Intelligent Integrated Management BOX

User Manual

V1.00

Contents

About this Manual

Copyright Statement

Disclaimer

Due to such reasons as product version upgrade or regulatory requirement of relevant regions, this manual will be periodically updated.

This manual is only for informational purpose, and all statements, information, and recommendations in this manual are presented without warranty.

The illustrations in this manual are for reference only and may vary depending on the version or model. The screenshots in this manual may have been customized to meet specific requirements and user preferences. As a result, some of the examples and functions featured may differ from those displayed on your monitor.

Safety Symbols

The symbols in the following table may be found in this manual. Carefully follow the instructions indicated by the symbols to avoid hazardous situations and use the product properly.

Symbol	Description
NOTE!	Indicates useful or supplemental information about the use of product.
CAUTION!	Indicates a situation which, if not avoided, could result in damage, data loss or malfunction to product.
WARNING!	Indicates a hazardous situation which, if not avoided, could result in bodily injury or death.

1 Login

Device	Parameter
Intelligent Cloud Management Server	• Default IP address: 192.168.1.30 • Default username/password: admin/123456
Power Management Module	• Default IP address: 192.168.1.13 • Default username/password: admin/123456

> **Note:** For security, please set a strong password (at least 9 characters, including uppercase and lowercase letters, digits, and special characters) after your first login. It is recommended to change the password regularly and store it securely to ensure that only authorized users can log in to the device.

2 Intelligent Cloud Management Server

The intelligent cloud management server is hereinafter referred to as "SMSERVER".

2.1 Live View

2.1.1 Left Toolbar

Button	Description
	An earphone/microphone should be connected to your computer
	Select the live video stream for the camera
▶ / ■	Play/stop
←	Previous screen
→	Next screen

2.1.2 Bottom Toolbar

Button	Description
	Select the screen layout, including single window and 1/4/6/8/9 windows.
	Select the stream
	Display intelligent mark status
[25fps] [403.77Kbps] [640×360] [H.265] [0.00%]	Display some video parameters
	• : Enable two-way audio for an IP speaker. • : Enable audio broadcast for an IP speaker.
	Drag to select the target (motor vehicle/non-motor vehicle/human body), and click **OK** to view the accurate search results. By default, the SMSERVER searches for images of all cameras of the current day and with the similarity of 60%. You can reset the search conditions as needed, and the set similarity will be the default value the next time you perform the accurate search. **Note:** Up to 8 targets of the selected area can be analyzed and searched at the same time.
	Click to go to Panoramic Linkage page.
	Switch to multi-sensor preview mode. If the device supports panoramic linkage, you can drag to zoom, manually track, and click to link.
	Click to take a snapshot.
	Record live video in the window to the hard disk.
	Zoom in on an area of interest in the window.
	Available for PTZ cameras only. Click to display the PTZ control window.
	Set the mount mode and display mode for fisheye cameras. This button appears only for fisheye cameras.
	The sound volume is adjustable. **Note:** • When you turn on audio in the current window, audio of the previous window is turned off. • For certain devices operating in independent output mode, after you enable audio for a channel displayed on a monitor (e.g., monitor A) and then move the mouse to another monitor (e.g., monitor B), the audio of the channel displayed on the previous monitor (monitor A) will be muted automatically.
	Two-way audio, when enabled, users at the SMSERVER side can have real-time audio communication wth people at the camera side. **Note:** Before use, audio input and output devices must be separately connected to the SMSERVER and camera's AUDIO IN/OUT interfaces.
	3D Positioning. Select an area on the image. The camera will automatically rotate toward the selected area, zoom in, focus, and display the selected area clearly at an appropriate scale.
	Full screen.

2.1.3 Right Toolbar

PTZ Control

📝 **Note:**

- This function is only available for PTZ cameras.

- The PTZ parameters may vary with IPC model.

- PTZ (pan, tilt and zoom) control is applicable to PTZ cameras only and may vary depending on the functions and protocols supported by the PTZ cameras. Refer to PTZ camera specifications for details.

Set the parameters. See below for details.

Table 2-1: PTZ Control Window Buttons

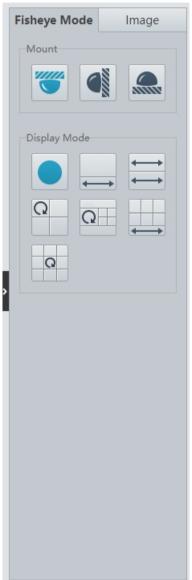| Button	Description
	• Zoom in or out on images. 📝 **Note:** You can also zoom in or out using the scroll wheel on your mouse. • Focus far or near for clear images. • Increase or reduce the amount of light that enters the lens of the camera.

Button	Description
	Control the rotation direction of the PTZ camera; release PTZ control.
	Control the rotation speed of the camera. 1-9 are available. 1 means the slowest, and 9 means the fastest.
	• Turn on/off the light. • Turn on/off the wiper. • Turn on/off the heater. • Turn on/off the snow removal.

Prest	Preset the positions to monitor for quick recall.
	
	1. Rotate the camera to the desired position.
	
	2. Select a preset position number, click ✎ to edit the preset position name, then click 🖫.
	
	  • Click ➔ to call a preset position.
	
	  • Click 🗑 to delete a preset position.

Preset Patrol	The PTZ camera patrols along a route made up of multiple preset presets.
	
	1. Select a patrol route, click ➕.
	
	<table><tr><th>Parameter</th><th>Description</th></tr><tr><td>Preset</td><td>Select preset positions (see Prest).</td></tr><tr><td>Patrol Duration (s)</td><td>The duration that the camera stays at a preset position.</td></tr><tr><td>Speed</td><td>Rotation speed.</td></tr></table>
	2. Click **OK**, add keypoints, and click 🖫 to save the settings. Repeat the above steps to set multiple patrol routes.
	
	📝 **Note:** Each camera can be configured with a maximum of 4 patrol routes, and each patrol route can have up to 8 preset positions.
	
	  • Click ▶/■ to start or stop the patrol.
	
	  • Click 🗑 to clear keypoints.
	
	  • Click ⬆/⬇ to adjust the sequence of these presets.

Recorded Patrol	The PTZ camera automatically rotates along the recorded route. 1. Click ● , and operate pan/tilt/zoom to record the route. 2. Click ■ to stop. 3. Click ▶ or ■ to start or stop the route patrol.

Button	Description
Auto Guard	If the PTZ camera is interrupted by other actions while executing a preset position, preset patrol, or route patrol, it will automatically resume the auto guard action (preset position or patrol route) after a waiting period.
	Choose an auto guard mode (preset or patrol route), choose a preset or a patrol route (depending on the auto guard mode you have chosen), set the idle time, and then click **Save** to complete the setup.

Fisheye Mode

Fisheye cameras provide large wide-angle views, but the image captured is distorted. You may adjust the output image by correcting the shooting angle of the fisheye.

> **Note:** Dewarping is available in live view and playback (in normal and corridor playback modes). The operations are similar. The following describes dewarping in live view.

Set the mounting mode and display mode.

Mount	Display Mode	Description
Ceiling Mount		360° panoramic original image
Desktop Mount		360° panoramic + 1PTZ

Mount	Display Mode	Description
		180° panoramic
		Fisheye + 3PTZ
		Fisheye + 4PTZ
		360° panoramic + 6PTZ
		Fisheye + 8PTZ
Wall Mount		360° panoramic original image
		Panoramic
		Panoramic + 3PTZ
		Panoramic + 4PTZ
		Panoramic + 8PTZ

Image

Adjust image settings to get optimal images.

1. Select the image scene you want to use.

   The IP camera provides several predefined scene modes for different application scenarios. When you select a scene, the parameters will be automatically set, you can also adjust the parameters as needed.

   - Indoor: Recommended for indoor scenes.

   - Common: Recommended for outdoor scenes.

   - Starlight: Recommended for low light conditions.

   - Test: Recommended for test scenes.

   - Road Highlight Compensation/Park Highlight Compensation: Recommended for capturing vehicle license plates on roads or in parks.

   - WDR: Recommended for scenes with high-contrast lighting, such as window, corridor, front door or other scenes that are bright outside but dim inside.

   - Custom: Set a scene as needed.

   - Auto: Automatically adjust image settings based on different environmental conditions, changes in lighting, etc., to ensure image quality. Suitable for harsh weather conditions such as rainy and foggy days, scenes with strong light and dark contrasts, and situations where image stripes occur due to light sources.

2. Configure the parameters under the tabs in this page.

2.2 Playback

Playback Interface Introduction

Table 2-2: Playback Toolbar

Icon	Description
⬇	Configure the search criteria and click Search to view the results. Select the recordings you want to back up, and click **Download**. The downloaded recordings can be viewed from the folder specified in Client.
`00:00:08` `< 0 1 2 3 4 5`	Playback timeline. Blue for normal recording, red for event-triggered recording, and green for result. ■ Normal ■ Event ■ Result
`All ⌄`	Select an event playback type.
↔ ↕	Zoom in or out on the timeline. Alternatively, click on the timeline and use the scroll wheel to zoom in or out.
🚶 🚲 🚗	Normal playback: Show the progress bar including event recordings triggered by human/motor vehicl bodye/non-motor vehicle. Smart playback: Show the progress bar including recordings of human body/motor vehicle/non-motor vehicle. **Note:** • The smart playback recordings of targets are larger than the normal playback recordings of targets. • The target recording search is only available to the single-channel playback, and the corresponding recordings will be shown green on the progress bar.
🔍	Search for recording of motion detection.
▶/❚❚	Play/pause.
◻	Stop playback and return to the start point.
◀	Reverse.
◀◀ 1x ▶▶	Set the playback speed.
⏮ 30s ⌄ ⏭	Rewind/forward 30s.
◀❙ ❙▶	Rewind / forward by frame.

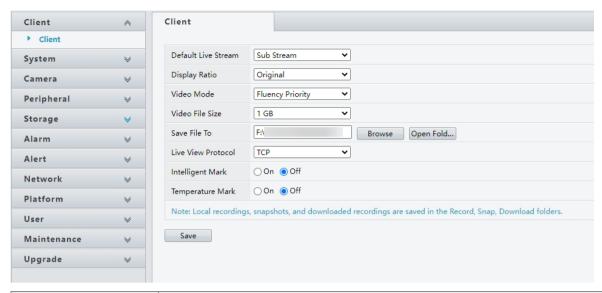| Icon	Description	
⊕	Search images or recordings of targets by AcuSearch or AcuTrack. AcuSearch: Search for images of the motor vehicle, non-motor vehicle, or human body. AcuTrack: Search for recordings of the motor vehicle, non-motor vehicle, or human body during a specified period of a day and display the search results on the timeline. 📝 **Note:** By default, the SMSERVER searches for images/recordings of all cameras of the current day and with the similarity of 60%. You can reset the search conditions as needed, and the set similarity will be the default value the next time you perform the accurate search or tracking.	Click ⊕, drag to select the target, and choose **AcuSearch** or **AcuTrack** to view the accurate search results.
⊙	Take a snapshot.	
✂/✂✗	Start/stop clipping video. Click 🖫 to download the video clips.	
Clarity ○ HD ● SD	Click ⚙ to set the video clarity, including HD or SD. 📝 **Note:** • If no images are displayed on the preview page in SD mode, it indicates SD videos are not stored. • If SD video is available in SD playback mode, SD video is played by default; it switches to HD video automatically when you double-click the window to maximize it in a multi-window layout.	
Display Rat... ● Full ○ Origi...	Click ⚙ to set the display ratio, including Full or Original.	
+🔍	Click ••• to zoom in.	
🗨...	Click ••• to add a tag at the current time point to record the current video. See Text Search for details.	
×👁	Click ••• to set Fisheye Mode.	
🔊	Adjust the sound volume.	

Playback Operations

Type	Description	Step 1	(Optional) Step 2
Normal playback	Play all recordings of the selected camera(s)	Select camera(s) in normal/corridor playback mode or select a camera in smart playback mode, double-click the desired date; or select the date and then click [▶] to start playback. 📝 **Note:** • In normal playback mode, click **Max. Cameras** to select the maximum number of cameras allowed.	Click [🚶], [🚲], or [🚗] to specify the target type(s), and then the corresponding event recordings triggered by human body, non-motor vehicle, or motor vehicle will be displayed. Click [All ▾] and choose an event type to play the corresponding recordings.
Smart playback	search for recordings triggered by motion detection or targets including motor vehicle/ non-motor vehicle/human body	• In normal playback mode, click **Close All** to stop playback for all cameras. • The calendar uses different flags to indicate different recording types: blue for normal recording, red for event-triggered recording, and no flag for none. • The SMSERVER plays HD videos by default. You can switch to SD mode if SD videos are stored. For SD video storage, see Table 2-3: Storage Mode.	Click [🚶], [🚲], or [🚗] to specify the target type(s), and then the corresponding recordings including human body, non-motor vehicle, or motor vehicle will be displayed. Click [🔍] to play the event recordings triggered by motion detection. The default search area is the full screen. To specify a search area, click [✏], and choose [✖] to clear the existing areas. Then, click and drag on the image to specify an area, and click [✏] to start search smart playback of the specified area. 📝 **Note:** • [⛶]: Full screen. • [Sensitivity ▬●▬]: Adjust the smart search sensitivity. • [🔍]: Search the motion detection.

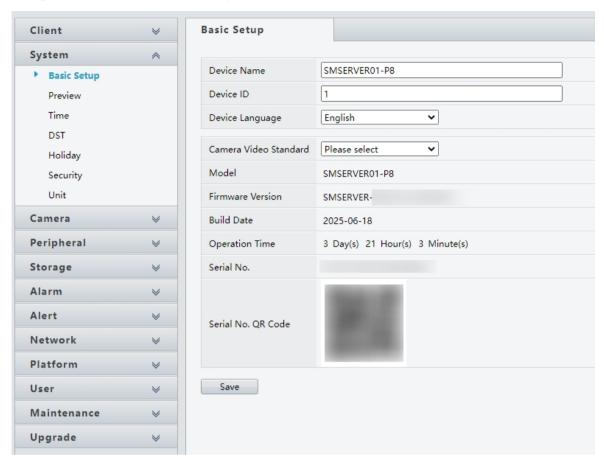## 2.3 Setup

2.3.1 Client

Parameter	Description
Default Live Stream	Live stream
Display Ratio	Original: Displays images with original size Full: Displays images according to the window size (stretch images to fit the window)
Video Mode	Fluency Priority: High fluency but high latency Real Time Priority: Low latency but low fluency
Video File Size	The size of a package when downloading a video
Save File To	Storage path for all files downloaded or exported from the web interface
Live View Protocol	Stream distribution method when multiple web clients access the same camera's live video • TCP: The live video is sent via the TCP protocol. The number of live video streams is determined by the number of web clients received • Multicast: The live video is sent via the multicast protocol. The multicast address should be configured. The NVR sends one live view stream, which is split into multiple streams by the switch and sent to multiple web clients
Intelligent Mark	The live view page displays all rules and the corresponding object boxes drawn in event and alarm pages. The meanings of different coloured lines/boxes are as follows: • Yellow line/box: Drawn tripwire or detection area • Green box: Objects that do not trigger the event alarm • Red box: Objects that trigger the event alarm
Temperature Mark	Displays the temperature measured by the temperature sensing camera on the live view page

2.3.2 System

2.3.2.1 Basic Setup

Configure the basic information of the system.
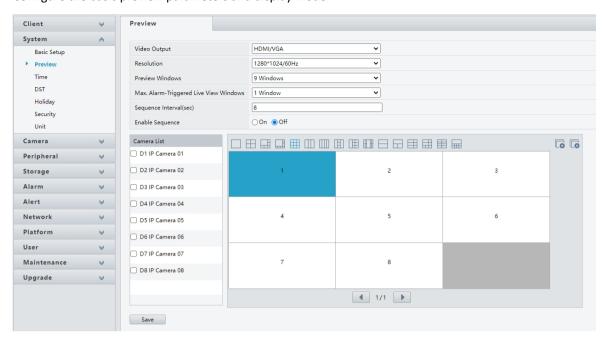
1. Configure the basic parameters.

Parameter	Description
Device Name	The default name is the SMSERVER model. You can change it as needed.
Device ID	Used to distinguish devices if you have more than one device. You can change it as needed.
Device Language	Choose the system language. The system will restart after you change the system language.
Camera Video Standard	Choose a video standard, and then the device may automatically adjust the capture mode of the connected cameras. • PAL: 50Hz • NTSC: 60Hz

2. Click **Save**.

2.3.2.2 Preview

Configure the basic preview parameters and display mode.

Basic Preview Configuration

Parameter	Description
Video Output	Outputs the system display to an external display device. Choose an output port.
Resolution	The resolution includes the display format and refresh rate. The display format refers to the number of pixels that can be displayed on the screen, for example, 1920x1080, 1280x720, 1280x1024, etc. More pixels displayed means higher image quality. The refresh rate can be 60Hz, 50Hz, 25Hz, etc. Choose an option that best fits your needs.
Preview Windows	Displays images in the desired window layout. Choose an option from the list, or click an icon to choose the layout.
Max. Alarm-Triggered Live View Windows	Three options: 1/4windows.
Sequence Interval(sec)	Set the sequence interval time. Default: 8 seconds.
Enable Sequence	Enable sequence. See for more information.

Screen Configuration

By default, camera IDs correspond to live view windows: D1 to window 1, D2 to window 2, and so on. You can change the correspondence relationship as follows. The example below shows how to switch D1 and D2.

> **Note:** You may also drag an image on the live view page to swap windows, and then view the changed window-channel binding relationship on this page. But this method requires the Configure permission, and it cannot switch windows that are not on the same screen.

1. Click window 1 on the right side. Window 1 is selected.

2. Click D2 on the left-side channel list. Now window 1 shows D2, and window 2 shows None.

   > **Note:** On the left-side channel list, ☐ is empty for D1, which means the channel is not bound to any window.

3. Click window 2 on the right side. Window 2 is selected.

4. Click D1 on the left-side channel list. Now window 2 shows D1, which means D1 and D2 have switched windows with each other.

5. Click **Save**.

2.3.2.3 Time

Configure the time format and update method.

> 📝 **Note:** If the device's battery is low, the following message will appear on the screen: Device time error. Please replace the button battery on the motherboard and reset the time.

Choose the time zone, time sync mode, date format, and time format as needed.Then set the system time manually.

Sync Mode	Description
Sync with NTP Server	The system time will be synced from the NTP server. Configure parameters below as needed.
Sync with Cloud Server	The system time will be synced from the Cloud server. To use this function, enable EZCloud first.

Time Sync
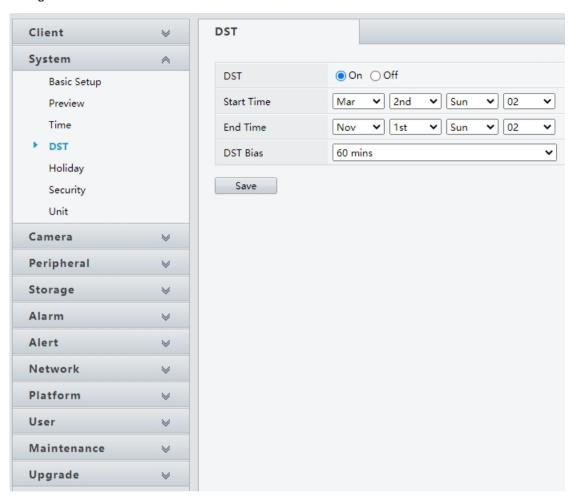
This feature is enabled by default. When **Sync Camera Time** is enabled, the SMSERVER syncs time to the connected cameras regularly.

> 📝 **Note:**
>
> - Time sync occurs when a camera goes online for the first time.
> - If **Sync Camera Time** is enabled, time sync occurs every 30 minutes.

2.3.2.4 DST

Configure DST.

1. Enable **DST**.

2. Configure the parameters.

3. Click **Save**.

2.3.2.5 Holiday

Configure special time periods as holidays for use in recording schedules.

1. Click **Add** in the lower-right corner.

2. Configure the parameters.

Parameter	Description
Holiday Name	Set a meaningful and easy-to-remember holiday name.

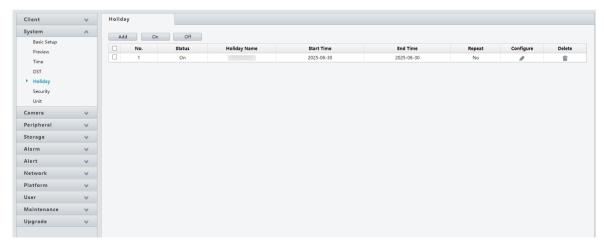| Parameter	Description
Status	The new holiday is enabled by default. If you want to disable it, select **Off**.
Repeat	• No: The holiday is effective once only in the specified year. Specify a year for the holiday. • Yes: The holiday is effective every year.
Mode	• By Day: Set the holiday in the specified format: year/month/day. • By Week: Set the holiday in the specified format: year/month/week/day of the week.
Start Time/End Time	Set according to the specified format.

3. Click **Save**.

• Click ✎ to edit the current holiday.

• Click 🗑 to delete a holiday. Deleting a holiday will not delete the relevant recordings.

• Click **Off** to disable the holiday.

2.3.2.6 Security

IP Address Filtering

IP address filtering can ensure only certain source IP addresses can be used to access the SMSERVER's web interface.

1. Configure the parameters.
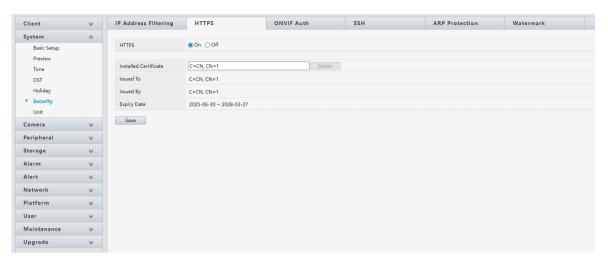
Parameter	Description
IP Address Filtering	• Blocklist: Access is forbidden if the IP is on the blocklist. • Allowlist: Access is allowed only when the IP is on the allowlist. If **Allowlist** is selected but is empty, remote access will be forbidden.
Start IP/End IP	Enter the start and end IP addresses. If you want to add only one IP address, enter it in the **Start IP** field.

2. Click **Add**. Then click **Save**.

HTTPS
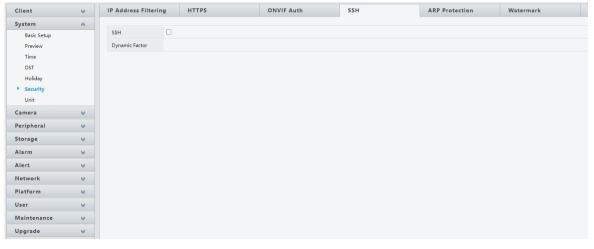
ONVIF Authentication

When Onvif authentication is enabled, a username and password will be required to access the SMSERVER via Onvif.

SSH

Please do not enable this function except for device maintenance and debugging.

