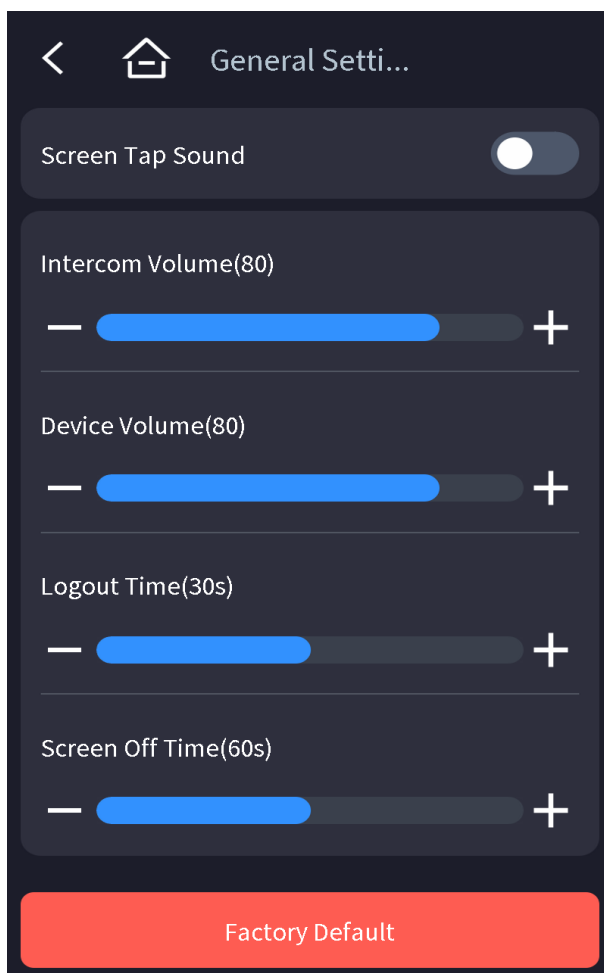


Table 3-5 Description of the general settings

Parameter	Description
Screen Tap Sound	Tap  to enable the function, and then once you tap the screen, there is a tap sound.
Intercom Volume	Tap  or  to increase or decrease the volume during intercom calls.
Device Volume	Tap  or  to increase or decrease the device volume.
Logout Time	Tap  or  to increase or decrease the waiting time for automatic logout when there is no operation.  The logout time must be lower than the screen time.
Screen Off Time	Tap  or  to increase or decrease the delay time for the screen to automatically turn off.

Step 3 (Optional) Tap **Factory Default** to set the device to the factory default.



All settings will be restored to default except for IP address. Please be advised.

3.5.4 Personalization

Personalize the device.

Procedure

Step 1 Tap **Personalization** on the screen of the main menu.

Step 2 Configure the personalization as needed.

The figure here is only for reference, and might differ from devices.

Figure 3-14 Personalization

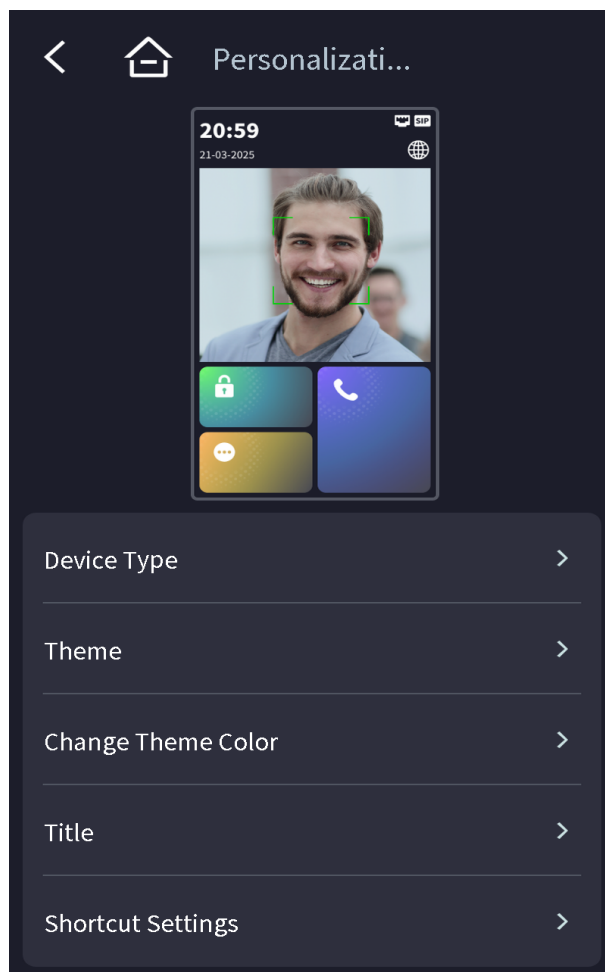


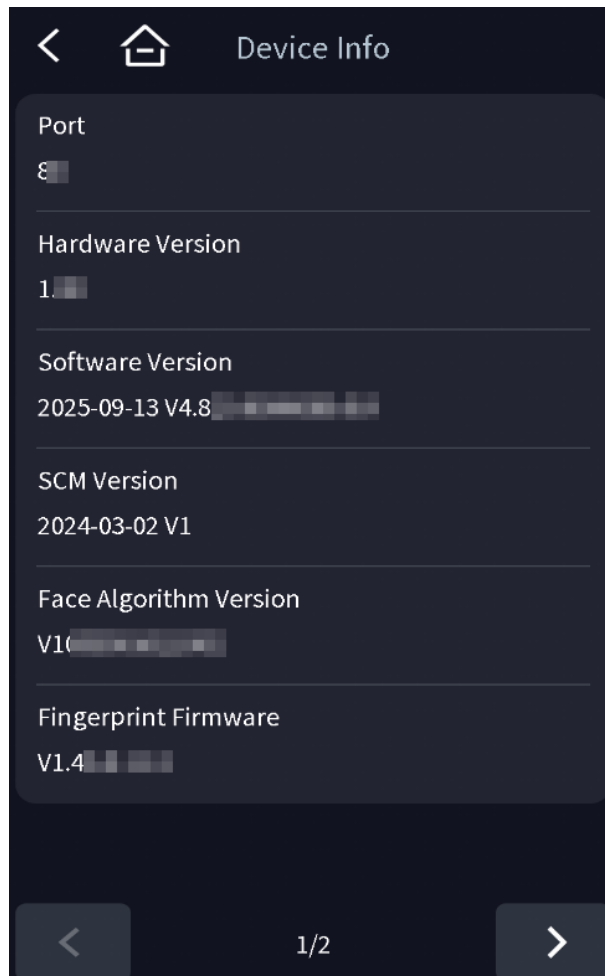
Table 3-6 Description of the personalization

Items	Description
Device Type	Select the device type from Unit VTO , Fence Station, or Villa Station according to the actual needs.  You can also set the device type on the webpage of the device. For details, see "4.7.1 Basic Settings".
Theme	Select the device theme. After you select one theme, the feature of each theme will be displayed.  You can also set the device subject on the webpage of the device. For details, see "4.7.2.1 Configuring Personalization".
Change Theme Color	Change the device theme color.  You can also change the device theme on the webpage of the device. For details, see "4.7.2.1 Configuring Personalization".
Title	Change the device title.  You can also change the device theme on the webpage of the device. For details, see "4.7.2.1 Configuring Personalization".
Shortcut Settings	Configure the device shortcuts. ● Password: Configure it as the shortcut, you can tap Password on the home screen, and then enter the password to unlock the door. ● Call: Configure it as the shortcut, and then you can tap Call on the home screen to make a call. ● Center: Configure it as the shortcut, you can tap Center on the home screen to call the management center. ● Postal Worker Unlock: Configure it as the shortcut, you can tap Postal Worker Unlock on the home screen to unlock the door. ● Publish Info: Configure it as the shortcut, you can tap Publish Info on the home screen to view the publish information. ● Homeowner Registration: Configure it as the shortcut, you can tap Homeowner Registration on the home screen to register homeowners.  ● The number of the shortcuts depends on the theme. ● You can also configure the device shortcuts on the webpage of the device. For details, see "4.7.2.1 Configuring Personalization".

3.5.5 Device Information

Tap **Device Info** on the screen of the main menu to view the details of the device.

Figure 3-15 View the device information



4 Webpage Operations

4.1 Logging in to the Webpage

Procedure

- Step 1 Enter the IP address of the VTO in the browser bar to go to the login page, and then press the Enter key.
- Step 2 Enter the user name (admin by default) and the password that you configured during the initialization.
- Step 3 Click **Login**.

4.2 Resetting the Password

If you forget the login password of the admin account, scan the QR code to reset it.

Prerequisites

Make sure that you have enabled **Password Reset** through **Network Settings** > **Basic Services**.



If you did not configure the email address during the initialization, the system will report an error. Contact the local retailer or the technical support for help.

Procedure

- Step 1 Click **Forget Password?** on the login page, and then click **Next**.
- Step 2 Get the **Security Code** according to the instructions.



- You can get up to 2 security codes with the same QR code. If you need more security codes, you need to refresh the QR code and scan it again.
- The security code will be sent to your email address. You must use it in 24 hours. Otherwise, the security code will be invalid.
- The account will be locked for 5 minutes if you enter the wrong security code 5 times in a row.

- Step 3 Enter the security code you received, and then click **Next**.
- Step 4 Enter a new password, confirm it, and then click **OK**.

4.3 Home Page Introduction

Figure 4-1 Home page

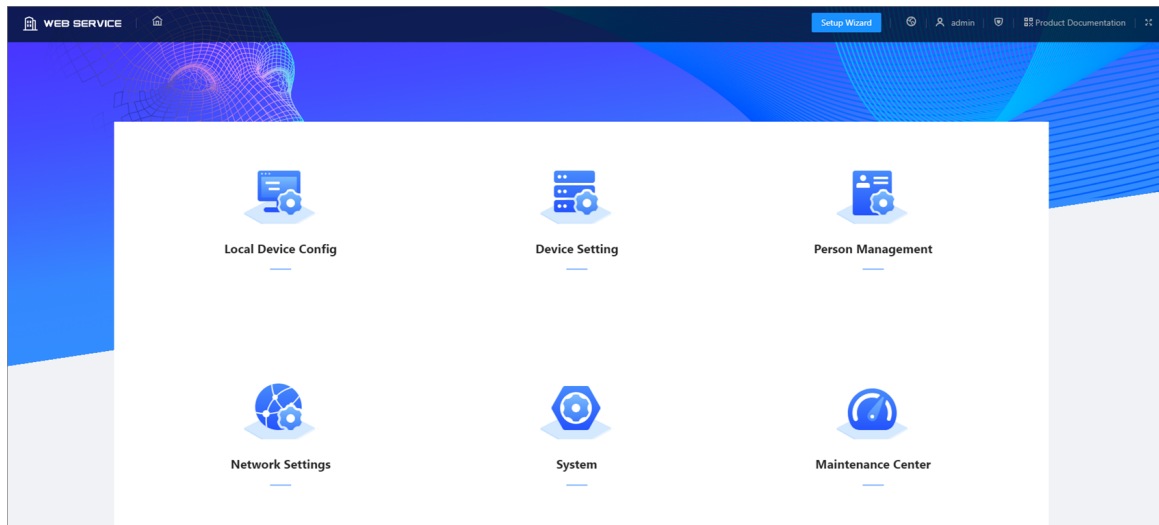
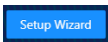
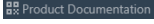


Table 4-1 Homepage introduction

Icon	Function	Description
	Home button	Click it to go back to the homepage.
	Setup Wizard	Configure the VTO SIP server. For details, see "4.4 Setup Wizard".
	Language	Change language of the webpage of the VTO.
	Admin Center	Change password, log out of the current device, restart the system, and restore the device to factory settings. For details, see "4.5 Admin Center".
	Security Center	View and configure the security settings. For details, see "4.6 Security Center".
	Product Documentation	Scan the QR code to view the product documentation, such as the user manual.  This function is only available on select models.
	Full screen	View the webpage in full screen mode. Click again or press the Esc key to exit the full screen mode.
	Local Device Config	Configure the basic information. For details, see "4.7 Local Device Configuration".
	Device Setting	Manage the device information. For details, see "4.8 Device Setting".

Icon	Function	Description
	Person Management	Manage the person information. For details, see "4.9 Person Management".
	Network Settings	Configure the network parameters. For details, see "4.10 Network Settings".
	System	Configure the parameters of alarm linkage, video, audio, time, and ONVIF users. For details, see "4.11 System".
	Maintenance Center	View the system information. For details, see "4.12 Maintenance Center".

4.4 Setup Wizard

Through the setup wizard, you can finish the process of adding VTO, VTH or VTS and configure the VTO as the SIP server. You can also cancel its status of working as a SIP server.

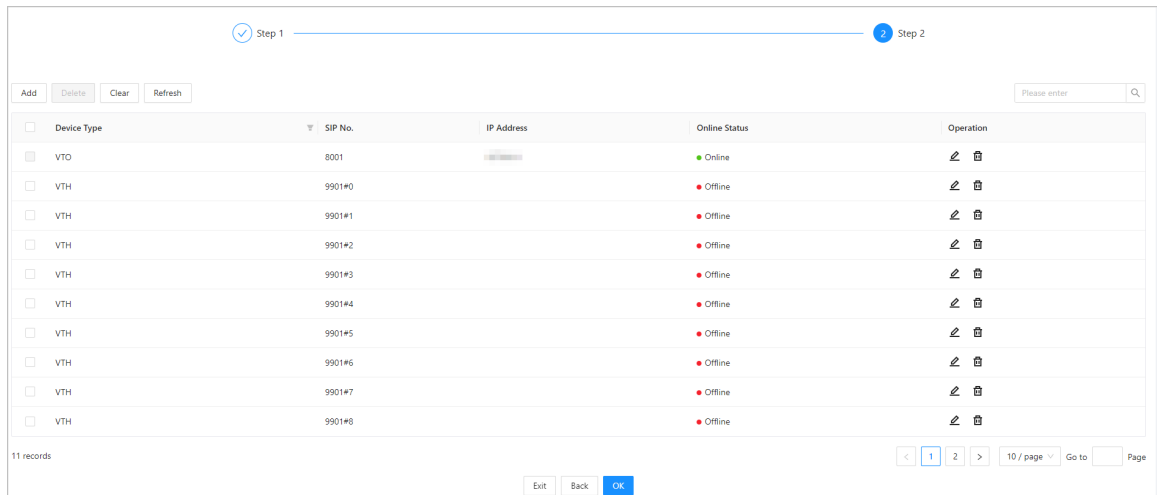
4.4.1 Setting as SIP Server

Set the VTO as the SIP server.

Procedure

- Step 1** Log in to the webpage of the VTO.
- Step 2** Select **Setup Wizard** > **Set as SIP Server**, and then click **Next**.
- Step 3** Click **OK** to set the VTO as the SIP server.

Figure 4-2 Select the SIP server



- Step 4** (Optional) Click **Add** to add VTOs, VTHs, and VTSs, and then click **OK**.

Figure 4-3 Add other devices

Add X

Device Type VTO

* No. Please enter

* Registration Password

Building No. 99

Unit No. 99

* IP Address 127

* Username Please enter

* Password Please enter

OK Cancel

4.4.2 Not Setting as SIP Server

Procedure

- Step 1 Log in to the webpage of the VTO.
- Step 2 Select **Setup Wizard** > **Do not Set as SIP Server**, and then click **Next**.
- Step 3 Configure the information of the VTO that you do not want to set as SIP server, and then click **OK**.

Figure 4-4 Configure information

Step 1

Step 2

* VTO ID 8002

Building No. 500

Unit No. 500

Server Type Device

Server Address

Port 5060

SIP No. 500#500#8001

Registration Password

SIP Domain VDP

SIP Server Username

SIP Server Password

Exit Back OK

4.5 Admin Center

Change password, logout, restart the device, restore the device to factory default settings and other operations on the home page.

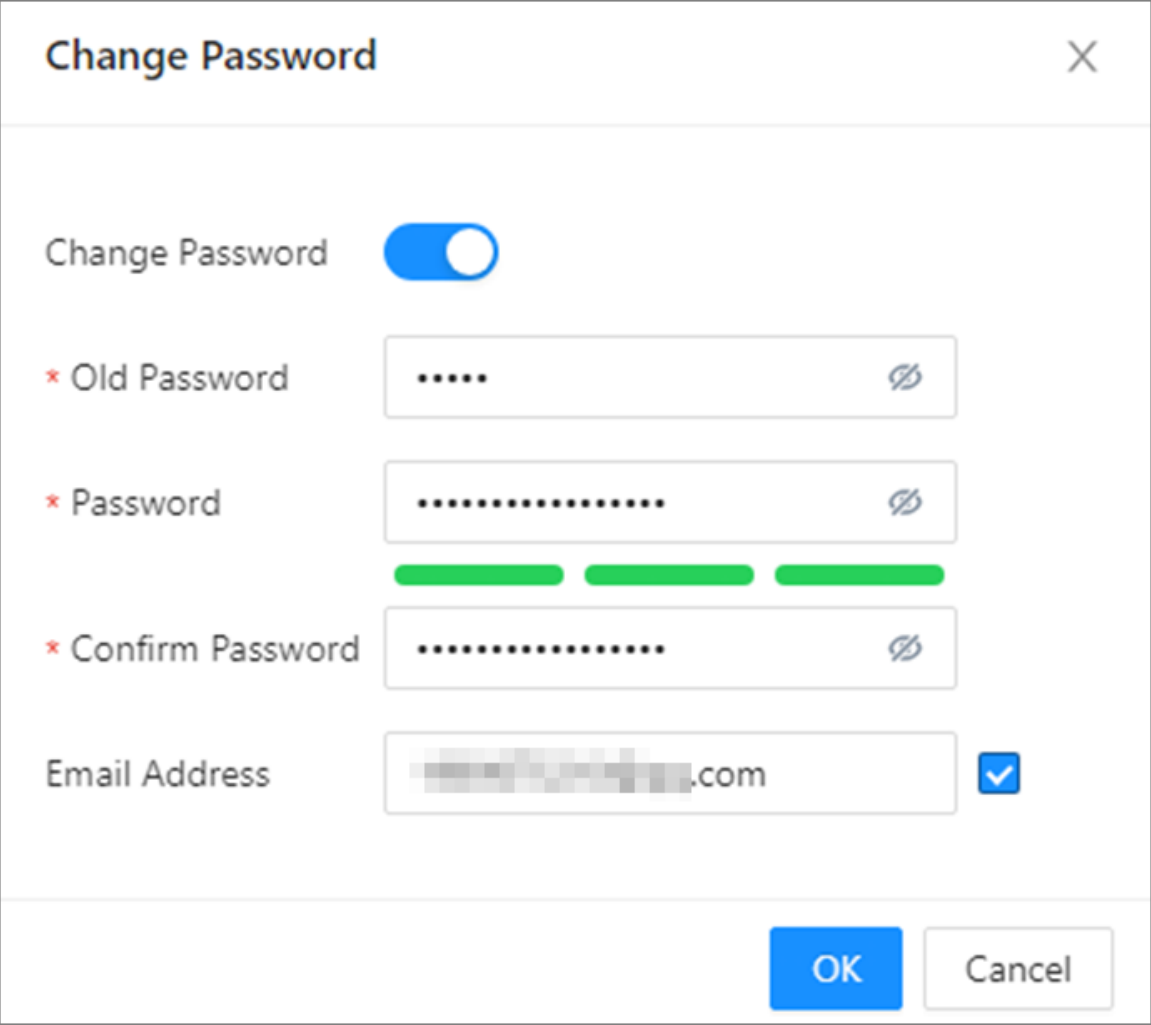
4.5.1 Changing the Password

Change the login password and the email address of the user.

Procedure

- Step 1 Log in to the webpage of the VTO.
- Step 2 Click  admin on the homepage.
- Step 3 Click **Change Password**.
- Step 4 Enable the function, configure the parameters, and then click **OK**.

Figure 4-5 Change the password



The image shows a 'Change Password' dialog box with a title bar containing the text 'Change Password' and a close button (X). Inside the dialog, there is a 'Change Password' toggle switch which is turned on. Below this, there are three password input fields, each preceded by a red asterisk. The first field is labeled 'Old Password' and contains five dots. The second field is labeled 'Password' and contains thirteen dots, with three green progress bars below it. The third field is labeled 'Confirm Password' and contains thirteen dots. Each password field has a toggle icon to its right. Below the password fields is an 'Email Address' field containing a blurred email address followed by '.com', with a blue checkmark icon to its right. At the bottom right of the dialog are 'OK' and 'Cancel' buttons.

4.5.2 Logout

Procedure

- Step 1 Click  on the homepage of the VTO.
Step 2 Click **Logout**, and then click **OK**.

Results

It goes to the login page of the VTO.

4.5.3 Restarting the Device

Procedure

- Step 1 Click  on the homepage of the VTO.
Step 2 Click **Restart**, and then click **OK**.

Results

The device automatically restarts, and then the webpage goes to the login page.

4.5.4 Restoring Default Factory Settings

Restore all settings to default except for IP address.



Restoring the VTO to its default configurations will result in data loss. Please be advised.

Procedure

- Step 1 Log in to the webpage of the VTO.
- Step 2 Click .
- Step 3 Click **Factory Default**.
- Step 4 Enter the login password, and then click **OK**.

Results

The device will restore to the default factory settings, and will log out the webpage automatically.

4.6 Security Center

4.6.1 Security Status

Scan the users, service, and security modules to check the security status of the VTO.

Background Information

- User and service detection: Check whether the current configuration conforms to recommendation.
- Security modules scanning: Scan the running status of security modules, such as audio and video transmission, trusted protection, securing warning and attack defense.

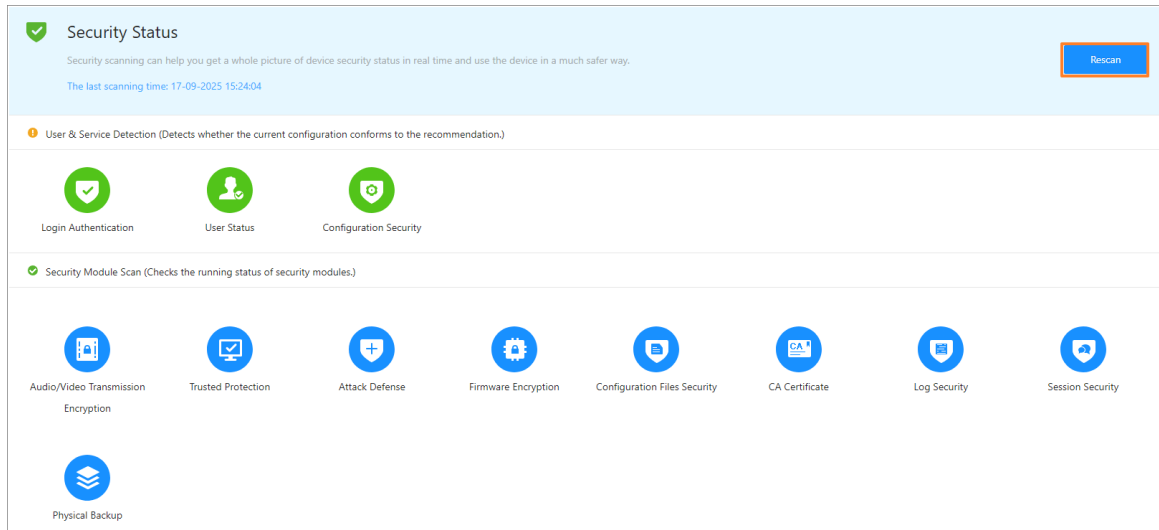
Procedure

- Step 1 Select  > **Security Status**.
- Step 2 Click **Rescan** to perform a security scan of the VTO.



Hover over the icons of the security modules to see the running status.

Figure 4-6 Security status



Related Operations

After you perform the scan, the results will be displayed in different colors.

Yellow indicates that the security modules are abnormal, while green indicates that the security modules are normal.

- Click **Details** to view the details on the results of the scan.
- Click **Ignore** to ignore the abnormality, and it will not be scanned. The abnormality that was ignored will be highlighted in grey.
- Click **Optimize** to troubleshoot the abnormality.

4.6.2 Configuring HTTPS

Create a certificate or upload an authenticated certificate, and then you can log in to the webpage through HTTPS on your computer. HTTPS secures communication over a computer network.

Procedure

Step 1 Select  > **System Service** > **HTTPS**.

Step 2 Enable the HTTPS service.



If you turn on the compatible with TLS v1.1 and earlier versions, security risks might occur. Please be advised.

Step 3 Select the certificate.



If there are no certificates in the list, click **Certificate Management** to upload a certificate.

Figure 4-7 HTTPS

Enable ☒

HTTPS is a service entry based on Transport Layer Security (TLS). HTTPS provides web service, ONVIF access service and RTSP access service.

Auto Redirect to HTTPS ☐

*Select a device certificate [Certificate Management](#)

No.	Custom Name	Certificate Serial Number	Validity Period	User	Issued by	Used by
1		3330	10-09-2055 23:23:39	AM	Device BSC CA	HTTPS, RTSP over TLS

[Apply](#) [Refresh](#) [Default](#) [Download Root Certificate](#)

Step 4 Click **Apply**.

Results

Enter "https://IP address: httpsport" in the browser. If the certificate is installed, you can log in to the webpage. If not, the webpage will display the certificate as wrong or untrusted.

4.6.3 Attack Defense

4.6.3.1 Configuring Firewall

Configure firewall to limit access to the Device.

Procedure

Step 1 Select > **Attack Defense** > **Firewall**.

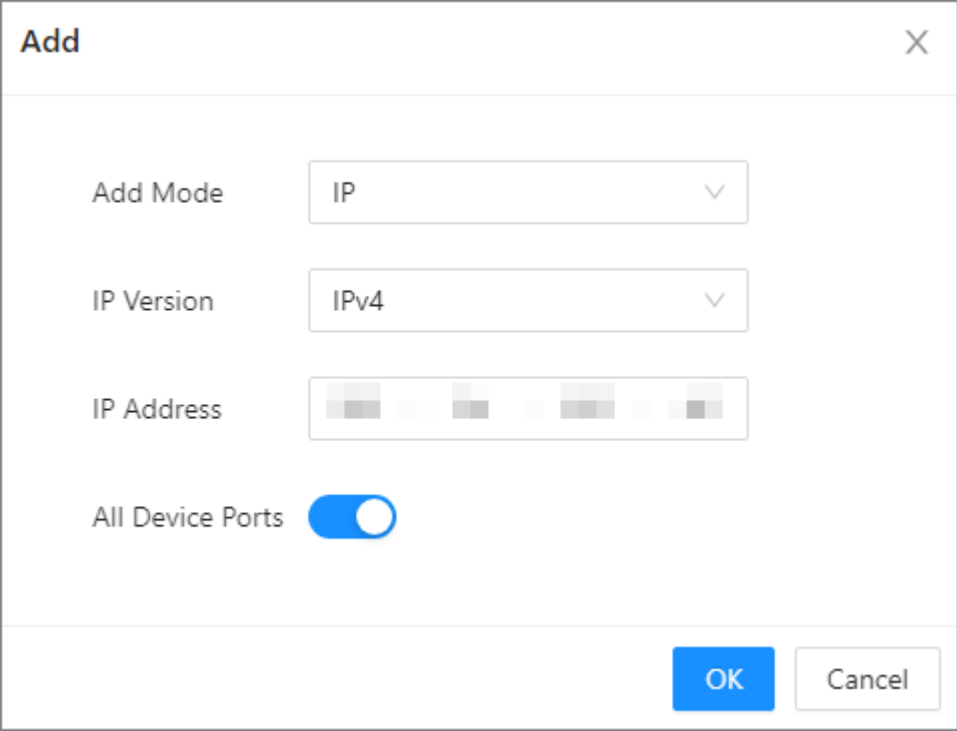
Step 2 Click ☐ to enable the firewall function.

Step 3 Select the mode: **Allowlist** or **Blocklist**.

- **Allowlist** : Only source hosts whose IP/MAC are in the following list are allowed to access corresponding ports of the device.
- **Blocklist** : The listed corresponding source host of IP addresses/MAC is prohibited from visiting the corresponding ports of the device by network connection.

Step 4 Click **Add** to enter the IP information.

Figure 4-8 Add IP information



The image shows a dialog box titled "Add" with a close button (X) in the top right corner. It contains four fields: "Add Mode" with a dropdown menu set to "IP", "IP Version" with a dropdown menu set to "IPv4", "IP Address" with a field containing four groups of three gray squares, and "All Device Ports" with a blue toggle switch. At the bottom right, there are "OK" and "Cancel" buttons.

Step 5 Click **OK**.

Related Operations

- Click  to edit the IP information.
- Click  to delete the IP address.

4.6.3.2 Configuring Account Lockout

If the incorrect password is entered for a defined time, the account will be locked.

Procedure

Step 1 Select  > **Attack Defense** > **Account Lockout**.

Step 2 Select the times of login attempts and set the lock time the device account and ONVIF users will be locked for.

Figure 4-9 Account lockout

Device Account

Login Attempt: 5time(s) ▼

Lock Time: 5 min

ONVIF User

Login Attempt: 30time(s) ▼

Lock Time: 5 min

Apply Refresh Default

- Login attempt: The limit of login attempts. If the incorrect password is entered for a defined time, the account will be locked.
- Lock time: The period during which you cannot log in after the account is locked.

Step 3 Click **Apply**.

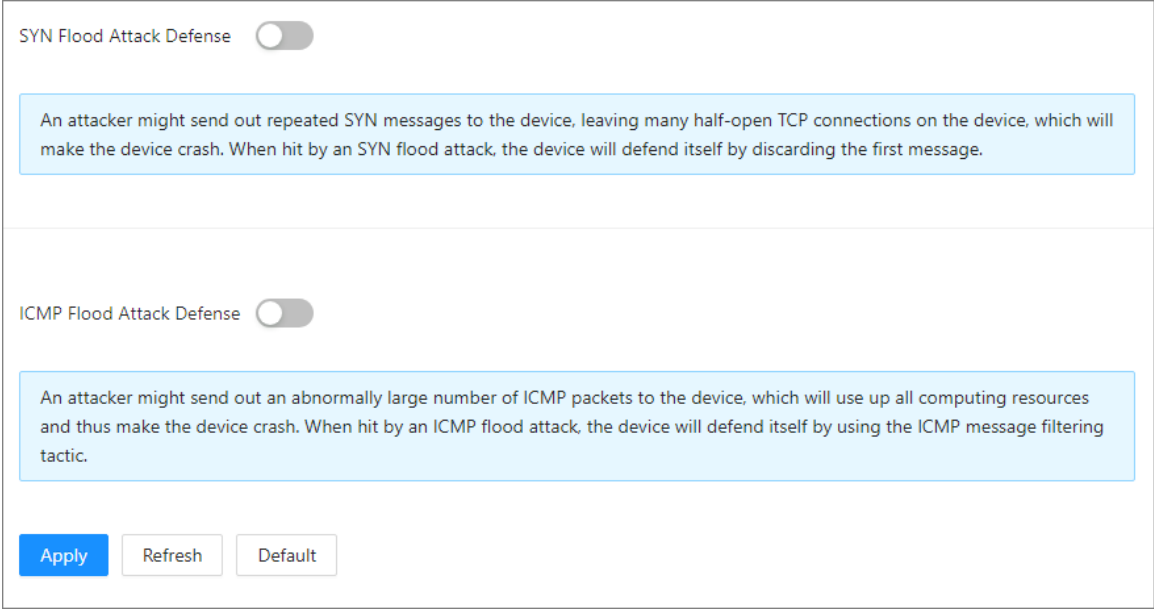
4.6.3.3 Configuring Anti-DoS Attack

You can enable **SYN Flood Attack Defense** and **ICMP Flood Attack Defense** to defend the VTO against DoS attacks.

Procedure

- Step 1 Select  > **Attack Defense** > **Anti-DoS Attack**.
- Step 2 Enable **SYN Flood Attack Defense** or **ICMP Flood Attack Defense** to protect the VTO against DoS attack.

Figure 4-10 Anti-DoS attack



SYN Flood Attack Defense ☐

An attacker might send out repeated SYN messages to the device, leaving many half-open TCP connections on the device, which will make the device crash. When hit by an SYN flood attack, the device will defend itself by discarding the first message.

ICMP Flood Attack Defense ☐

An attacker might send out an abnormally large number of ICMP packets to the device, which will use up all computing resources and thus make the device crash. When hit by an ICMP flood attack, the device will defend itself by using the ICMP message filtering tactic.

[Apply](#) [Refresh](#) [Default](#)

Step 3 Click **Apply**.

4.6.4 Installing Device Certificate

Create a certificate or upload an authenticated certificate, and then you can log in through HTTPS on your computer.

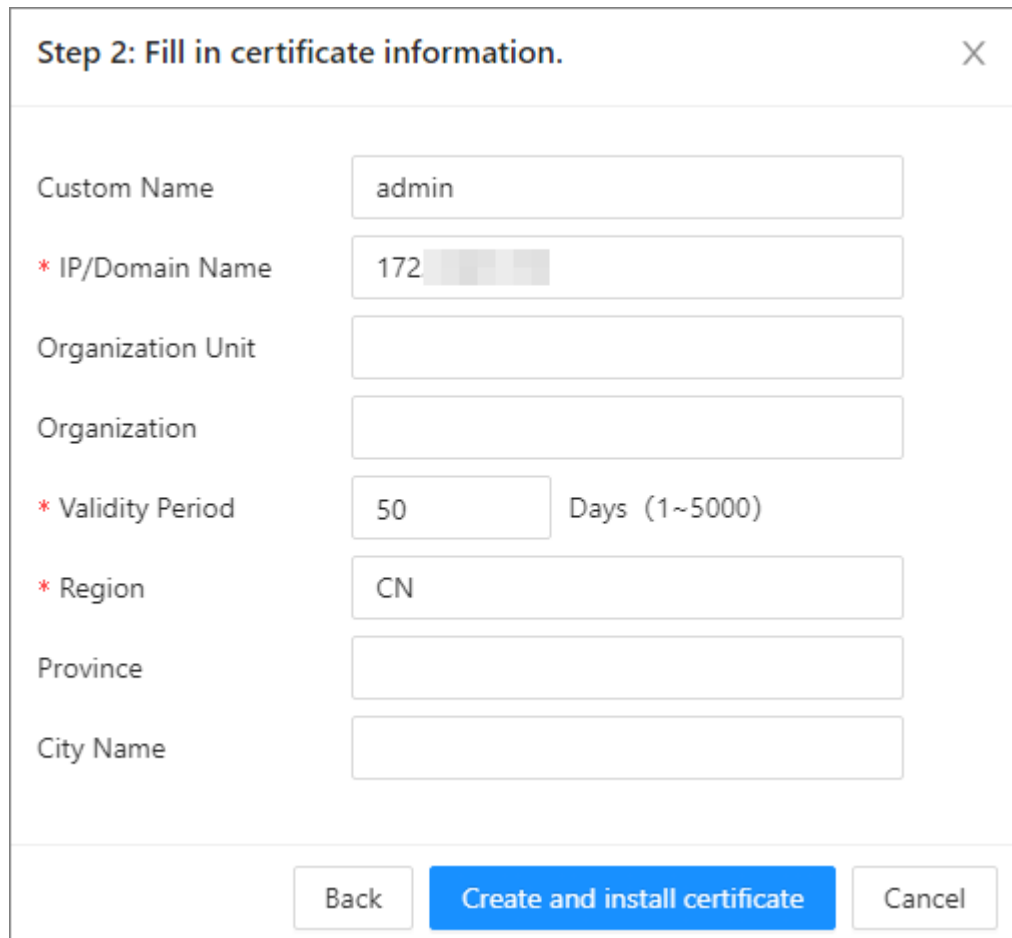
4.6.4.1 Creating Certificate

Create a certificate for the Device.

Procedure

- Step 1 Select  > **CA Certificate** > **Device Certificate**.
- Step 2 Click **Install Device Certificate**.
- Step 3 Select **Create Certificate**, and then click **Next**.
- Step 4 Enter the certificate information.

Figure 4-11 Certificate information



The name of region should be 2 uppercase letters. We recommend entering the abbreviation of the name of the region.

Step 5 Click **Create and install certificate**.

The newly installed certificate is displayed on the **Device Certificate** page after the certificate is successfully installed.

Related Operations

- Click **Enter Edit Mode** on the **Device Certificate** page to edit the name of the certificate.
- Click  to download the certificate.
- Click  to delete the certificate.

4.6.4.2 Applying for and Importing CA Certificate

Import the third-party CA certificate to the Device.

Procedure

- Step 1** Select  > **CA Certificate** > **Device Certificate**.
- Step 2** Click **Install Device Certificate**.
- Step 3** Select **Apply for CA Certificate and Import (Recommended)**, and then click **Next**.
- Step 4** Enter the certificate information.

- IP/Domain name: The IP address or domain name of the Device.
- Region: The name of region should be 2 uppercase letters. We recommend you enter the abbreviation of region name.

Figure 4-12 Certificate information (2)

Step 2: Fill in certificate information.

* IP/Domain Name: 172...

Organization Unit:

Organization:

* Region: CN

Province:

City Name:

Buttons: Back, Create and Download, Cancel

Step 5 Click **Create and Download**.

The request file will be saved to your computer.

Step 6 Import the signed CA certificate.

1. Click **Browse** to select the CA certificate.
2. Click **Import and Install**.

The newly installed certificate is displayed on the **Device Certificate** page after the certificate is successfully installed.

3. (Optional) Click **Recreate** to create the request file again or click **Import Later** to import the certificate at another time.

Related Operations

- Click **Enter Edit Mode** on the **Device Certificate** page to edit the name of the certificate.
- Click  to download the certificate.
- Click  to delete the certificate.

4.6.4.3 Installing Existing Certificate

If you already have a certificate and private key file, import the certificate and private key file.

Procedure

Step 1 Select **Security** > **CA Certificate** > **Device Certificate**.

Step 2 Click **Install Device Certificate**.

- Step 3 Select **Install Existing Certificate** , and then click **Next**.
- Step 4 Click **Browse** to select the certificate path and private key file, and then enter a private key password.
- Step 5 Click **Import and Install**.

The newly installed certificate is displayed on the **Device Certificate** page after the certificate is successfully installed.

Related Operations

- Click **Enter Edit Mode** on the **Device Certificate** page to edit the name of the certificate.
- Click  to download the certificate.
- Click  to delete the certificate.

4.6.5 Installing the Trusted CA Certificate

A trusted CA certificate is a digital certificate that is used for validating the identities of websites and servers.

Background Information

- For example, when 802.1x protocol is used, the CA certificate for switches is required to authenticate its identity.
- 802.1X protocol is a network authentication protocol that opens ports for network access when an organization authenticates users' identities and authorizes them access to the network.

Procedure

- Step 1 Select  > **CA Certificate** > **Trusted CA Certificates**.
- Step 2 Click **Install Trusted Certificate**.
- Step 3 Click **Browse** to select the trusted certificate.
- Step 4 Click **OK**.