ARP Protection

The Address Resolution Protocol (ARP) dynamically maps an IP address to a MAC address. In a local area network, ARP is necessary for devices to communicate with each other through MAC addresses. ARP attacks exploit ARP vulnerabilities to forge IP addresses and MAC addresses. ARP protection can bind the gateway's IP address and an MAC address to prevent ARP spoofing.
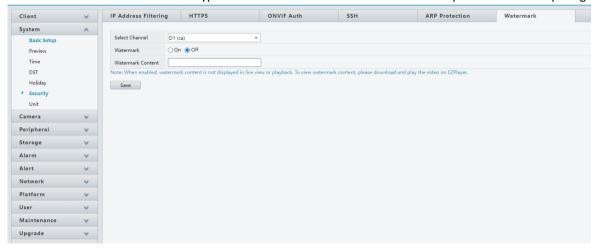
1. Choose the NIC. Skip this step if the device only has one NIC.

2. Enable **ARP Protection**.

3. Configure the parameters.

Parameter	Description
Gateway	Gateway you have configured in **Setup** > **Network** > **TCP/IP**.
Gateway MAC Address	Custom: Enter the gateway's physical address in the network switch.
	Auto: Automatically obtains the gateway's physical address in the network switch.

4. Click **Save**.
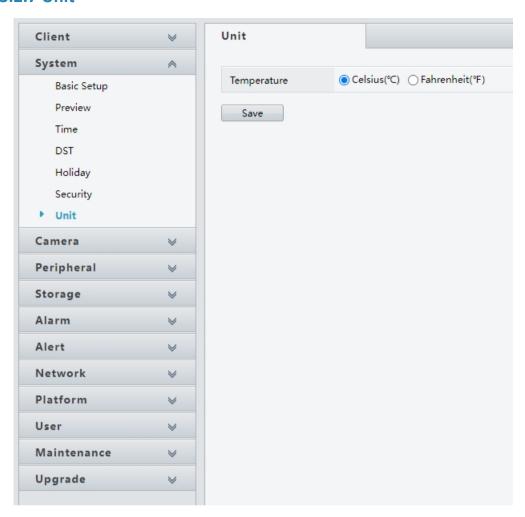
Watermark

Use the watermark function to encrypt custom information into video contents to prevent video tampering.

1. Choose the channel, and enable watermark.

2. Enter the watermark contents.

3. Click **Save**.

2.3.2.7 Unit
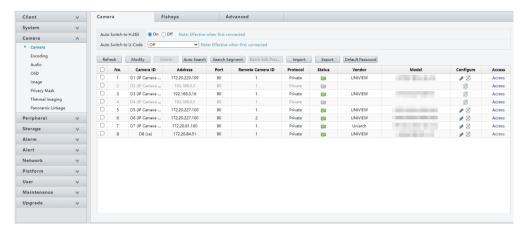
2.3.3 Camera

2.3.3.1 Camera

2.3.3.1.1 Camera

Add and manage IP cameras.

Add IPC

The system automatically searches for IP cameras and lists the discovered. Click **Refresh**, the system refreshes the list and IPC status. Choose a way to add IPCs.

- Option 1: Connect via Cable

1. Connect an IP camera to a PoE port or a switching port of the SMSERVER with a network cable. The connected camera will be added to the SMSERVER automatically.

2. Check the camera status under **Setup** > **Maintenance** > **Network Info** > **PoE Port Status**.

- Option 2: Custom Add

  1. Click **Modify**.

  2. In the window displayed, enter the IPC's IP address and complete other settings, then click **OK**. You may check the camera's status.

     - : Camera online.

     - : Camera offline. Point to the icon to view the failure information.

  3. Repeat the above steps to add other IPCs.

Export IP Camera List

Click **Export**. A .CSV file will be then generated in the selected directory, indicating that the IP camera list has been successfully exported.

Edit IP Camera

Select the target camera and click **Modify**. Edit the settings as needed, and then click **Save**.

Network Configuration

Click . Edit the IP address, IPv4 subnet mask, IPv4 default gateway for the camera. Click **Save**.

## Batch Change Password

When multiple IPCs are not added successfully due to incorrect password, and if the login passwords of these cameras are the same, use this function to change the passwords in batches.

> **Note:**
>
> - This function only changes the password used to add cameras. It does not change the cameras' login password.
>
> - This function is only applicable for IPCs with the same login password. If one of the cameras still fails to be added after you change the password, it means the camera's login password is different, and you need to change the password separately.

1. Select the cameras with the same password. Click **Batch Edit Password**.

2. Enter the new password and confirm the password.

3. Click **OK**.

Other Operations
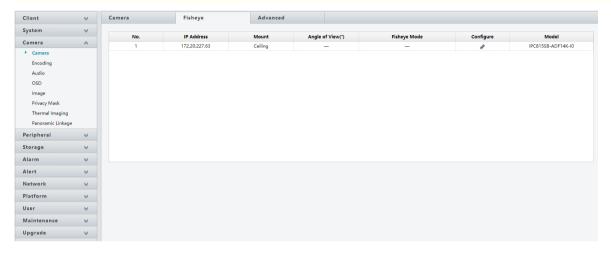
Item	Description
Auto Switch to H.265	When enabled, the SMSERVER automatically chooses H.265 for a newly added camera. **Note:** Every time a camera is added to the SMSERVER, it is considered a newly added camera. This function is not effective to cameras that are already added or added cameras that go back online after being offline.
Auto Switch to U-Code	Select **Basic** or **Advanced**, then the SMSERVER automatically chooses basic U-code mode or advanced U-code mode for a newly added camera. **Note:** Every time a camera is added to the SMSERVER, it is considered a newly added camera. This function is not effective to cameras that are already added or added cameras that go back online after being offline.
Refresh	Click **Refresh** to check the camera status.

2.3.3.1.2 Fisheye

Set the mounting mode and display mode for fisheye cameras. Fisheye configuration is supported only by certain fisheye cameras.

> **Note:** Before using this function, make sure that a fisheye camera has been mounted and that the camera has been added to your SMSERVER.

Configuration

Configure the following parameters after the fisheye camera is installed.

1. Select the fisheye camera and click ✎.

2. Set the parameters as needed.

Item	Description
Mount	Select the mounting mode, including ceiling mount, wall mount, and desktop mount. If you change how the fisheye camera is installed, change its mounting mode so as to display proper images.
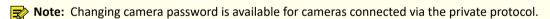
3. Click **Save**.
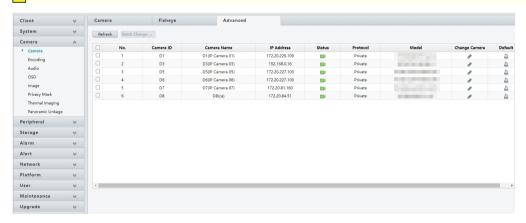
Dewarping

See Fisheye Mode.

2.3.3.1.3 Advanced

Change the password of online IP cameras or restore factory default settings for cameras.

> **Note:** Changing camera password is available for cameras connected via the private protocol.

Change Camera Password

You can change password of camera(s) one by one or in batches.

1. Select a camera and click ✎, or select the target cameras and click **Batch Change Password**.

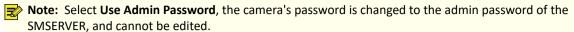2. Enter the new password and confirm the password.

> **Note:** Select **Use Admin Password**, the camera's password is changed to the admin password of the SMSERVER, and cannot be edited.

3. Click **OK**. Check if the password is successfully changed.

Restore Default Settings
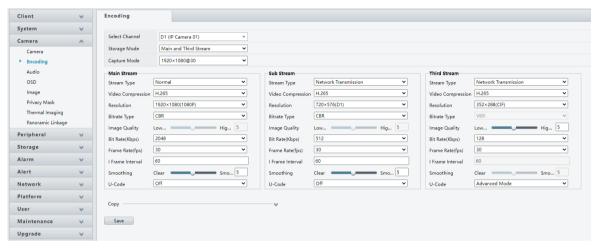
Click 🔄. A message indicating camera restart appears, click **OK** and then the camera's default settings will be restored.

2.3.3.2 Encoding

Configure storage mode, capture mode, stream type, etc.

> **Note:**
>
> • The configuration items may vary with IPC models or versions.
>
> • Some functions may be unavailable if the IPC version is too low. In this case, you need to upgrade the IPC first.

1. Select the camera from the drop-down list.

2. Choose a storage mode, including main stream, sub stream, main and sub stream, main and third stream, sub and third stream. The default is main and third stream. Only certain SMSERVER models support all the five modes.

   The storage mode determines the recording format (HD or SD). It may affect the clarity and output mode of the recording. Set the storage mode as needed by referring to the table below.

Table 2-3: Storage Mode

Storage Mode	HD Streaming	SD Streaming
Main stream	Main stream	No video or image
Sub stream	Sub stream	No video or image
Main + sub stream	Main stream	Sub stream
Main + third stream	Main stream	Third stream
Sub + third stream	Sub stream	Third stream

> **Note:** This configuration item only changes the storage stream of the SMSERVER, and does not change the video stream sent from IPC. The IPC sends the main stream by default.

3. Set the capture mode, that is, combinations of resolution and frame rate. This parameter is configurable only when the camera is connected to the SMSERVER via the private protocol.

4. Set the encoding parameters for different streams.

Item	Description
Stream Type	• Main stream: Select **Schedule** or **Event**. 　• Schedule: Set encoding parameters for scheduled recordings. 　• Event: Set encoding parameters for events such as motion detection and alarm input. • Sub stream: Set encoding parameters for low resolution videos intended for network transmission.
Video Compression	Choose H264 or H265. The supported video compression may vary with IPC model.
Resolution	The number of pixels in a frame.
Bitrate Type	• VBR: Variable Bit Rate (VBR) is used to keep the quality of video streams as constant as possible by varying the bit rate. • CBR: Constant Bit Rate (CBR) is used to keep a specific bit rate by varying the quality of video streams.
Bit Rate(Kbps)	The number of bits transferred per second. Select a value from the drop-down list, or select **Custom** to set a value as needed.
Frame Rate(fps)	The number of frames per second.
Image Quality	This parameter is configurable when **Bitrate Type** is set to **VBR**. 1 to 9 levels are available.
I Frame Interval	The number of frames between two adjacent I frames.
Smoothing	Use the slider to control the sudden change of bit rate.
U-Code	Select the U-Code mode, including basic mode and advanced mode. The advanced mode achieves higher compression ratios. You can also turn off the U-Code.
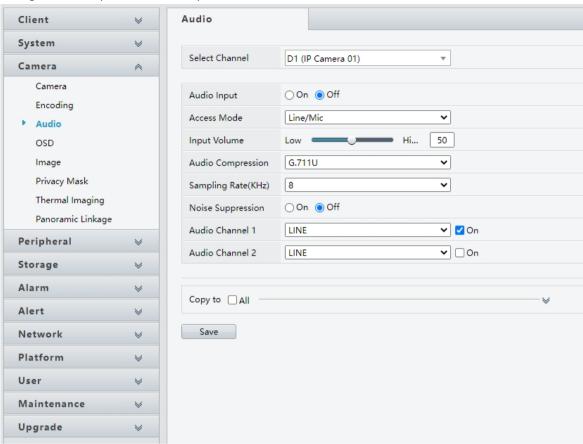
5. (Optional) To apply the settings to other camera(s), click **Copy** and select the desired parameter(s) and camera(s), and then click **OK**.

> 📑 **Note:**
> • When you copy **Storage Mode** to other camera(s), if the target camera does not support the storage mode, the operation will fail.
> • When you copy **Video Compression** and **U-Code** to other camera(s), **Bit Rate** will be selected automatically because video compression adjusts bit rate automatically.
> • Some parameters cannot be selected at the same time.

6. Click **Save**.

2.3.3.3 Audio

Configure audio input and audio output of the IPCs.

1. Select the desired camera from the drop-down list.

2. Configure audio input parameters.

Item	Description
Audio Input	Enable audio input.
Access Mode	Select the access method according to the IPC's audio interface, including Line, Mic, and RS485. • Line-in: The IPC is connected to a sound pickup by a 3.5mm audio cable. • Mic-in: The IPC is connected to a microphone. • RS485: The IPC is connected to a sound pickup by a RS485 cable. You need to set the port mode to sound pickup on the IPC's web interface. See **Network Camera User Manual** for details. 📝 **Note:** Only certain brands of sound pickups are supported by IPCs. Contact technical support for details.
Input Volume	Drag the slider to adjust the audio input volume.
Audio Compression	Select the audio compression, including G.711A, G.711U, AAC-LC. The supported audio compression may vary with IPC model.
Sampling Rate(KHz)	Select the sampling rate based on the audio compression. • For AAC-LC, select 8 KHz, 16 KHz, or 48KHz. • For G.711A or G.711U, select 8KHz or 16KHz.
Noise Suppression	Enable noise suppression.

Item	Description
Audio Channel 1/Audio Channel 2	Enable audio channel 1 or audio channel 2, and then select the access mode from the drop-down list.
	📝 **Note:** Only certain dual-channel IPCs support two audio channels, but the two audio channels cannot be enabled at the same time.

3. Configure audio output parameters. Only certain IPC models support audio output.
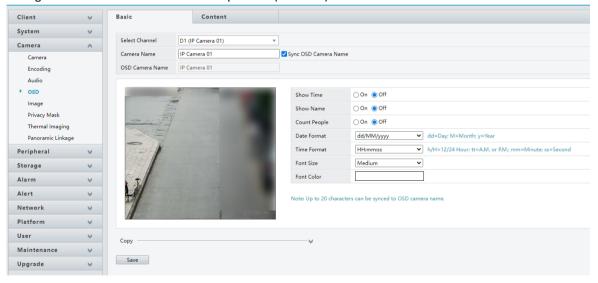
| Item	Description
Audio Output	Select the audio output mode.
	• Speaker: The default mode.
	• Line: An external speaker or earphone is required.
Output Volume	Drag the slider to adjust the audio output volume.

4. (Optional) To apply the audio settings to other camera(s), click **Copy** and select the desired parameter(s) and camera(s), and then click **OK**.

5. Click **Save**.

2.3.3.4 OSD

Basic

Configure the characters overlaid on the preview (live view) window.

1. Select the desired channel from the drop-down list.

2. Set the OSD parameters.

Item	Description
Camera Name	The name of the selected camera. You may customize the camera name as needed.
Sync OSD Camera Name	**Sync OSD Camera Name** is enabled by default, thus the OSD camera name is synchronized with the camera name automatically.
	📝 **Note:**
	• Up to 20 characters can be synced to OSD camera name. If the camera name exceeds 20 characters, only the first 20 characters will be displayed.
	• If **Sync OSD Camera Name** is disabled, after the camera name is changed, the new name will not be synced to OSD camera name.

Item	Description
OSD Camera Name	The camera name displayed on the video image. OSD camera name is same as the camera name by default. You can customize the OSD camera name after disabling **Sync OSD Camera Name**. Up to 20 characters are allowed.
Show Time	When enabled, the camera time is displayed on the left side of video image.
Show Name	When enabled, the OSD camera name is displayed on the video image.
Count People	When enabled, people counting statistics are displayed on the video image, including the number of people entered and exited.
Date Format	Select the date format from the drop-down list.
Time Format	Select the time format from the drop-down list.
Font Size	Select the front size from the drop-down list, including X-large, large, medium, and small.
Font Color	Select the front color from the drop-down list.

3. (Optional) To apply the same OSD settings to other cameras, click **Copy** and select the desired camera(s).

4. Click **Save**.

Content

Configure other characters overlaid on the preview (live view) window.
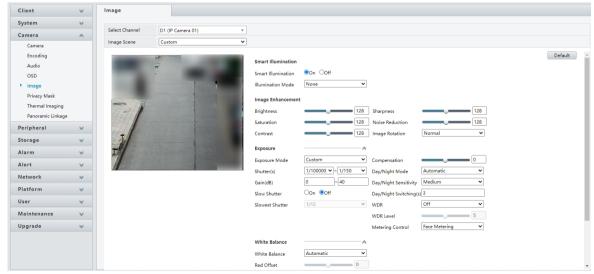
1. Select a channel.

2. Enable OSD(s), and configure OSD name.

> 📝 **Note:**
>
> • The number of OSDs may vary with IPC model.
>
> • The OSD name allows 60 characters and is case-sensitive.

3. Click **Save**.

2.3.3.5 Image Settings

Adjust image settings to get optimal images.

1. Select the desired channel.

2. Select the image scene you want to use.

   The IP camera provides several predefined scene modes for different application scenarios. When you select a scene, the parameters will be automatically set, you can also adjust the parameters as needed.

   • Indoor: Recommended for indoor scenes.

   • Common: Recommended for outdoor scenes.

- Starlight: Recommended for low light conditions.

- Test: Recommended for test scenes.

- Road Highlight Compensation/Park Highlight Compensation: Recommended for capturing vehicle license plates on roads or in parks.

- WDR: Recommended for scenes with high-contrast lighting, such as window, corridor, front door or other scenes that are bright outside but dim inside.

- Custom: Set a scene as needed.

- Auto: Automatically adjust image settings based on different environmental conditions, changes in lighting, etc., to ensure image quality. Suitable for harsh weather conditions such as rainy and foggy days, scenes with strong light and dark contrasts, and situations where image stripes occur due to light sources.

3. Configure the parameters under the tabs in this page.

> **Note:**
>
> - Only certain IPCs support scene selection, and the image parameters may vary with IPC model.
>
> - The default settings are scene-adaptive. Use default settings unless modification is necessary. To restore default settings under all the tabs, click **Default** in the lower left corner. This function is available only when the camera is connected to the SMSERVER via the private protocol.
>
> - Image settings apply to both live and recorded videos.

Smart Illumination

Set the parameters.

Item	Description
Smart Illumination	Enable **Smart Illumination**.
Illumination Mode	Select the illumination mode from the drop-down list. • Infrared: The camera uses infrared light illumination. • White Light: The camera uses white light illumination. • Dual Light: The camera adjusts the white light or infrared automatically according to the current lighting condition.
Control Mode	Select the control mode from the drop-down list. • Global Mode: The camera automatically adjusts illumination brightness and exposure to achieve the balanced image effect. • Overexposure Restrain: The camera automatically adjusts illumination brightness and exposure to avoid regional overexposure. • Manual: Control the brightness of illumination manually.
Illumination Brightness	Drag the slider to adjust the illumination brightness. This parameter is configurable when **Control Mode** is set to **Manual**. The greater the value, the higher the intensity (0 is off).

Image Enhancement

Set the parameters.

Item	Description
Brightness	The overall lightness or darkness of the image.
Saturation	The intensity or vividness of colors in the image.
Contrast	The difference between the lightest and darkest tones in the image.
Sharpness	The contrast between the edges of an object in the image.

Item	Description
Noise Reduction	Reduce noises in images, while it may cause image blur or smearing.
Image Rotation	The rotation of the image. • Normal: Displays images without rotation. • Flip Horizontal: Displays images flipped horizontally. • Flip Vertical: Displays images flipped vertically. • 180°: Displays images flipped vertically and horizontally. • 90° CW: Displays images in corridor format. The camera must be installed correctly (rotated 90° clockwise). • 90° CCW: Displays images in corridor format. The camera must be installed correctly (rotated 90° counterclockwise).
Splice Distance	Adjust splice distance to display splicing image for the dual-lens camera with single channel. The larger the distance, the more natural the splicing effect, thus avoiding video stuttering or image ghosting. The SMSERVER can obtain the current splice distance automatically. Drag the slider to set it as needed. 📝 **Note:** • This item appears only for dual-lens cameras that support this function. • Configure the splice distance for the dual-lens camera according to the installation scene so as to achieve the best splicing effect.

Exposure

Set the parameters.

Item	Description

Exposure Mode	Select the correct exposure mode to achieve the desired exposure effect.
	
	• Automatic: The camera automatically sets the exposure parameters according to the scene.
	
	• Custom: User can set exposure parameters as needed.
	
	• Shutter Priority: The camera adjusts shutter as priority to adjust the image quality.
	
	• Indoor 50Hz: Reduce stripes by adjusting the exposure time.
	
	    📝 **Note:**
	
	    • Stripe effect: The high-contrast condition in an image caused by uneven light energy received by the sensor.
	
	    • Using this mode in brighter environments aids in adjusting the stripe effect in the image with linear stripe suppression.
	
	• Indoor 60Hz: Reduce stripes by adjusting the exposure time.
	
	    📝 **Note:** Using this mode in brighter environments aids in adjusting the stripe effect in the image with linear stripe suppression.
	
	• Manual: Fine-tune image quality by setting shutter, gain, and iris manually.
	
	• Low Motion Blur: Control the minimum shutter to reduce motion blur.

Shutter(s)	Shutter is used to control the amount of light that comes into the lens. A fast shutter speed is ideal for scenes in quick motion. A slow shutter speed is ideal for scenes that change slowly. This parameter is configurable when **Exposure Mode** is set to **Manual**, **Shutter Priority**, or **Custom**.

Item	Description
	📝 **Note:** If **Slow Shutter** is disabled, the reciprocal of the shutter speed must be greater than the frame rate.
Gain(dB)	Control image signals so that the camera can output standard video signals in different light conditions. This parameter is configurable when **Exposure Mode** is set to **Manual** or **Custom**.
Slow Shutter	When enabled, the camera improves image brightness in low light conditions.
Slowest Shutter	When enabled, you can set the slowest shutter speed for the camera during exposure.
Compensation	Adjust the compensation value as required to achieve the desired image effect.
Day/Night Mode	• Automatic: The camera automatically switches between night mode and day mode according to the ambient lighting condition to output optimum images. • Day: The camera outputs high-quality images in daylight conditions. • Night: The camera outputs high-quality images in low light conditions.
Day/Night Sensitivity	Light threshold for switching between day mode and night mode. Ultra-low, low, medium, and high are available. A higher sensitivity level means that the camera is more sensitive to the change of light and is therefore more easily to switch between day mode and night mode. This parameter is configurable when **Day/Night Mode** is set to **Automatic**.
Day/Night Switching(s)	Set the length of time before the camera switches between day mode and night mode after the switching conditions are met. This parameter is configurable when **Day/Night Mode** is set to **Automatic**.
WDR	Suitable for high-contract scenes. WDR can balance the brightness in the bright area and dark area, and provide clear image with more details. • On/Off: User needs to identify WDR scenes, and manually enable or disable WDR as needed. • Smart (Automatic): The device can automatically identify typical WDR scenes, and then enable or disable WDR. 📝 **Note:** When WDR is enabled, some other functions may not be supported. Refer to the actual interface for details.
WDR Level	Adjust the WDR level to improve image quality when WDR is enabled. 📝 **Note:** In the case of low contrast, it is recommended to disable WDR or use level 1 to 6. Level 7 or higher is recommended if there is a high contrast between the bright and dark areas in the scene.
WDR On/Off Sensitivity	When **WDR** is set to **Automatic**, adjust the parameter to change the WDR switching sensitivity.
Metering Control	Perform luminance statistics on the images captured by the device, automatically adjust the exposure value, and output properly exposed images with optimal brightness. The default is the **Center-Weighted Average Metering**, you may configure this according to the actual scene. • Center-Weighted Average Metering: Measure light mainly in the central part of the image. • Evaluative Metering: Measure light in the specified area of the image,

Item	Description
	• Face Metering: Adjust image quality in poor lighting or back lighting conditions by controlling the brightness of captured faces in face scenes. • Spot Metering: Similar to the evaluative metering. However, it cannot increase the brightness of the image. 📝 **Note:** This parameter is configurable when **Exposure Mode** is not set to **Manual**.
Linear Stripe Suppression	Adjust the linear stripes in the image. Range: 1 to 9, the default is 5. The greater the value, the more obvious the linear stripe suppression effect is, but it may cause overexposure in the image. Please configure this according to the actual scene. 📝 **Note:** This parameter is configurable when **Exposure Mode** is set to **Indoor 50Hz** or **Indoor 60Hz**.