The newly installed certificate is displayed on the **Trusted CA Certificates** page after the certificate is successfully installed.

Related Operations

- Click **Enter Edit Mode** on the **Trusted CA Certificates** page to edit the name of the certificate.
- Click  to download the certificate.
- Click  to delete the certificate.

4.6.6 Video Encryption

Procedure

- Step 1 Select  > **Video Encryption**.
- Step 2 Configure the parameters.

Figure 4-13 Video encryption

Encrypted Transmission

Private Protocol

Enable

Stream transmission is encrypted by using private protocol.

*Please make sure that the corresponding device or software supports video decryption.

Encryption Type

Update Period of Secret Key

RTSP over TLS

Enable

RTSP stream is encrypted by using TLS tunnel before transmission.

*Please make sure that the corresponding device or software supports video decryption.

*Select a device certificate

No.	Custom Name	Certificate Serial Number	Validity Period	User	Issued by	Used by
1		335	10-09-2055 23:23:39	AN	Dahua Device BSC CA	HTTPS, RTSP over TLS
2	admin	335	07-11-2025 01:11:38	17	Dahua Device BSC CA	

Apply Refresh Default

Table 4-2 Data encryption description

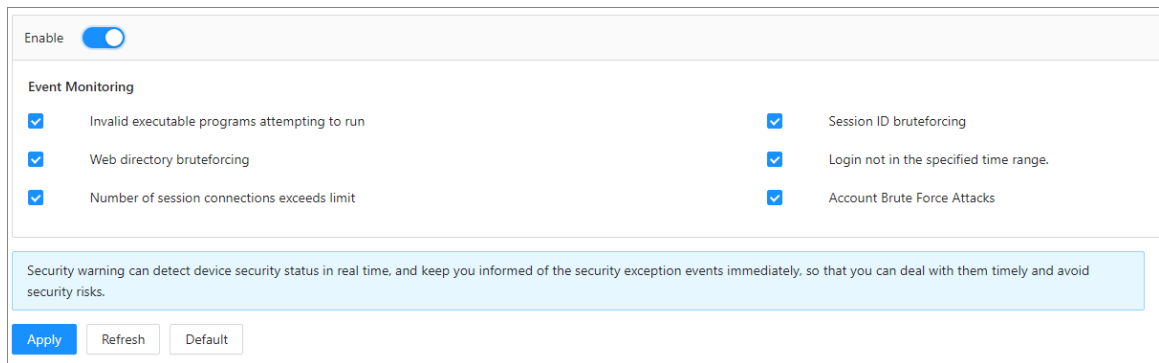
Parameter		Description
Private Protocol	Enable	Streams are encrypted during transmission through private protocol.
	Encryption type	Keep it as default.
	Update Period of Secret Key	Ranges from 0 h – 720 h. 0 means never updating the secret key.
RTSP over TLS	Enable	RTSP stream is encrypted during transmission through TLS tunnel.
	Certificate management	Create or import a certificate. The installed certificates are displayed on the list.

4.6.7 Security Warning

Procedure

- Step 1** Select  > **Security Warning**.
- Step 2** Enable the security warning function.
- Step 3** Select the monitoring items.

Figure 4-14 Security warning



Step 4 Click **Apply**.

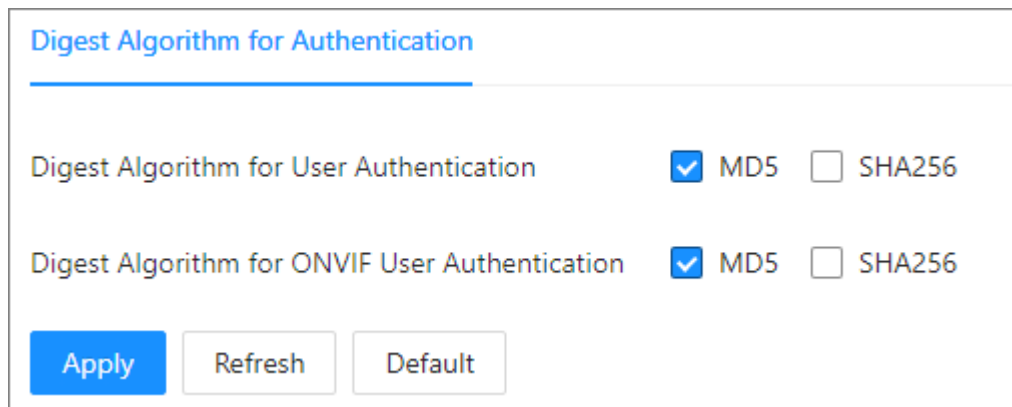
4.6.8 Security Authentication

Procedure

Step 1 Select  > **Security Authentication**.

Step 2 Select a digest algorithm for user authentication and ONVIF user authentication respectively.

Figure 4-15 Security Authentication



Step 3 Click **Apply**.

4.7 Local Device Configuration

This chapter introduces the detailed configuration of the VTO.



Slight differences might be found in different models.

4.7.1 Basic Settings



The default device types vary from different devices.

4.7.1.1 Unit VTO as Device Type

Procedure

- Step 1 Select **Local Device Config** > **Basic Settings**.
- Step 2 Select **Unit VTO** as **Device Type**, and then configure the parameters.

Figure 4-16 Basic settings

Local Device Config

Device Type	Unit VTO	▼
Device Name		
Building No.	99	✓
Unit No.	99	✓
VTO ID	8001	
Management Center	888888	

Postal Worker Unlock

Enable ☐

Calling by Period Mode

Enable ☐

Functions

Storage Method	SD Card	▼
SD Card Usage	0M/0M	
	Format SD Card	If the SD card cannot be recognized, you can format it.
Auto Capture while Unlocking	☐	
Auto Capture during Call	☐	
Upload Messages and Videos	☒	

Please regularly perform backups to avoid data loss.

Apply

Refresh

Default

Table 4-3 Basic parameter description

Module	Parameter	Description
Local Device Config	Device Name	When other devices are monitoring this VTO, the device name will appear on the monitoring image.
	Building No.	Configuring the building and unit number where the device is.
	Unit No.	 If you clear the Building No. and Unit No., it means that there is just only 1 building and unit.
	VTO ID	Used to differentiate each VTO, and we recommend you set it according to unit or building number, and then you can add VTOs to the SIP server by using their numbers.  The number cannot be changed when the VTO serves as the SIP server.
	Management Center	888888 by default.
Postal Worker Unlock		It is disabled by default. - When it is enabled, select whether local lock or external lock can be open during the set period. - Click Setting to configure the unlock schedule during which the postal worker can unlock the door.
Calling by Period Mode		It is disabled by default. When it is enabled, click Setting to configure the time plan, during which the calling can be achieved.
Functions	Storage Method	It is SD card by default.
	SD Card Usage	Displays the total and used capacity of the SD card. You can click Format SD Card to delete all the data in the SD card.
	Auto Capture while Unlocking	Take a snapshot and save it in the SD card of the VTO when the VTO is unlocking.  If the VTO is unlocked through the local unlock button, the snapshot will not be taken.

Module	Parameter	Description
	Auto Capture during Call	Take a snapshot and save it in the SD card of the VTO when the VTO is calling.
	Upload Messages and Videos	When it is enabled, the leave videos will be saved in the VTH or VTO where the SD card is inserted.

Step 3 Click **Apply**.

4.7.1.2 Fence Station as Device Type

Procedure

Step 1 Select **Local Device Config** > **Basic Settings**.

Step 2 Select **Fence Station** as **Device Type**, and then configure the parameters.

Figure 4-17 Basic settings

Local Device Config

Device Type	Fence Station	
Device Name		
Building No.	99	☒
Unit No.	99	☒
VTO ID	8001	
Management Center	888888	

Postal Worker Unlock

Enable	☒
Lock Permission	☒ Local Lock ☐ External Lock
Unlock Schedule	Setting

Calling by Period Mode

Enable	☒
Time Plan for Calling	Setting

Functions

Storage Method	SD Card	
SD Card Usage		0M/0M
	Format SD Card	If the SD card cannot be recognized, you can format it.
Auto Capture while Unlocking	☐	
Auto Capture during Call	☐	
	Please regularly perform backups to avoid data loss.	

[Apply](#) [Refresh](#) [Default](#)

Table 4-4 Basic parameter description

Module	Parameter	Description
Local Device Config	Device Name	When other devices are monitoring this fence station, the device name will appear on the monitoring image.
	Building No.	Configuring the building and unit number where the device is.
	Unit No.	 If you clear the Building No. and Unit No., it means that there is just only 1 building and unit.
	VTO ID	Used to differentiate each VTO, and we recommend you set it according to unit or building number, and then you can add VTOs to the SIP server by using their numbers.  The number cannot be changed when the VTO serves as the SIP server.
	Management Center	888888 by default.
Postal Worker Unlock		It is disabled by default. - When it is enabled, select whether local lock or external lock can be open during the set period. - Click Setting to configure the unlock schedule during which the postal worker can unlock the door.
Calling by Period Mode		It is disabled by default. When it is enabled, click Setting to configure the time plan, during which the calling can be achieved.
Functions	Storage Method	It is SD card by default.
	SD Card Usage	Displays the total and used capacity of the SD card. You can click Format SD Card to delete all the data in the SD card.
	Auto Capture while Unlocking	Take a snapshot and save it in the SD card of the VTO when the VTO is unlocking.  If the VTO is unlock through local unlock button, the snapshot will not be taken.
	Auto Capture during Call	Take a snapshot and save it in the SD card of the VTO when the VTO is calling.

Step 3 Click **Apply**.

4.7.1.3 Villa Station as Device Type

Procedure

- Step 1** Select **Local Device Config** > **Basic Settings**.
- Step 2** Select **Villa Station** as **Device Type**, and then configure the parameters.

Figure 4-18 Basic settings

The image shows two side-by-side screenshots of a web interface. The left screenshot is titled 'Local Device Config' and contains the following fields: 'Device Type' (set to 'Villa Station'), 'Device Name' (empty), 'Villa Room No.' (9901), 'Building No.' (99 with a checked checkbox), 'Unit No.' (99 with a checked checkbox), 'VTO ID' (8001), 'Management Center' (888888), 'Available Call Time' (Setting button), and 'DND for DMSS' (Setting button). Below these is a 'Postal Worker Unlock' section with 'Enable' (checked), 'Lock Permission' (checked for 'Local Lock'), and 'Unlock Schedule' (Setting button). The right screenshot is titled 'Calling by Period Mode' and contains 'Enable' (checked), 'Time Plan for Calling' (Setting button), and a 'Functions' section. The 'Functions' section includes 'Storage Method' (SD Card), 'SD Card Usage' (0M/0M), a 'Format SD Card' button, and a note: 'If the SD card cannot be recognized, you can format it.' Below this are several toggle switches: 'Auto Capture while Unlocking' (unchecked), 'Auto Capture during Call' (unchecked), 'Upload Messages and Videos' (checked), and 'Auto Record while Calling' (unchecked). A note at the bottom says: 'Please regularly perform backups to avoid data loss.' At the very bottom are 'Apply', 'Refresh', and 'Default' buttons.

Table 4-5 Basic parameter description

Module	Parameter	Description
Local Device Config	Device Name	When other devices are monitoring this VTO, the device name will appear on the monitoring image.
	Villa Room No.	VTH room number. Used to call VTHs.
	Building No.	Configuring the building and unit number where the device is.
	Unit No.	 If you clear the Building No. and Unit No. checkbox, it means that there is just only 1 building and unit.
	VTO ID	Used to differentiate each VTO, and we recommend you set it according to unit or building number, and then you can add VTOs to the SIP server by using their numbers.  The number cannot be changed when the VTO serves as the SIP server.
	Management Center	888888 by default.

Module	Parameter	Description
	Available Call Time	The time period during which the VTO's calling to other devices is not limited. Click Setting to set the time plan for calling.
	DND for DMSS	The time period during which the calling to DMSS is not limited. Click Setting to set the time plan for calling.
Postal Worker Unlock		It is disabled by default. - When it is enabled, select whether local lock or external lock can be open during the set period. - Click Setting to configure the unlock schedule during which the postal worker can unlock the door.
Calling by Period Mode		- If you enable the Calling by Period Mode, the specified number can be called in the specified period and the default number in other period. - Click Setting to set the time plan for calling.
Functions	Storage Method	SD card by default.
	SD Card Usage	Displays the total and used capacity of the SD card. You can click Format SD Card to delete all the data in the SD card.
	Auto Capture while Unlocking	Take a snapshot and save it in the SD card of the VTO when the VTO is unlocking.  If the VTO is unlock through local unlock button, the snapshot will not be taken.
	Auto Capture during Call	Take a snapshot and save it in the SD card of the VTO when the VTO is calling.
	Upload Messages and Videos	When it is enabled, the messages and videos will be saved in the VTH or VTO where the SD card is inserted.
	Auto Record while Calling	Take recording when the VTO is in a call, and save the recording in the SD card of the VTO.  - When the call time is less than 5 seconds, no video file will be generated. - If there is a conflict between Auto Record while Calling and Leave Videos, Leave Videos prevails.

Step 3 Click **Apply**.

4.7.2 Personalization

Configure themes and add video or image resources to the Device.

4.7.2.1 Configuring Personalization

The themes shown vary from different device types. Configure the theme of the device according to the actual needs.

4.7.2.1.1 Unit VTO as Device Type

When the **Unit VTO** is set as device type, there are 4 types of themes you can configure.

Procedure

Step 1 Select **Local Device Config** > **Personalization** > **Personalization**.

Step 2 Select the theme according to the actual needs.

Click each theme, the feature is shown below the theme.

Figure 4-19 Theme 1

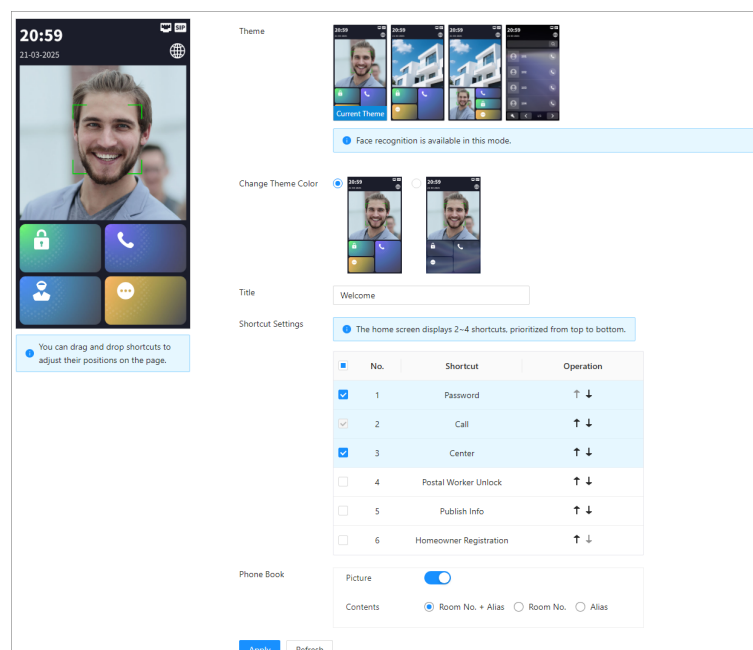


Figure 4-20 Theme 2

20:59
21-03-2025

You can drag and drop shortcuts to adjust their positions on the page.

Theme

Face recognition is not available in this mode. You can import images or videos.

Change Theme Color

Title

Welcome

Shortcut Settings

The home screen displays 2-4 shortcuts, prioritized from top to bottom.

No.	Shortcut	Operation
☒	1 Password	↑ ↓
☒	2 Call	↑ ↓
☒	3 Center	↑ ↓
☐	4 Postal Worker Unlock	↑ ↓
☐	5 Publish Info	↑ ↓
☐	6 Homeowner Registration	↑ ↓

Phone Book

Picture

☒

Contents

☒ Room No. + Alias

☐ Room No.

☐ Alias

Play Mode

☒ Original Scale

☐ Full Screen

Resources

Add

Play Plan

Add

No.	Name	Period	Type	Enable	Operation
No Data					

Apply

Refresh

Figure 4-21 Theme 3

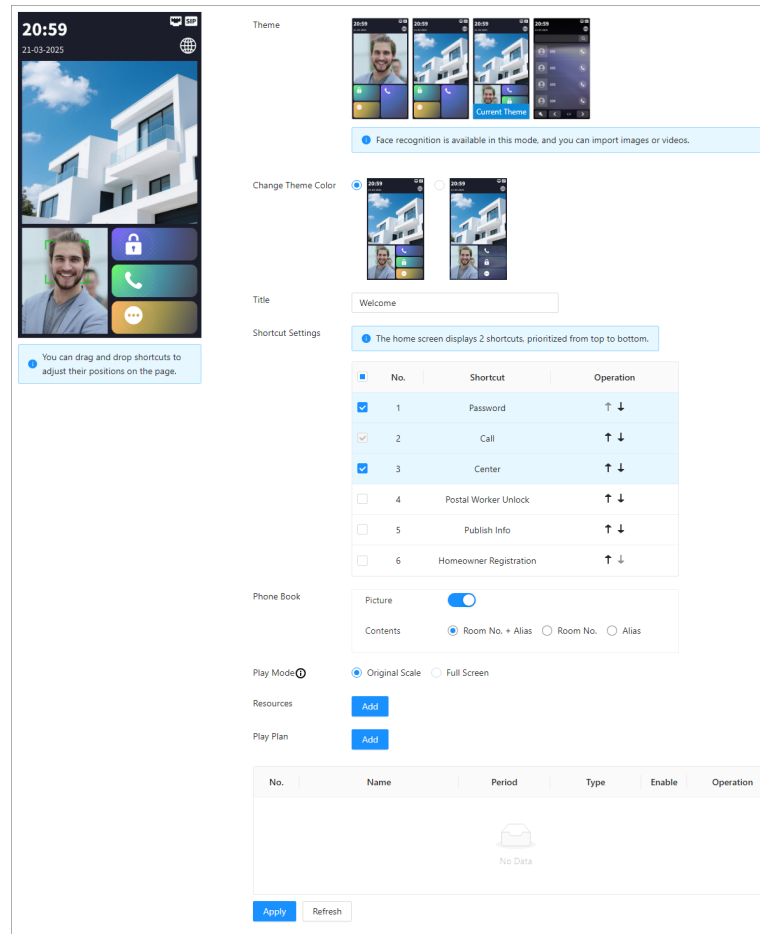


Figure 4-22 Theme 4

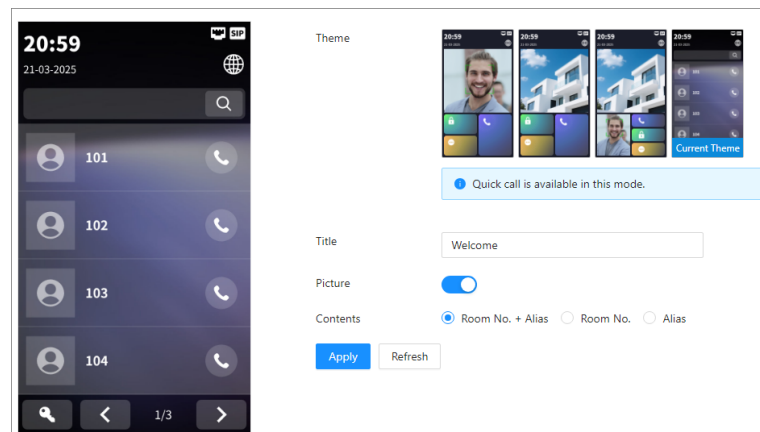
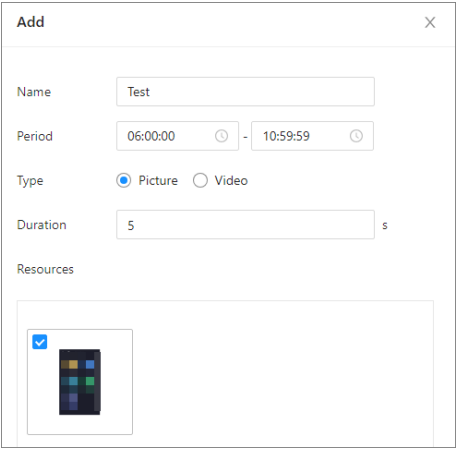


Table 4-6 Personalization

Parameter	Description
Change Theme Color	Select color theme from the 2 themes.
Title	Configure the screen title, which is shown on the home screen of the device.

Parameter	Description
Shortcut Settings	Configure the shortcut of the home screen of the device. - The home screen displays 2 to 4 shortcuts, prioritized from top to bottom of the list. - You can drag and drop shortcuts on the home screen to adjust their positions. - The shortcuts of the  and  are required and cannot be deleted. And the shortcuts of the  cannot be moved.
Button Functions	After it is enabled, you can use one-click machine button on the VTO to make a call. If it is disabled, you will be directed to the keypad.  This function is only available on select models.
Phone Book	Personalize the phone book. - Enable Picture, and then the picture of the VTH will be shown in the phone book list. - Select the displayed contents of the phone book, including Room No. + Alias, Room No., and Alias.  The sequence of the VTHs in the phone book is based on the room number.
Play Mode	Select the play mode. - Original Scale: Plays the image and video in the original size. - Full Screen: Plays the image and video in full screen.
Resources	Configure the displayed resources as needed. - Click Add. - Select resources type, including picture and video. - Picture: Click Upload, and then select pictures from the local computer.  Supports PNG, JPG, and BMP formats. The image size must not exceed 20 MB. - Video: - Click Upload. - Click Click here to download to download and install the plug-in first. - Click Browse, and then select videos from the local computer.  Supports AVI, DAV, and MP4 formats. The video must be less than 100 MB.

Parameter	Description
Play Plan	Configure play plans of the displayed resources as needed. 1. Click Add. 2. Enter the plan name. 3. Select the play plan period. 4. Select resource type from Picture or Video. ● Picture: Configure the play plan duration from 1 second through 20 seconds, and then select the resources configured in the Resources. ● Video: Select the resources configured in the Resources. 5. Click OK. 

Step 3 Click **Apply**.

4.7.2.1.2 Fence Station as Device Type

When the **Fence Station** is set as device type, there are 3 types of themes you can configure.

Procedure

Step 1 Select **Local Device Config** > **Personalization** > **Personalization**.

Step 2 Select the theme according to the actual needs.

Click each theme, the feature is shown below the theme.

Figure 4-23 Theme 1

20:59

21-03-2025

🔒

☎️

👤

💬

You can drag and drop shortcuts to adjust their positions on the page.

Theme

Current Theme

Face recognition is available in this mode.

Change Theme Color

Title

Welcome

Shortcut Settings

The home screen displays 2-4 shortcuts, prioritized from top to bottom.

No.	Shortcut	Operation
☒ 1	Password	↑ ↓
☒ 2	Call	↑ ↓
☒ 3	Center	↑ ↓
☐ 4	Postal Worker Unlock	↑ ↓
☐ 5	Publish Info	↑ ↓
☐ 6	Homeowner Registration	↑ ↓

Apply

Refresh

Figure 4-24 Theme 2

20:59

21-03-2025

🔒

☎️

👤

💬

You can drag and drop shortcuts to adjust their positions on the page.

Theme

Current Theme

Face recognition is not available in this mode. You can import images or videos.

Change Theme Color

Title

Welcome

Shortcut Settings

The home screen displays 2-4 shortcuts, prioritized from top to bottom.

No.	Shortcut	Operation
☒ 1	Password	↑ ↓
☒ 2	Call	↑ ↓
☒ 3	Center	↑ ↓
☐ 4	Postal Worker Unlock	↑ ↓
☐ 5	Publish Info	↑ ↓
☐ 6	Homeowner Registration	↑ ↓

Play Mode

☒ Original Scale
 ☐ Full Screen

Resources

Add

Play Plan

Add

No.	Name	Period	Type	Enable	Operation
No Data					

Apply

Refresh

Figure 4-25 Theme 3

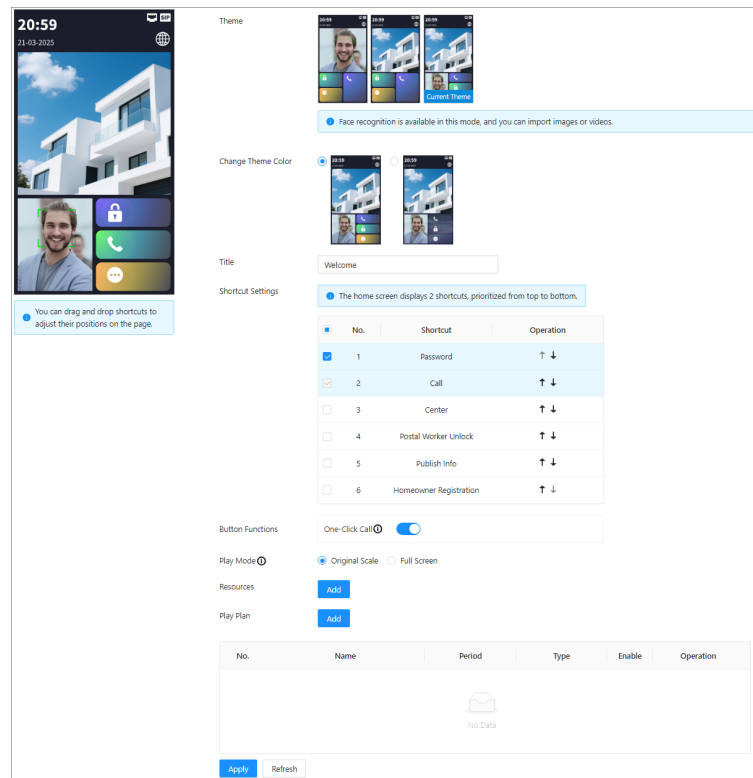
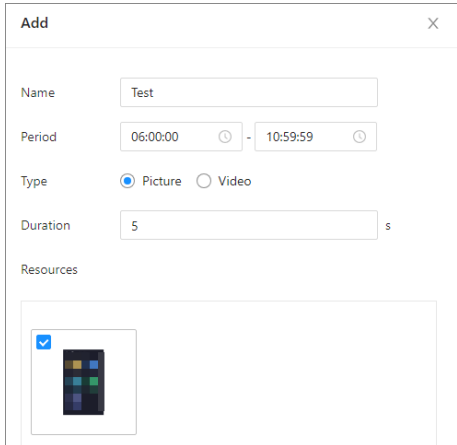


Table 4-7 Personalization

Parameter	Description
Change Theme Color	Select color theme from the 2 themes.
Title	Configure the screen title, which is shown on the home screen of the device.
Shortcut Settings	Configure the shortcut of the home screen of the device. - The home screen displays 2 to 4 shortcuts, prioritized from top to bottom of the list. - You can drag and drop shortcuts on the home screen to adjust their positions. - The shortcuts of the  and  are required and cannot be deleted. And the shortcuts of the  cannot be moved.
Button Functions	After it is enabled, you can use one-click machine button on the VTO to make a call. If it is disabled, you will be directed to the keypad.  This function is only available on select models.
Play Mode	Select the play mode. - Original Scale: Plays the image and video in the original size. - Full Screen: Plays the image and video in full screen.

Parameter	Description
Resources	Configure the displayed resources as needed. - Click Add. - Select resources type, including picture and video. - Picture: Click Upload, and then select pictures from the local computer.  Supports PNG, JPG, and BMP formats. The image size must not exceed 20 MB. - Video: - Click Upload. - Click Click here to download to download and install the plug-in first. - Click Browse, and then select videos from the local computer.  Supports AVI, DAV, and MP4 formats. The video must be less than 100 MB.
Play Plan	Configure play plans of the displayed resources as needed. - Click Add. - Enter the plan name. - Select the play plan period. - Select resource type from Picture or Video. - Picture: Configure the play plan duration from 1 second through 20 seconds, and then select the resources configured in the Resources. - Video: Select the resources configured in the Resources. - Click OK. 

Step 3 Click **Apply**.

4.7.2.1.3 Villa Station as Device Type

When the **Villa Station** is set as device type, there are 4 types of themes you can configure.
Procedure

- Step 1
- Select **Local Device Config** > **Personalization** > **Personalization**.
- Step 2
- Select the theme according to the actual needs.
- Click each theme, the feature is shown below the theme.

Figure 4-26 Theme 1

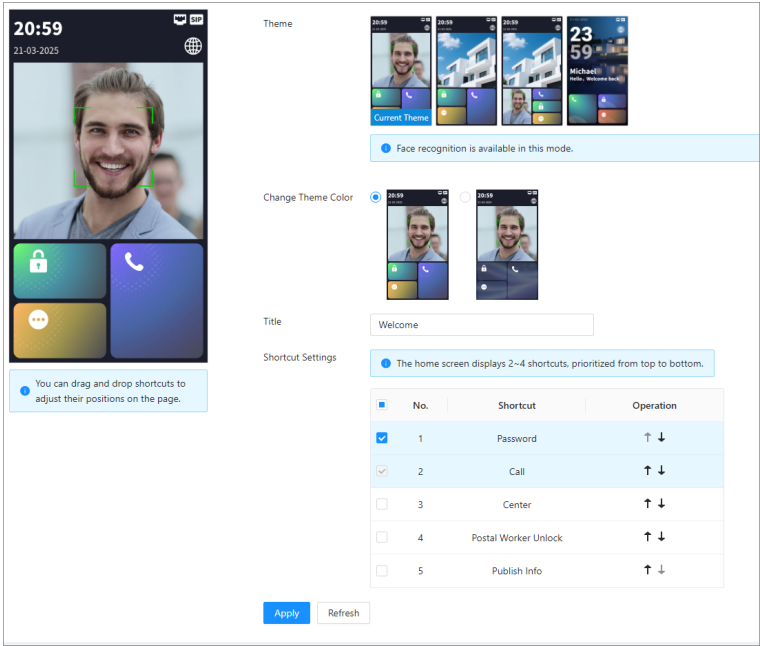


Figure 4-27 Theme 2

20:59
21-03-2025

You can drag and drop shortcuts to adjust their positions on the page.

Theme

20:59
21-03-2025

20:59
21-03-2025

20:59
21-03-2025

23:59
21-03-2025

Face recognition is not available in this mode. You can import images or videos.

Change Theme Color

20:59
21-03-2025

20:59
21-03-2025

Title

Welcome

Shortcut Settings

The home screen displays 2~4 shortcuts, prioritized from top to bottom.

No.	Shortcut	Operation
☒ 1	Password	↑ ↓
☒ 2	Call	↑ ↓
☐ 3	Center	↑ ↓
☐ 4	Postal Worker Unlock	↑ ↓
☐ 5	Publish Info	↑ ↓

Play Mode

☒ Original Scale ☐ Full Screen

Resources

Add

Play Plan

Add

No.	Name	Period	Type	Enable	Operation
No Data					

Apply

Refresh

Figure 4-28 Theme 3

20:59
21-03-2025

You can drag and drop shortcuts to adjust their positions on the page.

Theme

20:59
21-03-2025

20:59
21-03-2025

20:59
21-03-2025

23:59
21-03-2025

Face recognition is available in this mode, and you can import images or videos.

Change Theme Color

20:59
21-03-2025

20:59
21-03-2025

Title

Welcome

Shortcut Settings

The home screen displays 2 shortcuts, prioritized from top to bottom.

No.	Shortcut	Operation
☒ 1	Password	↑ ↓
☒ 2	Call	↑ ↓
☐ 3	Center	↑ ↓
☐ 4	Postal Worker Unlock	↑ ↓
☐ 5	Publish Info	↑ ↓

Play Mode

☒ Original Scale ☐ Full Screen

Resources

Add

Play Plan

Add

No.	Name	Period	Type	Enable	Operation
No Data					

Apply

Refresh

Figure 4-29 Theme 4

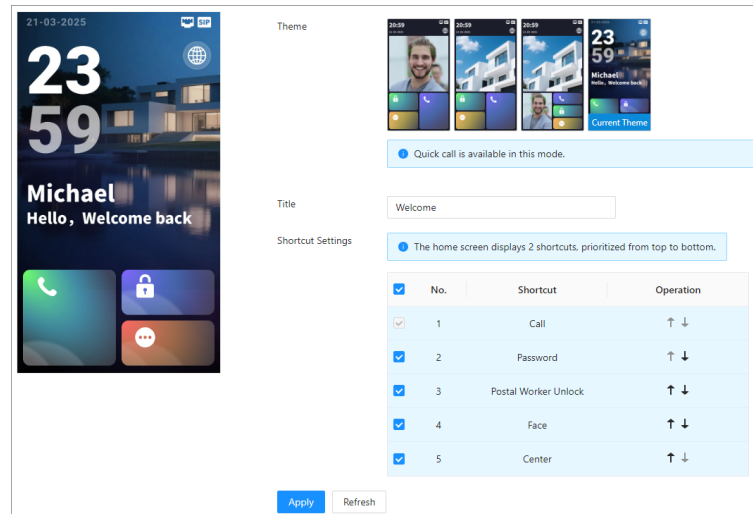
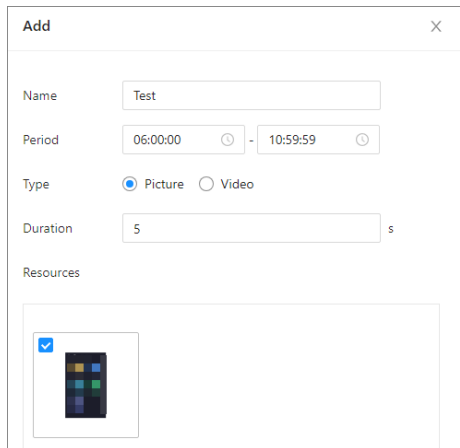


Table 4-8 Personalization

Parameter	Description
Change Theme Color	Select color theme from the 2 themes.
Title	Configure the screen title, which is shown on the home screen of the device.
Shortcut Settings	Configure the shortcut of the home screen of the device. - The home screen displays 2 to 4 shortcuts, prioritized from top to bottom of the list. - You can drag and drop shortcuts on the home screen to adjust their positions. - The shortcuts of the  and  are required and cannot be deleted. And the shortcuts of the  cannot be moved.
Button Functions	After it is enabled, you can use one-click machine button on the VTO to make a call. If it is disabled, you will be directed to the keypad.  This function is only available on select models.
Play Mode	Select the play mode. - Original Scale: Plays the image and video in the original size. - Full Screen: Plays the image and video in full screen.

Parameter	Description
Resources	Configure the displayed resources as needed. 1. Click Add. 2. Select resources type, including picture and video. ● Picture: Click Upload, and then select pictures from the local computer.  Supports PNG, JPG, and BMP formats. The image size must not exceed 20 MB. ● Video: a. Click Upload. b. Click Click here to download to download and install the plug-in first. c. Click Browse, and then select videos from the local computer.  Supports AVI, DAV, and MP4 formats. The video must be less than 100 MB.
Play Plan	Configure play plans of the displayed resources as needed. 1. Click Add. 2. Enter the plan name. 3. Select the play plan period. 4. Select resource type from Picture or Video. ● Picture: Configure the play plan duration from 1 second through 20 seconds, and then select the resources configured in the Resources. ● Video: Select the resources configured in the Resources. 5. Click OK. 

Step 3 Click **Apply**.

4.7.2.2 Configuring Notifications

Prerequisites

Set the VTO as the SIP server. For details, see "4.4.1 Setting as SIP Server".

Procedure

- Step 1** Log in to the webpage.
- Step 2** Select **Local Device Config** > **Personalization** > **Publish Info.**
- Step 3** Click **Release Notifications**, and then configure the parameters.

Figure 4-30 Configure the notification

The screenshot shows a 'Release Notifications' dialog box. It includes the following fields and controls:

- Title:** A text input field containing 'Welcome'.
- Validity Period:** A date and time picker showing '18-09-2025 23:59:59' with a calendar icon.
- Send to:** A dropdown menu with a checked 'All' checkbox.
- Contents:** A text area containing 'Welcome to HZ'.
- Buttons:** 'OK' and 'Cancel' buttons at the bottom right.

Table 4-9 Description of announcement parameters

Parameter	Description
Title	The title of the announcement.
Validity Period	Configure the validity period. All door stations that are online within the validity period can receive the announcement.  The history records will display all the announcements that sent by the VTO.
Send to	Configure the receiver of the announcement. - Enter the room number of the receiver to solely send the announcement. - Select All checkbox to send the announcement to all devices.
Contents	The content of the announcement. You can enter up to 256 characters.

- Step 4** Click **OK**.

4.7.3 Configuring Access Control

4.7.3.1 Configuring Local Lock

The local lock refers to the lock that is connected to the function port of the VTO. You can configure the responding interval, unlock period, password and other parameters.

Procedure

- Step 1** Select **Local Device Config** > **Access Control** > **Config**.

Step 2 Configure the parameters.

Figure 4-31 Access control

The screenshot displays a web-based configuration interface for access control. It includes the following elements:

- Unlock Notifications Mode:** A dropdown menu currently set to "Do Not Display Face Images".
- Interval between Consecutive...:** A numeric input field with the value "5" and a unit "s (1-20)".
- Door Unlocked Duration:** A numeric input field with the value "5" and a unit "s (1-240)".
- Check Door Detector Signal ...:** A toggle switch currently turned off.
- Door Detector Alarm Thresh...:** A numeric input field with the value "30" and a unit "s (1-9999)".
- Door Detector Status:** Radio buttons for "NC" (selected) and "NO".
- Door Detector Alarm Sound:** A toggle switch currently turned off.
- Report Status of Door Detector:** A toggle switch currently turned on.
- Unlock Code:** A numeric input field with the value "123".
- Lock Linkage:** An unchecked checkbox.
- Verification Mode:** Checkboxes for "Card", "Face", and "Bluetooth Card", all of which are checked.
- Bluetooth Mode:** Radio buttons for "Short-range" and "Long-range", with "Long-range" selected.
- Project Password:** A password input field with masked characters.
- New Duress Password:** A password input field with masked characters.
- Confirm New Duress Password:** A password input field with masked characters.
- Public Password:** A button labeled "Setting".
- Action Buttons:** "Apply", "Refresh", and "Default" buttons at the bottom.

Table 4-10 Access control parameter description

Parameter	Description
Unlock Notifications Mode	Select from 3 unlock notifications modes. - Do Not Display Face Images. - Only Display Face Database Images. - Display Snapshot and Face Database Images.
Interval between Consecutive Unlocks	The door can only be unlocked again after the interval.
Door Unlocked Duration	The time during which the lock stays unlocked.
Check Door Detector Signal Before Locking	Enable the function based on your needs.
Door Detector Alarm Threshold	The threshold time when the door detector alarm is triggered.
Door Detector Status	NC : Normally closed. NO : Normally open.