White Balance

Set the parameters.

Item	Description
White Balance	Adjust the red and blue gains of the image to remove unrealistic color casts. • Auto: The camera automatically adjusts the red and blue gains according to the lighting condition (the color tends to be blue). • Fine Tune: Adjust the red or blue offsets manually. • Outdoor: Suitable for outdoor scenes where the color temperature varies widely. • Sodium Lamp: The camera automatically adjusts red and blue gains according to the lighting condition (the color tends to be red). • Locked: Lock the current color temperature to avoid change.
Red Offset	Adjust the red offset manually.
Blue Offset	Adjust the blue offset manually.
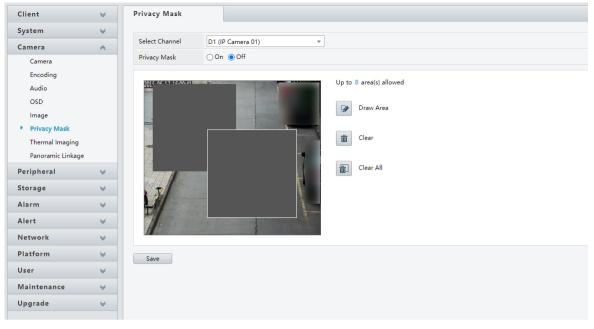
Advanced Settings

Set the parameters.

Item	Description
Defog	Enable/disable defog from the drop-down list. Defog is used to improve image visibility in foggy, hazy and other low-visibility scenes.
Defog Intensity	When defog is enabled, you can adjust the defog intensity. In a heavy-fog environment, the higher the defog level, the clearer the image. In a fog-free or light-fog environment, there is not much difference between levels 1 to 9. 📝 **Note:** Optical defog is available only for certain IPC models. When the defog intensity is set to 6 or higher, optical defog automatically turns on in thick fog, and images change to black and white.

2.3.3.6 Privacy Mask

Privacy mask is used to cover certain areas on the image for privacy, for example, ATM keyboard. When a PTZ camera rotates and zooms, the privacy mask moves and zooms with the camera and the masked area is always covered.

1. Select the desired channel from the drop-down list.

2. Enable privacy mask.

3. Click **Draw Area**, use the mouse to specify a rectangle area on the left-side image, and then click **Finish Drawing**.

   • Adjust the size and position of the mask: Point to a handle of the mask and drag to resize it. Point to any position of the mask and drag it to the desired position.

   • Redraw: Select the mask and click **Draw Area**, then draw an area again.

   • Delete: Select the mask and click **Clear** ; Or click **Clear All** to delete all the masks.

4. Click **Save**.

2.3.3.7 Thermal Imaging

This function measures body temperature based on infrared imaging, and is suitable for high traffic areas such as hospitals, stations, and shopping malls.

Note: To use this function, please enable face detection in the visible light channel first. To perform face recognition, please enable face comparison at the same time.

1. Add a thermal imaging camera.There are 2 channels in total, including a visible light channel and an infrared light channel.

2. Configure thermal imaging parameters.

   (1) Select the infrared light channel, and enable **Body Temperature Measurement**.

   Note: To use this function, please enable face detection first.

   (2) Set the black body position. Click **Draw Area**, and then drag to draw a bounding box on the image.

   Note: The size of the box should be the same as that of the highlighted part of the black body, otherwise measurement results may be affected.

   (3) Set the relevant parameters.

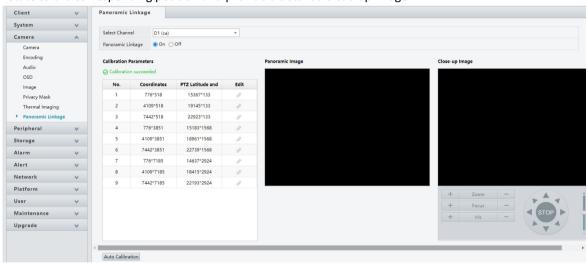| Item	Description
Measurement Mode	• Measure Internal Temperature: Calculated from the measured body surface temperature by formulas. • Measure Body Surface Temperature: Measured directly by the thermal imaging camera.
Alarm Threshold (30°C~45°C)	An alarm occurs when the measured temperature exceeds the threshold. The default is the normal body temperature of 37.3 °C.

Item	Description
Black Body Temperature (-40°C~150°C)	Set the same temperature as the black body temperature. 36 °C is recommended. For more information, refer to the camera's site survey and commissioning guide.
Correction Temperature (-10°C~10°C)	Correct temperature measurement errors. Devices have been calibrated before leaving the factory. You do not need to set the correction temperature. If in harsh conditions, such as high or low temperature, you may configure it according to the camera's site survey and commissioning guide.
Environment Temperature (-40°C~100°C)	The environment temperature of the camera will affect the temperature measurement results. The higher the environment temperature, the higher the measurement result. The system can calculate the actual temperature automatically based on the entered environment temperature. 25°C is recommended.

(4) Set alarm-triggered actions in the **Temperature Alarm** page.

(5) Click **Save**.

2.3.3.8 Panoramic Linkage

A panoramic linkage camera uses the panoramic camera to capture a panoramic image and the PTZ camera to capture a close-up image, allowing you to zoom in on a specific area of the panoramic image. This function links the panoramic and PTZ cameras. Click any point on the panoramic image, and the PTZ camera will automatically rotate to the corresponding position and provide a detailed close-up image.

1. Select the camera that supports panoramic linkage.

2. Enable **Panoramic Linkage**.

3. Click **Auto Calibration**, and set the calibration points to link the panoramic camera and PTZ camera.

   (1) When the panoramic camera supports the PTZ function, adjust the panoramic scene and click **Next**.

   (2) On the **Auto-Calibrate** page, the system automatically calibrates multiple points evenly on the panoramic image and displays the corresponding close-up image, ensuring that the center point of the close-up image is consistent with the calibration point on the panoramic image. This will match the panoramic image with multiple close-up images one by one.

   (3) (Optional) If the automatic calibration is not accurate, you can calibrate the points manually.

   Click the calibration point, and the PTZ camera will display the corresponding close-up image. Make sure that the center point of the close-up image matches the calibration point of the panoramic image. If they do not match, you can calibrate them using the two methods below.

   • Automatically calibrate again: Click **Auto Calibration** to calibrate points again.
   After the automatic calibration is complete, confirm whether the calibrations points are accurate.

   • Manually calibrate:

1. Click for the calibration point to be rectified, manually adjust the position and zoom of the close-up image using the PTZ configuration function in the lower-right corner, and click ✎ to the right of the calibration point to complete its calibration.

2. Repeat the above operations to calibrate all remaining points.

(4) After confirming the accuracy of the calibration points, click **Finish** to link the panoramic and PTZ cameras.

4. After the linkage is complete, you can use the multi-sensor preview function to drag to zoom, manually track, and click to link.

- Drag to zoom: Left-click and drag at any position on the panoramic image to draw a rectangular box. The corresponding area will be magnified on the close-up image to show details.

- Manually track: Click any object on the panoramic image, and the PTZ camera will automatically track the object and show the close-up image. If the object disappears from the monitoring area, the PTZ camera will rotate to the auto guard position or the system default position.

- Click to link: Click anywhere on the panoramic image, the close-up image displays the clicked point at the image center.

2.3.4 Peripheral

2.3.4.1 IP Speaker

Add and manage IP speakers.

Add IP Speaker

The system automatically searches for IP speakers and lists the discovered. Click **Refresh**, and the system refreshes the list and IP speaker status.

1. Click **Add**.

2. Enter the device information, click **Save**, and then check the device status.

- 🔊 : IP speaker online.

- 🔊 : IP speaker offline. Point to the icon to view the reason for the failure.

Edit IP Speaker

Click **Modify**, and edit the IP speaker settings as needed.

Two-Way Audio

The SMSERVER supports two-way audio with one IP speaker. Click ⊞ beside the IP speaker to start two-way audio.

Audio Broadcast

The SMSERVER supports audio broadcast with multiple IP speakers. Select the IP speaker(s), and click **Start Broadcast** to start audio broadcast.

📝 **Note:** Please connect an external microphone to the SMSERVER before you use the two-way audio and audio broadcast.
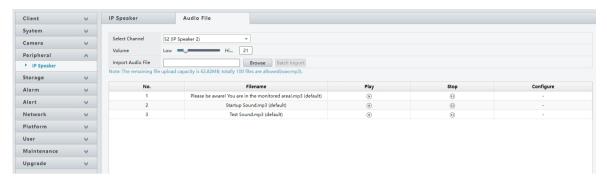
Delete IP Speaker

Select the IP speaker(s) you want to delete, and then click **Delete**.

2.3.4.2 Audio File

Configure the audio file to be played by an IP speaker when an alarm occurs. See Alarm Sound for details.

> 📝 **Note:** You can also configure the audio file on the Web interface of the IP speaker.

Add Audio File

1. Select an IP speaker, and click **Browse**.

2. Select the desired audio file, and click **Batch Import**.

Default Audio File

The system audio file stored in the SMSERVER at the factory.

> 📝 **Note:**
> • Only certain IP speakers have default audio files. Please refer to the actual interface.
> • The default audio files cannot be deleted.

Adjust Volume

Drag the slider to adjust the audio volume of the IP speaker as needed.

Test Audio

Test the audio to be played by the IP speaker at the configured volume.

• Click ⊙ to start playing the audio.

• Click ⊙ to stop playing the audio.

Delete Audio File

Select the audio file you want to delete, and click 🗑 .

2.3.5 Storage

2.3.5.1 Recording Schedule

Make a recording schedule.

A 24/7 normal recording schedule is enabled by default. You can modify the schedule by drawing or editing as needed.

Draw a Schedule

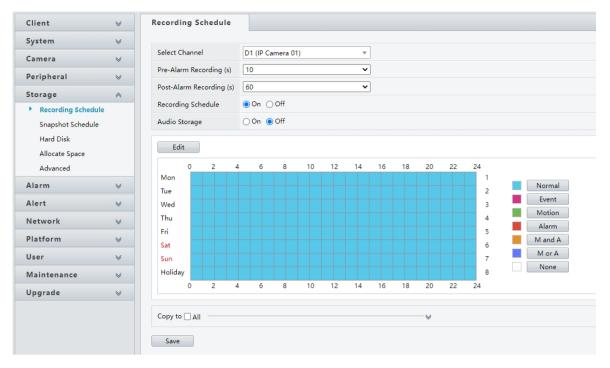1. Select a recording type.

Recording Type	Description
Normal	Records video during specified time periods.
Event	Records video in the event of an event-triggered alarm.
Motion	Records video in the event of motion.
Alarm	Records video in the event of alarm input. Configure Alarm Input first before making an alarm schedule.
M and A	Records video when motion and alarm input occur simultaneously.
M or A	Records video when motion or alarm input occurs.
None	No recording schedule.

2. Drag on the time schedule to specify time periods for the recording type. The figure below shows a recording schedule with event recording from 18:00 to 24:00 on Monday and Tuesday, and normal recording during the rest of the time.

3. Click **Save**.

Edit a Schedule

1. Click **Edit**.

2. Select a day.

   📝 **Note:** Before you select **Holiday**, go to **Setup** > **System** > **Holiday** and complete the holiday settings.

3. Click the **By Period** check box. As a 24/7 normal recording schedule is enabled by default, you cannot modify the schedule unless **All DayType** is unchecked.

4. Set time periods and the corresponding recording types.

5. To apply the same settings to other days, select the desired day(s) after **Copy To**.

6. Click **OK**.

7. Click **Apply**.

Other Settings
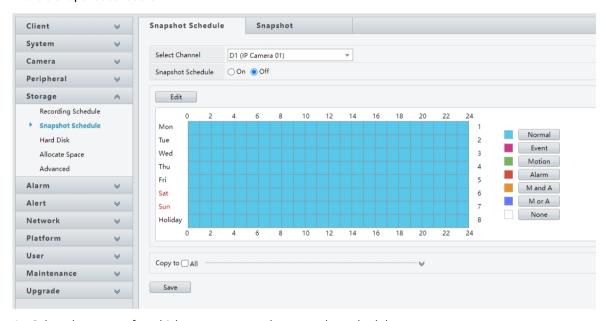
Item	Description
Pre-Alarm Recording(s)	The duration of video to be recorded before an alarm. The default value is 10s.
Post-Alarm Recording(s)	The duration of video to be recorded after an alarm. The default value is 60s.
Enable Redundant	Recording backup, stores recorded videos to redundant disks synchronously to prevent video loss in case of read/write disk failure. You need to configure at least one redundant disk before enabling redundant recording. See Hard Disk for details.
Audio Storage	Set whether to record audio. Audio is not recorded by default.

2.3.5.2 Snapshot Schedule

2.3.5.2.1 Snapshot Schedule

Make a snapshot schedule.

1. Select the camera for which you want to make a snapshot schedule.

2. Enable schedule.

3. Set the snapshot schedule. See Draw a Schedule and Edit a Schedule.

Snapshot Type	Description
Normal	Captures images during specified time periods.
Event	Captures images in the event of an event-triggered alarm.
Motion	Captures images in the event of motion.
Alarm	Captures images in the event of alarm input. Configure Alarm Input first before making an alarm schedule.
M and A	Captures images when motion and alarm input occur simultaneously.
M or A	Captures images when motion or alarm input occurs.
None	No snapshot schedule.
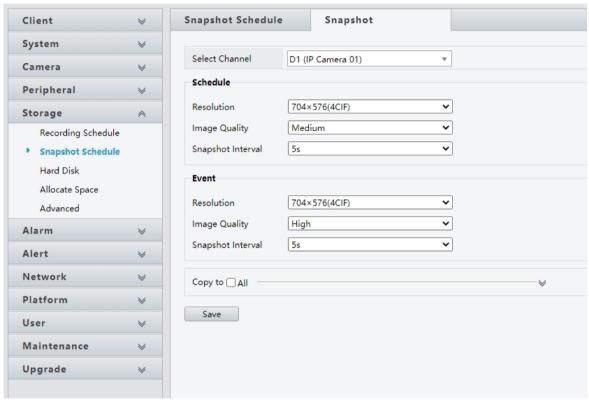
4. Click **Save**.

Other Settings

Item	Description
Enable Redundant Snapshot	Snapshot backup, stores snapshots to redundant disks synchronously to prevent snapshot loss in case of read/write disk failure. You need to configure at least one redundant disk before enabling redundant snapshot. See Hard Disk for details. 📝 **Note:** A redundant disk can be used for both recording backup and snapshot backup.

2.3.5.2.2 Snapshot

Configure snapshot parameters.

1. Select the camera and set the parameters as needed.

Item	Description
Snapshot Type	Supports scheduled snapshot and event-triggered snapshot. You need set image quality and snapshot interval for them respectively. • Schedule: A snapshot is taken according to the set schedule. • Event: A snapshot is triggered by an event such as alarm input and motion detection alarm. Manual snapshots are event-triggered snapshots.
Resolution	The number of pixels in a frame. Only certain SMSERVERs support setting resolution.
Image Quality	Set the snapshot quality. High, medium, or low are available.
Snapshot Interval	Select the time interval between two snapshots from the drop-down list.
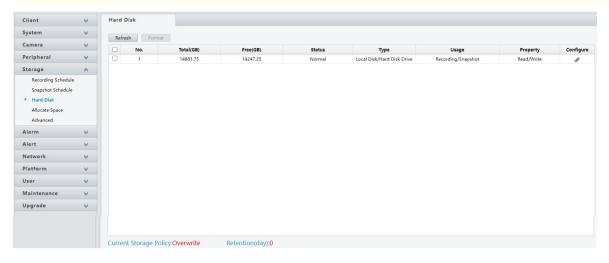
2. (Optional) To apply the same settings to other cameras, click **Copy** and select the desired camera(s).

3. Click **Save**.

2.3.5.3 Hard Disk

Configure disk usage and property, add external disks, and format disks.

> 📝 **Note:**
>
> - Before you start, make sure all disks are installed properly.
>
> - Only admin can format disks and configure the disk property.

Configure the Disk Usage and Property
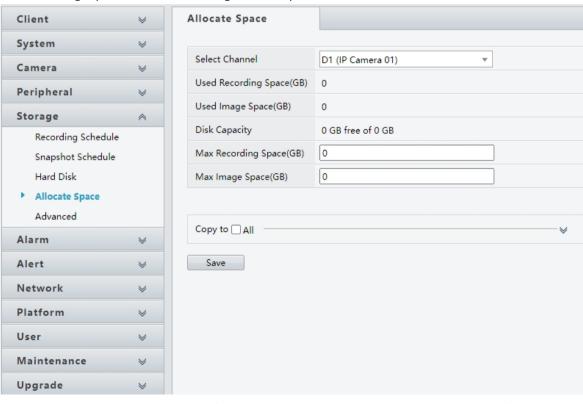
1. Click for the disk to edit.
2. Click **OK**.

Format a Disk

Formatting a disk will erase all data stored on it. Please handle with caution.

2.3.5.4 Allocate Space

Allocate storage space for videos and images from a specified camera.
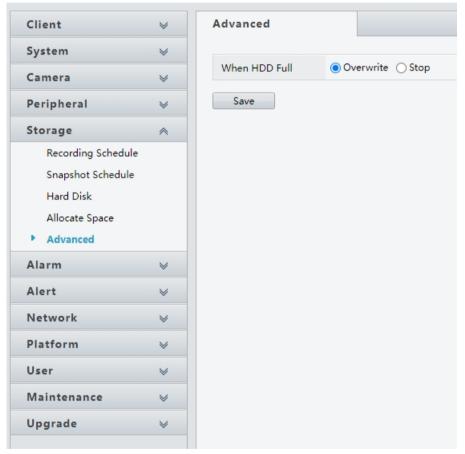
1. Select a camera, select a disk group for storage by the camera, and allocate storage space for videos and images from this camera on the disk group.

Space Type	Description
Max Recording Space	Used to store first stream videos, smart snapshots, people flow data, and heat map images. 📝 **Note:** First stream video: • If the **Storage Mode** is set to **Main and Sub Stream** or **Main and Third Stream**, the first stream is the main stream. • If the **Storage Mode** is set to **Sub and Third Stream**, the first stream is the sub stream.
Max Image Space	Used to store common snapshots, such as snapshots captured by schedule or manually.

2. (Optional) Click **Copy** to apply the same settings to other camera(s).

3. Click **Save**.

2.3.5.5 Advanced

Configure the storage policy when the storage is full.

1. Select whether to overwrite the existing data or stop storage when the storage is full.
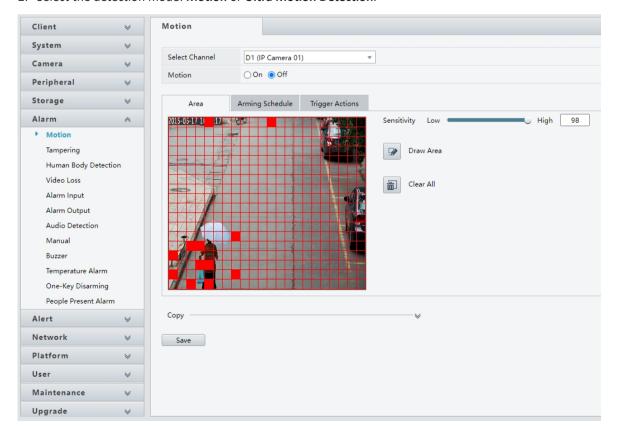
When HDD Full	Description
Overwrite	The disk space is divided into allocated space and remaining space according to whether the disk is used for storage by cameras. • If a camera is not allocated storage space, it will use the remaining disk space, and its oldest data will be overwritten when the remaining space is used up. 📝 **Note:** As the remaining disk space is variable and older recordings may be overwritten due to insufficient storage space, please allocate storage space with caution. For example, on a device with 20G disk capacity and two cameras, if camera 1 is allocated 10G, camera 2 will use the remaining 10G if it is not allocated storage space. In this case, you can view the last 5 days of recordings from camera 2. However, if you add a new camera to the device, there will be less storage space available to camera 2, and fewer days of recordings can be viewed. • If a camera is allocated storage space, its oldest data will be overwritten when the allocated space is used up.
Stop	This option is only effective to cameras that have been allocated storage space. When enabled, if the allocated space of a camera is used up, new recordings/snapshots will not be saved.

2.3.6 Alarm

2.3.6.1 Motion

Motion detection detects motions in specified grids on the image. An alarm is reported when detection rules are triggered.

1. Select the desired camera, and enable motion detection.

2. Select the detection mode: **Motion** or **Ultra Motion Detection**.
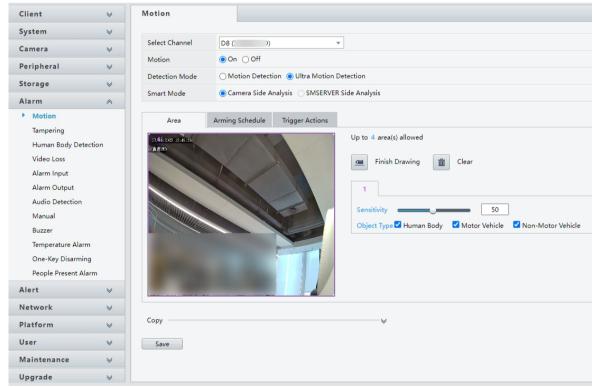
Motion Alarm

Motion detection detects motions in specified grids on the image. An alarm is reported when detection rules are triggered.

1. Select the detection mode as **Motion**.

2. Set the detection area. The default is the full screen. You can click **Draw Area** to adjust grid detection areas as needed.

   - To erase grids, click or drag on grid areas.

   - To redraw grids, click **Clear All**, and then click or drag on blank areas to draw grids.

3. Drag the slider to adjust detection sensitivity. The higher the sensitivity, the more likely small motions will be detected, and the more likely false alarms will occur. Set based on the scene and your actual needs.

4. Set the arming schedule and alarm-triggered actions.

5. (Optional) To apply the same settings to other cameras, click **Copy** and select the desired parameter(s) and camera(s).

6. Click **Save**.

Ultra Motion Detection

Ultra motion detection detects motions in specified grids on the image, and judges that the motion object is human body, motor vehicle or non-motor vehicle. An alarm is reported when detection rules are triggered.