Parameter	Description
Door Detector Alarm Sound	It is disabled by default. When it is enabled: ● Door Detector Status is NC : If the door opening time exceeds the set door detection alarm threshold, the VTO will beep. And when the door detector is closed, the VTO does not beep again. ● Door Detector Status is NO : If the door closing time exceeds the set door detection alarm threshold, the VTO will beep. And when the door detector is open, the VTO does not beep again.
Report Status of Door Detector	After it is enabled, the status of door detector will be reported.
Unlock Code	You can connect a third-party phone, such as a SIP phone, to the VTO, and use the code to open the door remotely.
Lock Linkage	Enable the Lock Linkage , and then select the linkage lock from the drop-down list.
Verification Mode	Enable the functions so that the card, fingerprint, Bluetooth, or face verification take effect.  The fingerprint, Bluetooth, and face verification functions are available on select models.
Bluetooth Mode	When the Bluetooth verification is enabled, select the Bluetooth mode. ● Short-range: The Bluetooth within 20 cm can be detected. ● Long-range: The Bluetooth within 10 m can be detected.
Project Password	Used to go to the engineer setting screen on the VTO.
New Duress Password	Configure the duress password. If you enter the password when you are forced, the alarm will be sent to the server.
Confirm New Duress Password	
Public Password	Click Setting to set the public password. 1. Click Add to add a public password. 2. Enter the user name and password, and then click OK.  The password must consist of 4–6 digits.

Step 3 Click **Apply**.

4.7.3.2 Configuring Extension Functions

4.7.3.2.1 RS-485

The lock can be connected through RS-485 port.

Procedure

Step 1 Select **Local Device Config** > **Access Control** > **Extension Function** > **RS-485**.

Step 2 Configure the parameters of the lock connected through the RS-485 port.

Figure 4-32 RS-485

RS-485

Port Type: Lock

Interval between C...: 5 s (1-20)

Unlock Duration: 5 s (1-240)

Unlock Code: 456

☒ Lock Linkage

Apply Refresh Default

Table 4-11 RS-485 description

Parameter	Description
Port Type	Select Lock or Card Reader as the port type. It is Lock by default.  When card reader is selected, fingerprint card reader and QR card reader are not supported.
Interval between Consecutive Unlocks	The door can only be unlocked again after the interval.
Unlock Duration	The time during which the lock stays unlocked.
Unlock Code	After configuring the unlock code, you can enter the unlock code on the authorized devices to accessing or controlling the VTO through the RS-485.
Lock Linkage	Enable the Lock Linkage , and then you can select the Local Lock from the drop-down list.

Step 3 Click **Apply**.



- When the 485 module of VTO linked with security module (DEE1010B) connects to card reader, the security module has a limit on the length of the entered password (10 digits supported). Therefore, room number (6 digits) + personal password (6 digits) cannot unlock the door.
- When the 485 module of VTO linked with security module (DEE1010B) connects to QR card reader or fingerprint card reader, the door cannot be unlocked because the RS-485 of VTO does not support QR code and fingerprint transmission.
- When the 485 module of VTO linked with security module (DEE1010B) connects to card reader, cards cannot be issued through the 485 module and security module (DEE1010B), because the 485 module does not support bidirectional command interaction.

4.7.3.2.2 Network Lift Control

The lock can be connected to the network lift control.



This function is available only when **Device Type** is selected as **Small Apartment**.

Procedure

- Step 1** Select **Local Device Config > Access Control > Extension Function > Network Lift Control**.
- Step 2** Enable the network lift control.
- Step 3** Configure the lift control.

Figure 4-33 Network lift control

Lift Name	Enable	Lift Control Duration...	IP Address	Port	Username	Password	Connection Status	Operation
Lift 1	☐	0	192.168.0.2	5000	admin	*****	Test	Edit
Lift 2	☐	0	192.168.0.2	5000	admin	*****	Test	Edit
Lift 3	☐	0	192.168.0.2	5000	admin	*****	Test	Edit
Lift 4	☐	0	192.168.0.2	5000	admin	*****	Test	Edit
Lift 5	☐	0	192.168.0.2	5000	admin	*****	Test	Edit
Lift 6	☐	0	192.168.0.2	5000	admin	*****	Test	Edit
Lift 7	☐	0	192.168.0.2	5000	admin	*****	Test	Edit
Lift 8	☐	0	192.168.0.2	5000	admin	*****	Test	Edit

Table 4-12 Network lift control description

Parameter	Description
Lift Control Mode	• With Lift Controller: Up to 8 lifts can be added. • Without Lift Controller: Up to 6 lifts can be added.

Parameter	Description
Verification Method	It is enabled when the Lift Control Mode is set as With Lift Controller. - Remote Verification: The verification is made remotely. - Local Verification: The verification is made locally.
VTO Floor	Enter the floor in which the VTO is located.

Step 4 Click **Edit** to edit the lift information, and then click **OK**.

Figure 4-34 Set lift information

Table 4-13 Network lift control description

Parameter	Description
Lift Control Duration	Set the lift control duration from 0–999 seconds.
IP Address	Set the IP address, port, user name and password of the network lift control.
Port	
Username	
Password	

Step 5 Click **Apply**.

Related Operations

Click **Test** to test the connection status of lifts.

4.7.4 Configuring Light Control

Procedure

- Step 1 Select **Local Device Config** > **Light Control**.
- Step 2 Set illuminator mode from the following modes.
- **NO** : The illuminator is open all the time.
 - **NC** : The illuminator is closed all the time.
 - **Self-adaptive** : The illuminator will adapt to the environment, and then set a suitable value.
 - **Period** : The illuminator will be open during the defining period.
- Step 3 Click **Apply**.

4.7.5 Adding the IPC

If the current VTO works as the SIP server, you can add the IPC devices on the webpage of the VTO. The VTHs with the same online SIP server get the IPC information.



- Supports adding the IPC devices with up to 32 channels.
- Supports directly adding IPC devices. You can also get the IPC channel by adding NVR.

4.7.5.1 Adding the IPC One by One

Add the information of the video monitoring device one by one.

Procedure

- Step 1 Log in to the webpage.
- Step 2 Select **Local Device Config** > **IPC Info**.
- Step 3 Select one of the IPC channel, and then click  to configure the parameters.

Figure 4-35 Configure the parameters

The 'Edit' dialog box contains the following parameters:

- Name: [Text Input]
- IP Address: 0 . 0 . 0 . 0
- Protocol Type: Local (dropdown)
- Stream Type: Sub Stream (dropdown)
- Device Type: IPC (dropdown)
- Channel No.: 0
- Encryption: [Toggle Switch]
- Username: admin
- * Password: [Text Input]
- Port: 554

Buttons: OK, Cancel

Table 4-14 Parameters description of the video monitoring device

Parameter	Description
Name	Enter the name of the IPC device.
IP Address	Enter the IP address of the IPC device.
Protocol Type	Select from Local and ONVIF according to the IPC device you added.
Stream Type	Select from Main Stream and Sub Stream .
Device Type	Select the type according to the actual devices.
Channel No.	● If you add the IPC, it is 1 by default. ● If you add the NVR, it is the channel number of IPC that was configured on the VNR device.
Encryption	Keep consistent with the encryption status of the terminal device.
Username	Enter the user name and the password that used to log in to the webpage of the IPC device.
Password	
Port	The value is 554 by default.

Step 4 Click **OK**.

4.7.5.2 Importing the IPC Information in Batches

Import the IPC information to the system.

Procedure

Step 1 Click **Import**, enter the password, and then click **OK**.



The password entered for exporting must be the same as the one for importing.

Step 2 Click **Select File** to add the file, and then click **Import**.



The imported database will overwrite the original database.

4.7.5.3 Exporting the IPC Information in Batches

Export the IPC information and save the information to the local computer.

Procedure

Step 1 Click **Export**.

Step 2 Enter the password, and then click **OK**.



- The IPC device configuration file is saved to the local computer.
- The password entered for exporting must be the same as the one for importing.

4.7.6 Configuring Cards

Procedure

Step 1 Log in to the webpage.

Step 2 Select **Local Device Config** > **Card Settings**.

Figure 4-36 Card settings

Table 4-15 Description of card parameters

Parameter	Description
IC Card	When enabled, IC card can be used to unlock the door.
IC Card Verification	When enabled, the IC card is encrypted. Swipe the right card with successful encryption detection to unlock the door.
Block NFC Cards	After it is enabled, the copied NFC cards cannot unlock the door.

4.7.7 Configuring Wiegand

Supports access Wiegand devices such as Wiegand readers and access controllers. Configure the mode and the transmission mode according to your actual devices.

Procedure

- Step 1 Log in to the webpage.
- Step 2 Select **Local Device Config** > **Wiegand Settings**.
- Step 3 Configure the Wiegand parameters.

Figure 4-37 Wiegand input

Wiegand Settings ☒ Wiegand Input ☐ Wiegand Output

Card No. Inversion ☐

Input Door Channel Local Lock

Apply Refresh Default

Figure 4-38 Wiegand output

Wiegand Settings ☐ Wiegand Input ☒ Wiegand Output

Wiegand Output Type Wiegand 34

Pulse Width (μ s) 200 (20-200)

Pulse Interval (μ s) 1000 (200-5000)

The pulse width is a multiple of 10 and has a multiple relationship with the pulse interval.

Output Data Type ☐ Card Number ☒ No.

Output Format Hexadecimal

Apply Refresh Default

Table 4-16 Description of Wiegand parameters

Parameter		Description
Wiegand Settings		• Select Wiegand Input when other recognition devices are connected. • Select Wiegand Output when the VTO works as the recognition device. You can connect the access controller or other devices to the VTO.
Wiegand Input	Card No. Inversion	When the third party devices are connected, if the card number order recognized by the device is different from the actual card number, enable this function to correct it.
Input Door Channel		Select the channel from Local Lock and External Lock .
Wiegand Output	Wiegand Output Type	Select a Wiegand format to read card numbers or ID numbers. • Wiegand 26 : Reads 3 bytes or 6 digits. • Wiegand 34 : Reads 4 bytes or 8 digits. • Wiegand 66 : Reads 8 bytes or 16 digits.
	Pulse Width	Enter the pulse width and pulse interval of Wiegand output.
	Pulse Interval	
	Output Data Type	Select the type of output data. • Card Number : Outputs data based on user's card number. • No. : Outputs data based on person ID.
	Output Format	When the output data type is configured as number, select from Decimal and Hexadecimal .

Step 4 Click **Apply**.

4.7.8 Configuring Face Detection

Configure the threshold, detection angle and other parameters.



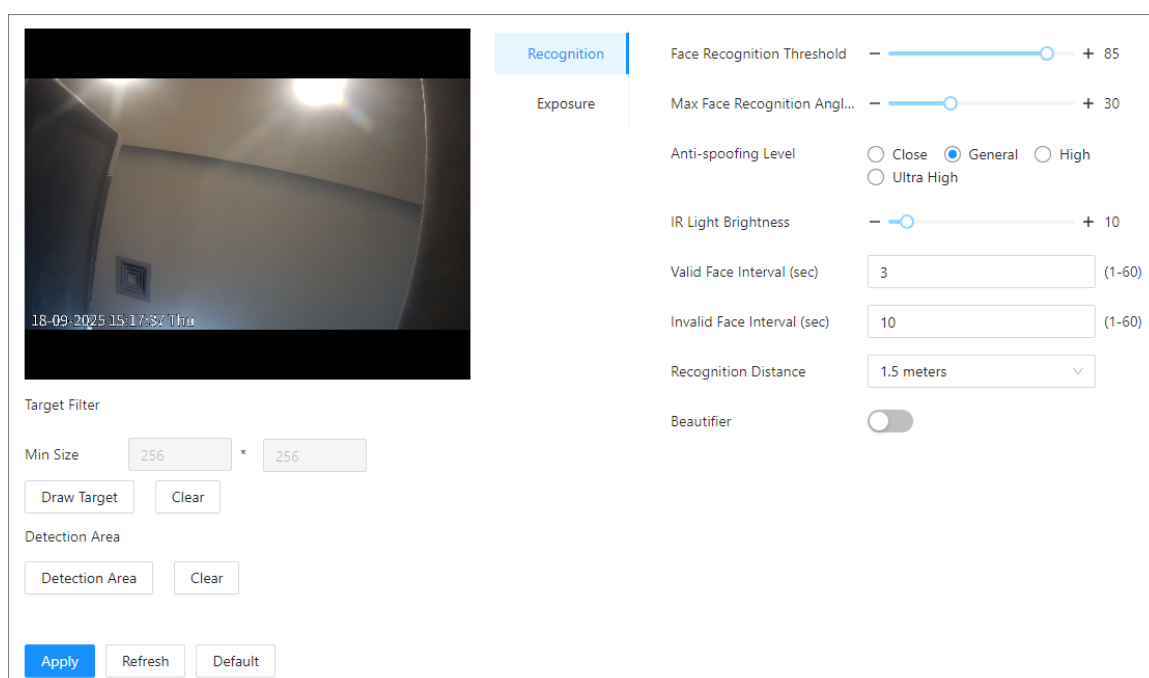
The face detection is available on select models.

Procedure

Step 1 Log in to the webpage.

Step 2 Select **Local Device Config** > **Face Detection**.

Figure 4-39 Face detection parameters



The screenshot displays the 'Face detection parameters' configuration window. On the left is a live video feed showing a person's face. Below the feed are 'Target Filter' and 'Detection Area' sections, each with a 'Min Size' input (256x256) and 'Draw Target'/'Clear' buttons. The right panel, titled 'Recognition', contains the following settings:

- Face Recognition Threshold:** A slider set to 85.
- Max Face Recognition Angle:** A slider set to 30.
- Anti-spoofing Level:** Radio buttons for 'Close', 'General' (selected), and 'High'.
- IR Light Brightness:** A slider set to 10.
- Valid Face Interval (sec):** An input field set to 3, with a range of (1-60).
- Invalid Face Interval (sec):** An input field set to 10, with a range of (1-60).
- Recognition Distance:** A dropdown menu set to '1.5 meters'.
- Beautifier:** A toggle switch that is currently off.

At the bottom of the settings panel are three buttons: 'Apply' (highlighted in blue), 'Refresh', and 'Default'.

Step 3 Configure the recognition parameters.

Table 4-17 Description of face detection parameters

Name	Description
Face Recognition Threshold	Adjust the accuracy level of face recognition. Higher threshold means higher accuracy and lower false recognition rate.  When the threshold is too low such as 0, the false recognition rate will be extremely high. Please be advised.
Max Face Recognition Angle Deviation	Set the largest angle that a face can be posed in for face detection. The larger the value, the larger the range for the face angle. If the angle a face is positioned in is not within the defined range, it might not be detected properly.
Anti-spoofing Level	This prevents people from using photos, videos, mask and other substitutes to gain unauthorized access.
IR Light Brightness	Adjust the IR light brightness of the device. Higher brightness means higher accuracy and lower false recognition rate.
Valid Face Interval (sec)	When the same face remains in front of the lens after the first successful recognition, the VTO will perform recognition again for the face after a defined interval.
Invalid Face Interval (sec)	When the same face remains in front of the lens after the first failed recognition, the VTO will perform recognition again for the face after a defined interval.
Recognition Distance	A certain distance between people and the device is required for recognition to be successful.

Name	Description
Beautifier	Beautify captured face images.

Step 4 Configure the exposure parameters.

Figure 4-40 Exposure parameters

Table 4-18 Exposure parameters description

Parameter	Description
Face Exposure	After the face exposure function is enabled, the face will be exposed at the defined brightness to detect the face image clearly.
Face Target Brightness	
Face Exposure Interval Detection Time	The face will be exposed only once in a defined interval.

Related Operations

- Draw the face detection area.
 1. Click **Detection Area**.
 2. Click to draw the detection area, and then release the left button of the mouse to complete drawing.
The face in the defined area will be detected.
 3. Click **Apply**.
- Draw the target size.
 1. Click **Draw Target**.
 2. Draw the recognition box to define the minimum size of detected face or enter the size.



Only when the size of the face is larger than the defined size, the face can be detected by the Device.

3. Click **Apply**.

4.7.9 Configuring QR Code

Procedure

- Step 1** Log in to the webpage.
- Step 2** Select **Local Device Config** > **QR Code**.

Figure 4-41 QR code

Table 4-19 QR code parameters

Parameters	Description
Enable QR Code Exposure	The QR code will be exposed at the defined brightness, and the QR code can be detected and read clearly.
QR Code Brightness	
QR Code Exposure Interval (sec)	The QR code will be exposed only once during the defined interval.

Step 3 Click **Apply**.

4.7.10 Configuring Fingerprint



Fingerprint recognition is available on select models.

Procedure

- Step 1 Log in to the webpage.
- Step 2 Select **Local Device Config** > **Fingerprint**.
- Step 3 Configure the fingerprint threshold.

The higher the value is, the more accurate the match result is.

Figure 4-42 Configure the fingerprint parameter

Step 4 Click **Apply**.

4.8 Device Setting

When the current VTO works as the SIP server, add VTH, VTS and other VTO as needed.

4.8.1 Adding the VTO

Prerequisites

The SIP server must be added.

Procedure

- Step 1 Log in to the webpage of the VTO.
- Step 2 Click **Device Setting**.
- Step 3 Click **Add** , select **VTO** as the device type, and then configure the parameters.

Figure 4-43 Add a VTO

Add

Device Type

VTO

* No.

101

* Registration Password

.....

Building No.

Unit No.

* IP Address

* Username

admin

* Password

.....

OK

Cancel

Table 4-20 VTO parameters description

Parameter	Description
No.	VTO number.
Registration Password	Keep it as default.
Building No.	Cannot be edited.

Parameter	Description
Unit No.	
IP Address	VTO IP address.
Username	The user name and password used to log in to the webpage of the VTO.
Password	

Step 4 Click **OK**.

Related Operations

- Click  to edit the VTO.
- Click  to delete added VTOs, but the one that you have logged in to cannot be modified or deleted.

4.8.2 Adding the VTH

Prerequisites

The SIP server must be added.

Procedure

- Step 1 Log in to the webpage of the VTO.
- Step 2 Select **Device Setting**.
- Step 3 Click **Add**, select **VTH** as the device type, and then configure the parameters.

Figure 4-44 Add a VTH

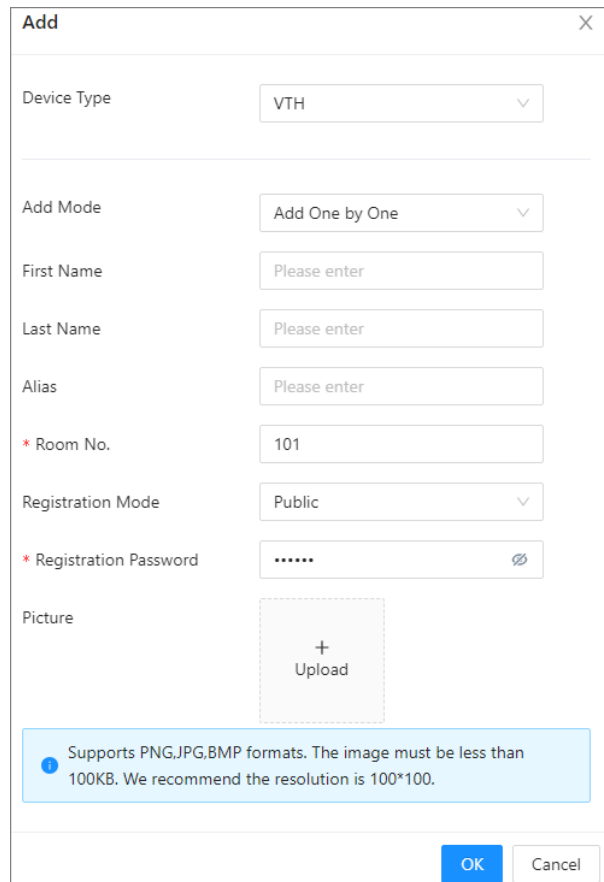


Table 4-21 VTH parameters description

Parameter	Description
Add Mode	Select from Add One by One and Add in Batches .
First Name	Information used to differentiate each room.
Last Name	
Alias	
Room No.	Room number.  - The room number consists of up to 6 characters, and can contain numbers and letters. It cannot be the same as the VTO number. - When there are multiple VTHs, the room number for the main VTH should end with #0, and the room numbers for the extension VTHs end with #1, #2... - You can configure up to 5 extension VTHs for each main VTH.
Registration Mode	Select Public by default.
Registration Password	Default.