1. Select the detection mode as **Ultra Motion Detection**.

2. Select the smart mode, and choose whether to implement this function on the camera side or the SMSERVER side.

3. Set detection rules. The 4 detection rules shall be set separately. The following takes Rule 1 as an example.
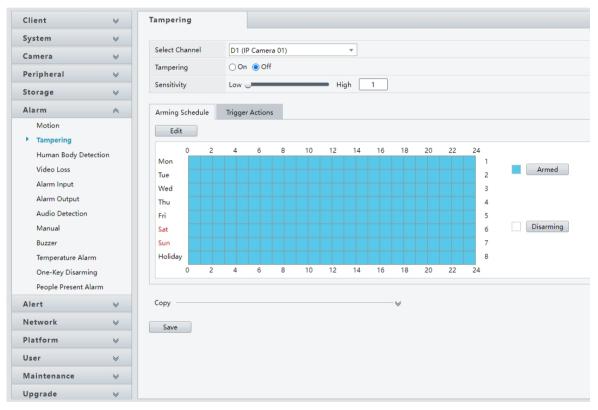
Parameter	Description
Detection Area	Select Rule 1, click **Draw Area**, then draw a detection area.
	Click on the image and drag to draw a line. Repeat the action to draw more lines to form an enclosed shape as needed. Up to 6 lines are allowed. Then click **Finish Drawing**.
	📝 **Note:** To delete a detection area, click **Clear**.

Parameter	Description
Sensitivity	Set the sensitivity by dragging the slider. The higher the sensitivity, the more likely motion behaviors will be detected, but the false alarm rate will increase.
Object Type	Select the object(s) to be detected, including **Human Body**, **Motor Vehicle** and **Non-Motor Vehicle**.

4. Set the arming schedule and alarm-triggered actions.

5. (Optional) To apply the same settings to other cameras, click **Copy** and select the desired parameter(s) and camera(s).

6. Click **Save**.

2.3.6.2 Tampering
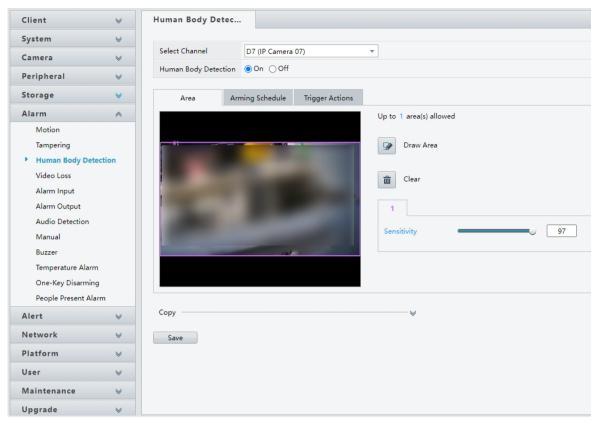
Tampering detection detects live video tampering. An alarm is reported when detection rules are triggered.

1. Select the desired channel, and enable tampering detection. The tampering detection area is the full screen by default and cannot be edited.

2. Drag the slider to adjust detection sensitivity. The higher the sensitivity, the higher the detection rate, and the higher the false alarm rate. Set based on the scene and your actual needs.

3. Set the arming schedule and alarm-triggered actions.

4. (Optional) To apply the same settings to other cameras, click **Copy** and select the desired parameter(s) and camera(s).

5. Click **Save**.

2.3.6.3 Human Body Detection

Human body detection detects humans in a specified area. An alarm is reported when the detection rule is triggered.

1. Select the desired channel, and enable human body detection.

2. Set the detection rule. Only 1 detection rule is allowed.
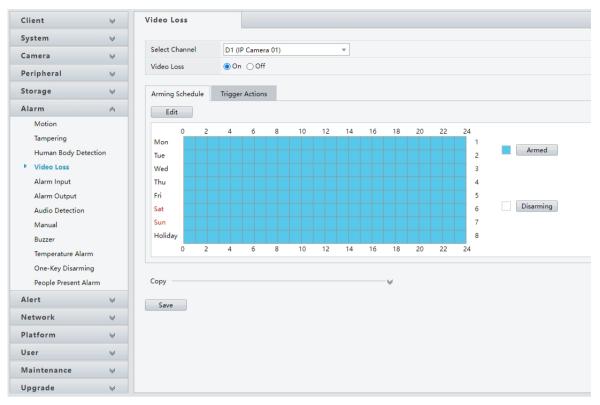
   Click **Draw Area**.Drag in the preview window to draw a rectangular detection area. Only 1 detection area is allowed. Then click **Finish Drawing**.

   📝 **Note:** To delete the detection area, click **Clear**.

3. Drag the slider to adjust detection sensitivity. The higher the sensitivity, the more likely humans will be detected, and the more likely false alarms will occur. Set based on the scene and your actual needs.

4. Set the arming schedule and alarm-triggered actions.

5. (Optional) To apply the same settings to other cameras, click **Copy** and select the desired parameter(s) and camera(s).

6. Click **Save**.

2.3.6.4 Video Loss

A video loss alarm is reported when the SMSERVER loses video signals from a camera.

Client	⌄	Video Loss													
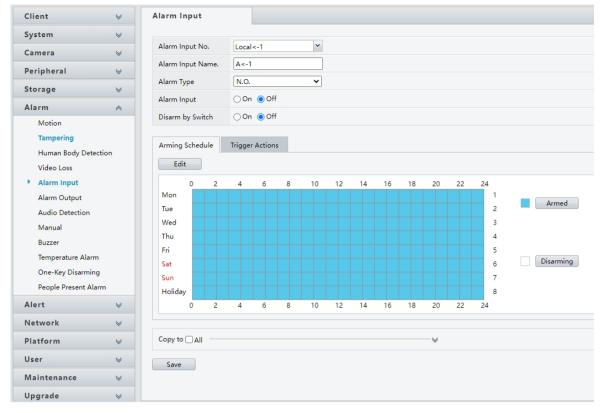
1. Video loss alarm is enabled by default.

2. Set the arming schedule and alarm-triggered actions.

3. (Optional) To apply the same settings to other cameras, click **Copy** and select the desired parameter(s) and camera(s).

4. Click **Save**.

2.3.6.5 Alarm Input

Configure the alarm mode, arming schedule, and alarm-triggered actions for external alarm input devices.

The external alarm input devices include devices connected to the ALARM IN interfaces on the SMSERVER and the ALARM IN interfaces on the cameras. For example, access control devices.

1. Select the alarm input channel to be set.

   - Local < -1: **Local** refers to the ALARM IN interfaces on the SMSERVER, **1** means the first ALARM IN interface, **Local <-2** means the second ALARM IN interface on the SMSERVER, and so on.

   - D < -1: **D** refers to channels, the number means channel ID. **D< -1** means the alarm input device is connected to the ALARM IN interface of the camera whose channel ID is 1, **D < -2** means the alarm input device is connected to the ALARM IN interface of the camera whose channel ID is 2, and so on. The number is not displayed if the camera has no ALARM IN interface.

2. Configure alarm input parameters.
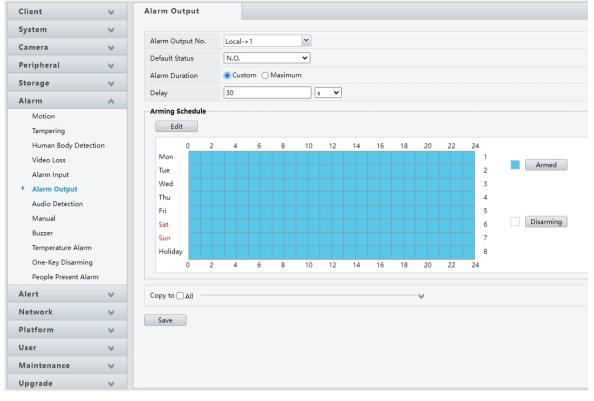
Item	Description
Alarm Input	Select **On** to enable the alarm input.
Alarm Input Name	The default name is the alarm input number. You may rename it as needed.
Alarm Type	This item is applicable when **Alarm Input** is enabled. The default is **N.O.**. • N.O.: Choose this option if the alarm input device is normally closed. The device opens the circuit to input an alarm, triggers the SMSERVER to open the alarm circuit and report an alarm. • N.C.: Choose this option if the alarm input device is normally opened. The device closes the circuit to input an alarm, triggers the SMSERVER to close the alarm circuit and report an alarm.

3. Set the arming schedule and alarm-triggered actions.

4. (Optional) To apply the same settings to other cameras, click **Copy** and select the desired parameter(s) and camera(s).

5. Click **Save**.

2.3.6.6 Alarm Output

Configure the alarm mode and arming schedule for external alarm output devices.

The external alarm output devices include devices connected to the ALARM OUT interfaces on the SMSERVER and the ALARM OUT interfaces on the cameras, such as alarm light and alarm bell.

Client	⌄
System	⌄
Camera	⌄
Peripheral	⌄
Storage	⌄
Alarm	⌃
Motion	
Tampering	
Human Body Detection	
Video Loss	
Alarm Input	
▸ **Alarm Output**	
Audio Detection	
Manual	
Buzzer	
Temperature Alarm	
One-Key Disarming	
People Present Alarm	
Alert	⌄
Network	⌄
Platform	⌄
User	⌄
Maintenance	⌄
Upgrade	⌄

Alarm Output

Alarm Output No.   Local->1

Default Status   N.O.

Alarm Duration   ⦿ Custom ◯ Maximum

Delay   30   s

Arming Schedule

    Edit

    ■ Armed   □ Disarming

Copy to □ All

Save

1. Select the alarm output channel to be set.

   - Local- >1: **A** refers to the ALARM OUT interfaces on the SMSERVER, **1** means the first ALARM OUT interface. **Local->2** means the second ALARM OUT interface on the SMSERVER, and so on.

   - D- >1: **D** refers to channels, the number means channel ID. **D- >1** means the alarm output device is connected to the ALARM OUT interface of the camera whose channel ID is 1. Likewise, **D- >2** means the alarm output device is connected to the ALARM OUT interface of the camera whose channel ID is 2. The number is not displayed if the camera has no ALARM OUT interface.

2. Configure alarm output parameters.
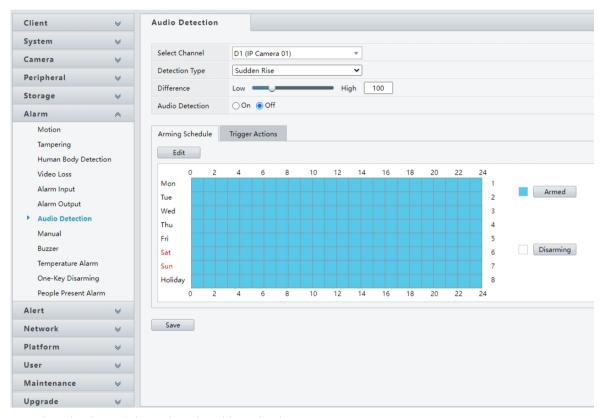
Item	Description
Default Status	Select the default status from the drop-down list. The default is **N.O.**. - N.O.: Choose this option if the external device is normally open. - N.C.: Choose this option if the external device is normally closed.
Alarm Duration/Delay(s)	Set the alarm duration, that is, the length of time that an output alarm lasts after the alarm is ended. - Custom: When enabled, you can set the length of time as needed. After an alarm is cleared on the SMSERVER, the third-party alarm device continues alarm till the end of the set duration. - Maximum: When enabled, you cannot set the delay period. The third-party alarm device continues alarm until you clear it manually.
Relay Mode	Set the relay mode, including monostable and bistable. The default is bistable. 📝 **Note:** Set relay mode to better adapt to third-party alarm devices such as alarm lights. Please set the relay mode according to the trigger mode of the third-party alarm device. - Monostable: The circuit can only remain in one stable state. When a trigger pulse is applied, the circuit switches to another state, and then automatically switches back to the original stable state. The circuit will repeat the same actions when the next trigger pulse arrives.

Item	Description
	• Bistable: The circuit can remain in two stable states. When a trigger pulse is applied, the circuit switches to another state, and remains in this state after the trigger pulse is removed. When the next trigger pulse is applied, the circuit switches back to the other stable state and remains in that state.

3. Set the arming schedule and alarm-triggered actions.

4. (Optional) To apply the same settings to other cameras, click **Copy** and select the desired parameter(s) and camera(s).

5. Click **Save**.

2.3.6.7 Audio Detection

Audio detection detects input audio signals. An alarm is reported when an exception is detected. Make sure an audio collection device (e.g. sound pickup) is connected, and audio detection is enabled. See #unique_55 for details.

1. Select the desired channel, and enable audio detection.

2. Set audio detection rules.

Item	Description
Detection Type	Select an audio detection type from the drop-down list. • Sudden Rise: An alarm occurs when the rise of volume exceeds the set value. • Sudden Fall: An alarm occurs when the fall of volume exceeds the set value. • Sudden Change: An alarm occurs when the rise or fall of volume exceeds the set value. • Threshold: An alarm occurs when the volume exceeds the set threshold.
Difference/Threshold	Drag the slider to adjust the difference and threshold.
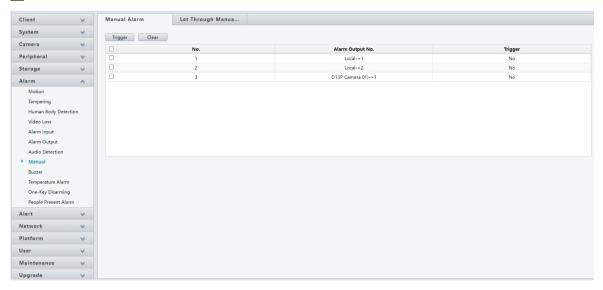
Item	Description
	• The difference between two sound volumes. An alarm occurs when the rise or fall of volume exceeds the difference (range: 0-400). This item is applicable when the detection type is **Sudden Rise**, **Sudden Fall**, or **Sudden Change**. • Threshold: The limit value of volume. An alarm occurs when the detected volume exceeds the set value (range: 0-400). This item is applicable when the detection type is **Threshold**.

3. Set the arming schedule and alarm-triggered actions.

4. Click **Save**.

2.3.6.8 Manual

Trigger or clear an alarm output manually.

> 📝 **Note:** Manual alarm has the highest priority.

Manual Alarm

1. Trigger or clear alarm(s) manually.

   • Trigger: Select the channel(s) to be triggered and click **Trigger**.

   • Clear: Select the channel(s) to be cleared and click **Clear**.

Let Through Manually
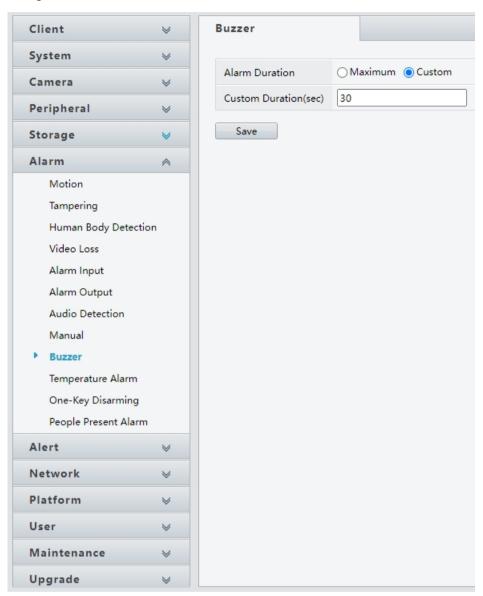
If a license plate not match alarm occurs and the IPC cannot lift the barrier automatically, you can trigger the IPC to lift the barrier manually on the SMSERVER side as needed.

> 📝 **Note:**
>
> • This function requires you to configure plate not match alarm first.
>
> • This function is available to cameras that support controlling barrier gates.

2.3.6.9 Buzzer

Configure the alarm duration of the buzzer on the SMSERVER.

| Client	⌄	**Buzzer**
System	⌄	
Camera	⌄	Alarm Duration ○ Maximum ● Custom
Peripheral	⌄	Custom Duration(sec) 30
Storage	⌄	
Alarm	⌃	Save
Motion		
Tampering		
Human Body Detection		
Video Loss		
Alarm Input		
Alarm Output		
Audio Detection		
Manual		
▸ **Buzzer**		
Temperature Alarm		
One-Key Disarming		
People Present Alarm		
Alert	⌄	
Network	⌄	
Platform	⌄	
User	⌄	
Maintenance	⌄	
Upgrade	⌄	
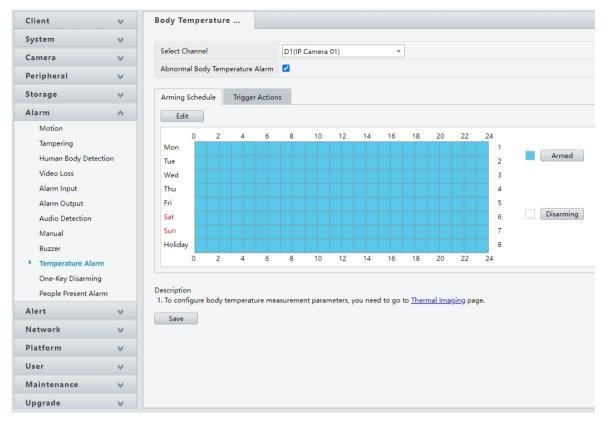
1. Set the alarm duration. The default is 30s.

   - Maximum: When enabled, you cannot set the alarm duration. When an alarm occurs, the buzzer will alarm continuously until the alarm ends.

   - Custom: When enabled, you can set how long the buzzer will alarm after it is triggered. The valid range is from 1 to 600(s). When an alarm occurs, the buzzer will alarm continuously within the alarm duration, and stop automatically if the alarm ends first within the duration.

2. Click **Save**.

2.3.6.10 Temperature Alarm

An alarm occurs when the abnormal body temperature is detected.
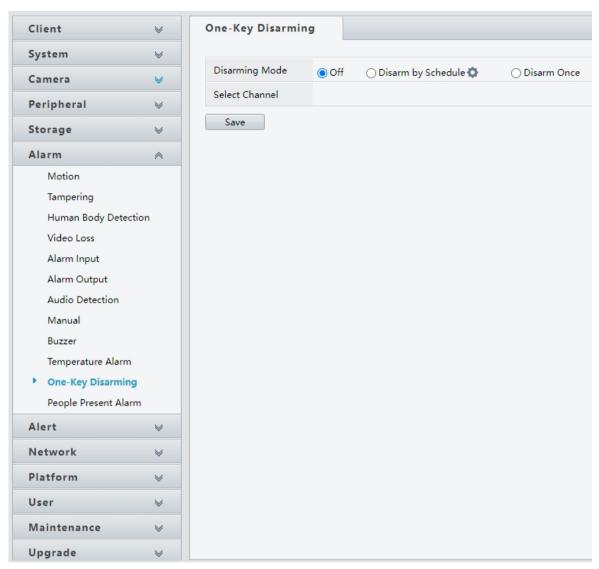
> 📝 **Note:**
>
> - This function is only available for thermal imaging cameras.
>
> - Before using this function, please enable body temperature measurement on the **Temperature Image** page first. See Thermal Imaging for details.

Client	⌄	Body Temperature ...	
System	⌄		
Camera	⌄	Select Channel	D1(IP Camera 01) ▼
Peripheral	⌄	Abnormal Body Temperature Alarm ☑	
Storage	⌄		
Alarm	⌃	Arming Schedule Trigger Actions	

Alarm submenu:
- Motion
- Tampering
- Human Body Detection
- Video Loss
- Alarm Input
- Alarm Output
- Audio Detection
- Manual
- Buzzer
- ▸ **Temperature Alarm**
- One-Key Disarming
- People Present Alarm

- Alert ⌄
- Network ⌄
- Platform ⌄
- User ⌄
- Maintenance ⌄
- Upgrade ⌄

Edit

	0	2	4	6	8	10	12	14	16	18	20	22	24	
Mon														1
Tue														2
Wed														3
Thu														4
Fri														5
Sat														6
Sun														7
Holiday														8
	0	2	4	6	8	10	12	14	16	18	20	22	24	

☐ Armed   ☐ Disarming

Description
1. To configure body temperature measurement parameters, you need to go to Thermal Imaging page.

Save

1. Select the infrared light channel, and enable **Abnormal Body Temperature Alarm**.

2. Set the arming schedule and alarm-triggered actions.

3. Click **Save**.

2.3.6.11 One-Key Disarming

Cancel alarm-triggered actions of SMSERVER or IPCs with one click.

1. Select a disarming mode and configure parameters.

   - Off: Disarming is disabled.

   - Disarm by Schedule: The device is disarmed during specific time periods per week.

     (1) Click ⚙ right to **Disarm by Schedule**, and set the disarming periods. Click **OK** to return to the **One-Key Disarming** page.

     > 📝 **Note:**
     >
     > - Up to 4 disarming periods during one day are allowed.
     >
     > - To apply the same disarming schedule to other days, select **All** or the intended day(s), and click **OK**.

     (2) Select actions to be disarmed. The default is all actions. See Trigger Actions for details.

   - Disarm Once: The device is disarmed during a specified time period.

     (1) Select **Disarm Once**, and set the disarming start time and end time.

     (2) Select actions to be disarmed. The default is all actions. See Trigger Actions for details.

2. Click **Save**.

2.3.6.12 People Present Alarm

An alarm occurs when the number of people present in a specified area exceeds the set threshold.

> **Note:** To use this function, make sure that people flow counting is supported by the camera and is enabled on the **Smart** page.
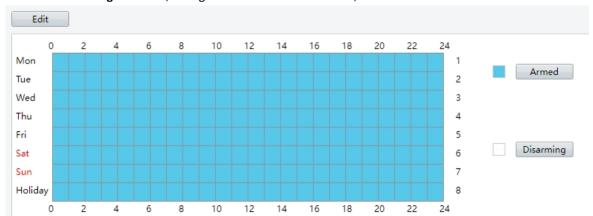
Configure People Present Alarm

1. Configure parameters.

Parameter	Description
Select Scene	Select a scene and set scene information respectively. Up to 4 scenes are allowed.
Scene Name	The 4 scenes are named as Scene 1, Scene 2, Scene 3, and Scene 4 by default. You can also customize scene name.
People Present Alarm	Enable people present alarm.
People Present Alarm Threshold	The maximum number of people allowed in the monitored area. An alarm occurs when the number of people present exceeds the threshold. The valid range is from 1 to 100,000.
Manual Reset	The initial number of people in scene is 0 by default. You can enable **Manual Reset**, and set the number as needed.
Auto Reset	Set the time to clear people counting data. The SMSERVER will clear people counting statistics on the OSD at the set time. This operation does not affect statistics and data reporting.It can be set by day, week, and month.
Select Channel	Click ⇄ to select desired channel(s) to bind to the scene. The number of people present is calculated from the number of people entering and leaving the bound channels. It is recommended to bind all the channels to ensure the accuracy of the alarm.

2. Set the arming schedule and alarm-triggered actions.

3. Click **Save**.

2.3.6.13 Arming Schedule

Configure an arming schedule to determine when the SMSERVER receives alarms and performs predefined alarm-triggered actions.

Click **Edit** to **Arming Schedule**, configure the schedule as needed, and then click **OK**.
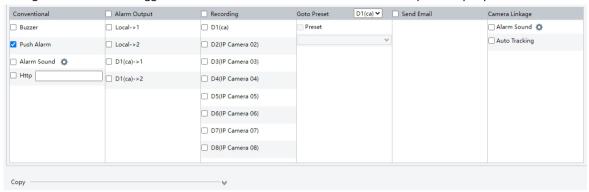
2.3.6.14 Trigger Actions

Configure actions to be triggered when an alarm occurs to alert user or the specified people.

Set the actions, and then click **OK**.Some actions are detailed below.

Buzzer

The SMSERVER makes a buzzing sound when an alarm occurs.

Push Alarm

An alarm information will be pushed to the upper platform when an alarm occurs.

Alarm Sound

Configure the audio to be played by an IP speaker when an alarm occurs.Configure this action as follows:

1. Click ⚙, and configure the alarm sound and repeat mode as needed.

2. Select the desired IP speaker(s), enable alarm sound, and click **OK**.

HTTP

The third-party platform can set the information they want to receive via the HTTP protocol, such as alarm information, video loss information, etc.

Example of URL format: Http://platform address to receive alarm information/alarm channel/alarm type. The URL content is customizable. The alarm channel and alarm type in the example should be filled in according to the third-party platform's interface instructions.

Alarm Output

A third-party device is triggered to raise an alarm when it receives an alarm output by the SMSERVER.

Recording

The SMSERVER records video from the selected camera when an alarm occurs.

Snapshot

The SMSERVER triggers the linked camera to capture a snapshot when an alarm occurs.

📑 **Note:** This action is only available to certain alarm functions such as motion detection and human body detection, and is not available to smart functions.

Goto Preset

A PTZ camera moves to a preset position when an alarm occurs.Configure this action as follows:

1. Enable preset .

2. Select the camera to perform this action and select the preset you want the camera to go to when an alarm occurs.

   Note: Before use, you need to configure presets on the PTZ camera.

Camera Alarm Sound

The selected camera plays an audio alarm when an alarm occurs. This action is only available to cameras that support alarm sound, and the day/night mode is available on certain cameras only.

Configure this action as follows:

1. Select the alarm mode, enable **Alarm Sound**, and configure other parameters as needed.

Mode	Description
Day/Night Mode	Select the day and time (day/night) during which alarm sound is enabled. **Note:** The camera automatically switches to day or night mode according to the ambient lighting. See *Network Camera User Manual* for details.
Custom Mode	Select the day and time (start/end time) in which alarm sound is enabled. **Note:** Up to 4 time periods are allowed per day, and the time periods cannot overlap.
Audio	Select the audio file to be played by the camera when an alarm occurs. By default, 13 audio files are available. You can configure the audio files on the camera's Web interface. **Note:** The number of built-in audio files varies depending on the camera model, and up to 5 audio files are allowed on certain models.
Play Count	Set the number of times the audio file to be played when an alarm occurs. Range: 1 to 50.

2. (Optional) To apply the same settings to other days, select the desired day(s) after **Copy To**.

3. Click **OK**.

Camera Flashing Light

The illuminator of the selected camera flashes for a certain length of time when an alarm occurs. This action is only available to cameras that support flashing light, and the day/night mode is available on certain cameras only.Configure this action as follows:

1. Select the alarm mode, enable **Flashing Light**, and configure other parameters as needed.

| Mode	Description
Day/Night Mode	Select the day and time (day/night) during which flashing light is enabled. **Note:** The camera automatically switches to day or night mode according to the ambient lighting. See *Network Camera User Manual* for details.
Custom Mode	Select the day and time (start/end time) in which flashing light is enabled. **Note:** Up to 4 time periods are allowed per day, and the time periods cannot overlap.
Blink Time(s)	Set the duration that the illuminator flashes when an alarm occurs.
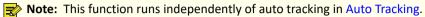
2. (Optional) To apply the same settings to other days, select the desired day(s) after **Copy To**.

3. Click **OK**.

Send Email

The SMSERVER sends an email with alarm information to the specified email address(es) when an alarm occurs. Please set the recipient information in Email. Up to 6 recipients are allowed.
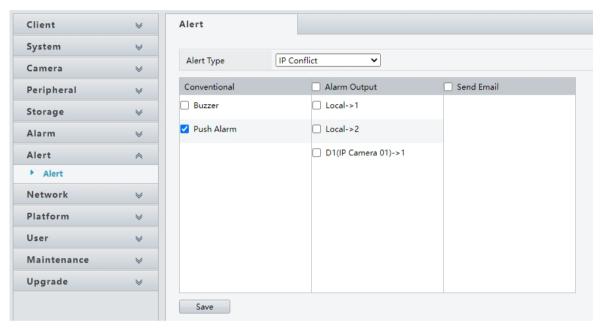
Camera Linkage

The camera will automatically track the alarm target when an alarm occurs.

📝 **Note:** This function runs independently of auto tracking in Auto Tracking.

2.3.7 Alert

Configure alert actions for device abnormal events. The SMSERVER reports an alarm when an event occurs.
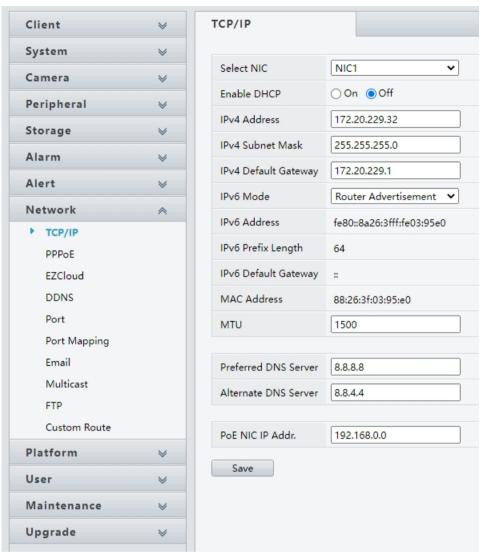
1. Select an alert type from the drop-down list.

   - IP Conflict: IP cameras use the same IP address on the network.

   - Network Disconnected: The SMSERVER is disconnected from the network.

   - Disk Offline: No disk or a disk is not properly connected.

   - Disk Abnormal: A disk is in position but cannot work normally.

   - Illegal Access: Incorrect username/password.

   - Hard Disk Space Low: The disk space is about to use up.

   - Hard Disk Full: The disk space has been used up.

   - Recording/Snapshot Abnormal: Videos/snapshots cannot be stored normally because the disk is offline or abnormal.

2. Set the alert actions, including buzzer, alarm ouput, and sending email. See Trigger Actions for details.

3. Set the alarm output channel(s). Click **Save**.

4. Repeat the above operations to configure alert actions for other events.

2.3.8 Network

2.3.8.1 TCP/IP

Configure IP address and other network parameters of the SMSERVER.

Configure server parameters, then click **Save**.

2.3.8.2 PPPoE

Use Point to Point Protocol over Ethernet (PPPoE) to connect the SMSERVER to network.

1. Enable PPPoE.

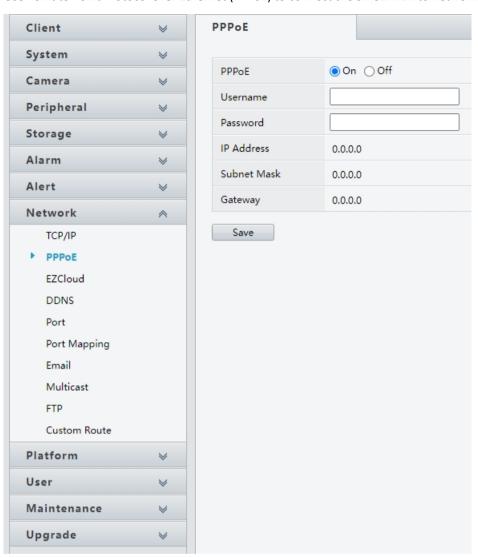2. Enter the username and password provided by the Internet Service Provider (ISP). IP information is displayed when dial-up succeeds.

3. Click **Apply**.

2.3.8.3 EZCloud

With EZCloud you can manage and operate the SMSERVER remotely on a mobile phone.

Configure EZCloud

1. Add the SMSERVER to cloud. See Add Device below.

2. (Optional) Enable **Snapshot Upload**, and the SMSERVER will upload images to cloud.

3. Click **Apply**.

4. Check the device status. If online, the current username will be displayed. If offline, the common cause will be displayed for your troubleshooting reference.

   Note: You can also check the device status on the cloud website (en.ezcloud.uniview.com).

5. (Optional) To delete the SMSERVER from cloud, click **Logout**.

Add Device

Add the SMSERVER to cloud using the app or cloud website.

Add SMSERVER on app

1. Scan the QR code with your mobile phone to download the app; or search UNV-Link or UNV-Link Pro at app store.

2. Open the app, add the SMSERVER with or without a cloud account.

   • Add with a cloud account:

      Sign up for a cloud account, and then log in to add the SMSERVER.

   • Add without a cloud account:

      Click **Add Without Signup**, and then scan the QR code using the app to add the SMSERVER without a cloud account.
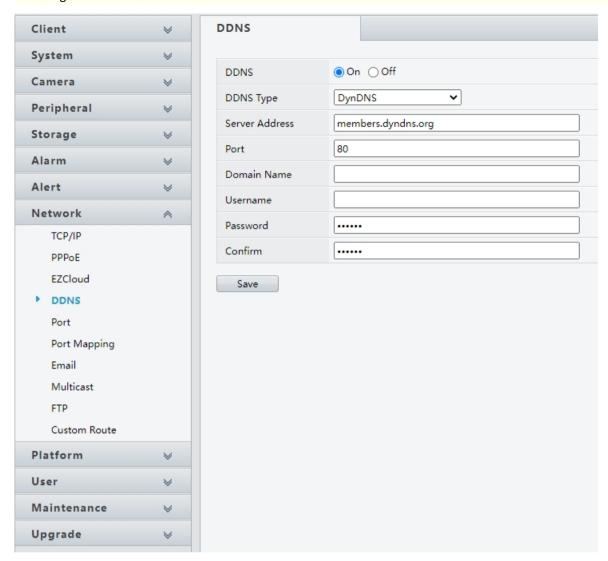
Add SMSERVER on the cloud website

1. Visit the EZCloud website address (imsportal.ezcloud.uniview.com) using a Web browser.

2. Tap **Sign Up**, follow the on-screen instructions to sign up for a cloud account.

3. Log in to the account.

4. Clcik ⊕ to create an organization. Click **Add device** to add the device using the register code on the SMSERVER.

2.3.8.4 DDNS

Configure DDNS so you can access the SMSERVER on the LAN from the Internet by visiting a fixed domain name instead of the changing IP addresses.
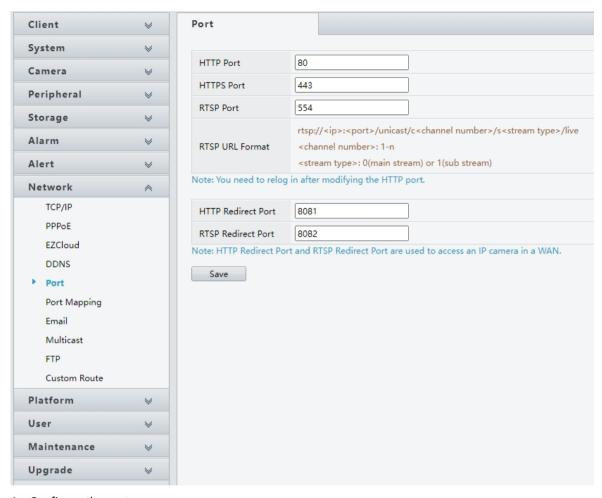
Client	⌄	DDNS
System	⌄	
Camera	⌄	DDNS ⦿ On ◯ Off
Peripheral	⌄	DDNS Type DynDNS ▾
Storage	⌄	Server Address members.dyndns.org
Alarm	⌄	Port 80
Alert	⌄	Domain Name
Network	⌃	Username
TCP/IP		Password ••••••
PPPoE		Confirm ••••••
EZCloud		
▸ **DDNS**		Save
Port		
Port Mapping		
Email		
Multicast		
FTP		
Custom Route		
Platform	⌄	
User	⌄	
Maintenance	⌄	
Upgrade	⌄	

1. Enable DDNS, choose a DDNS type, and configure the parameters.

   - DynDNS/No-IP: Third-party DDNS service provider. Enter the domain name and username/password that you acquired from your DDNS service provider.

     - Domain name: Domain name assigned by your DDNS service provider.

     - Username and password: The corresponding username/password for your DDNS account.

   - EZDDNS: DDNS service provided by Uniview. You can input a domain name, and then click **Test** to check its validity.

2. Click **Save**.

2.3.8.5 Port

Configure HTTP, HTTPS, RTSP, HTTP redirect port, and RTSP redirect port.

1. Configure the ports.

   > **Note:**
   >
   > - The port range is 1-65535, among which, ports 21, 23, 2000, 3702 and 60000 are reserved for other purposes. Duplicate ports are not allowed.
   > - The upper platform can access the live video of a camera using the displayed RTSP URL.

2. Click **Save**.
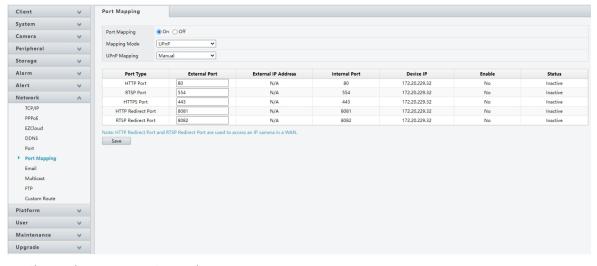
2.3.8.6 Port Mapping

Configure port mapping so client computers can access the SMSERVER on the LAN across the Internet.

UPnP

UPnP is short for Universal Plug and Play. UPnP-enabled network address translation (NAT) can perform automatic port mapping to enable client computers to access the SMSERVER on the LAN from the Internet.

> **Note:** This function requires router support. You need to enable UPnP on the router before starting configuration on the SMSERVER.
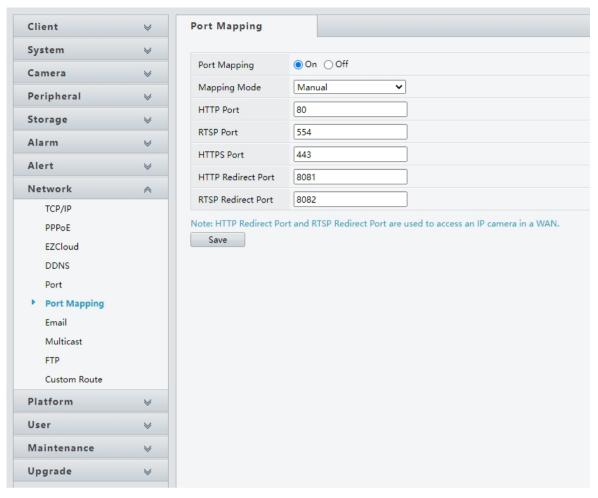
1. Choose the **UPnP** mapping mode.

2. Choose a mode from the **UPnP Mapping** list:

   - Auto: The SMSERVER automatically assigns external port numbers, which are usually the same as the internal port numbers.

   - Manual: User specifies ports within the range of [1-65535].

     Note: Auto is recommended. Port conflict may occur when external ports are specified manually.

3. Click **Save**.

Manual

If the router does not support UPnP, you have to configure internal and external ports manually.

Note:

- Make sure the ports configured on the SMSERVER are consistent with that configured on the router.

- For some routers, the SMSERVER's external and internal ports must be the same, and they also must be the same as the ports on the router.
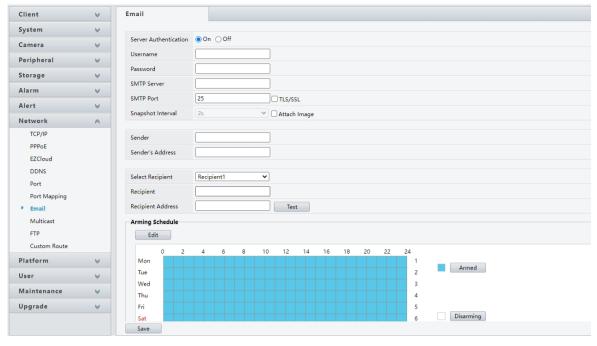
1. Choose the **Manual** mapping mode.

2. Set the external ports manually.

3. Click **Save**.

   📝 **Note:** After port mapping is configured, you can open the Web interface using the following address: *Router's WAN IP:external HTTP port*. For example, the router's external IP address is 10.2.2.10, and the external HTTP port is 82, then enter http://10.2.2.10:82 in the Web browser's address bar.

2.3.8.7 Email

Configure email so the SMSERVER can send alarm information to specified users through email when an alarm occurs.

📝 **Note:** Select the **Send Email** checkbox on the **Trigger Actions** page before you start configuration.

1. Configure the parameters.

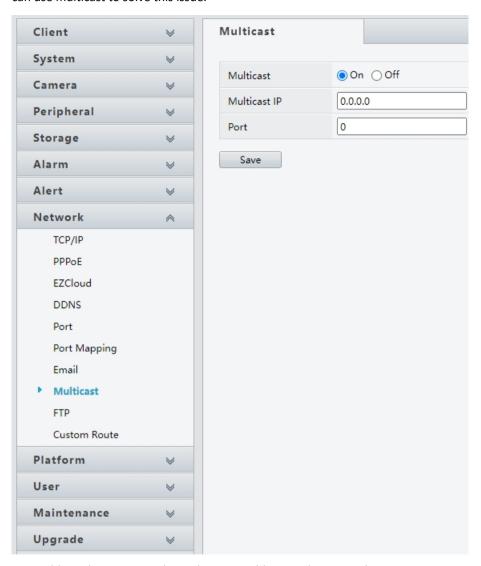| Parameter	Description
Server Authentication	SMTP server authentication, when enabled, can enhance email security. This feature is disabled by default. To enable it, you need to enter the correct username and password.
Username/Password	Username and password of the SMTP server. Usually it is the username and password of the email box.
SMTP Server	SMTP server address.
SMTP Port	Default: 25. Range: [1-65535].
Enable TLS/SSL	When enabled, communication security will be improved by encrypting emails via TLS or SSL. This feature requires the SMTP server to support TLS/SSL. 📝 **Note:** After TLS/SSL is enabled, if email sending via port 25 failed, try 587 or 465.
Snapshot Interval	Options are 2s (default), 3s, 4s, and 5s.
Attach Image	When enabled, the SMSERVER will send an email attached with alarm information and snapshot(s) every a snapshot interval when an alarm occurs. When disabled, the SMSERVER will send only an email with alarm information when an alarm occurs.
Sender	Sender's name.
Sender's Address	Sender's email address, which can the same as the recipient's address.
Select Recipient	Choose a recipient from the list and then complete the recipient information. Up to 6 recipients are allowed.
Recipient	Recipient's name.
Recipient Address	Recipient's email address.
Arming Schedule	Click **Edit** to configure an arming schedule. See Arming Schedule.

2. Click **Test**. The system will check the recipient address by sending it a test email.

3. Click **Save**.

65

2.3.8.8 Multicast

When the number of users accessing the Web client has reached the upper limit and live video is unavailable, you can use multicast to solve this issue.

1. Enable multicast, enter the multicast IP address and port number.

2. Click **Apply**.

3. Go to **Setup** > **Client**, set **Live View Protocol** to **Multicast**. Now live view is available through multicast.

   📝 **Note:**
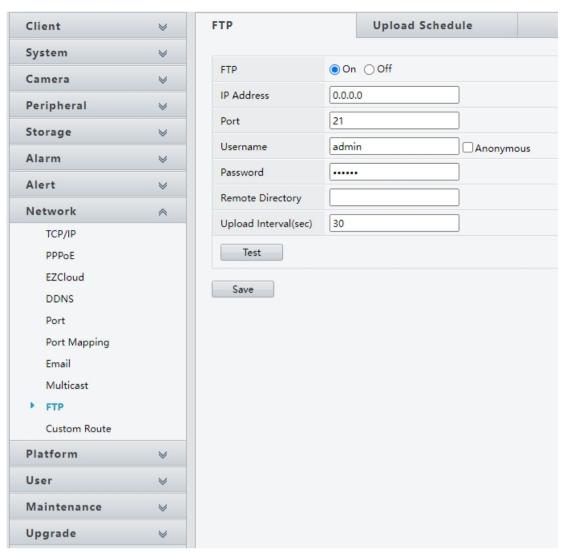
   - IP multicast addresses are class-D addresses. 224.0.1.0 - 238.255.255.255 can be used on the Internet.

   - In the range of 224.0.0.0 - 239.255.255.255, some are reserved for special uses, for example, 224.0.0.0 - 244.0.0.255 can only be used on the LAN, where packets with these addresses will not be forwarded by a router; 224.0.0.1 is used by all the hosts on the subnet; 224.0.0.2 is used by all the routers on the subnet; 224.0.0.5 is used by OSPF routers; 224.0.0.13 is used by PIMv2 routers; and 239.0.0.0 - 239.255.255.255 are private addresses (e.g., 192.168.x.x).

2.3.8.9 FTP

Configure FTP so the SMSERVER can upload images and recording to the FTP server.

📝 **Note:**

- To use this feature, you need to deploy an FTP server first.

- After the FTP server is enabled and connected, the SMSERVER can automatically upload images to the FTP server.
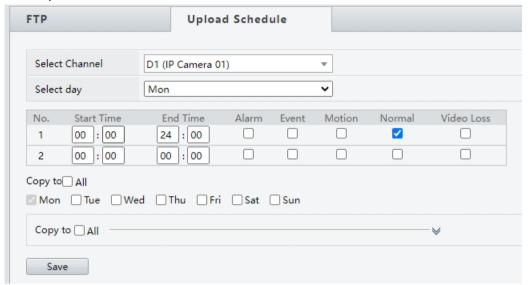
1. Enable FTP.

2. Configure server parameters. Click **Test** to test the connection between the SMSERVER and the FTP server.

Parameter	Description
IP Address	FTP server address.
Port	The default is 21. You can set a different port as needed.
Anonymous	When enabled, the SMSERVER will connect to the FTP server as anonymous user without username/password required.
Username	Username used to access the FTP server.
Password	Password used to access the FTP server.
Remote Directory	Input the remote directory in the correct format (abc/efg/xyz), and the system will create folders level by level accordingly under the root directory, and then create different folders based on IP, time, and channel. 📝 **Note:** • For example, if the remote directory is abc, then the created folder is FTP > abc > 206.2.5.8 > 2022-10-08 > D5. If the remote directory is abc/efg/xyz, then the created folder is FTP > abc efg > xyz > 206.2.5.8 > 2022-10-08 > D5. • If the remote directory is empty, the system will create folders under the root directory based on IP, time, and channel, for example, FTP > 206.2.5.8 > 2022-10-08 > D5.

Parameter	Description
Upload Interval(s)	The SMSERVER uploads images captured within the set periods to the FTP server at the set interval. The default is 30s. Show the range of image upload interval: [5-600]s.

3. Set an upload schedule.
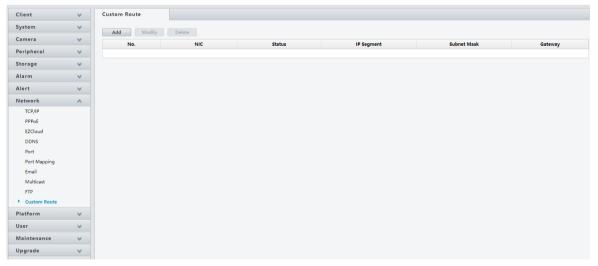
(1) Click the **Select Channel** drop-down list, select the camera for which you want to configure image/ recording upload.

(2) Set the upload time periods and the type(s) of images and recordings you want to upload.

> 📝 **Note:**
>
> - Two image upload or recording periods are allowed each day, and the periods must not overlap.
>
> - To apply the schedule to other days, select **All** or days.