Parameter	Description
Picture	Click Upload to upload the picture of the VTH.  This function is available only when the Add Mode is Add One by One.

Step 4 Click **OK**.

Related Operations

- Click  to edit the VTH.
- Click  to delete added VTHs.
- Click  to call the VTH.

4.8.3 Adding the VTS

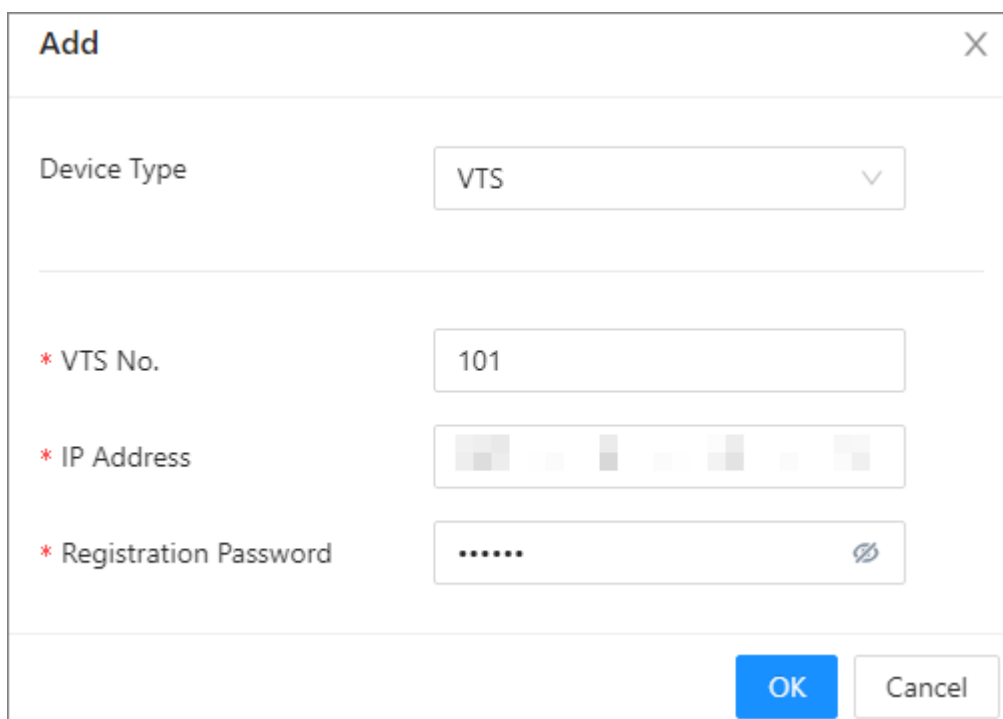
Prerequisites

The SIP server must be added.

Procedure

- Step 1 Log in to the webpage.
- Step 2 Select **Device Setting**.
- Step 3 Click **Add**, select **VTS** as the device type, and then configure the parameters.

Figure 4-45 Add a VTS



Add

Device Type

VTS

* VTS No.

101

* IP Address

* Registration Password

.....

OK

Cancel

Table 4-22 VTS parameters description

Parameter	Description
VTS No.	The VTS number ranges from 888888101 through 888888999.
IP Address	The IP address of the VTS.
Registration Password	Leave the registration password as a default. If you want to register the password, make sure that it is the same with the register password of the VTS.

Step 4 Click **OK**.

4.8.4 Related Operations

Figure 4-46 Device list

☐	Device Type	SIP No.	Alias	IP Address	Picture	Online Status (1/3)	Operation
☐	VTO			127.0.0.1		Online	
☐	VTH					Online	
☐	VTS			127.0.0.1		Offline	

Exporting Device Information

1. Select **Device Setting**.
2. Click **Export**.
3. Enter the login password, and then click **OK**.

All device information except VTH picture is saved in your local computer.

Importing Device Information

1. Select **Device Setting**.
2. Click **Import**.
3. Enter the login password, and then click **OK**.
4. Click **Browse** to select the file, and then click **OK**.



The imported data will overwrite the original data, please be advised.

Batch Importing Images

Import images of the VTHs in batches. Prepare the images in the .zip format and name them in the room number.

1. Select **Device Setting**.
2. Click **Batch Import Images**, and then click **OK**.
3. Select the zip file to upload, and then the images will be displayed according to the VTH number.

Offline Device Configuration

When this function is enabled, the VTO sends information from the configuration file to make it easy for devices that are offline, which were added, to quickly connect to the network.

4.9 Person Management



The card and fingerprint information registered on the VTO will be uploaded to the person management in real time.

Procedure

- Step 1** Log in to the webpage.
- Step 2** Select **Person Management**.
- Step 3** Click **Add**.
- Step 4** Configure the parameters, and then click **OK**.

Figure 4-47 Add the person

Add

* Person ID

1001

* Room No.

101

Username

* Validity Period

Forever

Email

* Lock Permission

☒ Local Lock ☒ External Lock

Multi-Door Unlock ⓘ

☐

Floor

Verification Mode

> Password

Not Added

> Card

Not Added

> Face

Not Added

> Bluetooth Card

Not Added

OK

Cancel

Table 4-23 Person parameters description

Parameter	Description
Person ID	Customize the number.
Room No.	Enter the corresponding room number of the VTH.
Username	Enter the user name.
Validity Period	Configure the validity period during which people have access permissions.
Email	Configure the Email address so that you can request a Bluetooth card through the reserved Email.
Lock Permission	Set the lock permission. You can enable the permission for local lock and external lock at the same time.
Multi-Door Unlock	When verification is successful, the local lock and external lock will open at the same time.  The user password does not support this function.
Floor	Select the floor which can be given the permission.  This parameter is available only when Lift Control Mode is selected as Without Lift Controller.
Password	1. Select Password > Add. 2. Enter the password, and then confirm it again.  The password must consist of 4-6 digits. 3. Click OK.

Parameter	Description
Card	You can add up to 5 cards by entering the card number or adding cards on the device. 1. Select Card > Add. 2. Click Modify to select the acquisition device from Enrollment Reader or Device. 3. Enter the card number. Or you can click Issue Card, and then swipe the card over VTO. 4. Enter the name of the card. 5. Click OK. You can manage the cards through the following icons. ● : If you lost your card, click the icon to report the loss. The icon becomes . ● : The card cannot be used to open the door. Click it to make the card valid. ● : Edit the card name. ● : Delete the card.
Fingerprint	This function is only available on select models. 1. Select Fingerprint > Add. 2. Record your fingerprint according to the prompts. 3. Click OK.
Face	● Upload: Click Upload to upload the face image from the local computer. ● Local Collection: Click Local Collection, and then click Start Snapshot to snap through the device.  ● The face image is only used for the device to unlock the door and does not involve other purposes. ● With no face algorithm, the quality of face cannot be guaranteed, so failure or unrecognition might occur when the image is sent to VTO. ● To ensure the quality of face collection, take the following requirement. ◇ The image format should be .jpg, .jpeg or .png. ◇ Do not cover your eyebrows, eyes, nose and mouth. ◇ Make sure that the face takes up more than 1/3 but no more than 2/3 of the whole image area. ◇ The horizontal rotation angle of the face, the pitch angle and the inclination angle should be within $\pm 10^\circ$. ◇ Make sure the regular image brightness, moderate contrast, no shadow on the face, no overexposure and no underexposure. ◇ Make sure face integrity, clear outline and features, no heavy makeup, and image face area should be without editing modification processing.

Parameter	Description
Bluetooth	Click Bluetooth to configure the function. This function is only available on select models. - Request through Email: Suitable for the first time a Bluetooth card is requested. - Configure the Email that is registered to DMSS. - Click Request through Email, and then the Bluetooth cards can be requested.  You can request up to 5 Bluetooth cards. - Request through Registration Code: Suitable when you have a Bluetooth card and need to add it with a registration code. - Copy the Bluetooth registration code from the DMSS. - Click Request through Registration Code, and then enter the code. - Click OK.

Related Operations

- Click **Export Person**, and then you can export the person file of the VTO1 to the local computer.
On the webpage of VTO2, click **Import Person**, and then select the person file exported from the VTO1 to import the person to the VTO2 in batches.
- Select users and then click **Issue Cards to Selected Users** or click **Issue Cards to All Users**.
 - On **Requestable** tab, you can view all users who can be issued Bluetooth cards, and then click **Request through Email** to issue Bluetooth card in batches.

 - Bluetooth cards can only be generated in batches through emails.
 - Cloud service should be online.
 - On **Non-Requestable** tab, you can view users without Email who cannot be issued cards.
 - Click **Export Users that Lack Emails** to download the user list on the local compute, and then enter the Email.
 - Click **Import** to import the user list so that you can issue card to them.
- Click **Bluetooth Cards Records**, and then you can view the Bluetooth card records. For users who issued cards unsuccessfully, you can reissue cards here.
- Click  to edit the person information.
- Click  to delete the person information.

4.10 Network Settings

4.10.1 Configuring TCP/IP

Configure IP address of Device to make sure that it can communicate with other devices.

Procedure

Step 1 Select **Network Setting** > **TCP/IP**.

Step 2 Configure the parameters.

Figure 4-48 TCP/IP

DHCP

MAC Address

30 :

IP Version

IPv4

IP Address

172

Subnet Mask

255

Default Gateway

172

Preferred DNS

8

Alternate DNS

8

Transmission Mode

Multicast

 Unicast

Apply

Refresh

Default

Table 4-24 Description of TCP/IP parameters

Parameter	Description
DHCP	DHCP stands for Dynamic Host Configuration Protocol. - When it is not enabled, you can manually enter IP address, subnet mask, and gateway. - When enabled, the Device will automatically be assigned with IP address, subnet mask, and gateway.
MAC Address	MAC address of the Device.
IP Version	IPv4 or IPv6.

Parameter	Description
IP Address	If the DHCP is not enabled, configure the IP address, subnet mask and gateway.  • IPv6 address is represented in hexadecimal. • IPv6 version does not require setting subnet masks. • The IP address and default gateway must be in the same network segment.
Subnet Mask	
Default Gateway	
Preferred DNS	Set IP address of the preferred DNS server.
Alternate DNS	Set IP address of the alternate DNS server.
Transmission Mode	• Multicast: Ideal for video talk. • Unicast: Ideal for group call.  Unicast is not recommended when the platform is being used as an SIP server.

Step 3 Click **Apply**.

4.10.2 Configuring Port

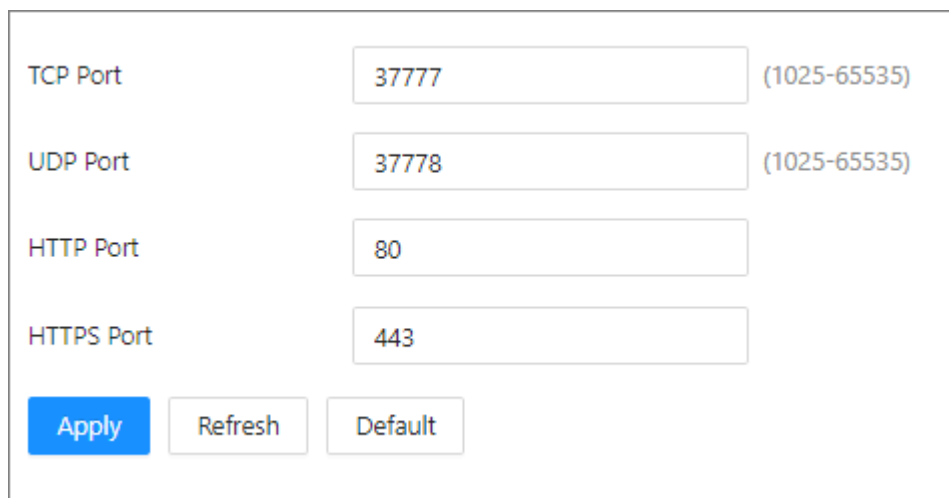
You can limit access to the Device at the same time through webpage, desktop client and mobile client.

Procedure

Step 1 Select **Network Setting** > **Port**.

Step 2 Configure the ports.

Figure 4-49 Ports



TCP Port	37777	(1025-65535)
UDP Port	37778	(1025-65535)
HTTP Port	80	
HTTPS Port	443	



Restart the Device to make the configurations effective after you change other parameters.

Table 4-25 Description of ports

Parameter	Description
TCP Port	Default value is 37777.
UDP Port	Default value is 37778.
HTTP Port	Default value is 80. If you have changed the port number, add the port number after the IP address when access the webpage.
HTTPS Port	Default value is 443.

Step 3 Click **Apply**.

4.10.3 Configuring the SIP Server

When connected to the same SIP server, all the VTOs and VTHs can call each other. You can use a VTO or another server as the SIP server.

4.10.3.1 VTO as the SIP Server

Procedure

Step 1 Select **Network Settings** > **SIP Server**.

Step 2 Set the VTO as the SIP Server.

- If the current VTO works as the SIP server, enable **Local SIP Server**, and then configure the parameters.

Figure 4-50 Current VTO as the SIP server

Local SIP Server	☒
Port	5060
SIP No.	
Registration Password	••••••••••••••••
SIP Domain	VDP
Cascade SIP Server	☒
Server Address	192
Port	
SIP No.	
Registration Password	••••••••••~••••••••••
Backup SIP Server	☒
Room Number of Backup ...	Select Online Device
Apply Refresh Default	

Table 4-26 SIP server configuration

Parameter	Description
Port	5060 by default when the VTO works as an SIP server.
SIP No.	8001 by default when the VTO works as an SIP server.
Registration Password	Leave it as default.
SIP Domain	VDP is by default.
Cascade SIP Server	Enable the cascade SIP server, and then enter the address, port, SIP No., registration password, the user name and password of the cascade SIP server.
Server Address	
Port	
SIP No.	

Parameter	Description
Registration Password	
Backup SIP Server	Enable the backup SIP server, and then enter the room number of the server, or you can click Select Online Device to select an online server.
Room Number of Backup Server	

- If other VTO works as the SIP server, set **Device** as **Server Type**, and then configure the parameters.

Figure 4-51 Other VTO as the SIP server

The screenshot displays a configuration window for a SIP server. At the top, there is a toggle switch labeled 'Local SIP Server' which is currently turned off. Below this, several configuration parameters are listed on the left, with their corresponding input fields on the right:

- Server Type:** A dropdown menu showing 'Device'.
- Server Address:** A text input field containing '192' followed by a blurred area.
- Port:** A text input field containing '5'.
- SIP No.:** A text input field containing '8001'.
- Registration Password:** A text input field where the password is masked with a series of black dots.
- SIP Domain:** A text input field containing 'VDP'.
- SIP Server Username:** An empty text input field.
- SIP Server Password:** An empty text input field.

At the bottom of the configuration area, there are three buttons: 'Apply' (highlighted in blue), 'Refresh', and 'Default'.

Table 4-27 SIP server configuration

Parameter	Description
Server Address	Enter the IP address of the device that servers as the SIP server.
Port	5060 by default when the VTO works as an SIP server.
SIP No.	8001 by default when the VTO works as an SIP server.
Registration Password	Leave it as default.
SIP Domain	VDP is by default.
SIP Server Username	Enter the user name and the password of the device that servers as the SIP server.
SIP Server Password	

Step 3 Click **Apply**.

4.10.3.2 Platform as the SIP Server

Procedure

Step 1 Select **Network Settings** > **SIP Server**.

Step 2 Select **Private SIP Server** as **Server Type**.

Figure 4-52 Platform as the SIP server

Local SIP Server ☐

Server Type: Private SIP Server

Server Address: 192.168.1.1

Port: 5080

SIP No.: 8001

Registration Password:

SIP Domain: VDP

Device as Alternate Server ☐

Alternate IP: 0.0.0.0

Alternate Server Username:

Alternate Server Password:

Alternate VTS IP: 0.0.0.0

Apply Refresh Default

Step 3 Configure the parameters.

Table 4-28 Private SIP server configuration

Parameter	Description
Server Address	The IP address of the SIP server.
Port	5080 by default when the platform works as the SIP server.
SIP No.	Keep default value VDP or leave it empty.
Registration Password	
SIP Domain	
Alternate IP	The alternate server will be used as the SIP server when DSS Express/DSS pro stops responding. We recommend you configure the alternate IP address.  • If you enable Alternate Server, the current VTO you have logged in serves as the alternate server. • If you want another VTO to serve as the alternate server, you need to enter the IP address of that VTO in the Alternate IP . Do not enable Alternate Server in this case.
Alternate Server Username	Used to log in to the alternate server.
Alternate Server Password	
Alternate VTS IP	IP address of the alternate VTS.

Step 4 Click **Apply**.

4.10.3.3 Configuring Third-Party Server

Procedure

- Step 1 Select **Network Settings** > **SIP Server**.
- Step 2 Set **Third-Party Server** as **Server Type**.

Figure 4-53 Third-party server

Local SIP Server

Server Type

Third-party Server

Server Address

192

Port

1

Custom Name

SIP No.

8001

Registration Password

SIP Domain

VDP

Apply

Refresh

Default

- Step 3 Configure the parameters.

Table 4-29 Third-party server configuration

Parameter	Description
Server Address	The IP address of the SIP server.
Port	Enter the port of the SIP server, which is from 1 to 65535.
Custom Name	After enabling it, you can customize the SIP No. .
SIP No.	
Registration Password	Leave it as default.
SIP Domain	Keep default value VDP or leave it empty.

- Step 4 Click **Apply**.



- For some third-party servers, if the intercom selects two unlocking methods of the **RFC 2833** and **SIP INFO** at the same time, the unlocking code will not be available to unlock the intercom.
- When a third-party server is used to support a third-party intercom, the intercom exception or SIP offline may occur on some servers.
- If **Third-party Server-Asterisk** and **SIP Intercom** select two unlocking methods of the **RFC 2833** and **SIP INFO** at the same time, the unlocking code will not be available to unlock the intercom.
- If IB intercom frequently disconnects from the 3CX server, the mapping relationship needs to be deleted.

4.10.4 Configuring Cloud Service

The cloud service provides a NAT penetration service. You can manage multiple devices through DMSS. You do not have to apply for dynamic domain name, configure port mapping or deploy server.

Procedure

Step 1 Select **Network Setting** > **Cloud Service**.

Step 2 Enable the cloud service function.

The cloud service goes online if the P2P and PaaS are online.

Figure 4-54 Cloud service

Enable ☒

After the function is enabled and the device connects to the network, we will collect device information such as the IP address, MAC address, device name and serial number. The collected information will only be used to remotely access the device. If you do not want to enable this function, please clear the selection from the check box.

P2P Status ● Offline

PaaS Status ● Offline

SN AM 



Apply

Refresh

Default

Step 3 Click **Apply**.

Results

Scan the QR code with DMSS to add devices.

4.10.5 Configuring UPnP

Background Information

After enabling UPnP, Intranet service/port of the device will be mapped to Extranet.

Procedure

Step 1 Select **Network Settings** > **UPnP**.

Step 2 Select ☐ to enable the function.