4. (Optional) To apply the current upload schedule to other cameras, click **Copy**, select cameras.

5. Click **Save**.

2.3.8.10 Custom Route

Click **Add** to add a custom route.
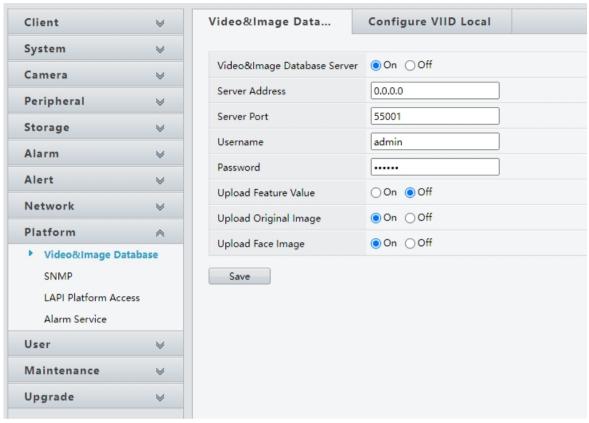
2.3.9 Platform

2.3.9.1 Video&Image Database

Video&Image Database Server

Configure the VIID server so the SMSERVER can upload face and plate information to the upper VIID platform.
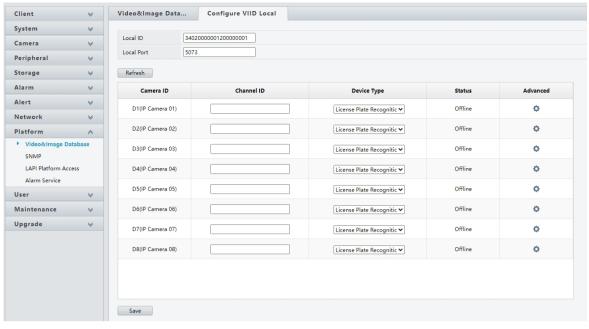
1. Enable video&image database server.
2. Configure server parameters.

Parameter	Description
Server Address	VIID platform's IP address.
Server Port	VIID platform's port number.
Username	Username of the VIID platform.
Password	Password of the VIID platform.
Upload Feature Value	When enabled, the SMSERVER will upload feature information of the captured faces or plates to the upper platform.
Upload Original Image	When enabled, the SMSERVER will upload original images of the captured faces or plates to the upper platform. This feature is enabled by default.
Upload Face Image	When enabled, the SMSERVER will upload small face images to the upper platform.

3. Click **Save**.

Configure VIID Local

Configure VIID local settings so the SMSERVER can monitor vehicles and upload vehicle information to the upper platform.

1. The local ID and local port use the default settings by default.

2. Choose a camera, and then configure the parameters.

Parameter	Description
Camera ID	Used for connecting the IP device. Camera IDs consist of VIID-conformant codes and are differentiated by device type and usage. Camera IDs are assigned by the upper platform.
Device Type	Divided into two types by usage: • License plate recognition: Usually installed on road checkpoints to capture license plates of passing vehicles. • Collection device: Used to capture faces or plates.
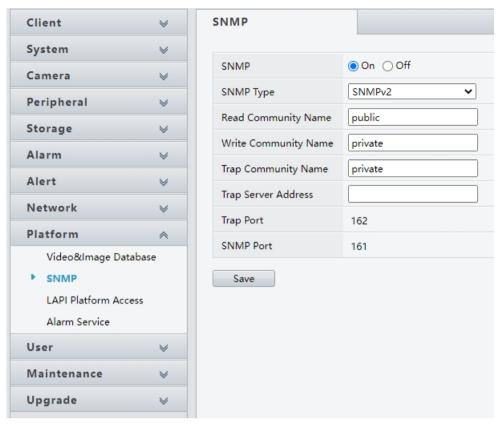
3. Choose a camera, click ⚙, and then configure the parameters.

Parameter	Description
Longitude	Longitude of the region where the IP device is located (-180,180).
Latitude	Latitude of the region where the IP device is located (-90,90).
Administrative Division Code	Administrative division code of the region where the IP device is installed.
Location	Location of the IP device. Max 256 characters, allows uppercase and lowercase letters, digits, underscores, and hyphens.
Checkpoint Put into Use	Time when the camera was put into use.
Checkpoint Type	Choose the actual checkpoint type of the IP device.
Checkpoint Usage	Choose the usage of the IP device.
Checkpoint Lanes	Number of lanes monitored by the IP device.
Authority Code	Organization code of the IP device.

4. Click **Save**.

2.3.9.2 SNMP

The SMSERVER can use SNMP to interconnect with the upper platform and transfer certain configuration information.

1. Enable SNMP.

2. Choose an SNMP type and configure the parameters.

   - SNMPv2:
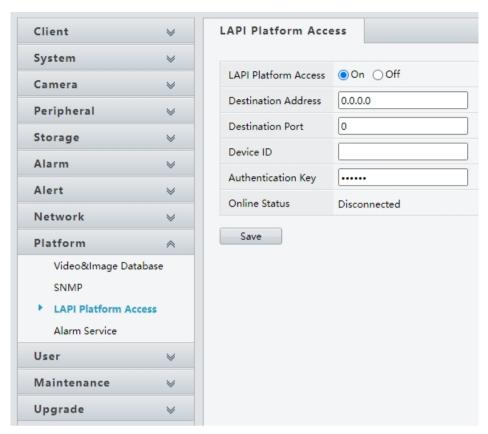
   Set the read community name and write community name for the platform to read SMSERVER data.

   - SNMPv3:

   Set authentication password and encryption password. The authentication password is used by the platform to access the SMSERVER. The encryption password is used to encrypt data sent from the SMSERVER to the platform.

3. Click **Save**.

2.3.9.3 LAPI Platform Access
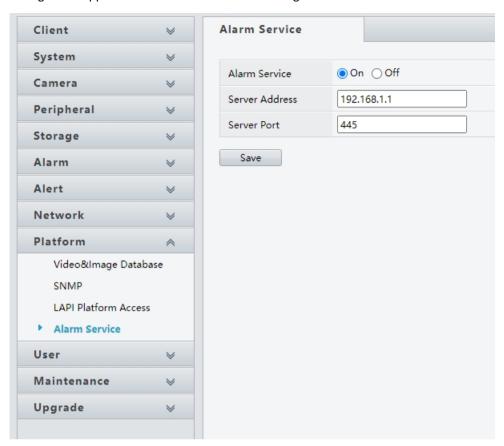
1. Enable LAPI platform access.
2. Configure the parameters.

Parameter	Description
Destination Address	Enter the IP address of the target platform.
Destination Port	Enter the port of the target platform.
Device ID	Enter the device ID of the target platform.
Authentication Key	Enter the Authentication Key of the target platform.

3. Click **Save**.

2.3.9.4 Alarm Service

Configure an upper server to receive alarms and images from the SMSERVER.

1. Enable alarm service.
2. Configure the parameters.
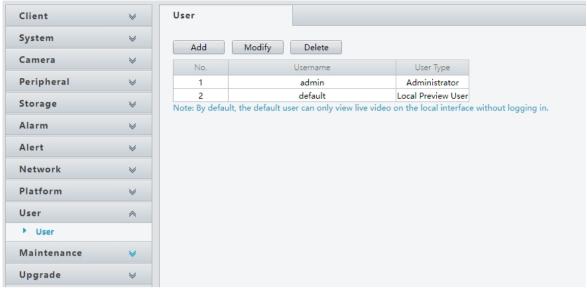
Parameter	Description
Server Address	Upper server's IP address.
Server Port	Upper server's port number.

> **Note:** This configuration only enables the sending of alarm-related packets to the alarm host. The specific alarm methods on the alarm host need to be configured separately.

3. Click **Save**.

2.3.10 User

Users are entities that manage and operate the system. A user type is a set of operation permissions. After a user type is assigned to a user, the user has all the permissions defined in the type.

The system supports four user types:

User Type	Description
admin	The default super administrator, which has the maximum permissions. The initial password is **123456**. 📝 **Note:** Only admin can add or delete users and edit other users' permissions.
default	The default reserved user, which cannot be added or deleted, only has live view and two-way audio permissions by default, and can be configured by admin only. 📝 **Note:** If the default user is forbidden to use live view and two-way audio on a camera, the camera will be locked when no user is logged in, and is displayed in the corresponding window. By default, the default user can only view live video on the local interface without logging in.
Operator	By default, an operator has basic permissions and camera permissions.
Guest	By default, a guest only has camera permissions.

Add User

1. Click **Add**, and configure the parameters.

Item	Description
Username	Set a username as you need. Cannot be empty or include Chinese characters.
Password/Confirm	Set a strong password.
User Type	Select as needed.
Basic Permissions/ Camera Permissions	Select the permissions you want to assign to the user.

2. Click **Save**.

Delete User

On the **User** page, select the user you want to delete. Click **Delete**.

Edit User
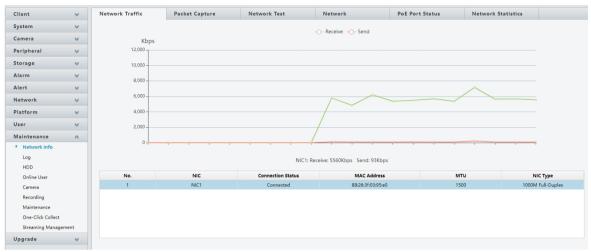
On the **User** page, select the user you want to delete. Click **Modify**.

2.3.11 Maintenance

2.3.11.1 Network Info
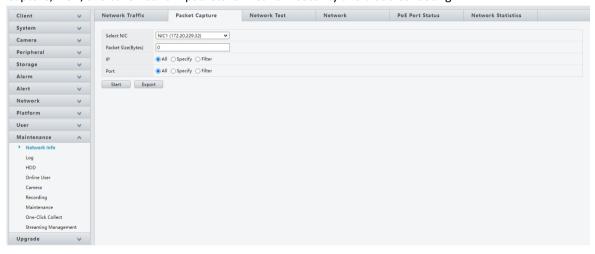
Network Traffic

View network interface card (NIC) information including connection status, physical address, MTU, NIC type, and real-time traffic.

Packet Capture

Capture, view, and save network packets for network security and troubleshooting.
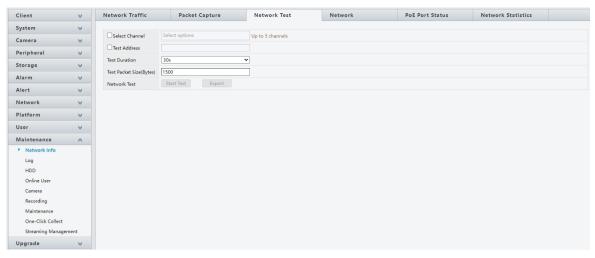
1. Select the NIC and set the packet size.

   > **Note:**
   >
   > - The packet size is 0 by default, which indicates that there is no size limit for the captured packet data. The larger the size, the lower the risk of data loss, and the more complete the information.
   > - Too large packet size may occupy too much storage space.

2. Specify ports and IPs.

   - All: Capture packets of all the ports and IPs connected to the device.

   - Specify: Capture packets of the specified ports and IPs.

   - Filter: Capture packets except that of the specified ports and IPs.

3. Click **Start** to start capturing packets. After click **Stop**, then export the data.

Network Test
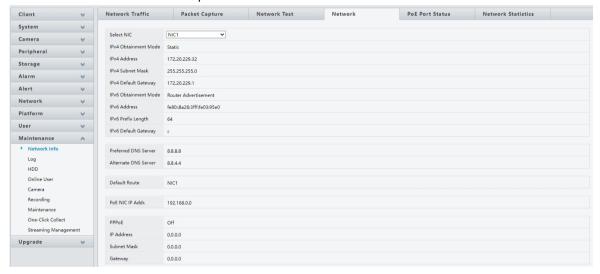
Monitor the network traffic, network latency, packet loss rate, etc.

1. Select the **Select Channel** checkbox, select the channel(s) you want to monitor. Up to 5 channels are allowed.

2. Select the **Test Address** checkbox, and then enter the address you want to test. You may enter an IP address or a domain name. Up to 2 IP addresses (separated with a semicolon) are allowed.

3. Choose the test duration. The system will test the network status during this time. Options are 30s (default), 1 min, 5 min, 10 min, 30 min, and 1 hour.

4. Set the size of test packets. The default is 1500 Bytes. The range is [64-4000]. Set according to the actual network condition.

5. Click **Start Test** to test the packet loss rate and network latency.
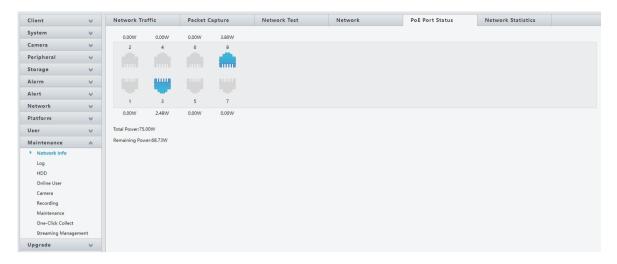
Network

Choose an NIC to view its network parameters.

PoE Port Status

The port connection status is displayed. Blue means the port is in use.

Client
System
Camera
Peripheral
Storage
Alarm
Alert
Network
Platform
User
Maintenance
▸ Network Info
Log
HDD
Online User
Camera
Recording
Maintenance
One-Click Collect
Streaming Management
Upgrade

Network Traffic | Packet Capture | Network Test | Network | PoE Port Status | Network Statistics

| 0.00W | 0.00W | 0.00W | 3.80W |
| 2 | 4 | 6 | 8 |

| 1 | 3 | 5 | 7 |
| 0.00W | 2.48W | 0.00W | 0.00W |

Total Power:75.00W

Remaining Power:68.73W

Network Statistics

View bandwidth usage.
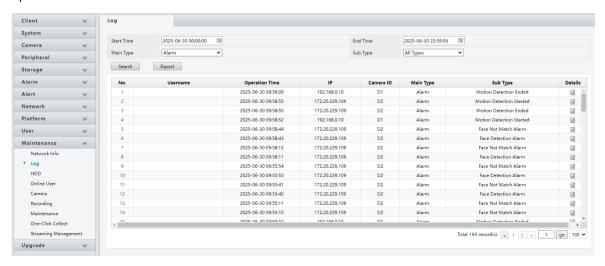
> 📝 **Note:**
>
> • When idle receive bandwidth is low, cameras cannot get online.
>
> • When idle send bandwidth is low, live view, playback, and recording download will fail.

Network Traffic | Packet Capture | Network Test | Network | PoE Port Status | Network Statistics

Type	Bandwidth
IP Camera	2688Kbps
Remote Live View	0bps
Remote Playback	0bps
Idle Receive Bandwidth	77Mbps
Idle Send Bandwidth	80Mbps

2.3.11.2 Log

Logs contain information about user operation and device status. You can use logs to keep track of device operation status and view detailed alarm information.

| Start Time | 2025-06-30 00:00:00 | | End Time | 2025-06-30 23:59:59 |
| Main Type | Alarm | | Sub Type | All Types |

Search   Export

No.	Username	Operation Time	IP	Camera ID	Main Type	Sub Type	Details
1		2025-06-30 09:59:09	192.168.0.10	D1	Alarm	Motion Detection Ended	
2		2025-06-30 09:58:55	172.20.229.109	D2	Alarm	Motion Detection Started	
3		2025-06-30 09:58:55	172.20.229.109	D2	Alarm	Motion Detection Ended	
4		2025-06-30 09:58:52	192.168.0.10	D1	Alarm	Motion Detection Started	
5		2025-06-30 09:58:44	172.20.229.109	D2	Alarm	Face Not Match Alarm	
6		2025-06-30 09:58:43	172.20.229.109	D2	Alarm	Face Detection Alarm	
7		2025-06-30 09:58:12	172.20.229.109	D2	Alarm	Face Not Match Alarm	
8		2025-06-30 09:58:11	172.20.229.109	D2	Alarm	Face Detection Alarm	
9		2025-06-30 09:55:54	172.20.229.109	D2	Alarm	Face Not Match Alarm	
10		2025-06-30 09:55:53	172.20.229.109	D2	Alarm	Face Detection Alarm	
11		2025-06-30 09:55:41	172.20.229.109	D2	Alarm	Face Not Match Alarm	
12		2025-06-30 09:55:40	172.20.229.109	D2	Alarm	Face Detection Alarm	
13		2025-06-30 09:55:11	172.20.229.109	D2	Alarm	Face Not Match Alarm	
14		2025-06-30 09:55:10	172.20.229.109	D2	Alarm	Face Detection Alarm	
15		2025-06-30 09:55:10	192.168.0.10	D1	Alarm	Motion Detection Ended	

Total 198 record(s).   1   2   1   go   100

Log Search

1. Set the start time, end time, main type and sub type.

2. Click **Search**.

3. Click 📄 to view log details.

Log Backup
Click **Export**.

2.3.11.3 HDD

Run S.M.A.R.T. Test

S.M.A.R.T. tests the hard disk including its head, platter, motor, circuit, etc. and evaluates the disk health status.

1. (Optional) Enable **Continue to use the disk when it fails to pass evaluation**, so the device can continue using the hard disk even if the disk fails in the self-assessment. However, this may incur great risks. Please choose carefully.
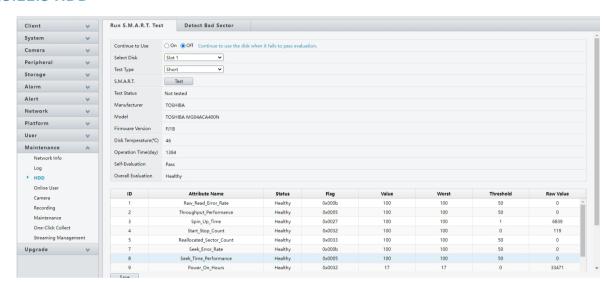
2. Choose the disk slot and test type.

    *   Short: Less test contents, faster speed.

    *   Extended: More comprehensive and thorough, longer time.

    *   Conveyance: Detects problems in data transmission.

3. Click **Test**. The **Test Status** shows the real-time progress, for example, Testing: 10%. View test results after the test is completed.

    The overall evaluation provides three kind of status: Healthy, Failure, Bad Sectors. It is recommended to replace faulty disks immediately. Contact our technical support for more information.

Detect Bad Sector
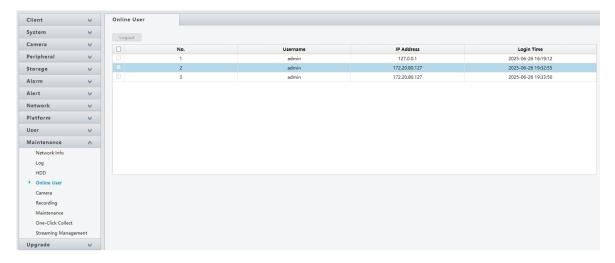
The device system detects bad sectors in hard disks in a read-only manner.

1. Choose the disk and detection type.

2. Click **Detect**. To stop the detection, click **Stop**.

*   🟩means the detected area is in good condition.

*   🟥 means the detected area is damaged. The detection stops automatically when the error count reaches 100.

2.3.11.4 Online User

View the logged-in users, and force non-admin users to log out of the SMSERVER when necessary.

📝 **Note:** Only admin can manage user permissions.

2.3.11.5 Camera

View camera status information.

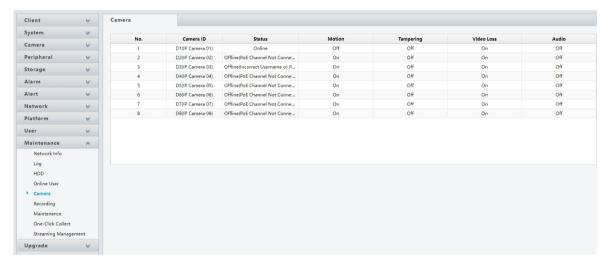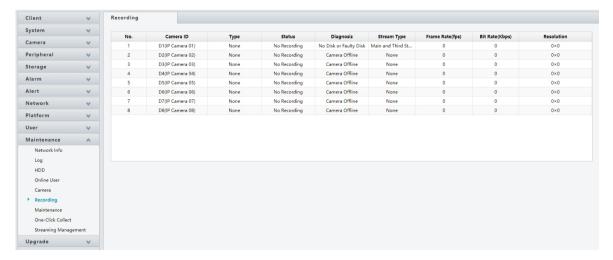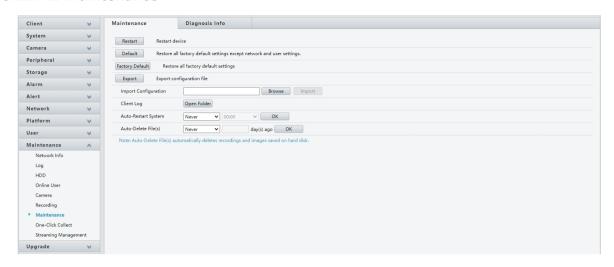| No.	Camera ID	Status	Motion	Tampering	Video Loss	Audio
1	D1(IP Camera 01)	Online	Off	Off	On	Off
2	D2(IP Camera 02)	Offline(PoE Channel Not Conne...	On	Off	On	Off
3	D3(IP Camera 03)	Offline(Incorrect Username or P...	On	Off	On	Off
4	D4(IP Camera 04)	Offline(PoE Channel Not Conne...	On	Off	On	Off
5	D5(IP Camera 05)	Offline(PoE Channel Not Conne...	On	Off	On	Off
6	D6(IP Camera 06)	Offline(PoE Channel Not Conne...	On	Off	On	Off
7	D7(IP Camera 07)	Offline(PoE Channel Not Conne...	On	Off	On	Off
8	D8(IP Camera 08)	Offline(PoE Channel Not Conne...	On	Off	On	Off

2.3.11.6 Recording

View the recording status and encoding parameters of the connected cameras.

No.	Camera ID	Type	Status	Diagnosis	Stream Type	Frame Rate(fps)	Bit Rate(Kbps)	Resolution
1	D1(IP Camera 01)	None	No Recording	No Disk or Faulty Disk	Main and Third St...	0	0	0×0
2	D2(IP Camera 02)	None	No Recording	Camera Offline	None	0	0	0×0
3	D3(IP Camera 03)	None	No Recording	Camera Offline	None	0	0	0×0
4	D4(IP Camera 04)	None	No Recording	Camera Offline	None	0	0	0×0
5	D5(IP Camera 05)	None	No Recording	Camera Offline	None	0	0	0×0
6	D6(IP Camera 06)	None	No Recording	Camera Offline	None	0	0	0×0
7	D7(IP Camera 07)	None	No Recording	Camera Offline	None	0	0	0×0
8	D8(IP Camera 08)	None	No Recording	Camera Offline	None	0	0	0×0

2.3.11.7 Maintenance

2.3.11.7.1 Maintenance

Restore System

Choose **Default** or **Factory Default** as needed. A message appears. The device will restart and restore the default settings after you confirm. Choose a method according to your actual needs:

- Restore: Restore default settings except network settings, user settings, and time settings.

- Factory Default: Restore all default settings.

Note: Either option will not delete the recorded videos and operation logs.

System Backup

Import, export, and delete system configurations.

1. Perform the following operations as needed:

    - Export configurations: Click **Export**. Then a *.xml file containing the exported configurations is generated in the specified folder later.

    - Import configurations: Choose the *.xml file in the directory list, click **Browse**, and then confirm to import the configuration file.

    Note:

    - Caution: The device will restart after you import configurations. If power is disconnected during the process, the system will be unusable.

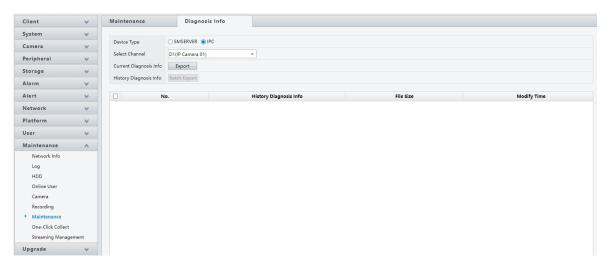   - Only admin can import or export configurations.

2. Click **Apply**.

Auto-Function

The device can restart or delete files automatically at the preset time. Only admin can perform this operation.

1. Configure the parameters.

    - Auto-Restart System: The system restarts automatically at the set time.

    - Auto-Delete File(s): The system automatically deletes videos and images saved on the hard disk. Range: 1-240.

2. Click **OK**.

2.3.11.7.2 Diagnosis Info

View and back up diagnosis information of the SMSERVER and the connected cameras. The SMSERVER keeps 14 days of diagnosis information and overwrites the earliest when the storage is full.
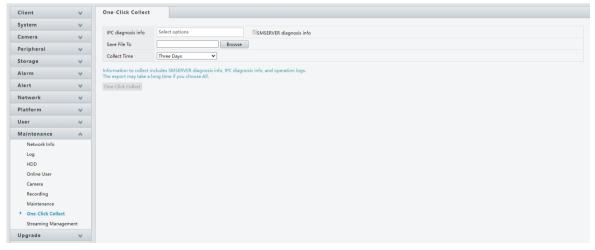
SMSERVER Diagnosis Info

1. Choose **SMSERVER** as the device type.

2. Export SMSERVER diagnosis information.

   - Current Diagnosis Info: Diagnosis information since the latest startup. Click **Export** to export diagnosis information to the external storage device.

   - History Diagnosis Info: All the history diagnosis information in the list. Select the desired item(s), click **Batch Backup**.

Camera Diagnosis Info

1. Choose **IPC** as the device type.

2. Choose the desired camera from the list.

3. Export diagnosis information of the selected camera.

   - Current Diagnosis Info: Diagnosis information since the latest startup. Click **Export** to export diagnosis information to the external storage device.

   - History Diagnosis Info: All the history diagnosis information in the list. Select the desired item(s), click **Batch Backup**.
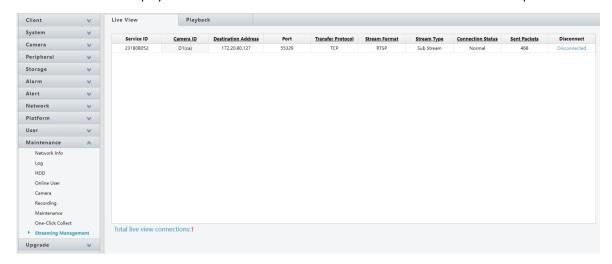
2.3.11.8 One-Click Collect

Collect SMSERVER and camera diagnosis information.

1. Choose the camera and select a number of days of diagnosis information to be collected. SMSERVER diagnosis information is always collected.

2. Click **One-Click Collect** to collect camera diagnosis information, SMSERVER diagnosis info, and operation logs.

   📝 **Note:** Choose the days according to the actual requirements. The export process may take a long time if you choose **All**.

2.3.11.9 Streaming Management

View the live view and playback stream status of the current device. Click **Disconnected** to stop the stream.

Service ID	Camera ID	Destination Address	Port	Transfer Protocol	Stream Format	Stream Type	Connection Status	Sent Packets	Disconnect
231808052	D1(ca)	172.20.80.127	55329	TCP	RTSP	Sub Stream	Normal	468	Disconnected

Total live view connections:1

2.3.12 Upgrade

2.3.12.1 SMSERVER Upgrade

Choose **Cloud Upgrade** or **Local Upgrade**.

- Local Upgrade

Select the upgrade file in the computer, click **Upgrade** to start.

> **Note:** If the upgrade failed, the failure cause will be displayed, and the device will restart automatically. Fix the problem and then try again.

- Cloud Upgrade

Click **Check for Update**. The system checks for updates.

  - If updates are available, the new version number and its build date are displayed. Click **Upgrade** to start.

  - If no updates are available, the system indicates that the current version is already the latest.

2.3.12.2 IPC Upgrade

Choose **Cloud Upgrade** or **Local Upgrade**.

- Local Upgrade

  1. Select multiple cameras and then click **Local Upgrade**.

  2. Select the upgrade file in the computer, click **Batch Upgrade** to start.
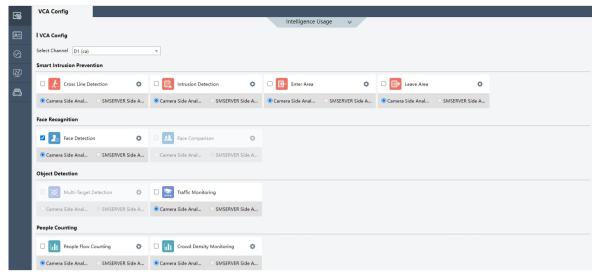
- Cloud Upgrade

Click **Check for Update**. The system checks for updates.

  - If updates are available, the new version number and its build date are displayed. Click ☁ to upgrade a camera, or select multiple cameras and then click **Batch Upgrade** to upgrade in batches.

  - If no updates are available, the system indicates that the current version is already the latest.

2.4 Smart

2.4.1 VCA Configuration

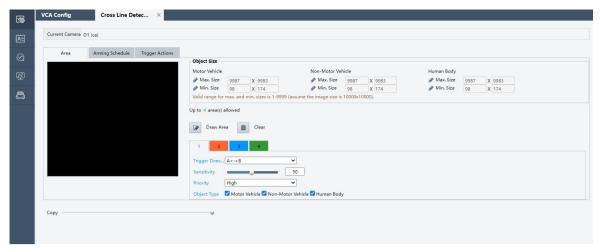> **Note:** VCA functions are not available if there is no disk.

1. Select a channel.

2. Select the check box for the VCA function to be enabled, and choose to implement this function on the camera side or the SMSERVER side.

   • Camera Side Analysis: The VCA function is implemented by the camera.

   • SMSERVER Side Analysis: The VCA function is implemented by the SMSERVER.

> **Note:**
> • For some VCA functions, the camera side supports more parameters than the SMSERVER side.
> • Before you enable camera side analysis, make sure the camera is connected via the private protocol.
> • VCA functions that are not supported by the camera or SMSERVER are grayed out.
> • VCA functions on the SMSERVER side is subject to device capabilities. For more information, see Analyzer Configuration. The device will automatically restart when the mode changes.
> • When the camera goes online for the first time, the system will automatically sync camera-side configuration and enabled/disabled state to the SMSERVER side; When the camera goes online again, the system will automatically sync camera-side configuration to the SMSERVER side, however, the enabled/disabled state will not be synced.
> • When the camera goes online, if the channel enabled/disabled state on the IPC is not consistent with the SMSERVER, and the SMSERVER-side analysis is enabled while the camera-side analysis is disabled, then a prompt will appear and ask if you want to sync SMSERVER enabled/disabled state to the IPC.

3. Click ⚙ to configure the function.

2.4.1.1 Smart Intrusion Prevention

| Function	Description
Cross Line Detection	An alarm is triggered when objects cross a specified virtual line in a specified direction.
Intrusion Detection	An alarm is triggered when the object enter a specified detection area for a preset time.
Enter Area	An alarm is triggered when objects enter a specified detection area.
Leave Area	An alarm is triggered when objects leave a specified detection area.

1. Configure the rule.
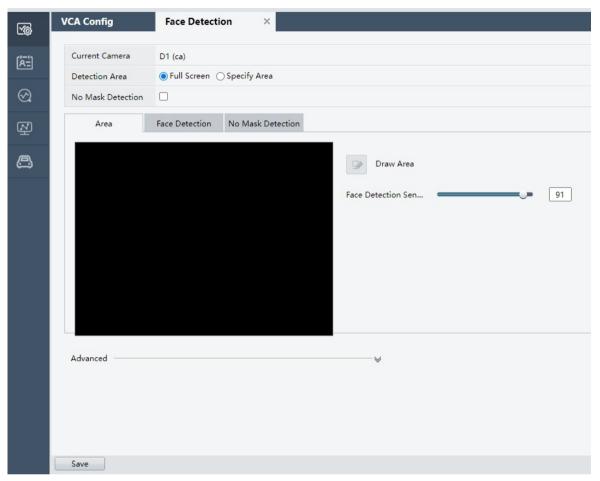
Parameter	Description
Draw Tripwire (Cross Line Detection)	• Select the rule number [1] [2] [3] [4], then click [✎], press and hold the left mouse on the live view page and drag to draw a tripwire. Click [⌫] to finish drawing. • Click [🗑] to delete the current tripwire.
Draw Area (Intrusion Detection/Enter Area/ Leave Area)	Draw the detection area. • Click [✎], and click on the image to draw 3 to 6 points. Double-click the left mouse, and the first and last points will be automatically connected to form the detection area. Click [⌫] to finish drawing. • [🗑] : Click to delete the detection area. 📝 **Note:** Enter Area need select the rule number [1] [2] [3] [4]
Trigger Direction (Cross Line Detection)	Select the direction from which the object crosses the line to trigger an alarm. • A<->B: A cross line alarm is triggered when an object crossing the line from A to B or from B to A is detected. • B->A: A cross line alarm is triggered when an object crossing the line from B to A is detected. • A->B: A cross line alarm is triggered when an object crossing the line from A to B is detected.
Percentage (Intrusion Detection)	An intrusion alarm will be triggered if the proportion of the object size to the detection area size reaches the set value. Set based on the scene and your actual needs.
Priority	Select the priority of the detection rule.
Sensitivity	The higher the sensitivity, the more likely the detection rule will be triggered, but the false alarm rate will increase. Please adjust the sensitivity based on the actual scene.
Snapshot Object	Select the object(s) as needed.

2. (Optional) Configure the object size to be detected. The object larger than the max. size and smaller than the min. size will not be detected.

3. Set Arming Schedule and Trigger Actions, and click **Save**.

2.4.1.2 Face Detection

2.4.1.2.1 Face Detection

The SMSERVER takes snapshots and reports an alarm when faces are detected in a specified detection area.

1. Configure the rule.

Parameter		Description
Detection Area	Full Screen	Detect all areas in the live video.
	Specify Area	Click ⤵ to draw the detection area. Click ⬅ to finish drawing.
Face Detection Sensitivity		The higher the sensitivity, the more likely the detection rule will be triggered, but the false alarm rate will increase. Please adjust the sensitivity based on the actual scene.
No Mask Detection(Optional)		When enabled, it can detect faces without masks.

2. Set Arming Schedule and Trigger Actions.

3. Complete the advanced settings, and click **Save**.

Parameter	Description
Number of Snapshots	The number of snapshots to be captured when the detection rule is triggered by the same face.

Parameter	Description
Min. Pupillary Distance	This refers to the distance between the pupils of the two eyes. The device will detect faces in the live video based on the set value. If the pupillary distance of the detected object is less than the set value, it will be automatically filtered out and not captured.
Face Selection	When enabled, the face selection mode and selection configuration take effect.
Face Selection Mode	• Quality Priority: Set the **Number of Selected Photos**, then the SMSERVER selects the specified number of snapshots with the best quality from all the snapshots captured when a face is detected to report. • Speed Priority: Set the **Number of Selected Photos** and **Selection Timeout**, then the SMSERVER selects the specified number of snapshots from the moment that a face is detected till **Selection Timeout** is up to report. • Periodic Selection: Set the **Selection Interval**, for example, 600ms, then the SMSERVER selects a face snapshot every 600ms to report.

2.4.1.2.2 Face Comparison

This function compares captured faces with face images in face libraries. An alarm is reported and related actions are triggered based on the set monitoring task when an alarm occurs. To use face comparison, you need to enable Face Detection first.

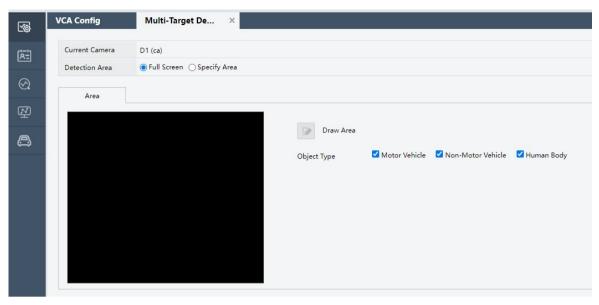1. Click **Add Monitoring Task**, and configure the parameters.

Parameter	Description
Task Name	Custom
Monitoring Task	It is enabled by default.
Cause of Monitoring	Custom
Monitoring List	Select a face library for face comparison.
Alarm Threshold	An alarm is triggered when the face similarity reaches the set threshold.
Monitoring Type	• Match Alarm: A match alarm occurs when the similarity between a detected face and a face image in the monitoring list reaches the alarm threshold. • Not Match Alarm: A not match alarm occurs when the similarity between a detected face and a face image in the monitoring list fails to reach the alarm threshold. • All: An alarm occurs when a face is detected.
Arming Schedule	See Arming Schedule for details.
Match Trigger Action/Not Match Trigger Action	Set the actions to be triggered by a match alarm or a not match alarm. See Trigger Actions for details.

• 🖉 : Edit the monitoring task.

• [Delete] : Delete the monitoring task; select multiple monitoring tasks, and click **Delete** to delete them.

2.4.1.3 Object Detection

2.4.1.3.1 Multi-Target Detection

The SMSERVER takes snapshots and reports an alarm when the motor vehicle, non-motor vehicle, or human body is detected in the specific detection area.

1. Configure the detection rule.

Parameter		Description
Detection Area	Full Screen	Detects all areas in the live video.
	Specify Area	Click ![icon] , press and hold the points to adjust detection area. Click ![icon] to finish drawing.
Snapshot Object		Select the object(s) as needed.

2.4.1.3.2 Traffic Monitoring

The traffic monitoring function can capture motor vehicles, motorcycles, non-motor vehicles, and pedestrians on the roads or in parks, and can identify and monitor specific vehicles, specific license plates, etc.
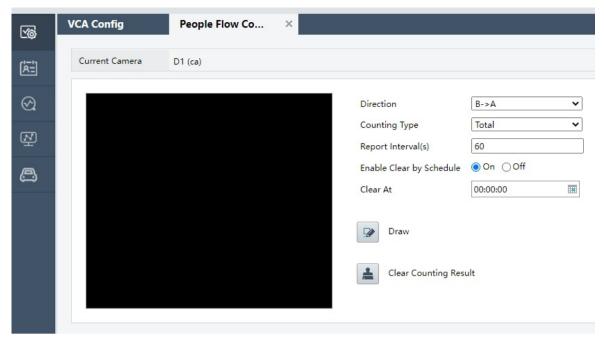

Please log in to the camera's Web interface to configure traffic monitoring function. See Network Camera User Manual for details. The SMSERVER can only enable/disable the reception of alarm information from road monitoring.

2.4.1.4 People Counting

2.4.1.4.1 People Counting

This function counts people passing a specified tripwire in the specific detection area, including people entered, people exited, and total people entered and exited. Enable **People Counting** for **OSD Content** in Video OSD, and the search results can be displayed on the live video and playback pages.

1. Configure the rule.

| Parameter	Description
Draw	Click [icon] . Click [icon] to finish drawing. • Draw the tripwire: Press and hold the left mouse on the live view page and drag to draw a tripwire. • Draw the detection area: Press and hold the points to adjust area.
Trigger Direction	Select the direction from which the object crosses the tripwire to trigger an alarm. • A- >B: A to B is entry, B to A is exit. • B- >A: B to A is entry, A to B is exit.

2. Complete other configurations.
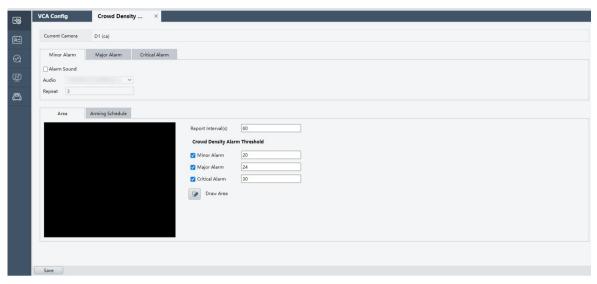
Parameter	Description
Counting Type	• Total: Displays the total number of people entering and leaving the area. • People Entered: Displays the number of people entering the detection area. An entry is counted as a person crosses the tripwire in the direction of the arrow and passes through the detection area. • People Exited: Displays the number of people leaving the detection area. An exit is counted as an object crosses the tripwire in the opposite direction of the arrow and passes through the detection area. 📝 **Note:** People that loiter in the detection area, cross the tripwire only, or cross the detection area only are not counted.
Report Interval(s)	The SMSERVER reports people flow statistics to the uplink platform at set intervals after the uplink platform subscribes to the function.
Clear Counting Result	Clear the people counting statistics manually. 📝 **Note:** This operation does only affect the people counting OSD on the camera's live video, and does not affect SMSERVER statistics and data reporting.
Enable Clear by Schedule	When enabled, the system will clear the people counting statistics based on the set time.

Parameter	Description
Clear At	Clear people counting statistics on the OSD at the set time everyday. You can set it as needed.

2.4.1.4.2 Crowd Density Monitoring

This function monitors the total number of people in a specified area and triggers an alarm if the number exceeds the set alarm threshold.

1. Configure the detection rule.

   (1) Draw the detection rule.

Parameter	Description
Draw Area	Click [icon], press and hold the points to adjust detection area. Click [icon] to finish drawing.

   (2) Complete other configurations.

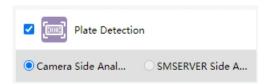 | Parameter | Description |
   |---|---|
   | Report Interval (s) | The device reports crowd density statistics to the uplink platform at set intervals. The uplink platform must subscribe to the function to receive the statistics. |
   | Crowd Density Alarm Threshold | Select minor, major, or critical alarm as needed, and configure the alarm threshold. |
   | Alarm Sound | Set the audio file and the number of times the audio file to be played by the camera when an alarm occurs. |

2. Set Arming Schedule, and click **Save**.

2.4.1.5 Plate Detection

2.4.1.5.1 Plate Detection

Detect license plates in the live video and take snapshots.

📝 **Note:** This function is only available to the camera side analysis.

2.4.1.5.2 Plate Comparison

Configure vehicle monitoring tasks so that the SMSERVER can report alarms according to the matching result of the captured plate numbers and the plate numbers in plate lists.

> **Note:** To use plate comparison function, enable **Plate Detection** or configure VIID Local first, and configure Plate List.
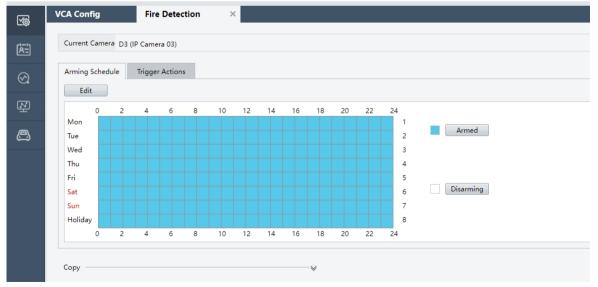

1. Click **Add Monitoring Task**, configure the parameters, and click **Save**.

Item	Description
Task Name	Customize the name.
Monitoring Task	Enable/disable the monitoring task.
Cause of Monitoring	Enter as needed.
Monitoring List	Select the plate library for comparison.
Monitoring Type	• Match Alarm: An alarm is reported when a captured plate number matches a plate number in the monitoring list. • Not Match Alarm: An alarm is reported when a captured plate number does not match a plate number in the monitoring list. • All: An alarm occurs when a plate is detected.
Arming Schedule	Set the arming schedule. See Arming Schedule for details.Arming Schedule
Match Trigger Action/Not Match Trigger Action	Set the actions to be triggered by a match alarm or a not match alarm. See Alarm-triggered Actions for details.Trigger Actions

2. (Optional) Click 🖉 to edit the monitoring task. Click [Delete] to delete a task; or select multiple tasks, and click **Delete** to delete them.

2.4.1.6 Temperature Detection

This function receive temperature alarms reported from the camera. An alarm is triggered and reported when the camera detects a temperature that exceeds the set threshold or other specified behaviors.

Event	Description
Fire Detection	An alarm is triggered when fire in the environment is detected.

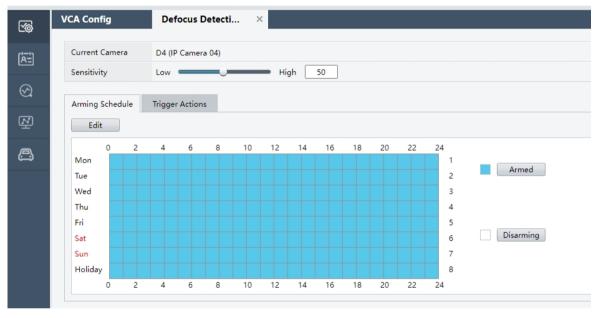| Event	Description
Smoking Detection	An alarm is triggered when people smoking is detected.
Temperature Measurement	An alarm is triggered when the temperature exceeds the set alarm threshold.
Smoke and Fire Detection	An alarm is triggered when smoke and fire are detected.

Note: These functions should be configured on the camera's web interface before use.

Set Arming Schedule and Trigger Actions, and click **Save**.

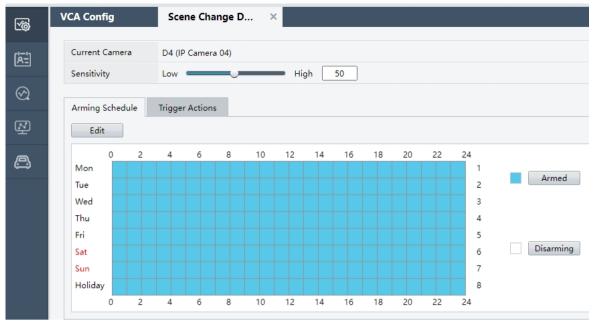## 2.4.1.7 Exception Detection & Statistics

2.4.1.7.1 Defocus Detection

An alarm is triggered when the lens defocus is detected.

1. Set the sensitivity. The higher the sensitivity, the more likely the detection will be triggered, but the false alarm rate will increase. Please adjust the based on the actual scene.