Step 3 Click **Add** to add new services, and then configure the parameters, and then click **OK**.

106

Figure 4-55 Add a new service

Add

Enable

* Service Name

admin

* Service Type

Protocol

TCP

* Internal Port

* External Port

OK

Cancel

Step 4 Click **Apply**.

4.10.6 Configuring Wi-Fi

Configure the Wi-Fi function of the Device. This function is only available on select models.

Procedure

- Step 1 Select **Network Settings > Wi-Fi**.
- Step 2 Enable the function, and then you can see the available Wi-Fi list.

Figure 4-56 Wi-Fi list

Wi-Fi

Name	Signal Strength	Status	Connect
wifi			+
MTU_TEST_0			+
TPGuest_C2F9			+
dh2356705&cgg6thvgj			+
TP-LINK_AF3F			+
Flymodem6374			+
A23_37078_AUS			+
XinXun-2871			+
A23_239840_mesh			+

Step 3 Click **+** behind the Wi-Fi to be connected, enter the password, and then click **Connect**.

4.10.7 Configuring the Bluetooth

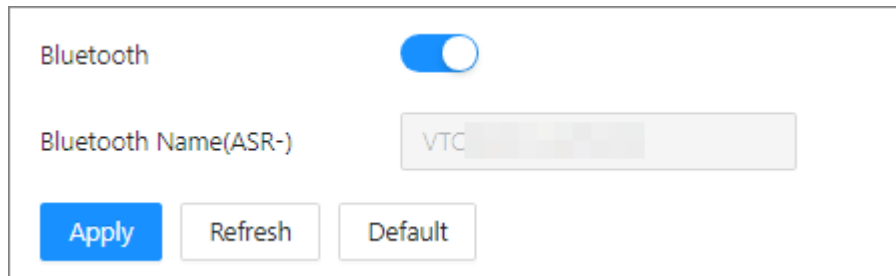
Configure the Bluetooth function of the Device. This function is only available on select models.

Procedure

Step 1 Select **Network Settings** > **Bluetooth Settings**.

Step 2 Click ☐ to enable the Bluetooth function.

Figure 4-57 Bluetooth



Results

You can unlock the door through the Bluetooth via the DMSS app. For details, see "3.3.5 Unlocking by the Bluetooth".

4.10.8 Configuring Basic Services

Procedure

Step 1 Select **Network Settings** > **Basic Services**.

Step 2 Enable the protocol as needed, and then click **Apply**.

Figure 4-58 Basic services

SSH ☒

There might be safety risk if this service is enabled.

CGI ☒

Password Reset ☒

ONVIF ☒

Outbound Protection of S... ☐

There might be data leakage risk if this service is disabled.

Multicast/Broadcast Search ☒

Authentication Mode Security Mode (Recommended) ▾

Emergency Maintenance ☐

For easy access to our after-sales service, enable this function. If the device has any trouble performing functions, such as updating, the system will automatically enable this function.

Password Expires in Never ▾

Private Protocol ☒

*Before enabling private protocol TLS, make sure that the corresponding device or software supports this function.

TLSv1.1 ☐

LLDP ☐

Apply
Refresh
Default

Table 4-30 Description of basic services

Service	Description
SSH	If enabled, you can log in to the VTO through SSH.
CGI	Common Gateway Interface (CGI) offers a standard protocol for web servers to execute programs similarly to console applications running on a server that dynamically generates web pages. If enabled, CGI commands can be used. The CGI is enabled by default.
Password Reset	Enabled by default. You can configure the email address. After configuration, you can click Forget Password? on the login page to reset the password.
ONVIF	Enable other devices to pull video stream of the device through the ONVIF protocol.  Profile C and Profile S are only supported. Encoding format and image parameters are not supported.
Outbound Protection of Service Password	If enabled, the device password cannot be got through the third-party protocol tool.
Multicast/Broadcast Search	Enable this function, and then when multiple users are previewing the device video image simultaneously through network, they can find your device with multicast/broadcast protocol.

Service	Description
Authentication Mode	• Security Mode (Recommended) : The mode does not support logging in with Digest, DES and plain text authentication. • Compatibility Mode : The mode supports logging in with Digest, DES and plain text authentication.
Emergency Maintenance	When the device is abnormal, enable Emergency Maintenance to upgrade or modify the device configuration.
Password Expires in	Set the validity period of the password.
Private Protocol	If enabled, the platform can access to the device with private protocol.
TLSv1.1	There is security risk if you enable TLSv1.1 .
LLDP	Transmits the device basic information to the platform.

4.10.9 Configuring Auto Registration

VTO automatically registers on the server, and reports its IP address to the designated server.

Procedure

Step 1 Select **Network Settings** > **Auto Registration**.

Step 2 Enable the function, and then enter the server address, port number and registration ID.

Figure 4-59 Auto registration

Table 4-31 Parameters description

Parameter	Description
Server Address	IP address or domain name of the server that is needed in registration.
Port	Port number that the server automatically registers.
Registration ID	The server distributes an ID for the device. Keep consistent with the ID registered on the server.

Step 3 Click **Apply**.

4.10.10 Configuring Registration Management

This function is only available when the Private SIP Server is set as server type and the **Device as Alternate Server** is enabled. For details, see "4.10.3.2 Platform as the SIP Server".

Procedure

- Step 1 Log in to the webpage of VTO.
- Step 2 Select **Network Settings** > **Registration Management**.
- Step 3 Click **Add** to add clients.

Figure 4-60 Configure the parameter

The screenshot shows a web-based 'Add' dialog box. It has a title bar with the word 'Add' and a close button (X). The dialog contains the following fields:

- Client IP**: An IP address input field with '127' entered.
- Device Type**: A dropdown menu with 'VTO' selected.
- Analog Indoor Monito...**: A text input field with '1' entered.
- Analog Indoor Monito...**: A text input field with '4' entered.
- Location**: An empty text input field.
- Long No. of the Device**: An empty text input field.

At the bottom right of the dialog are two buttons: 'OK' (blue) and 'Cancel' (white).

Table 4-32 Parameters description

Parameter	Description
Client IP	Enter the IP address of the device.
Device Type	Enter the type of the device.
Analog Indoor Monitor Start No.	Select the start number of the analogy indoor monitor.
Analog Indoor Monitor End No.	Select the end number of the analogy indoor monitor.
Location	Enter the room number where the device located.
Long No. of the Device	Enter the unique extended identification number of the device.

- Step 4 Click **OK**.

Related Operations

- Click  to edit the details.
- Click  to delete.

4.11 System

Configure the parameters of video, audio and time.

4.11.1 Configuring Alarm

4.11.1.1 Configuring Alarm Linkage

Procedure

- Step 1 Select **System > Alarm > Alarm Linkage Setting**.
- Step 2 Click  to modify the parameters.

Figure 4-61 Modify the parameters

Modify

Alarm-in Port

1

Name

Zone1

Alarm Input Type

NO

Link Fire Safety Control

Alarm-out Port

Duration

30

s (1-300)

Alarm Output Channel

☒ 1

☐ 2

Access Control Linkage

Local Lock

NO

External Lock

NO

OK

Cancel

Table 4-33 Description of alarm linkage parameters

Parameter	Description
Alarm-in Port	The alarm-in port number cannot be modified.

Parameter	Description
Name	Customized.
Alarm Input Type	Select the type according to the device you purchased. ● NO : The circuit of the alarm device is normally open, and closes when an alarm is triggered. ● NC : The circuit of the alarm device is normally closed, and opens when an alarm is triggered.
Link Fire Safety Control	If enabled, when there is fire alarm, the device is linked to the alarm output and the access control.  If enabled, the Alarm-out Port and Access Control Linkage are enabled by default.
Alarm-out Port	If alarm output is enabled, the relay can generate alarm messages. Configure the alarm duration, and then select the channel according to the actual channels.
Duration	
Alarm Output Channel	
Access Control Linkage	If you want to link access control when the fire alarm is triggered, enable this function.  This function takes effect only after Link Fire Safety Control is enabled.
Local Lock	● NO: Normally open. The door automatically opens when fire alarm is triggered. ● NC: Normally closed: The door automatically closes when fire alarm is triggered.
External Lock	

Step 3 Click **OK**.

4.11.1.2 Configuring Tamper Alarm

Procedure

Step 1 Select **System** > **Alarm** > **Alarm**.

Step 2 Configure tamper alarm.

Figure 4-62 Tamper alarm

Table 4-34 Description of tamper alarm parameters

Parameter	Description
Tamper Sound	Configure whether the device whistles locally or not. It is enabled by default.
Report Event	Configure whether the device reports the tamper alarm to the app, indoor unit, and back-end of the platform or not. It is enabled by default.
Restore Device for Multiple Tamper Alarms	Within 10 minutes after the device is powered on, if you continuously press the tamper button for 5 times in 8 seconds, the device beeps and deletes the account information.

Step 3 Click **Apply**.

4.11.2 Configuring Video Parameters

Procedure

- Step 1 Select **System** > **Video**.
- Step 2 Configure the parameters.
- Bit Rate:

Figure 4-63 Bit rate

Main Stream	
Resolution	720P ▼
Frame Rate (FPS)	25 ▼
Bit Rate	2Mbps ▼
Compression	H.264 ▼

Sub Stream	
Resolution	CIF ▼
Frame Rate (FPS)	25 ▼
Bit Rate	256Kbps ▼
Compression	H.264 ▼

Table 4-35 Bit rate parameters description

Parameter		Description
Main Stream	Resolution	Adjust the resolution of the video. You can select from 720P , CIF , WVGA , and D1 .
	Frame Rate (FPS)	The number of frame in one second of video. ◇ If you select PAL as the video standard, you can set the frame rate up to 25. ◇ If you select NTSC as the video standard, you can set the frame rate up to 30.
	Bit Rate	Select according to the actual situation.
	Compression	Select from H.264 and H.265 .  Compared with H.264, H.265 requires smaller bandwidth.
Sub Stream	Resolution	Adjust the resolution of the video. You can select from WVGA , D1 , QVGA , CIF , 720P and 1080P .

Parameter		Description
	Frame Rate (FPS)	The number of frame in one second of video. If you select PAL as the video standard, you can set the frame rate up to 25. If you select NTSC as the video standard, you can set the frame rate up to 30.
	Bit Rate	Select according to the actual situation.
	Compression	Select from H.264 and H.265 .

- Status:

Figure 4-64 Status

The screenshot shows a settings interface with the following parameters:

- Scene Mode:** Auto
- Day/Night:** Color
- Compensation Mode:** WDR
- Video Standard:** PAL

Below the Compensation Mode dropdown, there is a slider control with a blue knob, ranging from - to + 30.

Table 4-36 Status parameters description

Parameter	Description
Scene Mode	Select from Auto , Sunny , Night and Disable .
Day/Night	◇ Auto : The system switches between color and black-and-white according to actual conditions. ◇ Color : The system displays the image in color. ◇ B/W : The system displays black-white image.
Compensation Mode	◇ Disable : There will be no backlight. ◇ BLC : The system gets a clearer image of the dark areas on the target when shooting against light. ◇ WDR : The system dims bright areas and compensates for dark areas to ensure the clarity of all areas. ◇ HLC : The system dims strong lights, and reduce the size of Halo zone to lower the brightness of the whole image.
Video Standard	Select from PAL and NTSC .

- Exposure:

Figure 4-65 Exposure

The image shows a user interface for camera exposure settings. It contains the following elements:

- Anti-flicker:** A dropdown menu currently set to "Outdoor".
- Exposure Mode:** A dropdown menu currently set to "Shutter Priority".
- Shutter:** A dropdown menu currently set to "Custom Range".
- Shutter Range:** Two input boxes showing "0" and "20", separated by a hyphen, with the unit "(0-40)ms" to the right.
- Exposure Compensation:** A horizontal slider with a blue knob, ranging from a minus sign to "+ 50".
- 3D NR:** A blue toggle switch that is currently turned "on".
- NR Level:** A horizontal slider with a blue knob, ranging from a minus sign to "+ 55".

Table 4-37 Exposure parameters description

Parameter	Description
Anti-flicker	◇ 50Hz : The system adjusts the exposure according to ambient light automatically to ensure that stripes do not appear. ◇ 60Hz : The system adjusts the exposure according to ambient light automatically to ensure that stripes do not appear. ◇ Outdoor : If you select Outdoor, the exposure mode can be set to Gain Priority, Shutter Priority and Iris Priority. Different devices support different exposure modes.
Exposure Mode	◇ Auto : Exposure is automatically adjusted according to scene brightness if the overall brightness of images is in the normal exposure range. ◇ Manual : You can adjust the Gain and Shutter value manually. ◇ Shutter Priority : The camera automatically adjusts the aperture size based on the selected shutter speed to ensure proper exposure.
Shutter	Set the effective exposure time. The smaller the value, the shorter the exposure time.
Shutter Range	If you select Manual as the exposure mode, and select Custom Range as the shutter, you can set the shutter range in ms unit.
Exposure Compensation	You can set the exposure compensation value. The value ranges from 0 to 100. The higher the value is, the brighter the image will be.
3D NR	Reduce the noise of multiple-frame (at least two frames) images by using inter-frame information between two adjacent frames in a video. The higher the level is, the lower the noise will be, and the larger the trailing smear will be.

Parameter	Description
NR Level	Noise reduction grade. The value ranges from 0 to 100. The larger the value is, the less the noise will be.

- Image:

Figure 4-66 Image

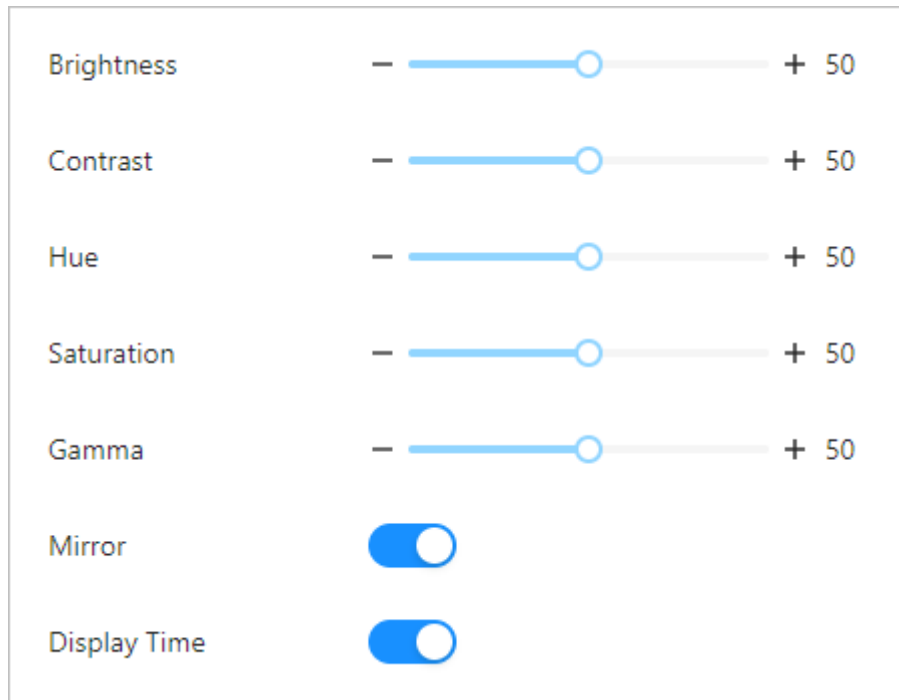


Table 4-38 Image parameters description

Parameter	Description
Brightness	Change the overall brightness of the image. The higher the value, the brighter the image.
Contrast	Change the contrast of the image. The higher the value, the greater the contrast between bright and dark areas. If the value is too big, the dark area will be too dark and the bright area will be more vulnerable to overexposure.
Hue	Makes the color deeper or lighter. The default value is made by the light sensor, and it is recommended.
Saturation	Set the intensity of colors. The higher the value, the deeper the color. Saturation value does not change image brightness.
Gamma	Change the image brightness and contrast in a non-linear way. The higher the value, the brighter the image.
Mirror	If enabled, the image flips left and right.
Display Time	If enabled, the current time displays on the video image.

4.11.3 Configuring Audio Parameters

Procedure

- Step 1
- Select **System** > **Audio**.
- Step 2
- Configure the audio parameters.

Figure 4-67 Audio parameters

Audio Control

Voice Prompt while Ringing

☒

Ringtone

☒

Unlock

☒

Alarm

☒

Voice Messages

☒

Audio Collection

☒

Volume Control

Intercom Volume

-

+

80

Microphone Volume

-

+

90

Device Volume

-

+

80

Apply

Refresh

Default

Table 4-39 Audio parameters description

Parameter		Description
Audio Control	Voice Prompt while Ringing	If enabled, there is prompt sound when you call.
	Ringtone	If enabled, there is a ringback when you call.
	Unlock	If enabled, there is prompt sound.

Parameter		Description
	Alarm	If enabled, there is alarm sound.
	Voice Messages	If enabled, when no one answers the call from the visitor, the system plays prompt sound for messages.
	Audio Collection	If enabled, the audio will be saved.
Volume Control	Intercom Volume	Adjust the intercom volume. The higher the value is, the higher the volume will be.
	Microphone Volume	Adjust the microphone volume of the VTO. The higher the value is, the higher the volume will be.
	Device Volume	Adjust the device volume. The higher the value is, the higher the volume will be.

Related Operations

Upload the audio file: Click , select the audio file, and then click **Open**. Upload the audio for the corresponding type.

Figure 4-68 Upload the file

Audio File(Please upload a WAV or MP3 file. The file size must not exceed 100K.)		
Audio Type	Audio File	Modify
Calling	-	
Busy	-	
Successfully Unlocked	-	
Nobody Answered	-	
Call Ended	-	
Nonexistent Number	-	

4.11.4 Configuring Time

Procedure

- Step 1 Select **System** > **Time**.
- Step 2 Configure the time parameters.

Figure 4-69 Time parameters

Time and Time Zone



Date :
19-09-2025 Friday
Time :
12:01:31

Time

☒ Manually Set
☐ NTP

System Time

19-09-2025 12:01:31

Sync PC

Time Format

DD-MM-YYYY

24-Hour

Time Zone

(UTC) Coordinated Universal Time

DST

Enable

☐

Type

☐ Date
☒ Week

Start Time

May

Week 1

Mon

00:00

End Time

Oct

Week 1

Mon

00:00

Apply

Refresh

Default

Table 4-40 Time parameters description

Parameter	Description
Time	Manually Set : Configure the time manually or synchronize with your computer. NTP : Configure the NTP server parameters, and the time will be synchronized.
Server	Configure the address, port number of the NTP server. The port number is 123 by default. Configure the interval that the VTO synchronize the time with the NTP server.  The parameters are displayed when you select NTP.
Port	
Interval	
System Time	Manually configure the system time. You can also click Sync PC to synchronize the time of the VTO with the local computer.
Time Format	Configure the time format and the zone.
Time Zone	
DST Enable	If enabled, the system will synchronize its time with the NTP server you configure.

Parameter	Description
Type	Select from Date and Week .
Start Time	Configure the start time and end time for DST.
End Time	

Step 3 Click **Apply**.

4.11.5 Adding ONVIF Users

ONVIF users are used for ONVIF protocol. The ONVIF user information will be verified before the door opens.



Only Profile C and Profile S are supported, while the encoding format and image parameters are not supported.

Procedure

Step 1 Select **System** > **ONVIF User**.

Step 2 Click **Add**, and then enter the user name, password and confirm password.

Figure 4-70 Add the user

Step 3 Click **OK**.

Related Operations

- Click to edit the user.
- Click to delete the user.