2. Set Arming Schedule and Trigger Actions, and click **Save**.

2.4.1.7.2 Scene Change Detection

Scene change detection detects the change of surveillance scene caused by external factors such as camera movement. The SMSERVER takes snapshots and reports an alarm when the detection rule is triggered.
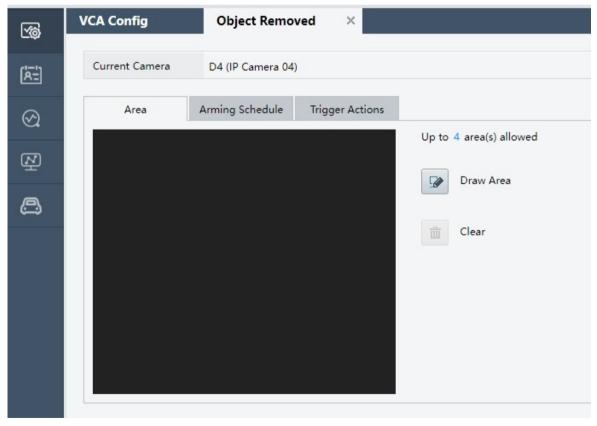
1. Set the sensitivity. The higher the sensitivity, the more likely the detection will be triggered, but the false alarm rate will increase. Please adjust the based on the actual scene.

2. Set Arming Schedule and Trigger Actions, and click **Save**.

2.4.1.7.3 Object Removed

An alarm is triggered when the target is removed from a specified detection area for a preset time.

📝 **Note:** If the surveillance scene changes, the device will detect objects based on the new scene.

1. Configure the detection rule.

| Item		Description
Draw Area	(pencil icon)	Draw the detection area. (1) Click on the image to draw the points. Up to 6 points are allowed. (2) Double-click when drawing the last point to automatically connect it with the first point, forming an enclosed detection area. (3) Click (backspace icon) to finish drawing.
	(trash icon)	Click to delete the detection area.
Time Threshold(s)		An alarm will be triggered if an object is removed from the detection area for the set time. Please adjust it based on the actual scene.
Sensitivity		The higher the sensitivity, the more likely the detection will be triggered, but the false alarm rate will increase. Please adjust it based on the actual scene.

2. Set Arming Schedule and Trigger Actions, and click **Save**.

2.4.1.7.4 Object Left Behind

An alarm is triggered when the object is left behind in a specified detection area for a preset time.

📑 **Note:** If the surveillance scene changes, the device will detect objects based on the new scene.
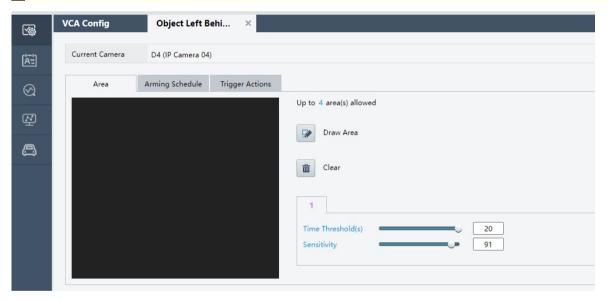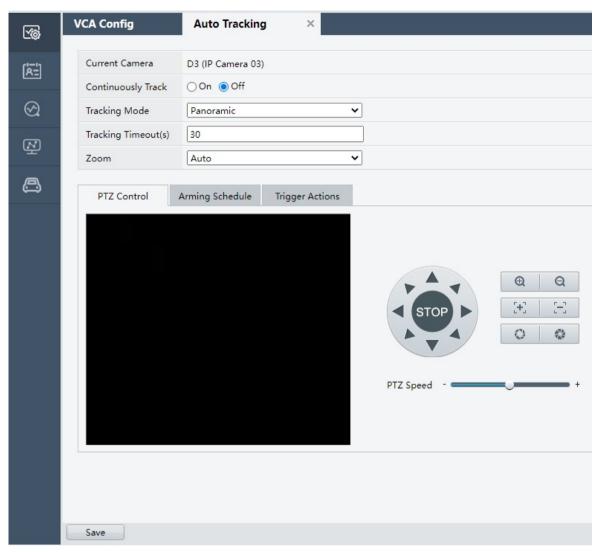

1. Configure the detection rule.

Item		Description
Draw Area	(pencil icon)	Draw the detection area. (1) Click on the image to draw the points. Up to 6 points are allowed. (2) Double-click when drawing the last point to automatically connect it with the first point, forming an enclosed detection area. (3) Click (backspace icon) to finish drawing.
	(trash icon)	Click to delete the detection area.
Time Threshold(s)		An alarm will be triggered if an object is removed from the detection area for the set time. Please adjust it based on the actual scene.
Sensitivity		The higher the sensitivity, the more likely the detection will be triggered, but the false alarm rate will increase. Please adjust it based on the actual scene.

2. Set Arming Schedule and Trigger Actions, and click **Save**.

2.4.1.7.5 Auto Tracking

This function automatically recognizes the moving objects on the live video page and tracks the first object detected.

1. Configure the detection rule.
   The local interface offers limited configuration options. To complete all configurations, please access the camera's Web interface.

Item	Description
Continuously Track	The camera continuously tracks the object that triggers the tracking rule until the object disappears.
Tracking Mode	Panoramic: The detection area is full screen.
Tracking Timeout (s)	The camera stops tracking when the set time is reached.
Zoom	• Auto: The camera automatically adjusts the zoom ratio according to the object distance during tracking. • Current Zoom: The camera keeps the current zoom ratio during tracking.
PTZ Configuration	Set the PTZ original position to which the camera will automatically return after the tracking target disappears.

2. Set Arming Schedule and Trigger Actions, and click **Save**.

2.4.2 List Management

Key Operations

1. Configure the face library. There is a default face library.

Parameter	Description
Add	Click ➕ Add , and set the library name. (Optional) Select the **Set as Dynamic Library** check box to set it as a dynamic library. The captured face images that do not match any face image in face library will be automatically added to the dynamic library. 📝 **Note:** • If there is no dynamic face library, you can add a new face library and set it as a dynamic library. You can only configure a dynamic library while adding a face **list**. • Only 1 dynamic library is allowed. To change the dynamic library, you need to delete the original dynamic library and add a new one.
Edit	Click ⚫⚫⚫ , and click **Rename** to modify the library name.
Delete	Select the face list , and click **Delete**. 📝 **Note:** Deleting a face library will also delete its related historical alarm records. Please handle with caution.
🔷 Ⓐ	Indicates that the face library is a dynamic library.

2. Import face data.

   • Import one by one: Click **Add**, and enter the face information.

Parameter	Description
Face Image	Click image on the left to import the desired face image.
Other Fields	Non-required fields, fill in as needed

   • Import in batches

   (1) Click **Export Template** .

   (2) Fill in the face information in the CSV file according to the exported template instructions, and organize the face images in the Image folder.

   📝 **Note:**
   • The face images must be in JPG format with a maximum size of 4MB; otherwise, the import will fail. Images not in JPG format must be properly converted using professional image converter tool. Manual file extension changes are unacceptable.
   • The image names specified in the template must exactly match the file names in the Image folder

   (3) Click **Batch Import**, choose the template, and click **Import**.

   📝 **Note:** The number of images allowed for a file depends on the library capacity of the device.

Other Operations

| Parameter	Description
Search	Set search conditions, and click **Search** to view the results.
Select all	Click **All** to automatically select all faces under the current face library. 📝 **Note:** You can select a face image or deselect the face image(s).
Delete	Delete the selected face image(s).
Batch Export	Export the selected face(s) or all faces to the specified path in the USB drive (local interface) or computer (web interface).
Model	Select face image(s) that has not been modeled or has failed to be modeled, and click **Model** for manual modeling.
Copy	Select the face image(s), and click **Copy** to import them to other face libraries as needed, excluding the dynamic library.
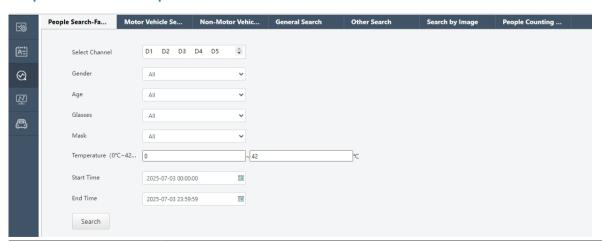
2.4.3 VCA Search

2.4.3.1 Person

Different functions can be used to search for different objects. Please select the function as needed. Configure the search criteria and click **Search** to view the results.

People Search-Face Snapshot
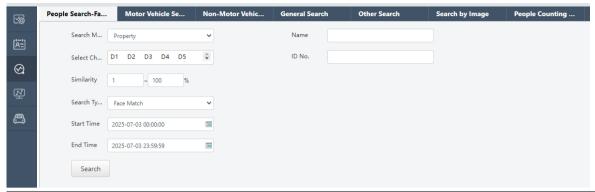

Function	Description
Export/Export All	Export/Export All: Export the selected file(s) or all files to the specified path in the computer. Select **Export Excel**, **Export as Image**, or **Export as Video** as needed.
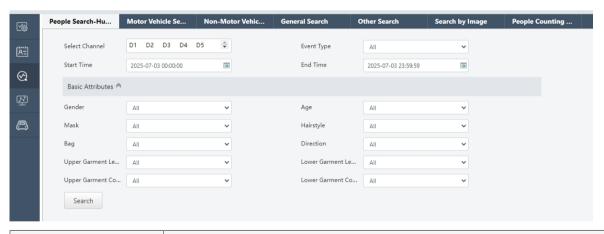
Function	Description
Add to Face Library	Click [Add to Face Library] and complete the face information to add the face to the face library.

People Search-Face Comparison

Function	Description
Export/Export All	Export/Export All: Export the selected file(s) or all files to the specified path in the computer. Select **Export as Excel**, **Export as Image**, or **Export as Video** as needed.
Add to Face Library	Click [Add to Face Library], and complete the face information to add the face to the desired face library.
Person Details	Select the face image to view the matching results from the face library.

People Search-Human Body

Function	Description
Export/Export All	Export/Export All: Export the selected file(s) or all files to the specified path in the computer. Supports excel, image, and video export.
All Attributes	View the attribute image. 📝 **Note:** Only multi-target detection supports this feature.

2.4.3.2 Motor Vehicle Search

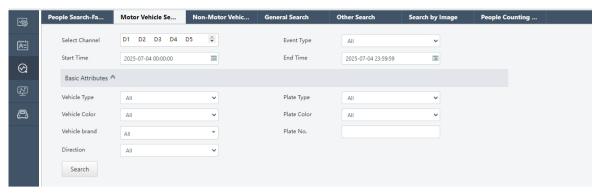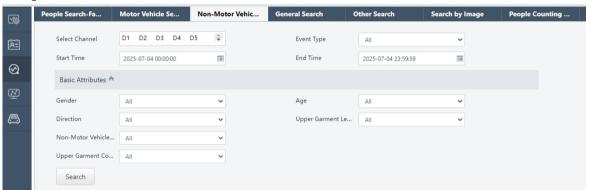Configure the search criteria and click **Search** to view the results.

Function	Description
Export/Export All	Export/Export All: Export the selected file(s) or all files to the specified path in the computer. Select **Export as Excel**, **Export as Image**, or **Export as Video** as needed.
All Attributes	View the attribute image. 📝 **Note:** Only multi-target detection supports this feature.

2.4.3.3 Non-Motor Vehicle

Configure the search criteria and click **Search** to view the results.

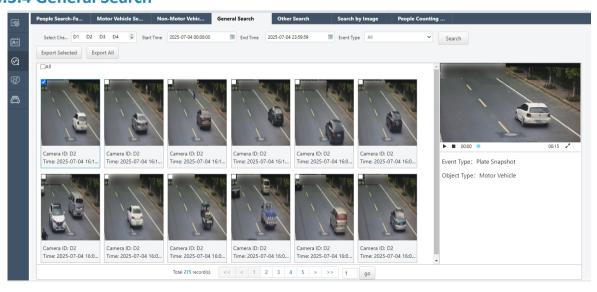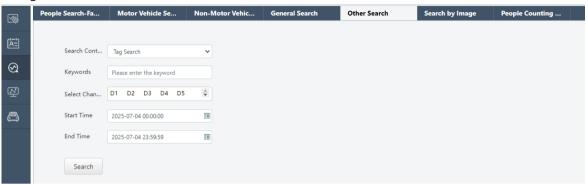| Function	Description
Export/Export All	Export/Export All: Export the selected file(s) or all files to the specified path in the computer. Select **Export as Excel**, **Export as Image**, or **Export as Video** as needed.
All Attributes	View the attribute image. 📝 **Note:** Only multi-target detection supports this feature.

2.4.3.4 General Search

Set search conditions, and click **Search** to view results.

Search for recordings triggered by VCA Configuration, and show the results in tile mode with the trigger object as the cover image.

Export/Export All: Export the selected recording(s) or all recordings to a specified path of the PC. Select **Export as Excel**, **Export as Image**, or **Export as Video** as needed.

2.4.3.5 Other Search

Configure the search criteria and click **Search** to view the results.

Text Search

Tag Search: Search for recordings marked on tag information based on the tag keywords. See Playback for how to add a tag.

Function	Description
✏	Modify the recording tag name.
🗑	Delete the tag-marked recording.

Alarm Search

• Alarm Input: Search for recordings triggered by Alarm Input.

• People Present Alarm: Search for recordings triggered by People Present Alarm.

Export/Export All: Export the selected recording(s) or all recordings to the specified path in the computer (web interface).
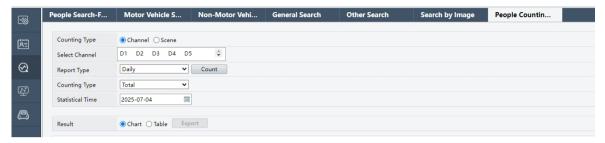
2.4.3.6 Search by Image

• Snapshot Library: Select a snapshot from the channel as the comparison object.

• Face Library: Select an image from the face library as the comparison object.

1. Click [Upload Local Image] [Upload Library Image] to upload an image from the face library or local device.

2. Configure the search criteria and click **Search** to view the results.

Function	Description
Ascending/Descending	Click ⊟↑/⊟↓ to switch the display order.
Export Selected/Export All	Export the selected file(s) or all files to the specified path in the computer.

2.4.3.7 People Counting

Search People Counting data to view the number of people entered or exited within a specified time period. You can search by specified channel or scene, and by day, week, month or year.

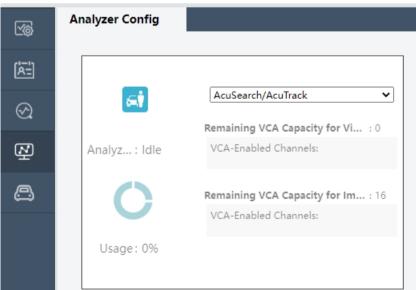📝 **Note:** For information about scene configuration, see People Present Alarm.

1. Configure the search criteria and click the **Count** button to view the results.

   • Channel: Counts the number of people entered/exited by the selected channel.

   • Scene: Counts the number of people entered/exited by the selected scene.

2. Click the **Export** button to export search results in Excel format to the specified path in the computer.

2.4.4 Analyzer Configuration

View the analyzer usage and change the analysis mode.

Analyzer is a smart hardware unit used to process face recognition, smart intrusion prevention, ultra motion detection, AcuSearch/Track, etc. The analyzer occupies the video stream when the SMSERVER analyzes videos reported by the camera, that is, functions using standalone SMSERVER-side analysis occupy the video stream. The analyzer occupies the image stream when the SMSERVER analyzes images reported by the camera (currently, only camera-side face detection and SMSERVER-side face comparison will consume the capacity of image stream analysis.)

• Single-Channel Video Stream Usage Description

Analyzer Mode	Supported VCA Functions	Usage
Face Recognition	Face Detection, Face Recognition	10% (for one or multiple functions)
Smart Intrusion Prevention	Cross Line detection, Intrusion Detection, Enter area, Leave area	

Analyzer Mode	Supported VCA Functions	Usage
Ultra Motion Detection	Ultra Motion Detection	10%

- Single-Channel Image Stream Usage Description

Only camera-side face detection and SMSERVER-side face comparison will consume 5% capacity of image stream analysis.

📝 **Note:** Multi-channel stream usage is the sum of single-channel stream usage.

2.4.5 Plate List

Configure plate lists and plate information for Plate Comparison.

1. Edit the plate list or add a plate list.

   - Edit: Click 🖊 to modify the list name, and click ✅.

   - Add: Click **Add**, enter the list name, and click ✅.

2. Add plate numbers.

   - Add one by one: Click **Add**, enter the plate number, and click **OK**.
     When **Set Validity Period** is enabled, the plate will only be valid during the set validity period; when disabled, the plate will be valid permanently.

   - Add in batches

     (1) Click **Export Template**.

     (2) Open the template and enter the plate information.

     (3) Click **Batch Import**, select the template, and click **OK** to add plates in batch.

     📝 **Note:** The plates added in batches are valid permanently by default.

3. (Optional) Manage the plates.

   - 🖊 : Edit the plate information as needed.

   - 🗑 /Delete: Delete the plate(s).

   - Export: Export the selected plate(s) or all plates.

   - Refesh: Refresh the plate list.

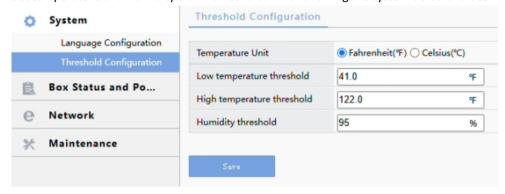# 3 Power Management Module

3.1 System Configuration

3.1.1 Language Configuration

Set the system language for the device. The default language is English.

3.1.2 Threshold Configuration

Set temperature and humidity alarm thresholds. The following are system default values.
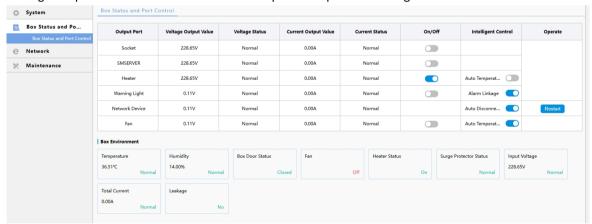

- Low temperature threshold: 41℉ / 5℃
- High temperature threshold: 122℉ / 50℃
- Humidity threshold: 95%

3.2 Box Status and Port Control

Manage the power status of the distribution box ports and perform intelligent control.

Output Port	Voltage Output Value	Voltage Status	Current Output Value	Current Status	On/Off	Intelligent Control	Operate
Socket	228.65V	Normal	0.00A	Normal	⬜		
SMSERVER	228.65V	Normal	0.00A	Normal	⬜		
Heater	228.65V	Normal	0.00A	Normal	🔵	Auto Temperat... ⬜	
Warning Light	0.11V	Normal	0.00A	Normal	⬜	Alarm Linkage 🔵	
Network Device	0.11V	Normal	0.00A	Normal		Auto Disconne... 🔵	Restart
Fan	0.11V	Normal	0.00A	Normal	⬜	Auto Temperat... 🔵	

Box Environment

Temperature	Humidity	Box Door Status	Fan	Heater Status	Surge Protector Status	Input Voltage
36.51℃ Normal	14.00% Normal	Closed	Off	On	Normal	228.65V Normal

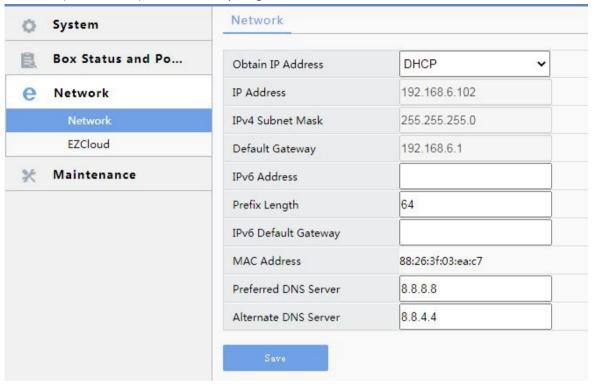| Total Current	Leakage
0.00A Normal	No

- On/Off: Controls the enabling/disabling of the port.
- Auto Temperature Control: If enabled, the heater will automatically turn on when the temperature falls below the low temperature threshold, and the fan will activate automatically when the temperature exceeds the high temperature threshold.
- Alarm Linkage: If enabled, the power management module will receive alarm output signals from the intelligent cloud management server. When the warning light is on, it will flash simultaneously if the intelligent cloud management server triggers an alarm output.
- Auto Disconnect Detection: Once enabled, the box will automatically monitor its connection status with EZCloud. If it fails to ping the server 4 consecutive times, it will restart the port (up to 5 attempts). After 5 failed attempts, it will stop trying to reconnect.

- Restart: Click to restart the router.

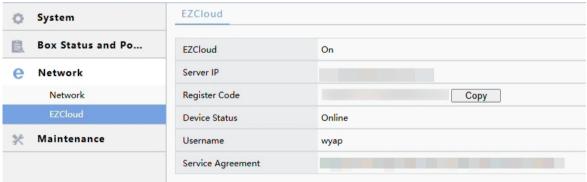# 3.3 Network Configuration

3.3.1 Network

Use DHCP (default mode) to automatically assign an IP address.
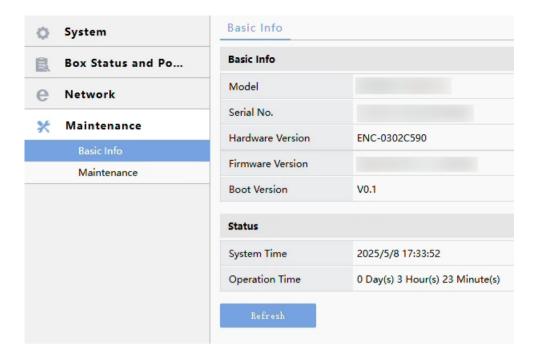

3.3.2 EZCloud

Once the Intelligent Cloud Management Server is added in the app, the power management module is automatically added to cloud.

3.4 System Maintenance

3.4.1 Device Status

View the basic information and operation status of the device.

	Basic Info	
System		
Box Status and Po...	**Basic Info**	
Network	Model	
Maintenance	Serial No.	
Basic Info	Hardware Version	ENC-0302C590
Maintenance	Firmware Version	
	Boot Version	V0.1

Status

System Time	2025/5/8 17:33:52
Operation Time	0 Day(s) 3 Hour(s) 23 Minute(s)

Refresh

3.4.2 System Maintenance

	Maintenance
System	
Box Status and Po...	Restart Restart device
Network	Export Export configuration file
Maintenance	Export Export Diagnosis Info
Basic Info	Default ☐ Restore all settings to defaults without keeping current network and user settings.
Maintenance	Importing [ ] Browse... Import
	Local Upgrade [ ] Browse... Upgrade ☐ Upgrade Boot Program
	Note: The upgrade will take a while. Please do not disconnect power.

- Restart the device: Click **Restart**, then confirm to restart the device. The login page is displayed after the device completes restart.

- Export configurations: Click **Export** next to **Export configuration file** to export the current configuration information of the device.

- Export diagnosis information: Click **Export** next to **Export Diagnosis Info** to export the diagnosis information of the device.

- Restore defaults: Select **Restore all settings to defaults without keeping current network and user settings** (if needed) and then click **Default** to restore default settings.

- Import configurations: Click **Browse** next to the **Importing** field, locate the configuration file to import, and then click **Import** to apply the new configurations.

- Local upgrade: Click **Browse** next to the **Local Upgrade** field, locate the upgrade file, select **UpgradeBoot Program**, click **Upgrade**,and then confirm to start the upgrade. The device will restart and display the login screen after completing the restart.

ⓘ **CAUTION:**

- Do not power off the device during upgrade.

- A progress bar will be displayed. Please wait patiently and avoid other operations. After the upgrade is complete, check to ensure that the device has been upgraded to the correct version.