4.12 Maintenance Center

4.12.1 One-Click Diagnosis

The system automatically diagnoses the configurations and the status of the device to improve its performance.

Procedure

Step 1 Select **Maintenance Center** > **One-click Diagnosis**.

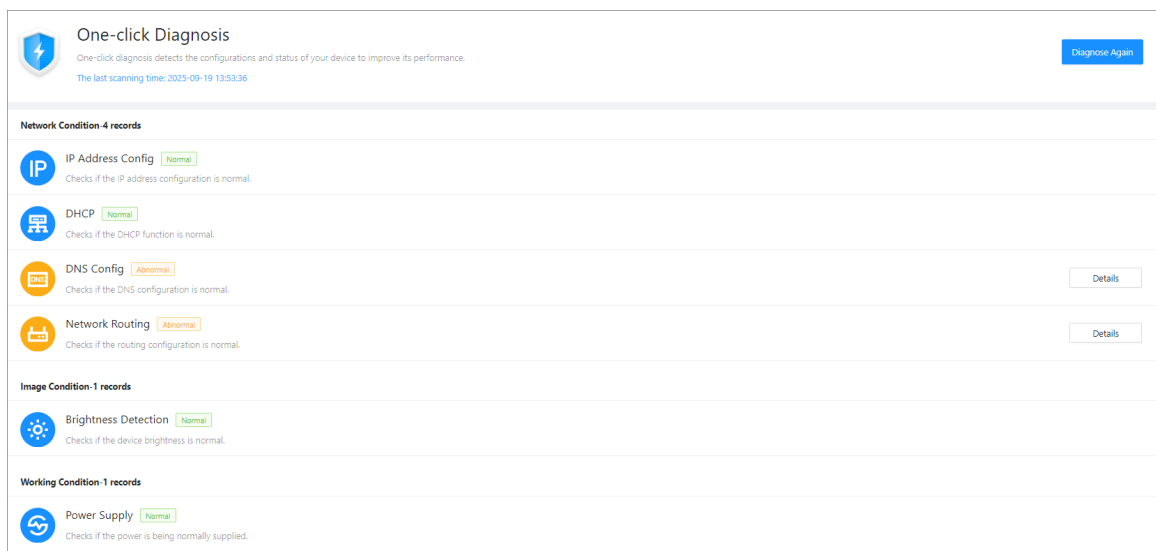
Step 2 Click **Diagnose**.

The system automatically diagnoses the configurations and the status of the device and display diagnosis results after it completes.

Step 3 (Optional) Click **Details** to view details of abnormal items.

You can ignore the abnormality or optimize it. You can also click **Diagnose Again** to perform automatic diagnosis again.

Figure 4-71 One-click diagnosis



4.12.2 System Information

4.12.2.1 Viewing Version Information

Select **Maintenance Center** > **System Info** > **Version**, and you can view version information of the Device.

Figure 4-72 Version information

Device Model	AM1000
Device SN	AM1000
Hardware Version	V1.0
Software Version	2025-09-13 V4.8
SCM Version	2024-03-02 V1
Web Version	V5.0
Face Algorithm Version	V1.0
Security Baseline Version	V2.0
Fingerprint Firmware	V1.4
Touchscreen Version	V5.0

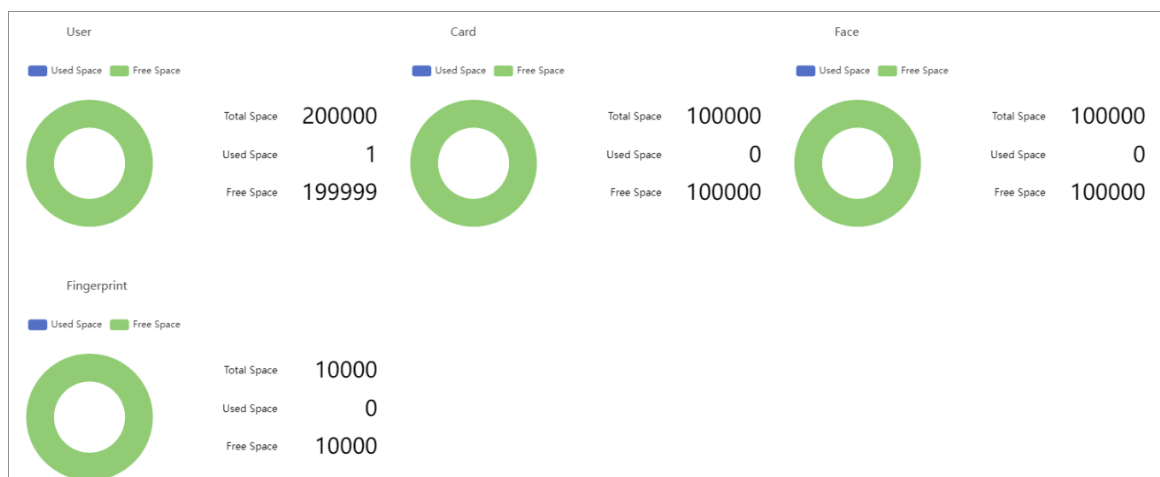
4.12.2.2 Viewing Legal Information

Select **Maintenance Center** > **System Info** > **Legal Info**, and then you can view the software license agreement, privacy policy and open source software notice.

4.12.3 Data Capacity

Select **Maintenance Center** > **Data Capacity**, and then you can see the data capacity of the users, cards, face images, and fingerprint information.

Figure 4-73 Data capacity



4.12.4 Viewing Logs

View logs such as system logs, alarm logs, call logs, and unlock records.

4.12.4.1 Call History

Procedure

Step 1 Select **Maintenance Center > Log > Call History**.

Figure 4-74 Call history

Please keep unencrypted files well to avoid data leakage.					
Export					
No.	Call Type	Room No.	Start Time	Call Duration (min)	End Status
1	Outgoing	Management Center	2025-05-14 14:00:59	00:00	Missed
2	Outgoing	Management Center	2025-05-14 13:58:59	00:00	Missed
3	Outgoing	Management Center	2025-05-14 13:56:59	00:00	Missed

Step 2 (Optional) Click **Export** to export the call history.

4.12.4.2 Alarm Logs

Procedure

Step 1 Select **Maintenance Center > Log > Alarm Logs**.

Figure 4-75 Alarm logs

Please keep unencrypted files well to avoid data leakage.				
Export				
No.	Room No.	Event	Channel	Start Time
1	8001	Door Detector	-	27-02-2024 13:35:21
2	8001	Tamper	-	27-02-2024 13:34:51
3	8001	Door Detector	-	27-02-2024 02:02:06
4	8001	Tamper	-	27-02-2024 02:01:36

Step 2 (Optional) Click **Export** to export the logs to the local computer.

4.12.4.3 Unlock Records

Procedure

Step 1 Select **Maintenance Center > Log > Unlock Records**.

Step 2 Configure the time range, and then click **Search**.

Figure 4-76 Unlock records

Please keep unencrypted files well to avoid data leakage.									
Export									
				Time Range		2025-06-16 00:00:00		2025-06-17 00:00:00	Search
No.	Unlock Method	VTO ID	Person ID	Room No.	Username	Card	Lock	Unlock Results	Unlock Time
1	Face Unlock	8001	10004946	101	10004946	-	Local Lock	Succeed	2025-06-16 16:35:12
2	Face Unlock	8008				-	Local Lock	Failed	2025-06-16 16:35:11
3	Face Unlock	8007				-	Local Lock	Failed	2025-06-16 16:35:10
4	Card Swipe Unlock	8003	1	1#96#1	1	BB43172A	Local Lock	Succeed	2025-06-16 16:35:10
5	Card Swipe Unlock	8003				EBDA182A	Local Lock	Failed	2025-06-16 16:35:02

Step 3 (Optional) Click **Export** to download the log.

4.12.4.4 System Logs

Procedure

Step 1 Select **Maintenance Center > Log > Log**.

Step 2 Select the time range and the log type, and then click **Search**.

Figure 4-77 System logs

Please keep unencrypted files well to avoid data leakage.

Time Range

19-09-2025 00:00:00 → 20-09-2025 00:00:00

Type

All

Search

Reset

☐ Encrypt Log Backup

Export

No.	Time	Type	Log Content
1	19-09-2025 22:00:17	DebugInfo.OneClickExport	
2	19-09-2025 21:58:16	DebugInfo.OneClickExport	
3	19-09-2025 21:54:13	One-click Diagnosis	
4	19-09-2025 21:34:38	DebugInfo.OneClickExport	
5	19-09-2025 19:59:36	Save Config	
6	19-09-2025 19:55:36	Save Config	
7	19-09-2025 19:43:45	DebugInfo.OneClickExport	
8	19-09-2025 19:42:53	Save Config	
9	19-09-2025 19:41:24	DebugInfo.OneClickExport	
10	19-09-2025 19:37:47	Save Config	

Related Operations

- Click **Export** to export the searched logs to your local computer.
- Click **Encrypt Log Backup**, and then enter a password. The exported file can be opened only after entering the password.
- Click to view details of a log.

4.12.5 Maintenance Management

4.12.5.1 Exporting and Importing Configuration Files

You can import and export the configuration file for the Device. When you want to apply the same configurations to multiple devices, you can import the configuration file to them.

Procedure

Step 1 Select **Maintenance Center > Maintenance Management > Config**.

Figure 4-78 Configuration management

Config

Export Configuration File

File

Browse

Import File

Imported configuration will overwrite previous configuration.

Default

Factory Defaults

Step 2 Export or import configuration files.

- Export the configuration file.

Click **Export Configuration File** to download the file to the local computer.

- Import the configuration file.

1. Click **Browse** to select the configuration file.

2. Click **Import configuration**.



Configuration files can only be imported to devices that have the same model.

Step 3 (Optional) Click **Factory Defaults** to set the device to its default settings.

4.12.5.2 Maintenance

Regularly restart the VTO during its idle time to improve its performance.

Procedure

Step 1 Select **Maintenance Center > Maintenance Management > Maintenance**.

Step 2 Set the time, and then click **Apply**.

The Device will restart at the scheduled time.

Figure 4-79 Maintenance time

4.12.6 Updating the System



- Make sure that you get the correct update file from technical support.
- Do not disconnect the power supply or network, and do not restart or shutdown the Device during the update.

File Update

1. Select **Maintenance Center > Update**.

2. In the **File Update** area, click **Browse**, and then upload the update file.

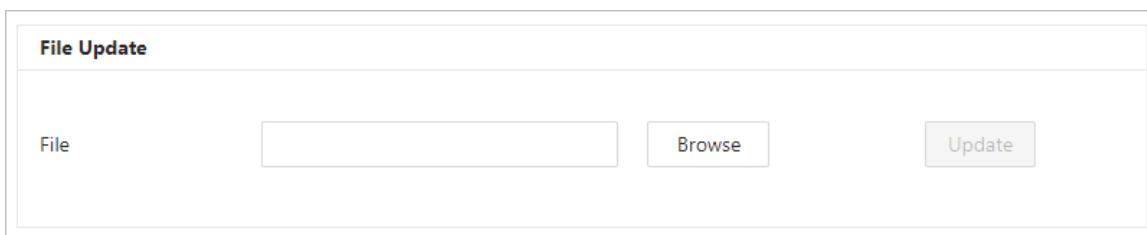


The update file should be a .bin file.

3. Click **Update**.

The VTO will restart after the update finishes.

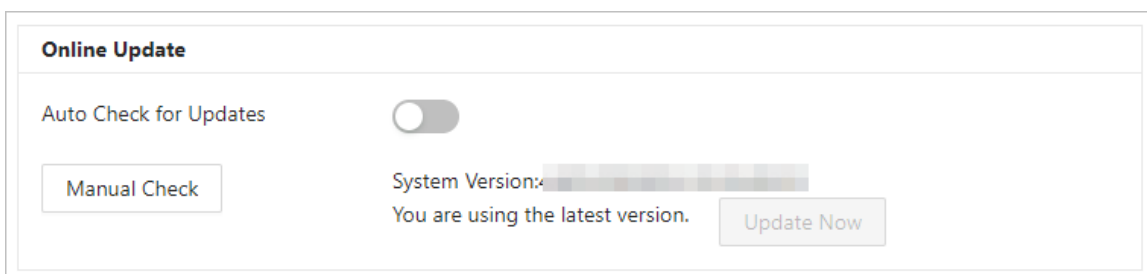
Figure 4-80 File update

The screenshot shows a web interface titled "File Update". It contains a label "File" followed by a text input field. To the right of the input field is a "Browse" button. Further to the right is an "Update" button.

Online Update

1. Select **Maintenance Center > Update**.
2. In the **Online Update** area, select an update method.
 - Enable **Auto Check for Updates**, and then the VTO will automatically check for the latest version update.
 - Click **Manual Check**, and then you can immediately check whether the latest version is available.
3. (Optional) Click **Update Now** to update the VTO immediately.

Figure 4-81 Online update

The screenshot shows a web interface titled "Online Update". It features a toggle switch for "Auto Check for Updates" which is currently turned off. Below this is a "Manual Check" button. To the right of the button, it says "System Version: " followed by a blurred version number, and "You are using the latest version." Below this text is an "Update Now" button.

4.12.7 Advanced Maintenance

Acquire device information and capture packet to make easier for maintenance personnel to perform troubleshooting.

4.12.7.1 Exporting

Export the configuration information of the device.

Procedure

- Step 1 Select **Maintenance Center > Advanced Maintenance > Export**.
- Step 2 Click **Export** to export the serial number, firmware version, device operation logs and configuration information.

4.12.7.2 Packet Capture

Procedure

Step 1 Select **Maintenance Center** > **Advanced Maintenance** > **Packet Capture**.

Figure 4-82 Packet Capture

Packet Capture							
NIC	Device Address	IP 1: Port 1		IP 2: Port 2		Packet Capture Data Size	Packet Capture Backup
eth0		Optional	Optional	Optional	Optional	0.00MB	▶
lo		127.0.0.1	Optional	Optional	Optional	0.00MB	▶

Step 2 Enter the IP address, click , and then  changes to  to acquire the data.

Step 3 After you acquired enough data, click .

Captured packets are automatically downloaded to your local computer.

4.12.7.3 Network Test

Procedure

Step 1 Select **Maintenance Center** > **Advanced Maintenance** > **Packet Capture**.

Step 2 In the **Network Test** area, test the network as needed.

1. Enter the destination address in the box, and then click **Test**.
2. After you acquired enough data, click **Stop**, and then you can view the test result in the following box.
3. (Optional) Click **Copy** to copy the test result.

Figure 4-83 Test network

Network Test	
Destination Address	10.1.1.2 Test
Data Packet Size	64 Byte (64-4096)
Test Result	PING 10.1.1.2 64(92) bytes of data. 72 bytes from 10.1.1.2: icmp_seq = 1 ttl = 123 time = 2 ms 72 bytes from 10.1.1.2: icmp_seq = 2 ttl = 123 time < 1 ms 72 bytes from 10.1.1.2: icmp_seq = 3 ttl = 123 time = 1 ms 72 bytes from 10.1.1.2: icmp_seq = 4 ttl = 123 time = 1 ms 72 bytes from 10.1.1.2: icmp_seq = 5 ttl = 123 time = 1 ms 72 bytes from 10.1.1.2: icmp_seq = 6 ttl = 123 time = 1 ms 72 bytes from 10.1.1.2: icmp_seq = 7 ttl = 123 time = 1 ms 72 bytes from 10.1.1.2: icmp_seq = 8 ttl = 123 time = 1 ms 72 bytes from 10.1.1.2: icmp_seq = 9 ttl = 123 time = 1 ms 72 bytes from 10.1.1.2: icmp_seq = 10 ttl = 123 time = 1 ms 72 bytes from 10.1.1.2: icmp_seq = 11 ttl = 123 time = 2 ms Round Time Used: Min = 0 ms, Max = 2 ms, Average = 1.091 ms Copy

Appendix 1 Security Recommendation

Account Management

1. Use complex passwords

Please refer to the following suggestions to set passwords:

- The length should not be less than 8 characters;
- Include at least two types of characters: upper and lower case letters, numbers and symbols;
- Do not contain the account name or the account name in reverse order;
- Do not use continuous characters, such as 123, abc, etc.;
- Do not use repeating characters, such as 111, aaa, etc.

2. Change passwords periodically

It is recommended to periodically change the device password to reduce the risk of being guessed or cracked.

3. Allocate accounts and permissions appropriately

Appropriately add users based on service and management requirements and assign minimum permission sets to users.

4. Enable account logout function

The account logout function is enabled by default. You are advised to keep it enabled to protect account security. After multiple failed password attempts, the corresponding account and source IP address will be locked.

5. Set and update password reset information in a timely manner

The device supports password reset function. To reduce the risk of this function being used by threat actors, if there is any change in the information, please modify it in time. When setting security questions, it is recommended not to use easily guessed answers.

Service Configuration

1. Enable HTTPS

It is recommended that you enable HTTPS to access web services through secure channels.

2. Encrypted transmission of audio and video

If your audio and video data contents are very important or sensitive, it is recommended to use encrypted transmission function in order to reduce the risk of your audio and video data being eavesdropped during transmission.

3. Turn off non-essential services and use safe mode

If not needed, it is recommended to turn off some services such as SSH, SNMP, SMTP, UPnP, AP hotspot etc., to reduce the attack surfaces.

If necessary, it is highly recommended to choose safe modes, including but not limited to the following services:

- SNMP: Choose SNMP v3, and set up strong encryption and authentication passwords.
- SMTP: Choose TLS to access mailbox server.
- FTP: Choose SFTP, and set up complex passwords.
- AP hotspot: Choose WPA2-PSK encryption mode, and set up complex passwords.

4. Change HTTP and other default service ports

It is recommended that you change the default port of HTTP and other services to any port between 1024 and 65535 to reduce the risk of being guessed by threat actors.

Network Configuration

1. **Enable Allowlist**

It is recommended that you turn on the allowlist function, and only allow IP in the allowlist to access the device. Therefore, please be sure to add your computer IP address and supporting device IP address to the allowlist.

2. **MAC address binding**

It is recommended that you bind the IP address of the gateway to the MAC address on the device to reduce the risk of ARP spoofing.

3. **Build a secure network environment**

In order to better ensure the security of devices and reduce potential cyber risks, the following are recommended:

- Disable the port mapping function of the router to avoid direct access to the intranet devices from external network;
- According to the actual network needs, partition the network: if there is no communication demand between the two subnets, it is recommended to use VLAN, gateway and other methods to partition the network to achieve network isolation;
- Establish 802.1x access authentication system to reduce the risk of illegal terminal access to the private network.

Security Auditing

1. **Check online users**

It is recommended to check online users regularly to identify illegal users.

2. **Check device log**

By viewing logs, you can learn about the IP addresses that attempt to log in to the device and key operations of the logged users.

3. **Configure network log**

Due to the limited storage capacity of devices, the stored log is limited. If you need to save the log for a long time, it is recommended to enable the network log function to ensure that the critical logs are synchronized to the network log server for tracing.

Software Security

1. **Update firmware in time**

According to the industry standard operating specifications, the firmware of devices needs to be updated to the latest version in time in order to ensure that the device has the latest functions and security. If the device is connected to the public network, it is recommended to enable the online upgrade automatic detection function, so as to obtain the firmware update information released by the manufacturer in a timely manner.

2. **Update client software in time**

It is recommended to download and use the latest client software.

Physical Protection

It is recommended that you carry out physical protection for devices (especially storage devices), such as placing the device in a dedicated machine room and cabinet, and having access control

and key management in place to prevent unauthorized personnel from damaging hardware and other peripheral equipment (e.g. USB flash disk, serial port).